



valves, solenoid valves  
and manifolds  
*valvole, elettrovalvole  
e connessioni multipolari*







## MULTIPOLE CONNECTION SYSTEM SISTEMA DI CONNESSIONE MULTIPOLARE

### SERIE 4HF

The **4HF modular system** for solenoid valves with integrated electrical connections is easy to assemble, easy to expand or modify, thus saving time, space and connecting methods.

Designed in compact modules of two valves individually combined in their functions.

For an odd number of valves, it is necessary to use the single valve module positioned before the rear end plate.

The **4HF system** is available in two preassembled electrical configurations: 25 pin Sub-D for a max of 22 solenoids and 37 pin Sub-D for a max of 32 solenoids, suitable for 24 V. DC. and 24 V. AC. with led and varistor protection.

*Il sistema Vesta 4HF per il collegamento in isole modulari di elettrovalvole con tecnologia di connessione elettrica integrata, permette soluzioni personalizzate facili da assemblare con espansioni e modifiche veloci e flessibili da realizzare.*

*Il sistema molto compatto consente notevole risparmio di spazio pur garantendo portate molto elevate e permette di ridurre in modo considerevole i tempi di assemblaggio.*

*E' composto di moduli a due posizioni valvola espandibili fino ad un massimo di 8 moduli e quindi un massimo di 16 posizioni di valvole, ognuna delle quali definita e personalizzata nella sua funzione.*

*E' previsto inoltre, per numero di valvole dispari, un modulo a singolo posto valvola da montare solo come ultima posizione.*

*Il sistema 4HF è fornibile nelle due versioni di connessione:*

- sub D25, per un massimo di 22 solenoidi collegati;
- sub D37, per un massimo di 32 solenoidi collegati.

*Unitamente al voltaggio standard 24V.DC., sono disponibili connessioni e solenoidi in versione 24V.AC. ed entrambe le soluzioni hanno circuito di protezione con led a varistore.*



#### TECHNICAL FEATURES

Standard voltages .....	24 V. DC. - 24V. AC.
Protection class .....	IP65
Nominal flow .....	850 NI/min.
Power consumption .....	1 Watt (DC) - 3 VA (AC).
Lubrication .....	Not required.
Working pressure supply .....	-0,9 ÷ 10 bar
Pilot pressure supply .....	2,5 ÷ 8 bar
Connections .....	Sub-D 25 for 22 solenoid connections Sub-D 37 for 32 solenoid connections
Coil signal .....	Led + varistor protection.

Working ports .....	Bottom and side G1/8", or push-in fittings Ø8 on side.
Manual override .....	Push and with detent.
4HF valve functions.....	5/2 - 5/3 - 3/2 NO - 3/2 NC.

#### Average response and frequency (pilot pressure = 6 bar):

Average actioning response .....	16ms (1 solenoid valve) 12ms (2 solenoids valve)
Average disactioning response .....	22ms (1 solenoid valve)
Nominal max frequency .....	22Hz (1 solenoid valve) 35Hz (2 solenoids valve)

#### CARATTERISTICHE TECNICHE

Tensioni standard .....	24 V DC - 24V AC
Grado di protezione .....	IP65
Portata nominale .....	850 NI/min.
Potenza assorbita .....	1 Watt (DC) - 3 VA (AC).
Lubrificazione .....	Not required.
Pressione di lavoro .....	-0,9 ÷ 10 bar
Pressione di pilotaggio .....	2,5 ÷ 8 bar
Connessioni .....	Sub-D 25 per 22 solenoidi Sub-D 37 per 32 solenoidi
Segnale solenoide .....	Circuito di protezione con led a varistore.

Utilizzi .....	Sul fondo e laterali G1/8" o laterali tubo Ø8.
Comando manuale .....	Premere e ruotare per bloccaggio
Tipo valvola 4HF .....	5/2 - 5/3 - 3/2 NO - 3/2 NC.

#### Tempi di risposta e frequenze (con pressione di alimentazione dei pilotaggi = 6 bar):

Tempo di inserzione .....	16ms (valvole 1 solenoide) 12ms (valvole 2 solenoidi)
Tempo di disinserzione .....	22ms (valvole 1 solenoide)
Frequenza massima .....	22Hz (valvole 1 solenoide) 35Hz (valvole 2 solenoidi)



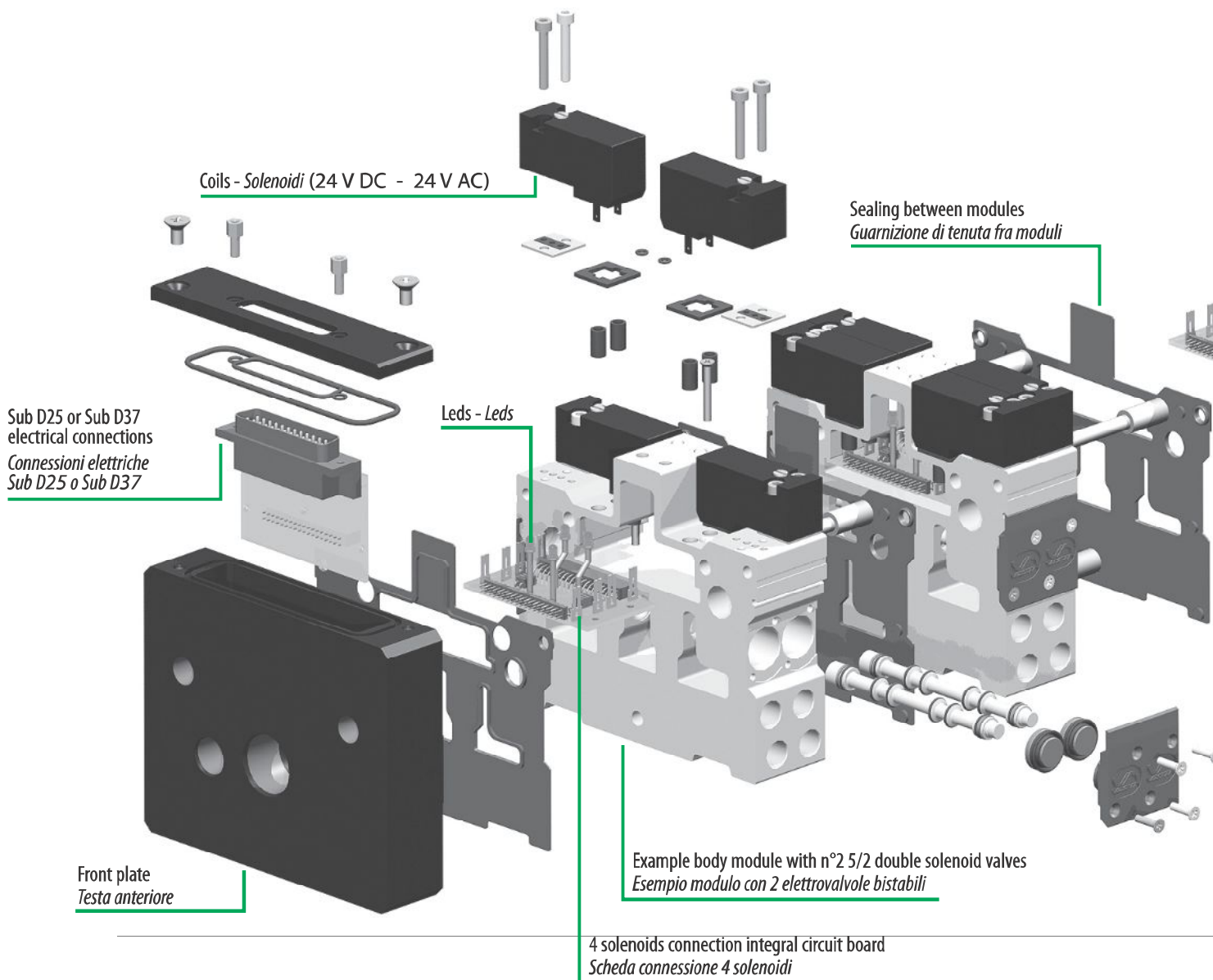
## 4HF MODULAR SYSTEM TECHNICAL FEATURES / CARATTERISTICHE TECNICHE SISTEMA MODULARE 4HF

The **4HF Multipole system** assembly is a solid and sealed link of valve modules with integral circuit board, connecting solenoids (24v DC/AC) receiving signals from a central position (See pages B-09...). Each module comprises of a dual body offering two 5/2 or two 5/3 or four 3/2 valve combinations. For an odd number of valves it is available a single valve module, to use only as last rear position of manifold.

The **4HF system** offers individual functionality in combination to provide flexibility and reliability in a tested and proven system.

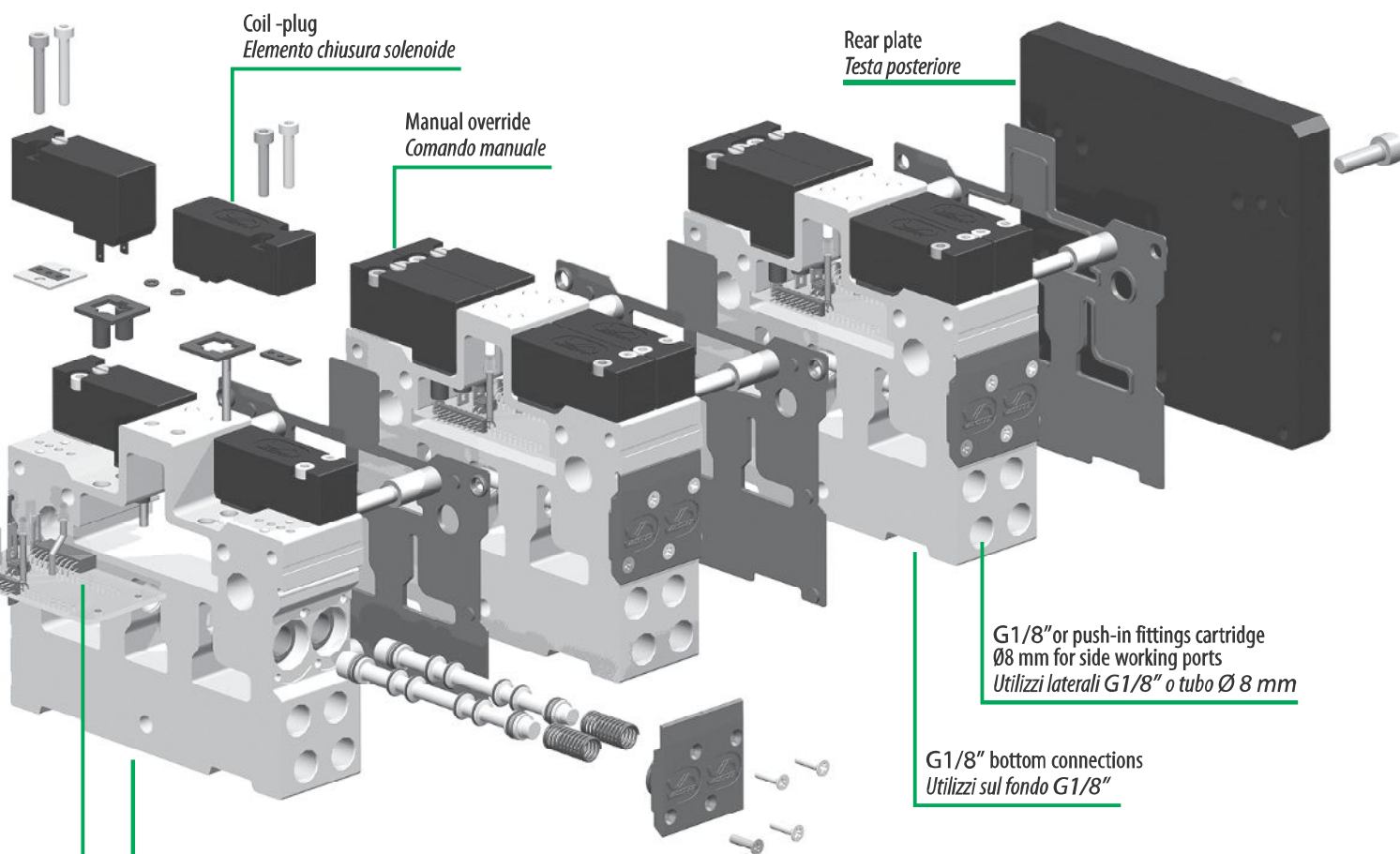
*La composizione del sistema 4HF è ottenuta mediante accostamento in tenuta di moduli dotati ognuno di scheda a circuito stampato, con led e varistore di protezione, per il collegamento e la trasmissione dei segnali ai solenoidi secondo posizioni Sub D (rif. pagine B09).*

*Ogni modulo è costituito da n°2 posti valvola 5/2 o 5/3 o di max n° 4 posti valvola 3/2, ciascuna delle quali si può definire nella sua funzione individuale e combinare con ognuna delle altre, in modo flessibile e rapido per l'ottenimento di isole personalizzate e flessibili, seguendo schemi di pagg. B-08. Per numero di posizione valvole dispari è disponibile il modulo singolo da montare solo come ultima posizione.*



**MULTIPOLE CONNECTION SYSTEM  
SISTEMA DI CONNESSIONE MULTIPOLARE**

SERIE **4HF**



Coil-plug  
*Elemento chiusura solenoide*

Manual override  
*Comando manuale*

Rear plate  
*Testa posteriore*

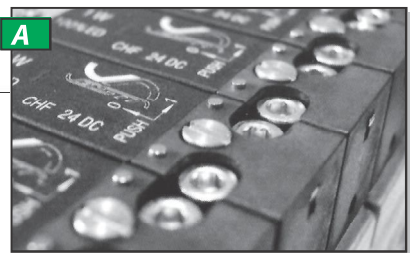
G1/8" or push-in fittings cartridge  
Ø8 mm for side working ports  
*Utilizzi laterali G1/8" o tubo Ø 8 mm*

G1/8" bottom connections  
*Utilizzi sul fondo G1/8"*

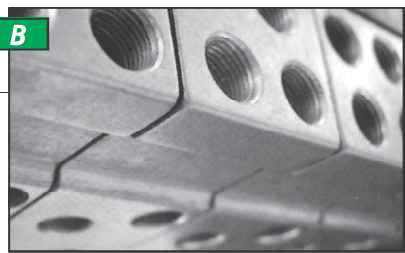
Example body module with n°2 5/2 single solenoid valves  
*Esempio modulo con 2 elettrovalvole monostabili*

2 solenoids connection integral circuit board  
*Scheda connessione 2 solenoidi*

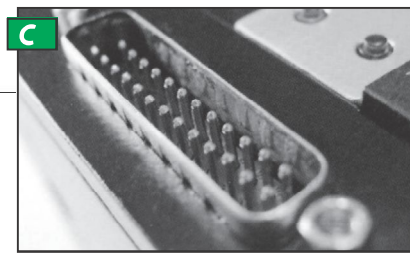
**BUILDING FEATURES / CARATTERISTICHE COSTRUTTIVE**



**A** Manual override push and with detent.  
*Comando manuale: premere e ruotare per bloccaggio.*



**B** Working ports: bottom and side 1/8" ported or push-in fittings Ø8.  
*Utilizzi: sul fondo e laterali 1/8" o laterali tubo Ø8.*

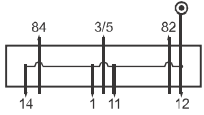


**C** Sub-D 25 for 22 solenoid connections.  
Sub-D 37 for 32 solenoid connections.  
*Sub-D 25 per 22 solenoidi.  
Sub-D 37 per 32 solenoidi.*



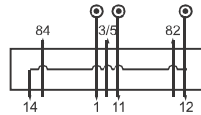
**EXAMPLES COMBINATION MODULES / ESEMPI DI CONFIGURAZIONE MODULI**

**4HF..CS-... FRONT PLATE TESTATA ANTERIORE**



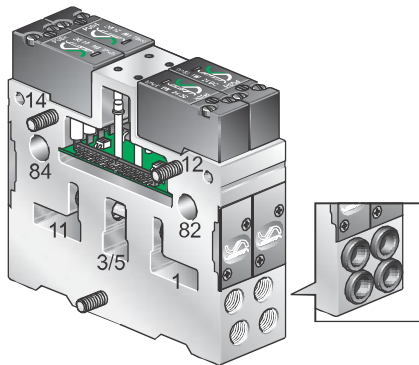
Front plate common supply  
Testata anteriore ingressi in comune

**4HF..SS-... FRONT PLATE TESTATA ANTERIORE**

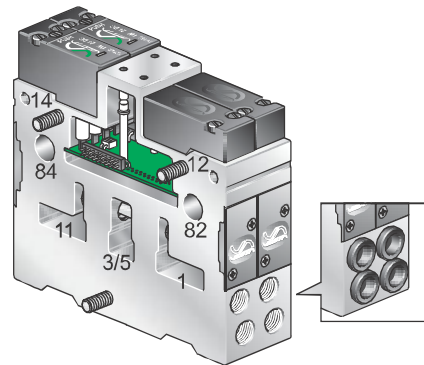


Front plate with three separate supplies  
Testata anteriore ingressi separati

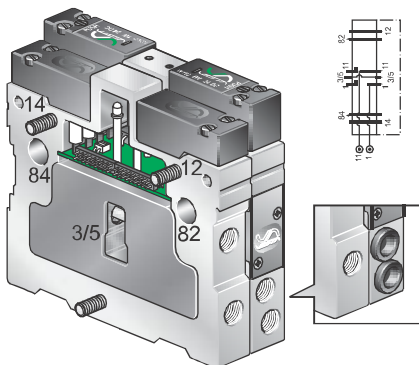
**- □ □ - DOUBLE SOLENOID VALVES COMBINATION MODULE CONFIGURAZIONE MODULO VALVOLE A DOPIO SOLENOIDE**



**- □ □ - SINGLE SOLENOID VALVES COMBINATION MODULE CONFIGURAZIONE MODULO VALVOLE A SINGOLO SOLENOIDE**

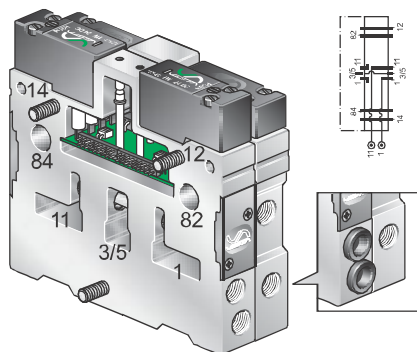


**-X □ - FRONT INTERMEDIATE PRESSURE SEPARATOR WITH SINGLE VALVE MODULE ELEMENTO SEPARAZIONE PRESSIONI DISPARI**



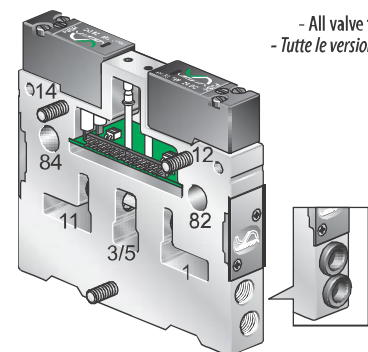
With intermediate air supplies  
Con alimentazioni supplementari

**- □ Y - FRONT INTERMEDIATE PRESSURE SEPARATOR WITH SINGLE VALVE MODULE ELEMENTO SEPARAZIONE PRESSIONI PARI**



With intermediate air supplies  
Con alimentazioni supplementari

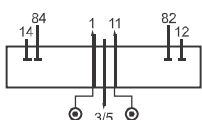
**- □ - SINGLE VALVE MODULE POSTO VALVOLA SINGOLO**



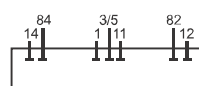
- All valve functions  
- Tutte le versioni valvola

Only rear last position on manifold  
Solo come ultimo posto dispari

**4HF....-P.. REAR BLIND PLATE TESTATA POSTERIORE**



**4HF....-S.. REAR PLATE TESTATA POSTERIORE**



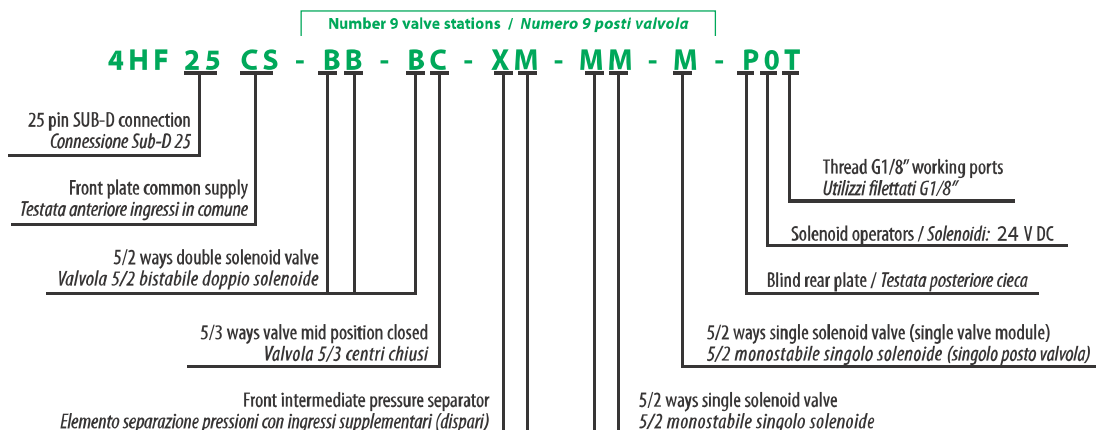
Supplementar exhaust and supplies  
Testata posteriore con scarico ed alimentazione supplementari





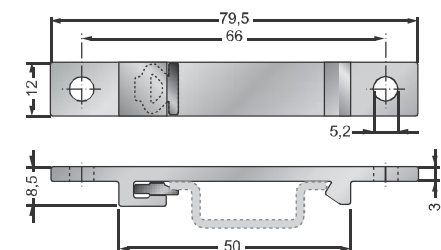


CODE EXAMPLE / ESEMPIO DI ORDINAZIONE



FIXING ACCESSORIES / ACCESSORI DI FISSAGGIO

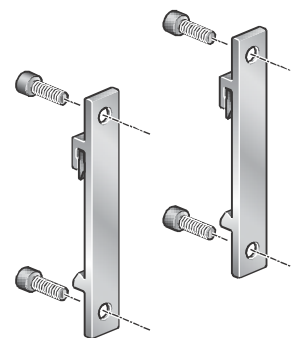
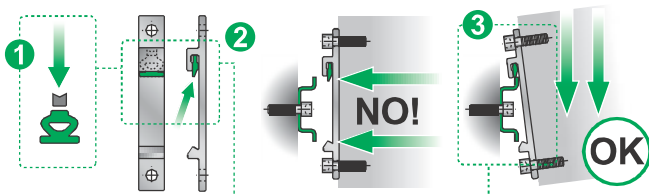
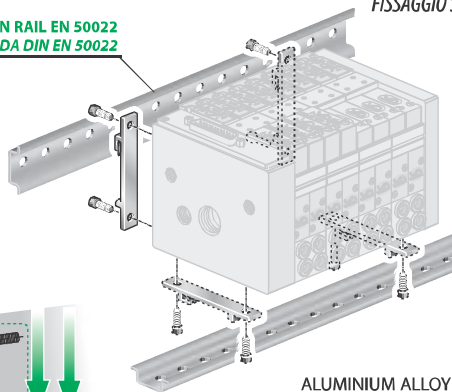
Note: the fixing screws (N°2 M5x10) are included in the supply of the fittings. The brackets are supplied in couple / le viti di fissaggio (N°2 M5x10) sono comprese nella fornitura degli accessori. Le staffe vengono fornite in coppia.



DIN RAIL EN 50022  
GUIDA DIN EN 50022

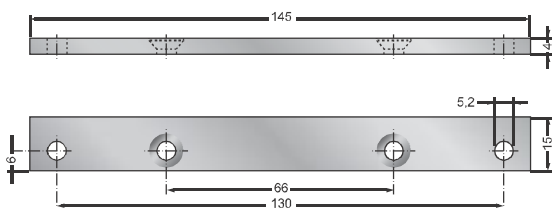
BRACKETS FOR FIXING ON DIN RAIL  
FISSAGGIO SU GUIDA DIN

**BRHF**

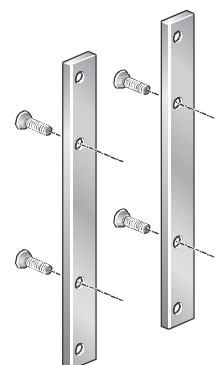
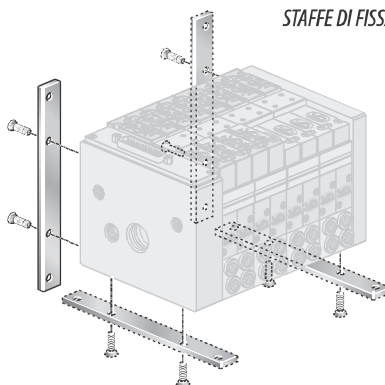


FIXING FOR WALL MOUNTING  
STAFFE DI FISSAGGIO A PARETE

**FLHF**



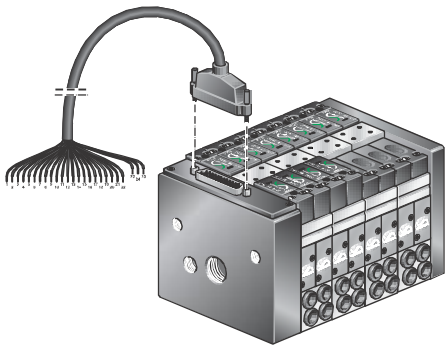
ALUMINIUM ALLOY / LEGA DI ALLUMINIO







## ELECTRICAL CONNECTIONS / CONNESSIONI ELETTRICHE



Cable has color coated wires connecting solenoid valves in according to their physical position on the manifold.  
With a single system you can operate up to 32 solenoids for SUB D 37 or 22 solenoids for SUB D 25 in any valves configuration.

**Pin SUB D sequence number and wires colour are specified in the connection package.**

*La corrispondenza tra colore del conduttore e elettrovalvola segue la posizione di montaggio fisico della valvola.*

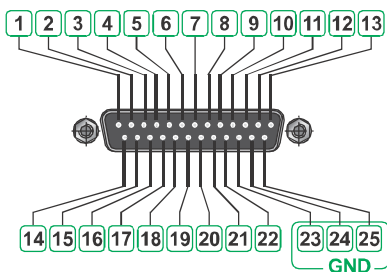
*Nella configurazione SUB D 37 si possono comandare fino ad un massimo di 32 solenoidi, o un massimo di 22 nella configurazione SUB D 25, in qualsiasi combinazione di valvole adottata.*

*La corrispondenza tra N° di sequenza dei PIN del SUB-D e colore dei cavi è specificata nel foglio allegato alla confezione del cavo.*

### SUB D 25

Reference position coils for **Sub D25** connections (max 22 coils).

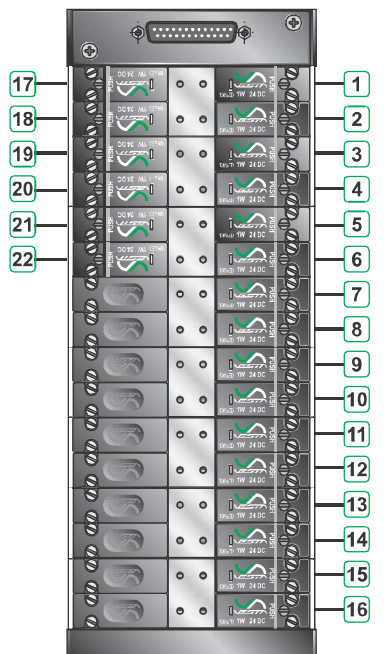
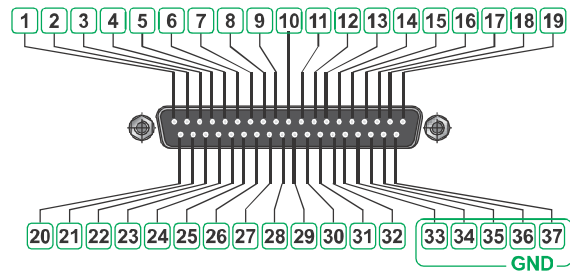
*Riferimento di posizione solenoidi per collegamenti a connessione **Sub D25** (max 22 solenoidi).*



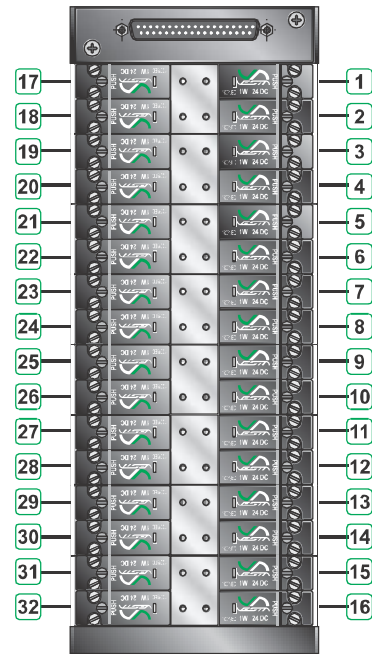
### SUB D 37

Reference position coils for **Sub D37** connections (max 32 coils).

*Riferimento di posizione solenoidi per collegamenti a connessione **Sub D37** (max 32 solenoidi).*



- FRONT -

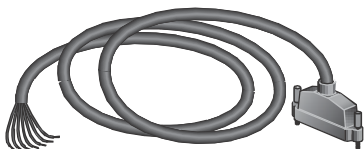


- REAR -

### WPC-..-...

CONNECTION CABLE FOR SUB D  
*CAVO DI CONNESSIONE SUB D*

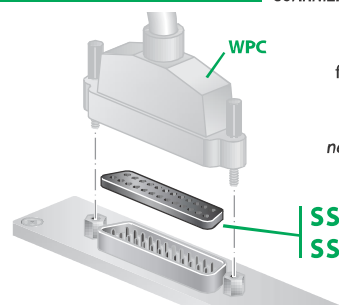
**WPC-25-**   For / per SUB D 25  
**WPC-37-**   For / per SUB D 37



Standard lenght  
*Lunghezza standard*  
**025** - 2500 mm  
**050** - 5000 mm

### SSPC-..

CONNECTION SEAL  
*GUARNIZIONE PER CONNETTORE*



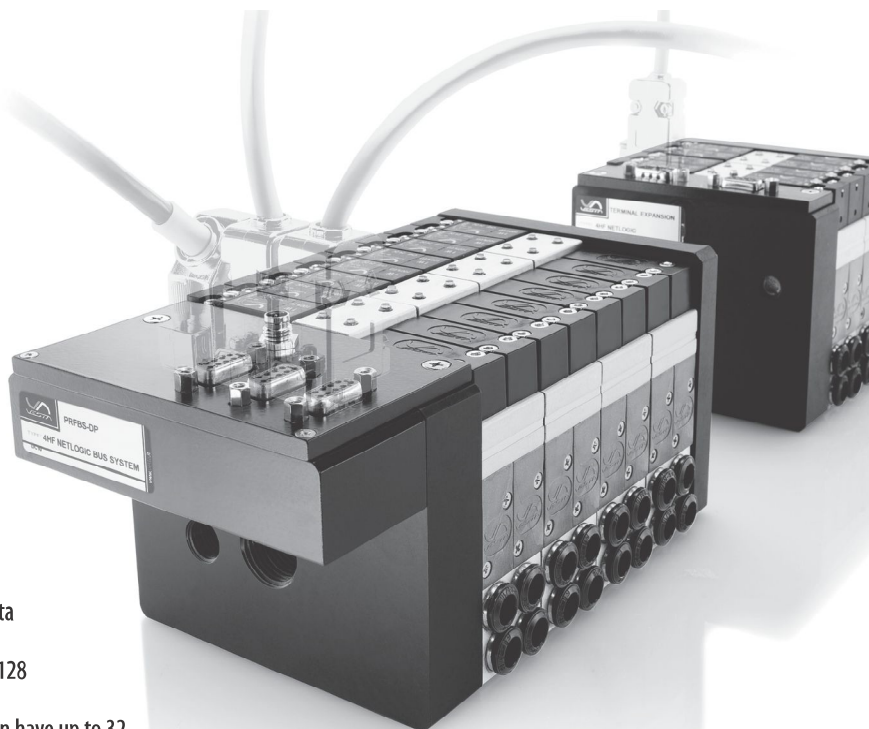
**WPC** connection seal  
for granting IP 65 protection  
*Guarnizione per garantire  
la protezione IP 65  
nella connessione del cavo **WPC***

**SSPC-25** For / per **WPC-25**  
**SSPC-37** For / per **WPC-37**

VESTA FIELDBUS SYSTEM

4hf NETLOGIC

# 4hf NETLOGIC



- The 4hf NETLOGIC filed bus slave node is an integrated system that allows to run and operate a complete set of digital process data in both directions: from/to master to/from field.
- The slave node is made by a bus processor able to manage up to 128 digital outputs (solenoids) and up to 128 digital inputs (switches).
- The bus processor is integrated in the initial slave island which can have up to 32 solenoids and 6 further expansion islands with max 16 solenoids each. It's also available an 8 connections output box to operate remote digital outputs with a power up to 10W each.
- Digital inputs can be connected by input collector boxes with 8 connectors each.
- All the above makes the 4hf NETLOGIC a very flexible, capable and compact solution for easy installation and excellent performances.

• Il nodo VESTA input/output 4hf-NETLOGIC realizza uno slave da inserire in una rete fieldbus. Nella sua massima potenzialità è composto da un'isola 4HF iniziale con un processore integrato, da max 6 isole 4HF di espansione, da max 16 ciabatte di raccolta segnali digitali dal campo ed eventuali ciabatte di output per segnali digitali di comando remoti nel campo.

• La soluzione intergrata è molto compatta e flessibile, consente il massimo sfruttamento delle potenzialità dello slave grazie alle batterie di espansione alle ciabatte di input e output.

**Expansion strenght (output and input) - Espandibilità massima (output e input)**

<b>OUTPUT</b>	Max 128 (up to 128 included remote outputs) Max 128 (Bobine 4hf digitali 24V DC 1 WATT, comprese altre uscite digitali 10W 24V DC con ciabatte di output).
<b>INPUT</b>	128 (digital 24V dc) - 128 (digitali 24V DC)

- IP65 (M12 version - in versione M12)
- Environment temperature range -10 ÷ +50°C / Temperatura ambiente -10 ÷ +50°C
- Bus specific diagnostic leds / Led di diagnostica di comunicazione specifici del bus
- Single node electrical supply 24V DC on initial 4hf island / Unica alimentazione 24V DC su isola 4hf iniziale

Transmission Protocols - Protocolli bus	PROFibus	DeviceNet	Ethernet	CANopen
Baud Rate - Velocità di trasmissione	9600bit/s-12Mbit/s	125-500kbit/s	10-100Mbit/s	10kbit/s-1Mbit/s
Suplly Voltage - Tensione alimentazione	24V DC (DC±10%)	24V DC (DC±10%)	24V DC (DC±10%)	24V DC
Max current allowed - Max assorbimento	3A = max 68 coils contemporary supplied 3A = max n°68 solenoidi contemporaneamente attivati			

(\*) Gds file to install and operating instructions are available on [www.vesta.it](http://www.vesta.it)  
Per file GSD di installazione e per istruzioni operative consultare il sito [www.vesta.it](http://www.vesta.it)

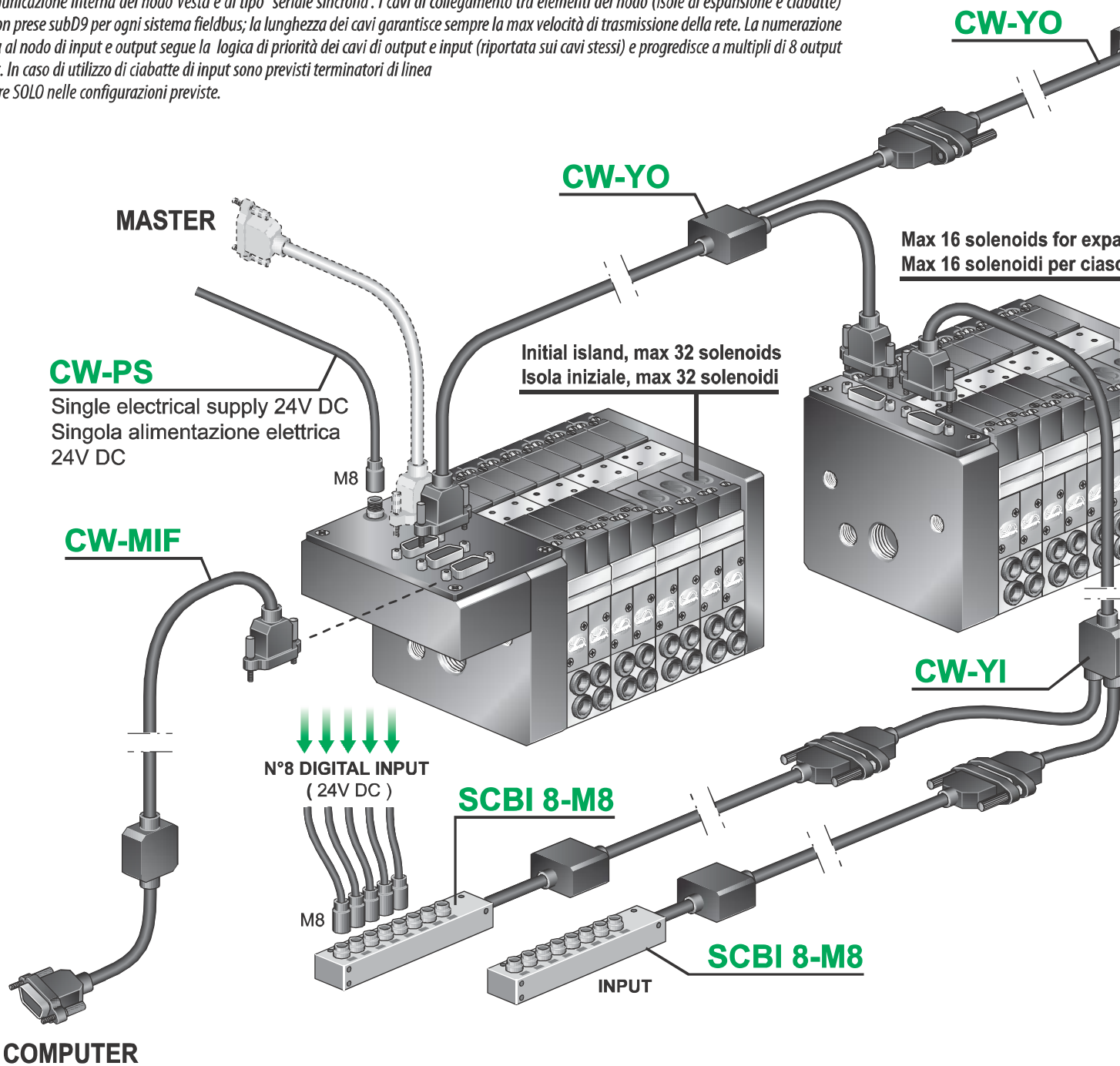
(\*\*) Dimensions and function of station valves are shown in 4hf system  
Per dimensioni e funzioni delle valvole vedere 4hf standard.



## 4HF NETLOGIC VESTA FIELDBUS SYSTEM

The communication system in 4hf netlogic is running by a shift register. All digital process data are received and sent bit by bit as information signals up to 8 bits and when they exceed 8 bits the bus controller starts with a new byte. All the connections inside the node are made by SUBD9 plugs and length of cables grants the faster baud rate. In some case of network configurations final plugs must be fitted to input port or expansion port.

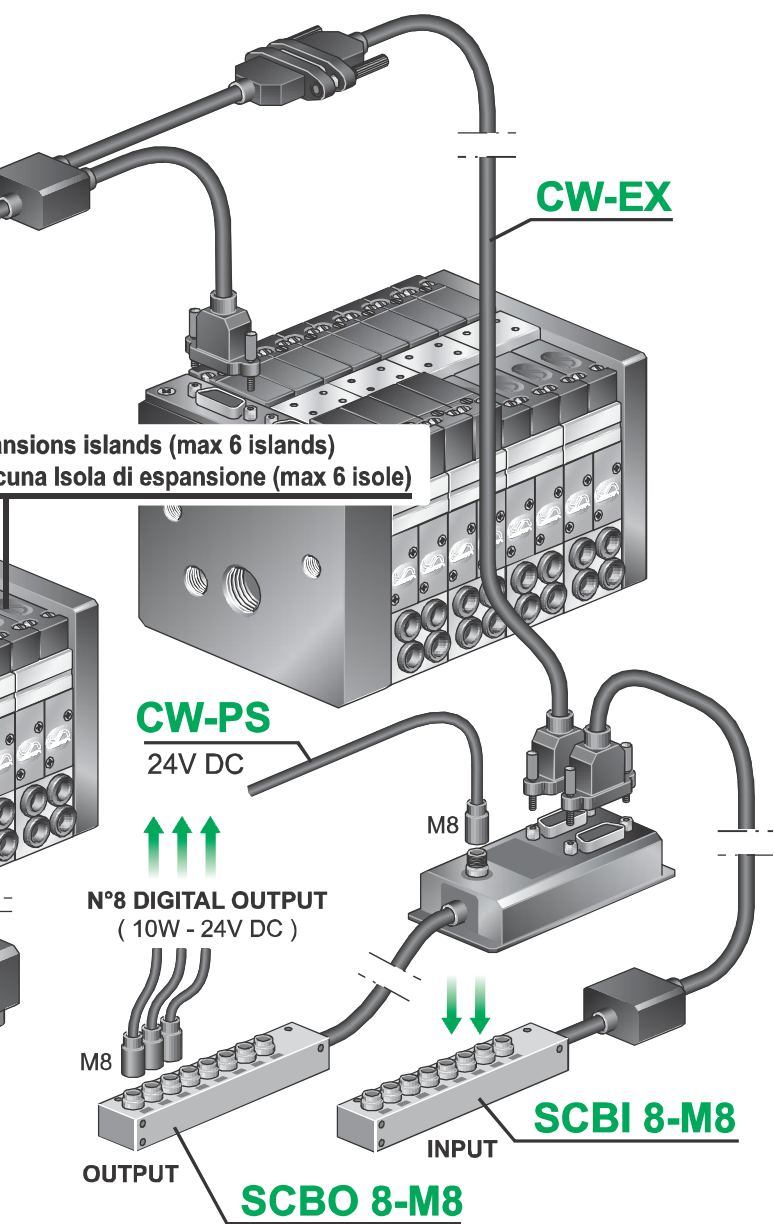
*La Comunicazione interna del nodo Vesta è di tipo "seriale sincrona". I cavi di collegamento tra elementi del nodo (isole di espansione e ciabatte) sono con prese subD9 per ogni sistema fieldbus; la lunghezza dei cavi garantisce sempre la max velocità di trasmissione della rete. La numerazione interna al nodo di input e output segue la logica di priorità dei cavi di output e input (riportata sui cavi stessi) e progredisce a multipli di 8 output e input. In caso di utilizzo di ciabatte di input sono previsti terminatori di linea da usare SOLO nelle configurazioni previste.*



### NODE ADDRESSING AND DIAGNOSTIC

On the initial island with bus processor the input port works also as MIF port and it allows the addressing of node, through the appropriate MIF cable in connection with COM port of a PC. That is made with "hyper terminal" Windows program (or correspondent software for other operative systems), available also for a diagnostic of state of node: number of inputs and outputs connected, control of baud rate, check out state of connections.

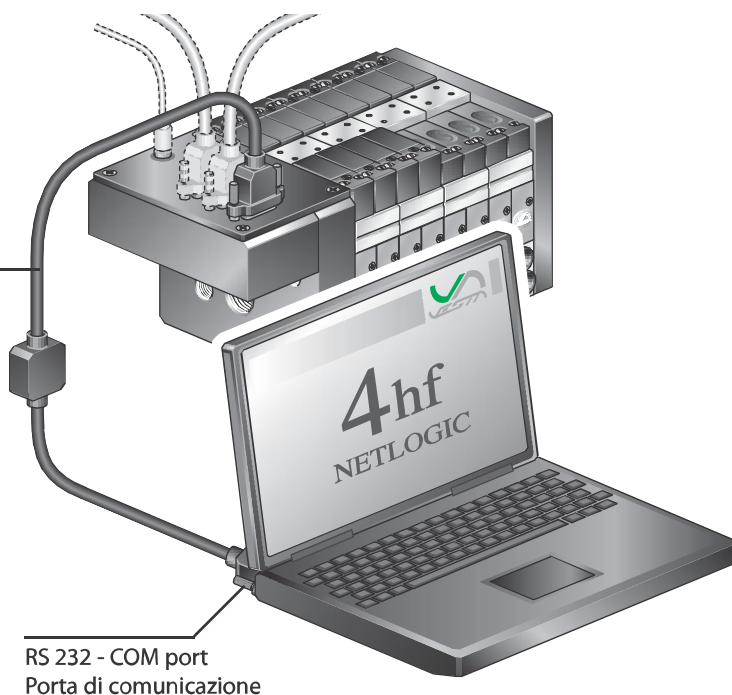
# 4hf NETLOGIC



The 4hf netlogic system recognises automatically the I/O digital process data and stores them byte by byte (8 bits). this way avoids wrong addresses of I/O. The bus controller sets automatically baud rate to the same of fieldbus network Profibus, Devicenet or Ethernet. For Canopen the baud rate must be set.

*L'occupazione automatica di output e input fatta dal processore 4hf netlogic a multipli di 8bit (con riconoscimento automatico) facilita la programmazione e impedisce l'appropriazione indebita di input ed output della rete fieldbus. La configurazione del nodo slave Vesta è perciò automatica dal punto di vista logico.*

*Il processore slave adegua in automatico la velocità trasmissione del nodo (baud rate), in funzione della velocità della rete Profibus, Devicenet e Ethernet in cui il nodo Vesta è inserito (per Canopen il baud rate è invece un parametro da configurare).*



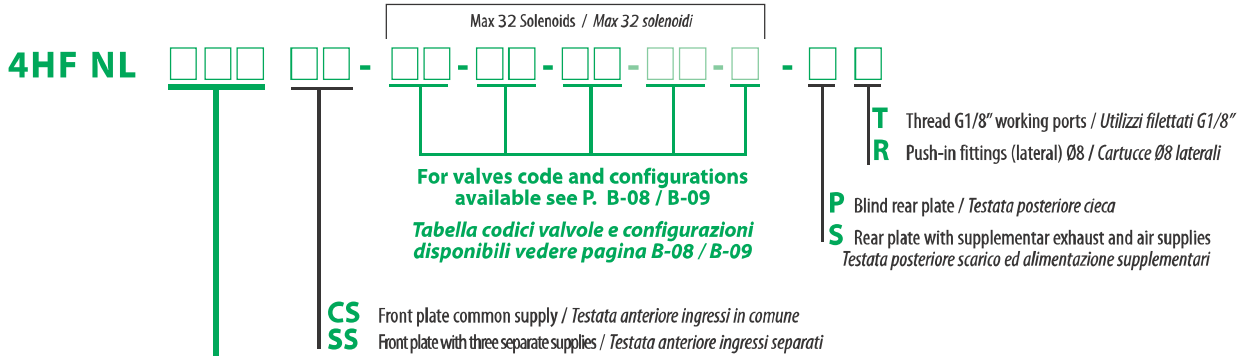
### INDIRIZZAMENTO E DIAGNOSTICA

Sulla testata dell'isola iniziale del nodo (con processore) la presa subD9 di ingresso dei segnali dal campo è anche una porta MIF (Monitor Interface), che consente l'indirizzamento del nodo collegandosi alla porta seriale COM di un PC con l'apposito cavo MIF di programmazione. Il cavo MIF consente la diagnostica del nodo (verifica hardware del nodo, ossia verifica n° output e n° input collegati; verifica della velocità di trasmissione con il PLC; verifica dello stato di ciascun output e input, cioè controllo passo-passo del ciclo macchina; verifica e scrittura dell'indirizzo dello slave). La diagnostica e l'indirizzamento del nodo vengono fatte da PC con l'applicazione Windows "Hyper Terminal" (o software analogo per altri sistemi operativi).



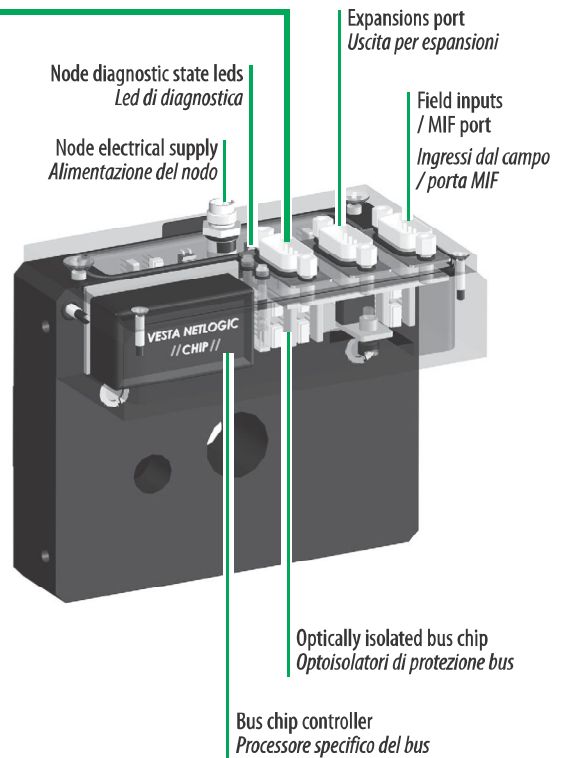


## 4HF NETLOGIC IDENTIFICATION CODE / CODICE DI IDENTIFICAZIONE

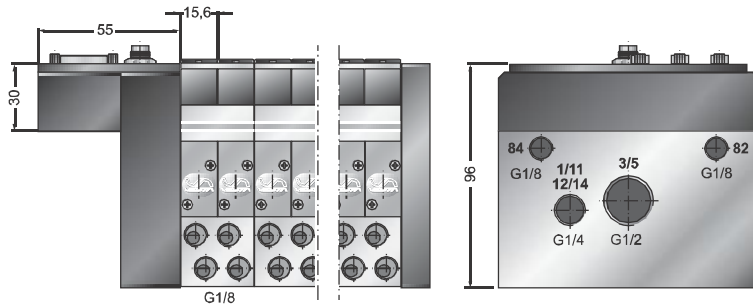


**Master input**  
*Ingresso dal master*

	<b>PROFIBUS:</b> DB9 (IP 54)	<b>4HF NL PFD</b> -....
	<b>ETHERNET:</b> DB9 (IP 54)	<b>4HF NL ETH</b> -....
	<b>PROFIBUS:</b> M12 (IP 65)	<b>4HF NL PFM</b> -....
	<b>CANOPEN:</b> M12 (IP 65)	<b>4HF NL CNO</b> -....
	<b>DEVICENET:</b> M12 (IP 65)	<b>4HF NL DNM</b> -....

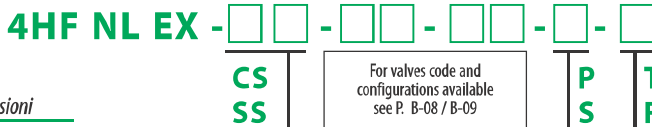


### OVERALL DIMENSIONS / DIMENSIONI DI INGOMBRO

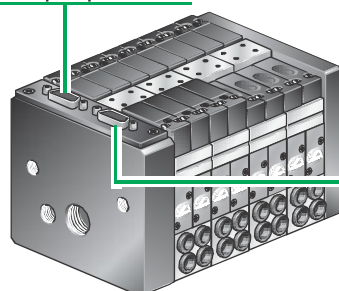


## 4HF NL EX

EXPANSION ISLAND  
*ISOLA DI ESPANSIONE MODULARE*



Expansions port  
*Uscita per espansioni*



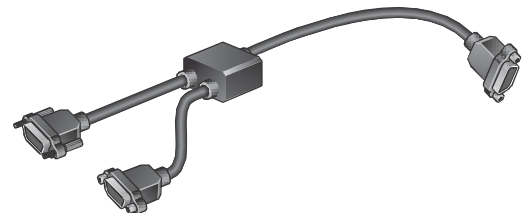
Input port  
*Porta input*

For valves code and configurations available see P. B-08 / B-09  
*Tabella codici valvole e configurazioni disponibili vedere pagina B-08 / B-09*

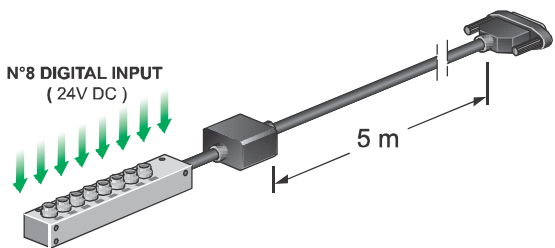
**MAX 16 SOLENOIDS**  
 16 SOLENOIDI MAX

## CW-MIF

PROGRAMMING CABLE  
 CAVO DI COLLEGAMENTO PER PROGRAMMAZIONE

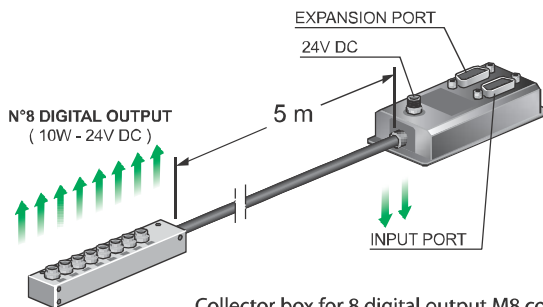


INPUT COLLECTOR BOX  
BOX RACCOLTA INPUT **SCBI 8-M8**



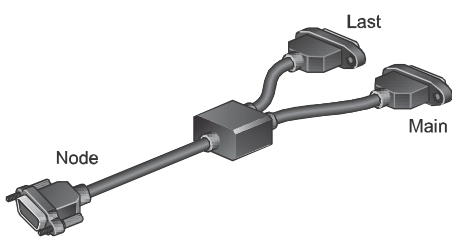
Collector box for 8 digital input M8 connection  
Box raccolta 8 input digitali con connessioni M8

OUTPUT COLLECTOR BOX  
BOX DISTRIBUZIONE OUTPUT **SCBO 8-M8**

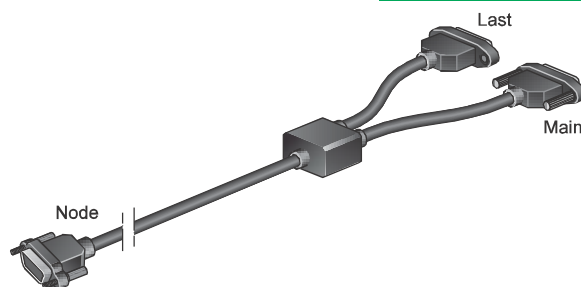


Collector box for 8 digital output M8 connection  
Box distribuzione 8 output digitali con connessioni M8

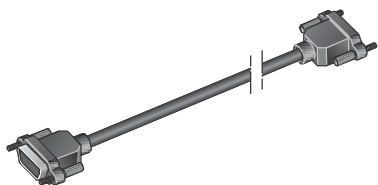
INPUT "Y" CABLE  
CAVO AD "Y" PER INPUT **CW-YI**



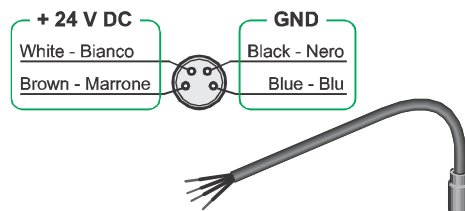
EXPANSION "Y" CABLE  
CAVO AD "Y" DI ESPANSIONE **CW-YO**



CABLE FOR SINGLE OR LAST EXPANSION  
CAVO PER SINGOLA O ULTIMA ESPANSIONE **CW-EX**



POWER SUPPLY CABLE M8  
CAVO DI ALIMENTAZIONE M8 **CW-PS**

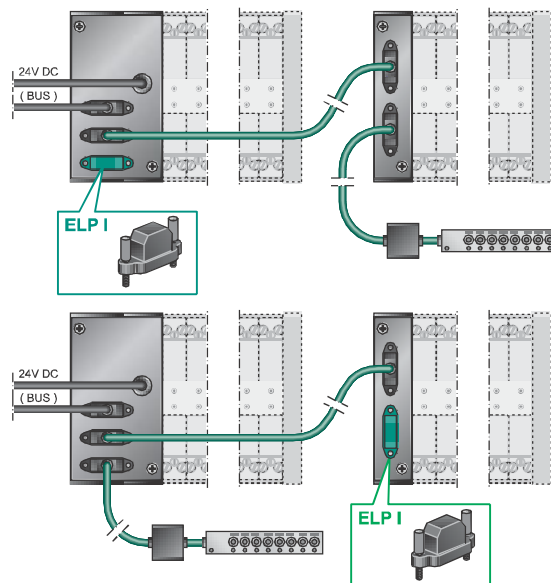
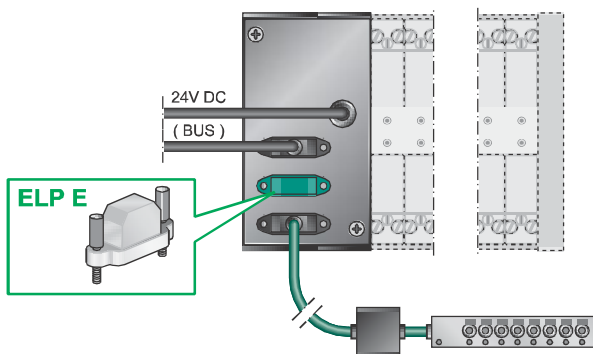


END LINE PLUG FOR EXPANSION PORT  
TERMINATORE DI LINEA PER PORTA DI ESPANSIONE **ELP E**

END LINE PLUG FOR INPUT PORT  
TERMINATORE DI LINEA PER PORTA INPUT **ELP I**

Example / Esempio:

Example / Esempio:

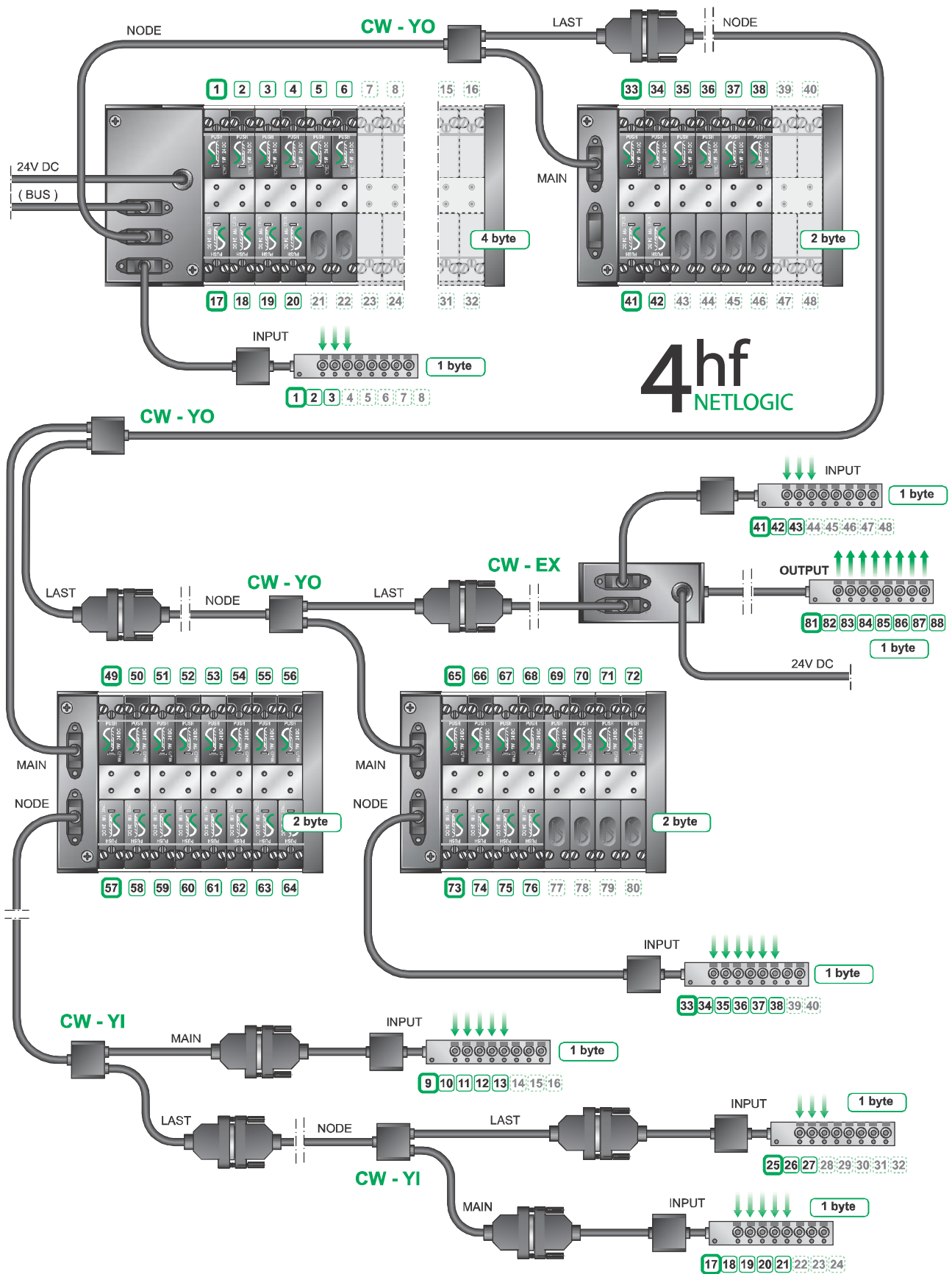


For ELP E connection please see operating instructions available on [www.vesta.it](http://www.vesta.it)  
Per connessione dei terminatori vedere istruzioni operative disponibili su [www.vesta.it](http://www.vesta.it)

For ELP I connection please see operating instructions available on [www.vesta.it](http://www.vesta.it)  
Per connessione dei terminatori vedere istruzioni operative disponibili su [www.vesta.it](http://www.vesta.it)



## EXAMPLE OF CONNECTIONS / ESEMPIO DI CONNESSIONE

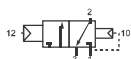




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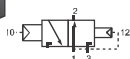
## VALVES AND SOLENOID VALVES / VALVOLE ED ELETTROVALVOLE G1/8

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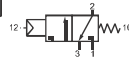
### V32V1P618

SINGLE PNEUMATIC PILOT - INTERNAL PRESSURE RETURN  
COMANDO PNEUMATICO - MOLLA PNEUMATICA



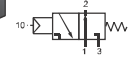
### V32V1P918

SINGLE PNEUMATIC PILOT - INTERNAL PRESSURE RETURN  
COMANDO PNEUMATICO - MOLLA PNEUMATICA



### V32V1P6M8

SINGLE PNEUMATIC PILOT - SPRING RETURN  
COMANDO PNEUMATICO - MOLLA MECCANICA

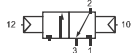


### V32V1P9M8

SINGLE PNEUMATIC PILOT - SPRING RETURN  
COMANDO PNEUMATICO - MOLLA MECCANICA

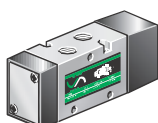
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### V32V2P018

DOUBLE PNEUMATIC PILOT  
DOPPIO COMANDO PNEUMATICO



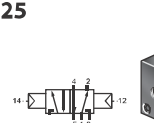
### V52V1P018

SINGLE PNEUMATIC PILOT - INTERNAL PRESSURE RETURN  
COMANDO PNEUMATICO - MOLLA PNEUMATICA



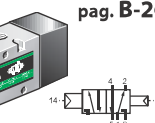
### V52V1PM18

SINGLE PNEUMATIC PILOT - SPRING RETURN  
COMANDO PNEUMATICO - MOLLA MECCANICA



### V52V2P018

DOUBLE PNEUMATIC PILOT  
DOPPIO COMANDO PNEUMATICO



### V52V2PD18

..... WITH DIFFERENTIAL  
..... CON DIFFERENZIALE

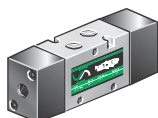
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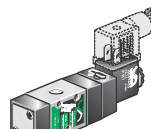
### V53V2P618

DOUBLE PNEUMATIC PILOT - CENTER POSITION CLOSED  
DOPPIO COMANDO PNEUMATICO - CENTRI CHIUSI



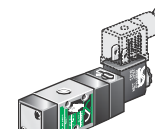
### V53V2P918

DOUBLE PNEUMATIC PILOT - CENTER POSITION OPEN  
DOPPIO COMANDO PNEUMATICO - CENTRI APERTI



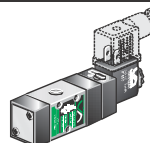
### E32W1S618 - .....

SINGLE SOLENOID VALVE - INTERNAL PRESSURE RETURN  
COMANDO ELETTROPNEUMATICO - MOLLA PNEUMATICA



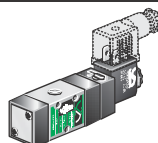
### E32W1S918 - .....

SINGLE SOLENOID VALVE - INTERNAL PRESSURE RETURN  
COMANDO ELETTROPNEUMATICO - MOLLA PNEUMATICA



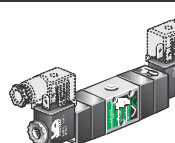
### E32W1S6M8 - .....

SINGLE SOLENOID VALVE - SPRING RETURN  
COMANDO ELETTROPNEUMATICO - MOLLA MECCANICA



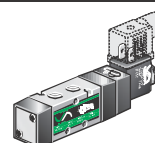
### E32W1S9M8 - .....

SINGLE SOLENOID VALVE - SPRING RETURN  
COMANDO ELETTROPNEUMATICO - MOLLA MECCANICA



### E32W2S018 - .....

DOUBLE SOLENOID VALVE  
DOPPIO COMANDO ELETTROPNEUMATICO

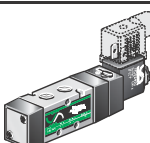


### E52W1S018 - .....

SINGLE SOLENOID VALVE - INTERNAL PRESSURE RETURN  
COMANDO ELETTROPNEUMATICO - MOLLA PNEUMATICA

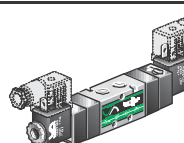
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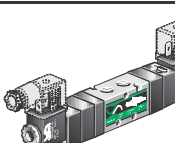
### E52W1SM18 - .....

SINGLE SOLENOID VALVE - SPRING RETURN  
COMANDO ELETTROPNEUMATICO - MOLLA MECCANICA



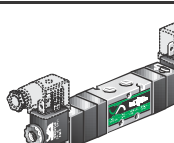
### E52W2S018 - .....

DOUBLE SOLENOID VALVE  
DOPPIO COMANDO ELETTROPNEUMATICO



### E53W2S618 - .....

DOUBLE SOLENOID VALVE - CENTER POSITION CLOSED  
DOPPIO COMANDO ELETTROPNEUMATICO - CENTRI CHIUSI



### E53W2S918 - .....

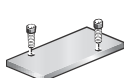
DOUBLE SOLENOID VALVE - CENTER POSITION OPEN  
DOPPIO COMANDO ELETTROPNEUMATICO - CENTRI APERTI

## COMPONENTS FOR ASSEMBLING AND SPARE PARTS / COMPONENTI PER L'ASSEMBLAGGIO E RICAMBI G1/8

### ME .18



### PCH 018

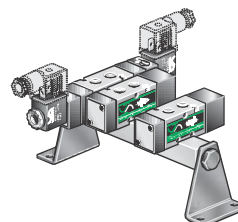


### KM 018



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RTCOV .18  
SBCOV .18  
SACOV .18



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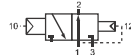
(\*) ATEX versions see / Versioni ATEX vedi P. B-113

## G1/4 VALVES AND SOLENOID VALVES / VALVOLE ED ELETTROVALVOLE



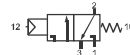
**V32V1P614**

SINGLE PNEUMATIC PILOT - INTERNAL PRESSURE RETURN  
COMANDO PNEUMATICO - MOLLA PNEUMATICA



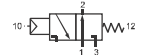
**V32V1P914**

SINGLE PNEUMATIC PILOT - INTERNAL PRESSURE RETURN  
COMANDO PNEUMATICO - MOLLA PNEUMATICA



(\*) **V32V1P6M4**

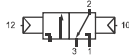
SINGLE PNEUMATIC PILOT - SPRING RETURN  
COMANDO PNEUMATICO - MOLLA MECCANICA



(\*) **V32V1P9M4**

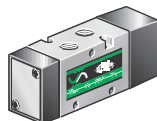
SINGLE PNEUMATIC PILOT - SPRING RETURN  
COMANDO PNEUMATICO - MOLLA MECCANICA

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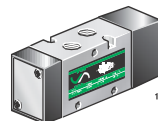
(\*) **V32V2P014**

DOUBLE PNEUMATIC PILOT  
DOPPIO COMANDO PNEUMATICO



**V52V1P014**

SINGLE PNEUMATIC PILOT - INTERNAL PRESSURE RETURN  
COMANDO PNEUMATICO - MOLLA PNEUMATICA



(\*) **V52V1PM14**

SINGLE PNEUMATIC PILOT - SPRING RETURN  
COMANDO PNEUMATICO - MOLLA MECCANICA

(\*) **V52V2P014**

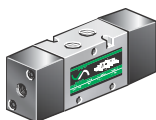
DOUBLE PNEUMATIC PILOT  
DOPPIO COMANDO PNEUMATICO

**V52V2PD14**

..... WITH DIFFERENTIAL  
..... CON DIFFERENZIALE

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(\*) **V53V2P614**

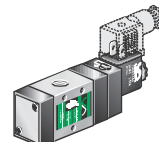
DOUBLE PNEUMATIC PILOT - CENTER POSITION CLOSED  
DOPPIO COMANDO PNEUMATICO - CENTRI CHIUSI



(\*) **V53V2P914**

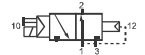
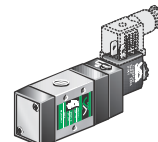
DOUBLE PNEUMATIC PILOT - CENTER POSITION OPEN  
DOPPIO COMANDO PNEUMATICO - CENTRI APERTI

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**E32W1S614 - .....**

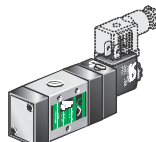
SINGLE SOLENOID VALVE - INTERNAL PRESSURE RETURN  
COMANDO ELETTROPNEUMATICO - MOLLA PNEUMATICA



**E32W1S914 - .....**

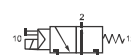
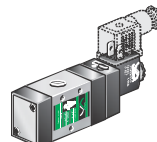
SINGLE SOLENOID VALVE - INTERNAL PRESSURE RETURN  
COMANDO ELETTROPNEUMATICO - MOLLA PNEUMATICA

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(\*) **E32W1S6M4 - .....**

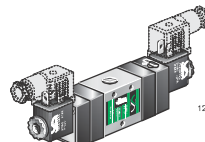
SINGLE SOLENOID VALVE - SPRING RETURN  
COMANDO ELETTROPNEUMATICO - MOLLA MECCANICA



(\*) **E32W1S9M4 - .....**

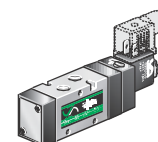
SINGLE SOLENOID VALVE - SPRING RETURN  
COMANDO ELETTROPNEUMATICO - MOLLA MECCANICA

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(\*) **E32W2S014 - .....**

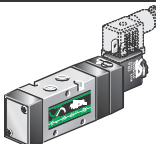
DOUBLE SOLENOID VALVE  
DOPPIO COMANDO ELETTROPNEUMATICO



**E32W1S014 - .....**

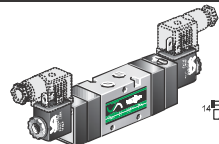
SINGLE SOLENOID VALVE - INTERNAL PRESSURE RETURN  
COMANDO ELETTROPNEUMATICO - MOLLA PNEUMATICA

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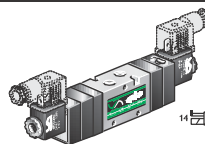
(\*) **E52W1SM14 - .....**

SINGLE SOLENOID VALVE - SPRING RETURN  
COMANDO ELETTROPNEUMATICO - MOLLA MECCANICA



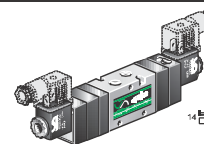
(\*) **E52W2S014 - .....**

DOUBLE SOLENOID VALVE  
DOPPIO COMANDO ELETTROPNEUMATICO



(\*) **E53W2S614 - .....**

DOUBLE SOLENOID VALVE - CENTER POSITION CLOSED  
DOPPIO COMANDO ELETTROPNEUMATICO - CENTRI CHIUSI



(\*) **E53W2S914 - .....**

DOUBLE SOLENOID VALVE - CENTER POSITION OPEN  
DOPPIO COMANDO ELETTROPNEUMATICO - CENTRI APERTI

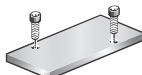
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## G1/4 COMPONENTS FOR ASSEMBLING AND SPARE PARTS / COMPONENTI PER L'ASSEMBLAGGIO E RICAMBI

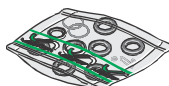
(\*) **ME.14**



**PCH 014**



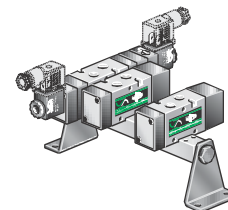
**SET1 1/4 SG**  
**SET2 1/4 SG**



**KM 014**



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**RTCOV.14**  
**SBCOV.14**  
**SACOV.14**

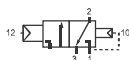
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(\*) ATEX versions see / Versioni ATEX vedi P. B-113

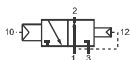
## VALVES AND SOLENOID VALVES / VALVOLE ED ELETTROVALVOLE G1/2

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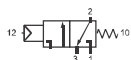
**V32V1P612**

SINGLE PNEUMATIC PILOT - INTERNAL PRESSURE RETURN  
COMANDO PNEUMATICO - MOLLA PNEUMATICA



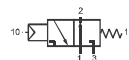
**V32V1P912**

SINGLE PNEUMATIC PILOT - INTERNAL PRESSURE RETURN  
COMANDO PNEUMATICO - MOLLA PNEUMATICA



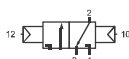
(\*) **V32V1P6M2**

SINGLE PNEUMATIC PILOT - SPRING RETURN  
COMANDO PNEUMATICO - MOLLA MECCANICA



(\*) **V32V1P9M2**

SINGLE PNEUMATIC PILOT - SPRING RETURN  
COMANDO PNEUMATICO - MOLLA MECCANICA



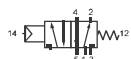
(\*) **V32V2P012**

DOUBLE PNEUMATIC PILOT  
DOPPIO COMANDO PNEUMATICO



**V52V1P012**

SINGLE PNEUMATIC PILOT - INTERNAL PRESSURE RETURN  
COMANDO PNEUMATICO - MOLLA PNEUMATICA



(\*) **V52V1PM12**

SINGLE PNEUMATIC PILOT - SPRING RETURN  
COMANDO PNEUMATICO - MOLLA MECCANICA



(\*) **V52V2P012**

DOUBLE PNEUMATIC PILOT  
DOPPIO COMANDO PNEUMATICO

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(\*) **V53V2P612**

DOUBLE PNEUMATIC PILOT - CENTER POSITION CLOSED  
DOPPIO COMANDO PNEUMATICO - CENTRI CHIUSI



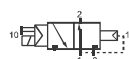
(\*) **V53V2P912**

DOUBLE PNEUMATIC PILOT - CENTER POSITION OPEN  
DOPPIO COMANDO PNEUMATICO - CENTRI APERTI



**E32W1S612 - .....**

SINGLE SOLENOID VALVE - INTERNAL PRESSURE RETURN  
COMANDO ELETTROPNEUMATICO - MOLLA PNEUMATICA



**E32W1S912 - .....**

SINGLE SOLENOID VALVE - INTERNAL PRESSURE RETURN  
COMANDO ELETTROPNEUMATICO - MOLLA PNEUMATICA

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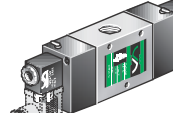
(\*) **E32W1S6M2 - .....**

SINGLE SOLENOID VALVE - SPRING RETURN  
COMANDO ELETTROPNEUMATICO - MOLLA MECCANICA



(\*) **E32W1S9M2 - .....**

SINGLE SOLENOID VALVE - SPRING RETURN  
COMANDO ELETTROPNEUMATICO - MOLLA MECCANICA



(\*) **E32W2S012 - .....**

DOUBLE SOLENOID VALVE  
DOPPIO COMANDO ELETTROPNEUMATICO



**E32W1S012 - .....**

SINGLE SOLENOID VALVE - INTERNAL PRESSURE RETURN  
COMANDO ELETTROPNEUMATICO - MOLLA PNEUMATICA

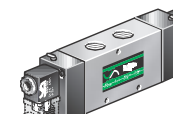
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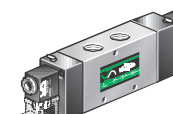
(\*) **E52W1SM12 - .....**

SINGLE SOLENOID VALVE - SPRING RETURN  
COMANDO ELETTROPNEUMATICO - MOLLA MECCANICA



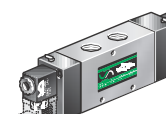
(\*) **E52W2S012 - .....**

DOUBLE SOLENOID VALVE  
DOPPIO COMANDO ELETTROPNEUMATICO



(\*) **E53W2S612 - .....**

DOUBLE SOLENOID VALVE - CENTER POSITION CLOSED  
DOPPIO COMANDO ELETTROPNEUMATICO - CENTRI CHIUSI



(\*) **E53W2S912 - .....**

DOUBLE SOLENOID VALVE - CENTER POSITION OPEN  
DOPPIO COMANDO ELETTROPNEUMATICO - CENTRI APERTI

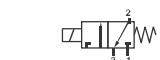
pag. B-28

pag. B-29

(\*) ATEX versions see / Versioni ATEX vedi P. B-113

## DIRECT ACTING SOLENOID VALVES AND SPARE PARTS / ELETTROVALVOLE A COMANDO DIRETTO E RICAMBI

pag. B-35

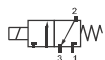


(\*) **BE 1 - .....** NC

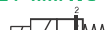


**BE 1 - .....** NO

(Coil: 5W) - (Solenoide: 5W)

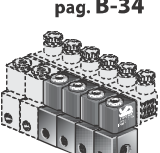


(\*) **BE - .....** NC



**BE - .....** NO

(Coil: 5W) - (Solenoide: 5W)

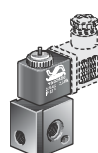


(\*) **BE 1M - .....** NC



**BE 1M - .....** NO

(Coil: 5W) - (Solenoide: 5W)

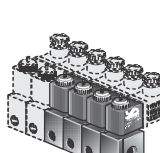


(\*) **BE . M - .....** NC



**BE . M - .....** NO

(Coil: 5W) - (Solenoide: 5W)



PL-BE

KM-BE



DIRECT ACTING SOLENOID VALVE  
ELETTROVALVOLA A COMANDO DIRETTO

DIRECT ACTING SOLENOID VALVES - MANIFOLD  
ELETTROVALVOLE A COMANDO DIRETTO IN BATTERIA

DIRECT ACTING SOLENOID VALVE WITH MANUAL CONTROL  
ELETTROVALVOLA A COMANDO DIRETTO CON CONTROLLO MANUALE

DIRECT ACTING SOLENOID VALVES WITH MANUAL CONTROL - MANIFOLDS  
ELETTROVALVOLE A COMANDO DIRETTO CON CONTROLLO MANUALE IN BATTERIA

GE 1

GE

MBE-4-....

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MBE-8NC-.....

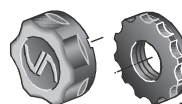
MBE-8NO-.....

MS .....

CEP-1 .....

SET1 1/2 SG  
SET2 1/2 SG

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DIRECT ACTING SOLENOID VALVES 3/2 TUBE Ø4mm - MANIFOLD  
ELETTROVALVOLE A COMANDO DIRETTO 3/2 TUBO Ø4mm IN BATTERIA

DIRECT ACTING SOLENOID VALVES 3/2 G1/8 - MANIFOLD  
ELETTROVALVOLE A COMANDO DIRETTO 3/2 G1/8 IN BATTERIA





## BUILDING FEATURES / CARATTERISTICHE COSTRUTTIVE

VESTA valves and solenoid valves with connections **G1/8**, **G1/4** and **G1/2** are available in the 3/2, 5/2 and 5/3 versions, with different forms of actuation (i.e. solenoid / pilot etc).

The choice of high quality materials and the technical solution adopted allows to the valves to reach a good performance even in harsh environmental conditions.

The spool, made by a light alloy aluminium, nickel treated by Niploy Process ( see fig. **A** ) to give its surface a smooth finish and a better resistance to aggressive agent.

Its particular shape allows high nominal flow rates ( see fig. **D** ), and the combination with self lubricating lip rubber seals ( see fig. **B** ), reduce internal friction ( see fig. **C** ) and provides the valve with a long lasting durable life span.

Valves and Solenoid valves with connections **G1/8**; **G1/4** and **G1/2** can operate continuously without lubrication ( see fig. **E** ) and are sealed against working environment.

*Le valvole ed elettrovalvole VESTA con connessioni **G1/8**; **G1/4** e **G1/2** sono disponibili nelle versioni 3/2, 5/2 e 5/3 con più sistemi di attuazione e riposizionamento.*

*Le soluzioni tecniche adottate ed i materiali impiegati hanno permesso di realizzare un prodotto che presenta elevate prestazioni funzionali anche in condizioni di impiego particolarmente gravose.*

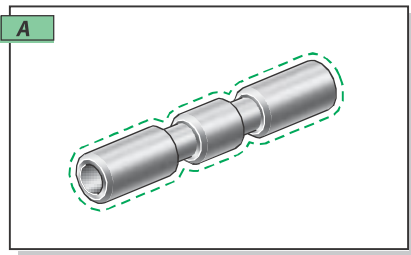
*La spola, costruita in lega leggera e progettata per consentire elevate portate nominali (**D**), viene trattata superficialmente al nickel (Niploy Process) (**A**) onde acquisire una durezza maggiore ed una più elevata resistenza agli agenti aggressivi.*

*La combinazione tra la spola e le guarnizioni in elastomero nitrilico con profilo del labbro antiusura (**B**), permette, accanto ad una riduzione degli attriti, un' alta velocità di scambio e cicli di lavoro elevati (**C**), garantendo una maggiore durata della meccanica interna.*

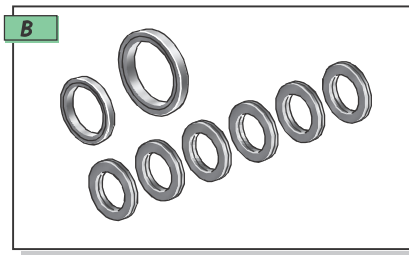
*Tutti i modelli di valvole con connessioni **G1/8**; **G1/4** e **G1/2** possono essere utilizzati anche in assenza di lubrificazione (**E**).*

*L'ermeticità di funzionamento verso l'ambiente di lavoro ne fa inoltre un prodotto adatto all'impiego in settori cosiddetti "difficili" (**F**).*

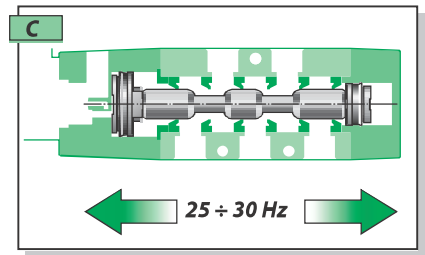
*Nelle pagine che seguono tutte le caratteristiche funzionali di ciascuna valvola sono convalidate dal Dipartimento di Meccanica del Politecnico di Torino.*



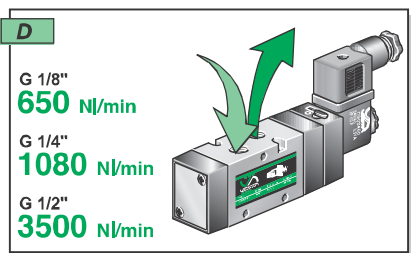
Light alloy spool with Niploy Process treated surface.  
*Spola in lega leggera con trattamento superficiale Niploy Process.*



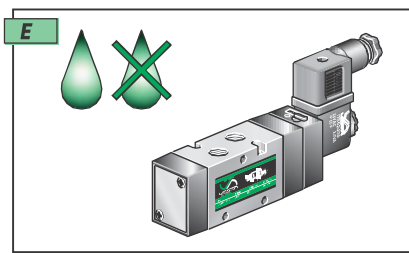
Self lubricating lip rubber seals.  
*Guarnizioni in elastomero nitrilico con profilo del labbro antiusura.*



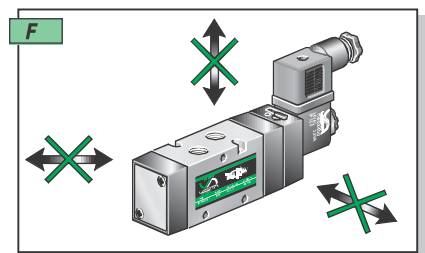
High working frequency.  
*Alta velocità di scambio per cicli di lavoro elevati.*



High nominal air flow.  
*Alta portata nominale.*



Possibility of operating continuously without lubrication.  
*Possibilità di funzionamento continuo privo di lubrificazione.*



Protected against working environment (no spring return versions).  
*Protezione di funzionamento verso l'ambiente di lavoro (non nelle versioni con ritorno a molla).*



WORKING PRINCIPLE / PRINCIPIO DI FUNZIONAMENTO

In the example here below, when the 5/2 valve **E52W1S018 - 02450** stands in the normal position, ports **4 - 5** and **1 - 2** are connected and the position is kept thanks to the pressure assured to the smallest piston (right side of the valve). When the valve is actuated, the same pressure is fed to the biggest piston. It's bigger surface create a force which allows to the spool to move and therefore to connect ports **4 - 1** and **2 - 3**.

In the mechanical spring version, the valve is kept in the normal position by a mechanical spring.

In the bistable versions, the position of the valve remains in its last switched state.

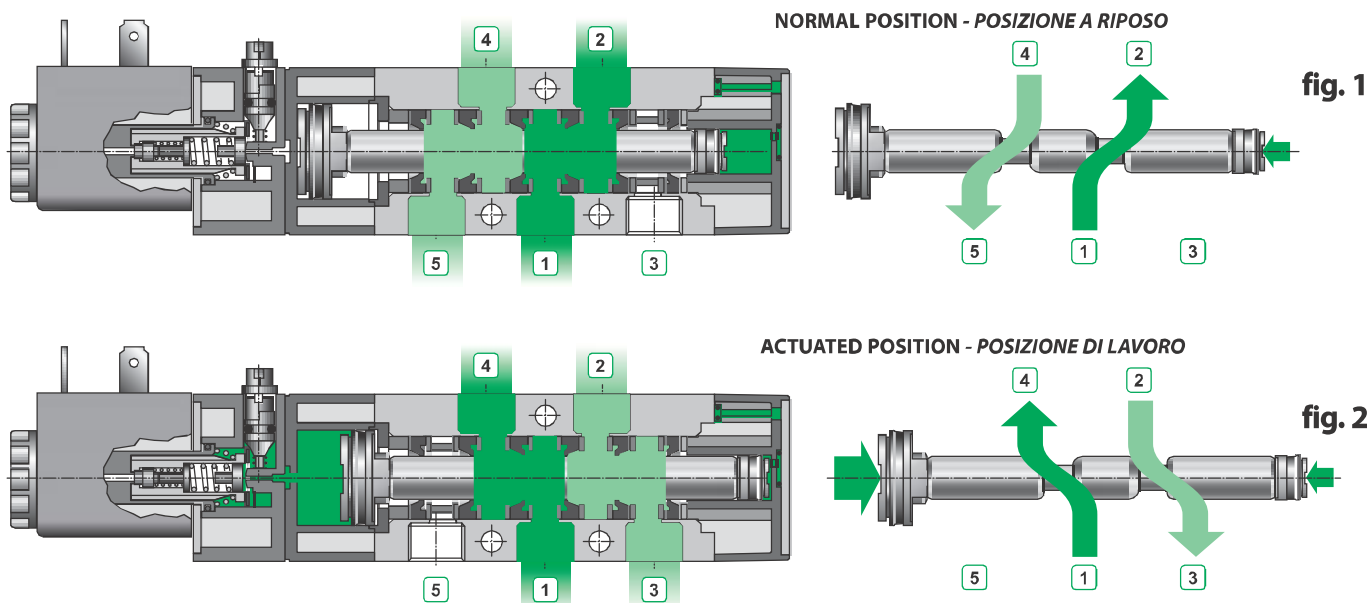
*Il principio di funzionamento del distributore 5/2 (nell'esempio la valvola a comando elettropneumatico e riposizionamento a molla pneumatica **E52W1S018 - 02450**) consiste nel mantenere costantemente in pressione il pistone di riposizionamento (fig. 1), utilizzando la fonte d'aria compressa presente nel condotto di alimentazione **1**, collegando le vie **1- 2** e **4 - 5**.*

*L'eccitazione del solenoide mette in comunicazione il condotto in pressione **1** con la camera dove è alloggiato il pistone di comando.*

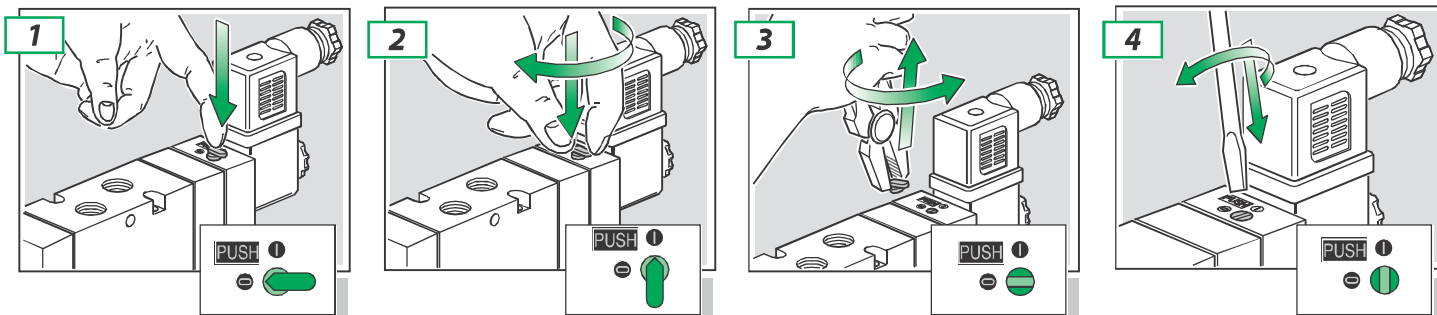
*Quest'ultimo, avendo un'area di spinta maggiore del pistone di riposizionamento, sposta la spola in modo tale da collegare i canali **1- 4** e **2- 3** (fig. 2).*

*Diseccitando il solenoide si ripristina la posizione iniziale.*

*Nei sistemi bistabili (doppio comando elettropneumatico o doppio comando pneumatico) in assenza di segnale rimangono i collegamenti dell'ultimo azionamento.*



MANUAL OVERRIDING / AZIONAMENTO COMANDO MANUALE



1 Push to actuated valve without locking. **Relise the button to get back to normal position.**

*Per azionare la valvola, durante la fase di collaudo con pressione in linea senza collegamento elettrico, premere la leva del comando manuale. **Rilasciare per ripristinare la condizione di riposo.***

2 To active the valve permanently push the M/O (manual override) and rotate clockwise 90°. **To return to normal position, push the M/O again and turn 90° anticlockwise.**

*Per azionare la valvola in modo permanente premere la leva del comando manuale e ruotare in senso orario sino alla posizione 1. **Ruotare in senso antiorario per ripristinare la condizione di riposo.***

3 Should the M/O no longer be required, then turn the M/O anticlockwise until it breaks off.

*Terminato il collaudo ruotare in senso antiorario la leva sino alla rottura.*

4 Should the M/O be required after breaking off, then a screwdriver may be used.

*Per interventi successivi sul comando manuale usare un adeguato cacciavite ed operare come al punto 1 o 2.*



SERIE **G1/8, G1/4, G1/2**

**VALVES AND SOLENOID VALVES "E" SERIES  
VALVOLE ED ELETTROVALVOLE SERIE "E"**

**COMMON FEATURES VALVES G1/8 SERIES / CARATTERISTICHE COMUNI VALVOLE SERIE G1/8**

<b>G1/8</b>	<b>Port connections</b> .....	<b>G1/8</b>	<b>Connessioni di lavoro</b> .....	<b>G1/8</b>
	Pilot connections .....	G1/8	Connessioni operatori .....	G1/8
	Flow section .....	Ø 6 mm	Diametro nominale .....	Ø 6 mm
	Environment temperature range .....	-10 °C ÷ +50 °C	Temperatura ambiente .....	-10 °C ÷ +50 °C
	Temperature range of medium .....	0 °C ÷ +40 °C	Temperatura fluido .....	0 °C ÷ +40 °C
	Lubrication .....	Not required	Lubrificazione .....	Non necessaria
	Medium .....	Filtered air	Fluido .....	Aria filtrata
	Reference temperature .....	+20 °C	Temperatura nominale .....	+20 °C
	Reference pressure .....	6 bar	Pressione nominale .....	6 bar
	<b>3/2 VALVES AND SOLENOID VALVES</b>		<b>VALVOLE ED ELETTROVALVOLE 3/2</b>	
Fixing .....	n°3 holes Ø 4,25 manifold system see p. 30.	Fissaggio .....	n°3 fori laterali Ø 4,25 su collettore vedi p. 32	
Nominal air flow .....	650 NI/min	Portata nominale .....	650 NI/min	
Fluid conductance "C" .....	2,7 NI/s bar	Valore conduttanza "C" .....	2,7 NI/s bar	
Critical pressure ratio "b" .....	0,203	Rapporto critico delle pressioni "b" .....	0,203	
<b>5/2 VALVES AND SOLENOID VALVES</b>		<b>VALVOLE ED ELETTROVALVOLE 5/2</b>		
Fixing .....	n°3 holes Ø 4,25 manifold system pp. 30 ÷ 32.	Fissaggio .....	n°3 fori laterali Ø 4,25 su collettore vedi p. 32	
Nominal air flow .....	650 NI/min	Portata nominale .....	650 NI/min	
Fluid conductance "C" .....	2,7 NI/s bar	Valore conduttanza "C" .....	2,7 NI/s bar	
Critical pressure ratio "b" .....	0,203	Rapporto critico delle pressioni "b" .....	0,203	
<b>5/3 VALVES AND SOLENOID VALVES</b>		<b>VALVOLE ED ELETTROVALVOLE 5/3</b>		
Fixing .....	n°3 holes Ø 4,25 manifold system pp. 30 ÷ 32.	Fissaggio .....	n°3 fori laterali Ø 4,25 su collettore vedi p. 32	
Nominal air flow .....	530 NI/min	Portata nominale .....	530 NI/min	
Fluid conductance "C" .....	2,17 NI/s bar	Valore conduttanza "C" .....	2,17 NI/s bar	
Critical pressure ratio "b" .....	0,236	Rapporto critico delle pressioni "b" .....	0,236	

**VALVES AND SOLENOID VALVES G1/4 SERIES / VALVOLE ED ELETTROVALVOLE SERIE G1/4**

<b>G1/4</b>	<b>Port connections</b> .....	<b>G1/4</b>	<b>Connessioni di lavoro</b> .....	<b>G1/4</b>
	Pilot connections .....	G1/8	Connessioni operatori .....	G1/8
	Flow section .....	Ø 8 mm	Diametro nominale .....	Ø 8 mm
	Environment temperature range .....	-10 °C ÷ +50 °C	Temperatura ambiente .....	-10 °C ÷ +50 °C
	Temperature range of medium .....	0 °C ÷ +40 °C	Temperatura fluido .....	0 °C ÷ +40 °C
	Lubrication .....	Not required	Lubrificazione .....	Non necessaria
	Medium .....	Filtered air	Fluido .....	Aria filtrata
	Reference temperature .....	+20 °C	Temperatura nominale .....	+20 °C
	Reference pressure .....	6 bar	Pressione nominale .....	6 bar
	<b>3/2 VALVES AND SOLENOID VALVES</b>		<b>VALVOLE ED ELETTROVALVOLE 3/2</b>	
Fixing .....	n°3 holes Ø 4,25 manifold system see p. 33.	Fissaggio .....	n°3 fori laterali Ø 4,25 su collettore vedi p. 33	
Nominal air flow .....	1080 NI/min	Portata nominale .....	1080 NI/min	
Fluid conductance "C" .....	4,34 NI/s bar	Valore conduttanza "C" .....	4,34 NI/s bar	
Critical pressure ratio "b" .....	0,212	Rapporto critico delle pressioni "b" .....	0,212	
<b>5/2 VALVES AND SOLENOID VALVES</b>		<b>VALVOLE ED ELETTROVALVOLE 5/2</b>		
Fixing .....	n°3 holes Ø 4,25 manifold system pp. 30 ÷ 31, 33.	Fissaggio .....	n°3 fori laterali Ø 4,25 su collettore vedi p. 33	
Nominal air flow .....	1080 NI/min	Portata nominale .....	1080 NI/min	
Fluid conductance "C" .....	4,34 NI/s bar	Valore conduttanza "C" .....	4,34 NI/s bar	
Critical pressure ratio "b" .....	0,212	Rapporto critico delle pressioni "b" .....	0,212	
<b>5/3 VALVES AND SOLENOID VALVES</b>		<b>VALVOLE ED ELETTROVALVOLE 5/3</b>		
Fixing .....	n°3 holes Ø 4,25 manifold system pp. 30 ÷ 31, 33.	Fissaggio .....	n°3 fori laterali Ø 4,25 su collettore vedi p. 33	
Nominal air flow .....	800 NI/min	Portata nominale .....	800 NI/min	
Fluid conductance "C" .....	3,22 NI/s bar	Valore conduttanza "C" .....	3,22 NI/s bar	
Critical pressure ratio "b" .....	0,265	Rapporto critico delle pressioni "b" .....	0,265	

**VALVES AND SOLENOID VALVES G1/2 SERIES / VALVOLE ED ELETTROVALVOLE SERIE G1/2**

<b>G1/2</b>	<b>Port connections</b> .....	<b>G1/2</b>	<b>Connessioni di lavoro</b> .....	<b>G1/2</b>
	Pilot connections .....	G1/8	Connessioni operatori .....	G1/8
	Flow section .....	Ø 15 mm	Diametro nominale .....	Ø 15 mm
	Environment temperature range .....	-10 °C ÷ +50 °C	Temperatura ambiente .....	-10 °C ÷ +50 °C
	Temperature range of medium .....	0 °C ÷ +40 °C	Temperatura fluido .....	0 °C ÷ +40 °C
	Lubrication .....	Not required	Lubrificazione .....	Non necessaria
	Medium .....	Filtered air	Fluido .....	Aria filtrata
	Reference temperature .....	+20 °C	Temperatura nominale .....	+20 °C
	Reference pressure .....	6 bar	Pressione nominale .....	6 bar
	<b>3/2 VALVES AND SOLENOID VALVES</b>		<b>VALVOLE ED ELETTROVALVOLE 3/2</b>	
Fixing .....	n°3 holes Ø 5,5	Fissaggio .....	n°3 fori laterali Ø 5,5	
Nominal air flow .....	3500 NI/min	Portata nominale .....	3500 NI/min	
Fluid conductance "C" .....	12,88 NI/s bar	Valore conduttanza "C" .....	12,88 NI/s bar	
Critical pressure ratio "b" .....	0,393	Rapporto critico delle pressioni "b" .....	0,393	
<b>5/2 VALVES AND SOLENOID VALVES</b>		<b>VALVOLE ED ELETTROVALVOLE 5/2</b>		
Fixing .....	n°3 holes Ø 5,5	Fissaggio .....	n°3 fori laterali Ø 5,5	
Nominal air flow .....	3500 NI/min	Portata nominale .....	3500 NI/min	
Fluid conductance "C" .....	12,88 NI/s bar	Valore conduttanza "C" .....	12,88 NI/s bar	
Critical pressure ratio "b" .....	0,396	Rapporto critico delle pressioni "b" .....	0,396	
<b>5/3 VALVES AND SOLENOID VALVES</b>		<b>VALVOLE ED ELETTROVALVOLE 5/3</b>		
Fixing .....	n°3 holes Ø 5,5	Fissaggio .....	n°3 fori laterali Ø 5,5	
Nominal air flow .....	3000 NI/min	Portata nominale .....	3000 NI/min	
Fluid conductance "C" .....	10,76 NI/s bar	Valore conduttanza "C" .....	3,22 NI/s bar	
Critical pressure ratio "b" .....	0,42	Rapporto critico delle pressioni "b" .....	0,265	

**PNEUMATIC VALVES FEATURES / CARATTERISTICHE VALVOLE PNEUMATICHE**

Size Taglia	Code Codice	Nominal pilot pressure (bar) Pressione di pilotaggio nominale (bar)		Nominal max frequency (Hz) Frequenza max nominale (Hz)		Operating pressure range (bar) Pressione di esercizio (bar)	
G 1/8"	V32V1P618	4,5 bar (10 bar)		31 Hz		2,2 ÷ 10 bar	
	V32V1P918	4,5 bar (10 bar)		31 Hz		2,2 ÷ 10 bar	
	V32V1P6M8	2,7 bar		13 Hz		1,5 ÷ 10 bar	
	V32V1P9M8	2,7 bar		13 Hz		1,5 ÷ 10 bar	
	V32V2P018	1,3 bar		43 Hz		1,2 ÷ 10 bar	
	V52V1P018	4,5 bar (10 bar)		30 Hz		2,5 ÷ 10 bar	
	V52V1PM18	2,7 bar		13 Hz		1,5 ÷ 10 bar	
	V52V2P018	1,3 bar		42 Hz		1,5 ÷ 10 bar	
	V52V2PD18	1,3 bar		42 Hz		1,5 ÷ 10 bar	
	V53V2P618	3,2 bar		9 Hz		1,5 ÷ 10 bar	
	V53V2P918	3,2 bar		9 Hz		1,5 ÷ 10 bar	
G 1/4"	V32V1P614	4 bar (10 bar)		22 Hz		2,2 ÷ 10 bar	
	V32V1P914	4 bar (10 bar)		22 Hz		2,2 ÷ 10 bar	
	V32V1P6M4	2,85 bar		11 Hz		1,5 ÷ 10 bar	
	V32V1P9M4	2,85 bar		11 Hz		1,5 ÷ 10 bar	
	V32V2P014	1,3 bar		31 Hz		1,2 ÷ 10 bar	
	V52V1P014	4 bar (10 bar)		21 Hz		2,5 ÷ 10 bar	
	V52V1PM14	2,85 bar		10 Hz		1,5 ÷ 10 bar	
	V52V2P014	1,3 bar		30 Hz		1,5 ÷ 10 bar	
	V52V2PD14	1,3 bar		30 Hz		1,5 ÷ 10 bar	
	V53V2P614	3,6 bar		8 Hz		1,5 ÷ 10 bar	
	V53V2P914	3,6 bar		8 Hz		1,5 ÷ 10 bar	
G 1/2"	V32V1P612	4 bar (10 bar)		12 Hz		2,2 ÷ 10 bar	
	V32V1P912	4 bar (10 bar)		12 Hz		2,2 ÷ 10 bar	
	V32V1P6M2	2,85 bar		8 Hz		1,5 ÷ 10 bar	
	V32V1P9M2	2,85 bar		8 Hz		1,5 ÷ 10 bar	
	V32V2P012	1,3 bar		14 Hz		1,2 ÷ 10 bar	
	V52V1P012	4 bar (10 bar)		12 Hz		2,5 ÷ 10 bar	
	V52V1PM12	2,85 bar		7 Hz		1,5 ÷ 10 bar	
	V52V2P012	1,3 bar		13 Hz		1,5 ÷ 10 bar	
	V53V2P612	3,2 bar		6 Hz		1,5 ÷ 10 bar	
	V53V2P912	3,2 bar		6 Hz		1,5 ÷ 10 bar	

**SOLENOID VALVES FEATURES / CARATTERISTICHE ELETTROVALVOLE**

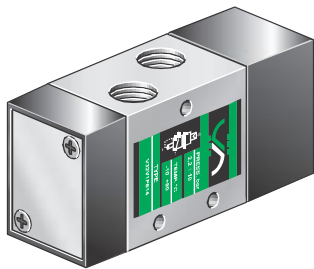
Size Taglia	Code Codice	Average actining response (ms) Tempo medio di risposta in eccitazione (ms)		Average disactining response (ms) Tempo medio di risposta in diseccitazione (ms)		Nominal max frequency (Hz) Frequenza max nominale (Hz)		Operating pressure range (bar) Pressione di esercizio (bar)	
		AC	DC	AC	DC	AC	DC	AC	DC
G 1/8"	E32W1S618	17 ms	19 ms	20 ms	24 ms	29 Hz	18 Hz	2,2 ÷ 10 bar	
	E32W1S918	17 ms	19 ms	20 ms	24 ms	29 Hz	18 Hz	2,2 ÷ 10 bar	
	E32W1S6M8	17 ms	19 ms	21 ms	34 ms	13 Hz	13 Hz	3,2 ÷ 10 bar	
	E32W1S9M8	17 ms	19 ms	21 ms	34 ms	13 Hz	13 Hz	3,2 ÷ 10 bar	
	E32W2S018	10 ms	12 ms	10 ms	12 ms	31 Hz	23 Hz	1,2 ÷ 10 bar	
	E52W1S018	10 ms	17 ms	20 ms	24 ms	29 Hz	17 Hz	2,5 ÷ 10 bar	
	E52W1SM18	17 ms	19 ms	21 ms	34 ms	13 Hz	13 Hz	3,2 ÷ 10 bar	
	E52W2S018	10,5 ms	12,5 ms	10,5 ms	12,5 ms	31 Hz	22 Hz	1,5 ÷ 10 bar	
	E53W2S618	16 ms	19 ms	16 ms	19 ms	9 Hz	9 Hz	3 ÷ 10 bar	
	E53W2S918	16 ms	19 ms	16 ms	19 ms	9 Hz	9 Hz	3 ÷ 10 bar	
G 1/4"	E32W1S614	18 ms	21 ms	33 ms	44 ms	17 Hz	14 Hz	2,2 ÷ 10 bar	
	E32W1S914	18 ms	21 ms	33 ms	44 ms	17 Hz	14 Hz	2,2 ÷ 10 bar	
	E32W1S6M4	19 ms	21 ms	35 ms	46 ms	11 Hz	11 Hz	2,5 ÷ 10 bar	
	E32W1S9M4	19 ms	21 ms	35 ms	46 ms	11 Hz	11 Hz	2,5 ÷ 10 bar	
	E32W2S014	11 ms	14 ms	11 ms	14 ms	27 Hz	22 Hz	1,2 ÷ 10 bar	
	E52W1S014	18 ms	21 ms	33 ms	44 ms	16 Hz	13 Hz	2,5 ÷ 10 bar	
	E52W1SM14	19 ms	21 ms	35 ms	46 ms	11 Hz	11 Hz	2,5 ÷ 10 bar	
	E52W2S014	11 ms	14 ms	11 ms	14 ms	27 Hz	21 Hz	1,5 ÷ 10 bar	
	E53W2S614	17 ms	20 ms	17 ms	20 ms	8 Hz	8 Hz	3 ÷ 10 bar	
	E53W2S914	17 ms	20 ms	17 ms	20 ms	8 Hz	8 Hz	3 ÷ 10 bar	
G 1/2"	E32W1S612	43 ms	45 ms	55 ms	55 ms	13 Hz	12 Hz	2,2 ÷ 10 bar	
	E32W1S912	43 ms	45 ms	55 ms	55 ms	13 Hz	12 Hz	2,2 ÷ 10 bar	
	E32W1S6M2	47 ms	49 ms	60 ms	60 ms	8 Hz	8 Hz	2,5 ÷ 10 bar	
	E32W1S9M2	47 ms	49 ms	60 ms	60 ms	8 Hz	8 Hz	2,5 ÷ 10 bar	
	E32W2S012	22 ms	26 ms	22 ms	26 ms	16 Hz	15 Hz	1,2 ÷ 10 bar	
	E52W1S012	47 ms	49 ms	58 ms	58 ms	11 Hz	10 Hz	2,5 ÷ 10 bar	
	E52W1SM12	47 ms	49 ms	60 ms	60 ms	8 Hz	8 Hz	2,5 ÷ 10 bar	
	E52W2S012	24 ms	28 ms	24 ms	28 ms	14 Hz	13 Hz	1,5 ÷ 10 bar	
	E53W2S612	49 ms	49 ms	60 ms	60 ms	6 Hz	6 Hz	3 ÷ 10 bar	
	E53W2S912	49 ms	49 ms	60 ms	60 ms	6 Hz	6 Hz	3 ÷ 10 bar	

For electrical features solenoid pilot see pp. B-35 and B-37.  
Caratteristiche elettriche elettrovalvole per solenoide vedi pp. B-35 e B-37.

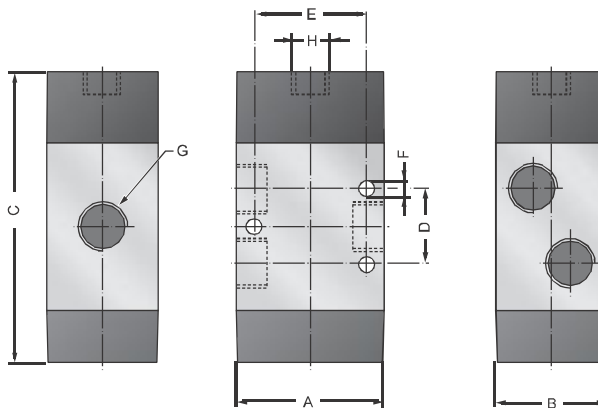




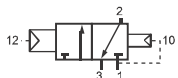
# V32V1P . 1.



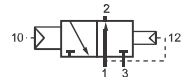
## VALVE / VALVOLA 3/2 SINGLE PNEUMATIC PILOT - INTERNAL PRESSURE RETURN COMANDO PNEUMATICO - RIPOSIZIONAMENTO A MOLLA PNEUMATICA



### SIMBOLS / SIMBOLI

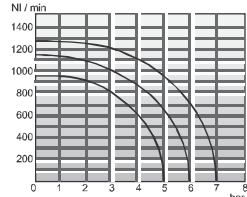


V32V1P61.

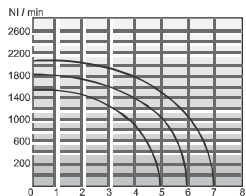


V32V1P91.

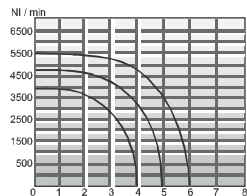
### DIAGRAMS / DIAGRAMMI



AIR FLOW DIAGRAM G 1/8"  
DIAGRAMMA DELLE PORTATE G 1/8"

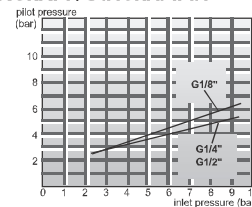


AIR FLOW DIAGRAM G 1/4"  
DIAGRAMMA DELLE PORTATE G 1/4"



AIR FLOW DIAGRAM G 1/2"  
DIAGRAMMA DELLE PORTATE G 1/2"

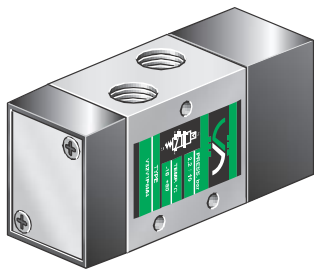
### DIAGRAM / DIAGRAMMA



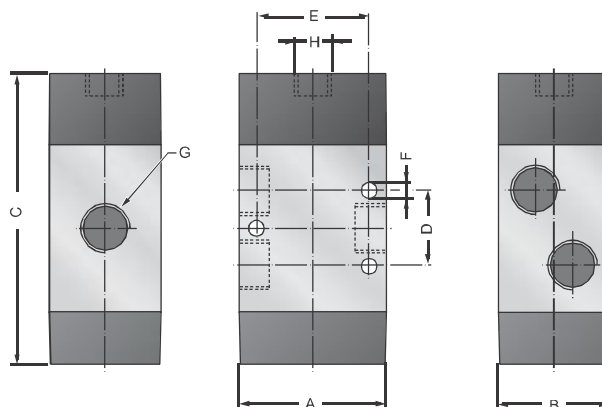
PILOT PRESSURE  
DIAGRAMMA DELLA PRESSIONE DI PILOTAGGIO

Size Taglia	A	B	C	D	E	ØF	G	H
G1/8	30	26	74	18	23	4,25	G1/8	G1/8
G1/4	40	30	81,5	20	30	4,25	G1/4	G1/8
G1/2	60	40	127	40	50	5,5	G1/2	G1/8

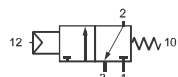
# V32V1P . M.



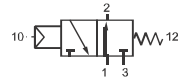
## VALVE / VALVOLA 3/2 SINGLE PNEUMATIC PILOT - SPRING RETURN COMANDO PNEUMATICO - RIPOSIZIONAMENTO A MOLLA MECCANICA



### SIMBOLS / SIMBOLI

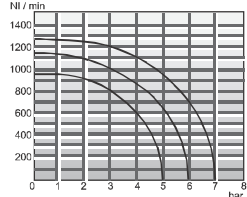


V32V1P6M.

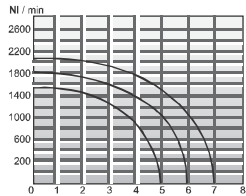


V32V1P9M.

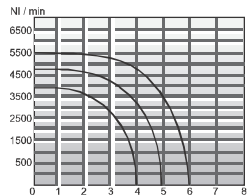
### DIAGRAMS / DIAGRAMMI



AIR FLOW DIAGRAM G 1/8"  
DIAGRAMMA DELLE PORTATE G 1/8"

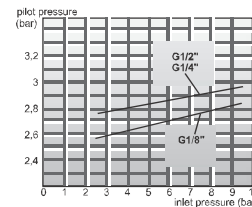


AIR FLOW DIAGRAM G 1/4"  
DIAGRAMMA DELLE PORTATE G 1/4"



AIR FLOW DIAGRAM G 1/2"  
DIAGRAMMA DELLE PORTATE G 1/2"

### DIAGRAM / DIAGRAMMA



PILOT PRESSURE  
DIAGRAMMA DELLA PRESSIONE DI PILOTAGGIO

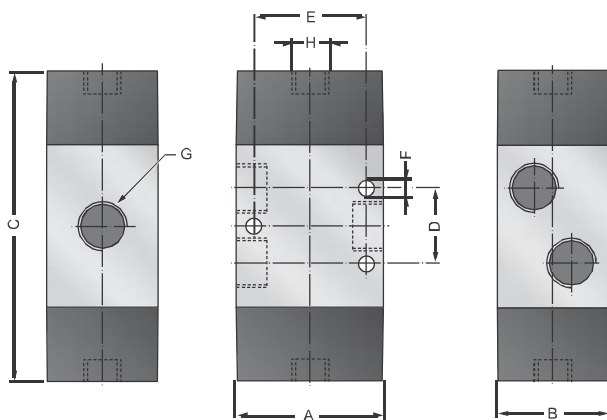
(\*) ATEX versions see / Versioni ATEX vedi P. B-113

Size Taglia	A	B	C	D	E	ØF	G	H
G1/8	30	26	74	18	23	4,25	G1/8	G1/8
(*) G1/4	40	30	81,5	20	30	4,25	G1/4	G1/8
(*) G1/2	60	40	118	40	50	5,5	G1/2	G1/8

**VALVE / VALVOLA 3/2**

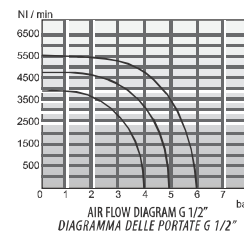
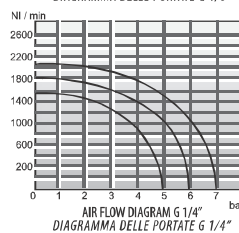
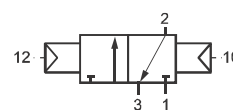
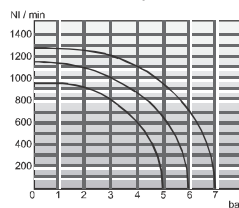
DOUBLE PNEUMATIC PILOT / *DOPIO COMANDO PNEUMATICO*

**V32V2P01.**

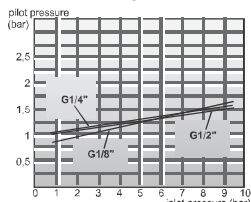


**DIAGRAMS / DIAGRAMMI**

**SIMBOL / SIMBOLO**



**DIAGRAM / DIAGRAMMA**



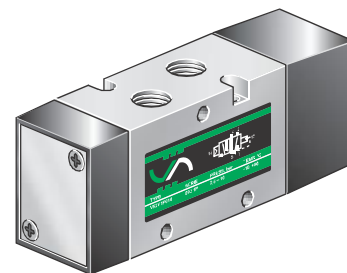
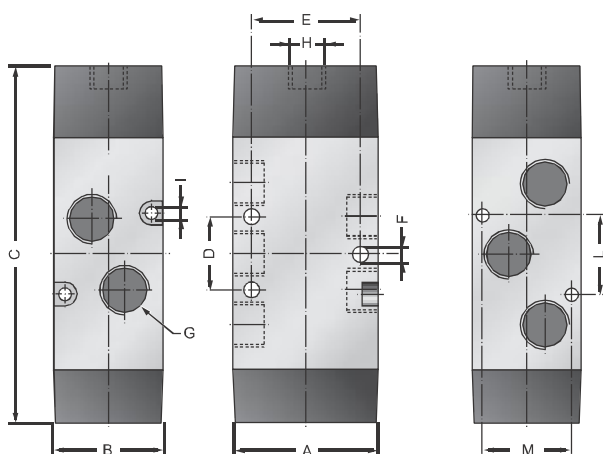
(\*) ATEX versions see / *Versioni ATEX vedi P. B-113*

Size Taglia	A	B	C	D	E	ØF	G	H
G1/8	30	26	79	18	23	4,25	G1/8	G1/8
(*) G1/4	40	30	87	20	30	4,25	G1/4	G1/8
(*) G1/2	60	40	132	40	50	5,5	G1/2	G1/8

**VALVE / VALVOLA 5/2**

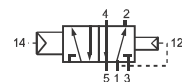
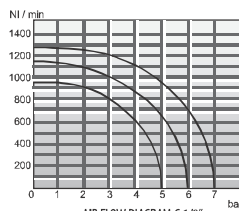
SINGLE PNEUMATIC PILOT / *COMANDO PNEUMATICO*

**V52V1P . 1.**

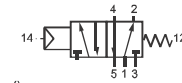
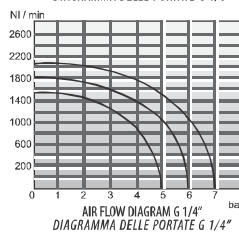


**DIAGRAMS / DIAGRAMMI**

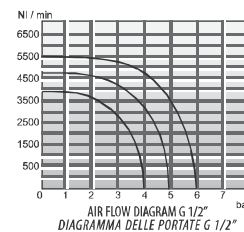
**SIMBOLS / SIMBOLI**



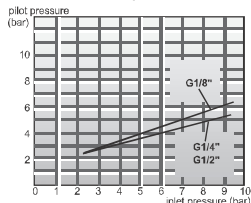
**V52V1P01.**



**V52V1PM1.**



**DIAGRAM / DIAGRAMMA**

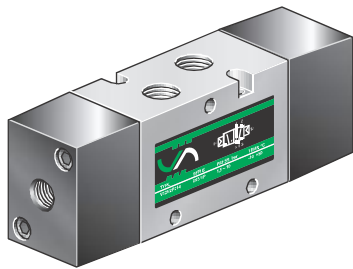


(\*) ATEX versions see / *Versioni ATEX vedi P. B-113*

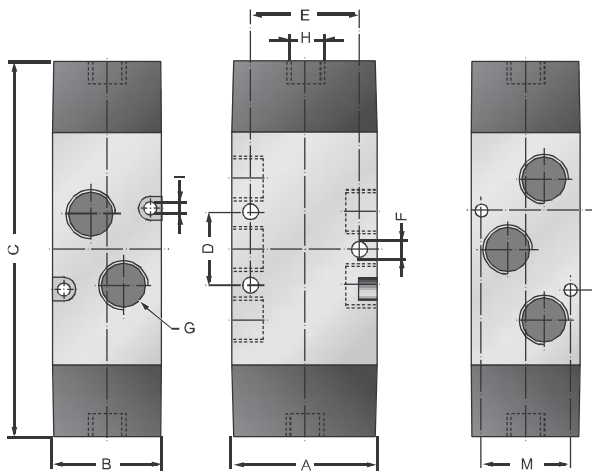
Size Taglia	A	B	C	D	E	ØF	G	H	ØI	L	M
1/8	30	26	91	18	23	4,25	G1/8	G1/8	3,25	28,6	20
(*) 1/4	40	30	100	20	30	4,25	G1/4	G1/8	3,25	21	24,6
(*) 1/2	60	40	167	40	50	5,5	G1/2	G1/8	—	—	—



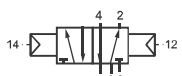
# V52V2P . 1.



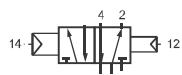
## VALVE / VALVOLA 5/2 DOUBLE PNEUMATIC PILOT / DOPPIO COMANDO PNEUMATICO



### SIMBOLS / SIMBOLI

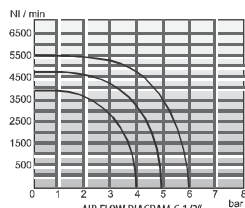
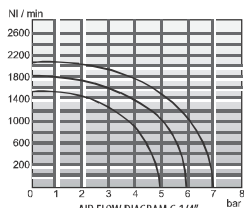
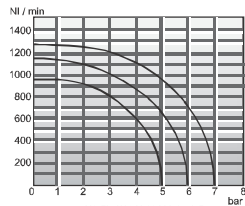


V52V2P01.

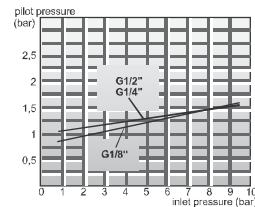


V52V2PD1.

### DIAGRAMS / DIAGRAMMI



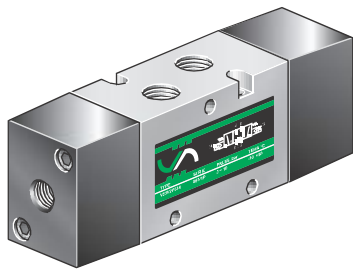
### DIAGRAM / DIAGRAMMA



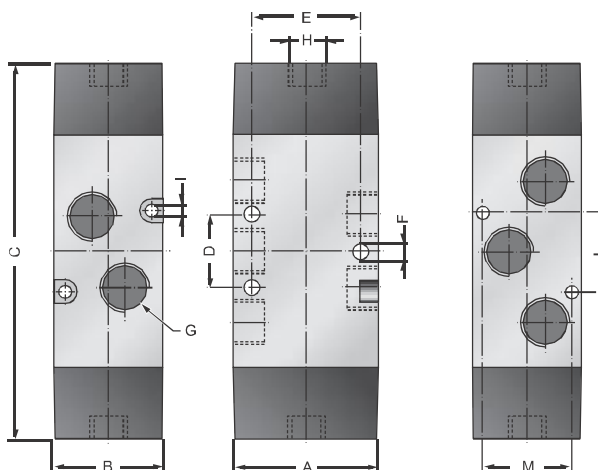
(\*) ATEX versions see / Versioni ATEX vedi P. B-113

Size Taglia	A	B	C	D	E	ØF	G	H	ØI	L	M
1/8	30	26	96	18	23	4,25	G1/8	G1/8	3,25	28,6	20
(*) 1/4	40	30	105	20	30	4,25	G1/4	G1/8	3,25	21	24,6
(*) 1/2	60	40	172	40	50	5,5	G1/2	G1/8	—	—	—

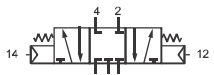
# V53V2P . 1.



## VALVE / VALVOLA 5/3 DOUBLE PNEUMATIC PILOT / DOPPIO COMANDO PNEUMATICO



### SIMBOLS / SIMBOLI

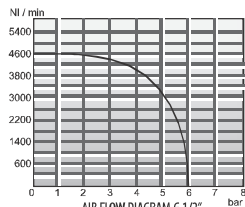
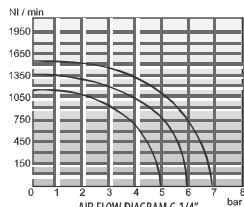
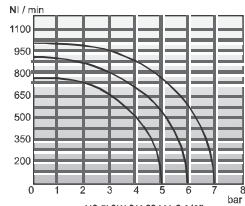


V53V2P61.

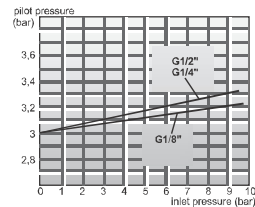


V53V2P91.

### DIAGRAMS / DIAGRAMMI



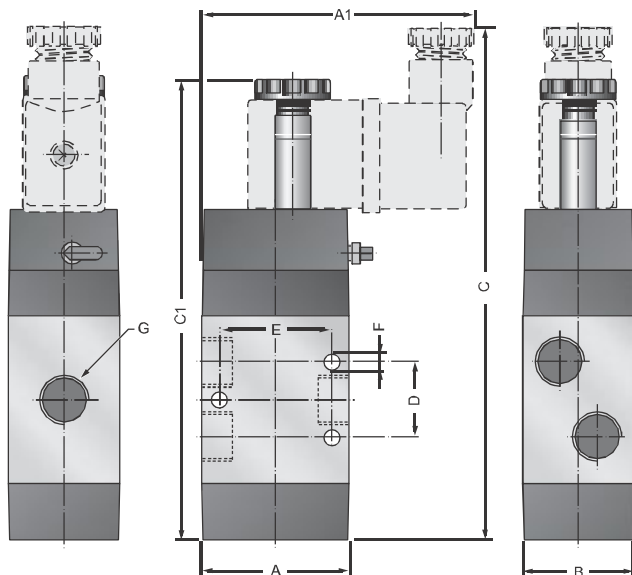
### DIAGRAM / DIAGRAMMA



(\*) versions see / Versioni vedi P. B-113

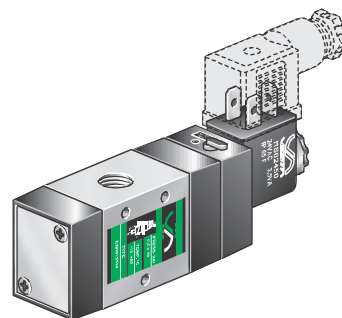
Size Taglia	A	B	C	D	E	ØF	G	H	ØI	L	M
1/8	30	26	108	18	23	4,25	G1/8	G1/8	3,25	28,6	20
1/4	40	30	105	20	30	4,25	G1/4	G1/8	3,25	21	24,6
1/2	60	40	192	40	50	5,5	G1/2	G1/8	—	—	—

**SOLENOID VALVE / 3/2**  
 SINGLE SOLENOID VALVE - INTERNAL PRESSURE RETURN  
 COMANDO ELETTROPNEUMATICO - RIPOSIZIONAMENTO MOLLA PNEUMATICA

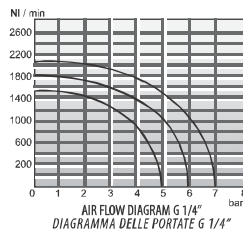
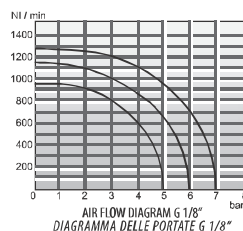


Size Taglia	A	A1	B	C	C1	D	E	ØF	G
1/8	30	63	26	133	119	18	23	4,25	G1/8
1/4	40	73	30	140	125	20	30	4,25	G1/4
1/2	60	60	40	181	167	40	50	5,5	G1/2

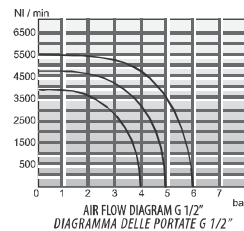
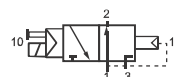
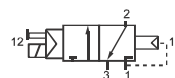
**E32W1S . 1. - ....**



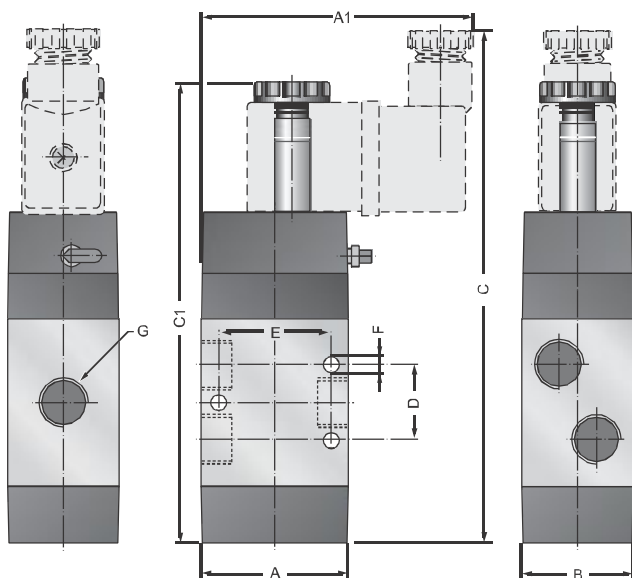
**DIAGRAMS / DIAGRAMMI**



**SIMBOLS / SIMBOLI**



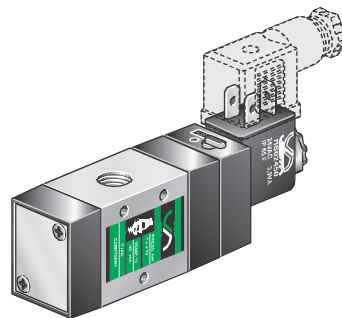
**SOLENOID VALVE / ELETTROVALVOLA 3/2**  
 SINGLE SOLENOID VALVE - SPRING RETURN  
 COMANDO ELETTROPNEUMATICO - RIPOSIZIONAMENTO MOLLA MECCANICA



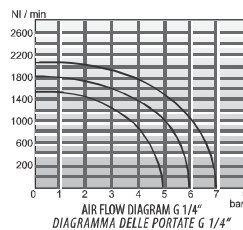
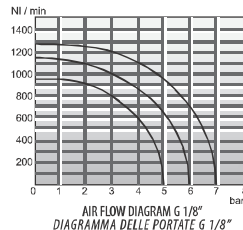
(\*) ATEX versions see / Versioni ATEX vedi P.

Size Taglia	A	A1	B	C	C1	D	E	ØF	G
1/8	30	63	26	133	119	18	23	4,25	G1/8
(*) 1/4	40	73	30	140	125	20	30	4,25	G1/4
(*) 1/2	60	60	40	172	158	40	50	5,5	G1/2

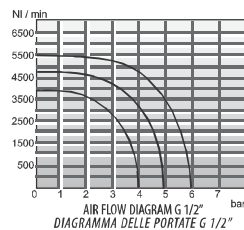
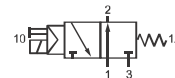
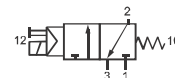
**E32W1S . M. - ....**



**DIAGRAMS / DIAGRAMMI**

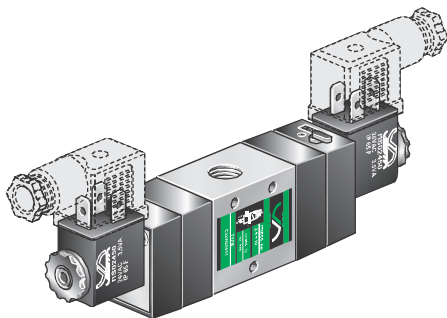


**SIMBOLS / SIMBOLI**

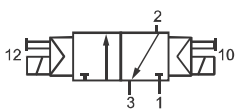




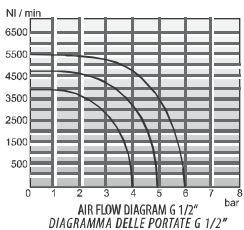
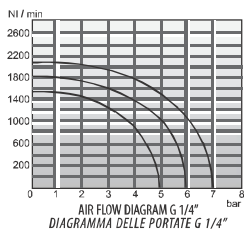
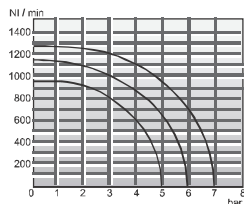
## E32W2S01. - .....



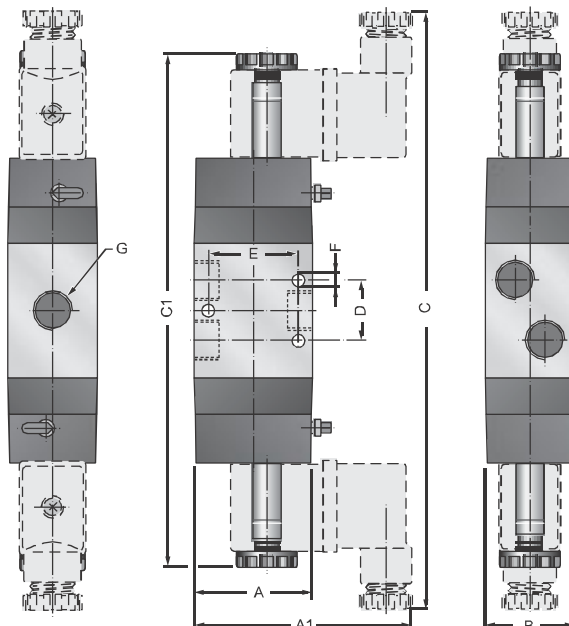
### SIMBOL / SIMBOLO



### DIAGRAMS / DIAGRAMMI



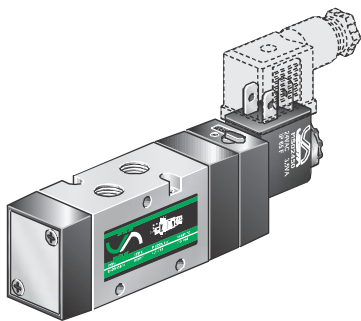
## SOLENOID VALVE / 3/2 DOUBLE SOLENOID VALVE / DOPPIO COMANDO ELETTROPNEUMATICO



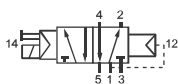
(\*) ATEX versions see / Versioni ATEX vedi P. B-113

Size Taglia	A	A1	B	C	C1	D	E	ØF	G
1/8	30	63	26	197	169	18	23	4,25	G1/8
(*) 1/4	40	73	30	203	175	20	30	4,25	G1/4
(*) 1/2	60	60	40	240	212	40	50	5,5	G1/2

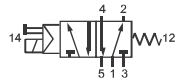
## E52W1S.1. - .....



### SIMBOLS / SIMBOLI

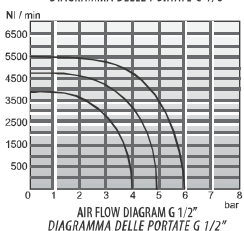
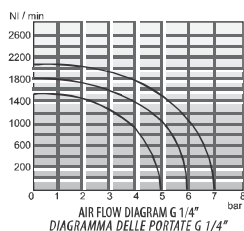
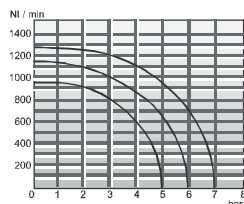


E52W1S01. - .....

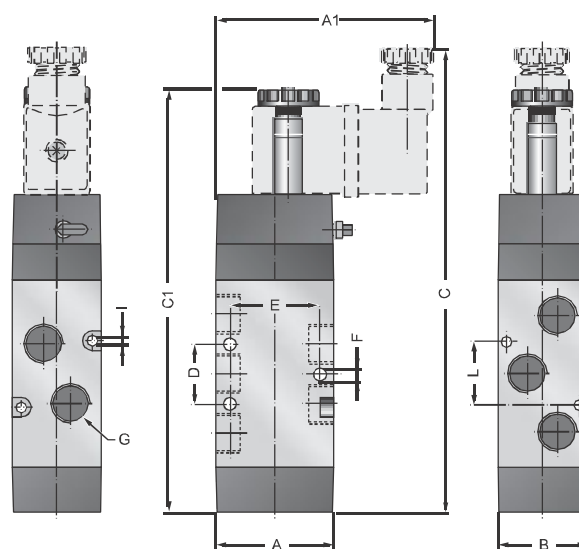


(\*) E52W1SM1. - .....

### DIAGRAMS / DIAGRAMMI



## SOLENOID VALVE / 5/2 SINGLE SOLENOID VALVE / COMANDO ELETTROPNEUMATICO



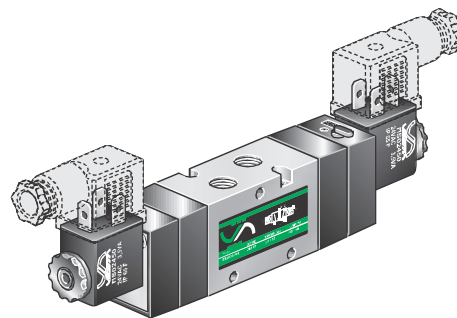
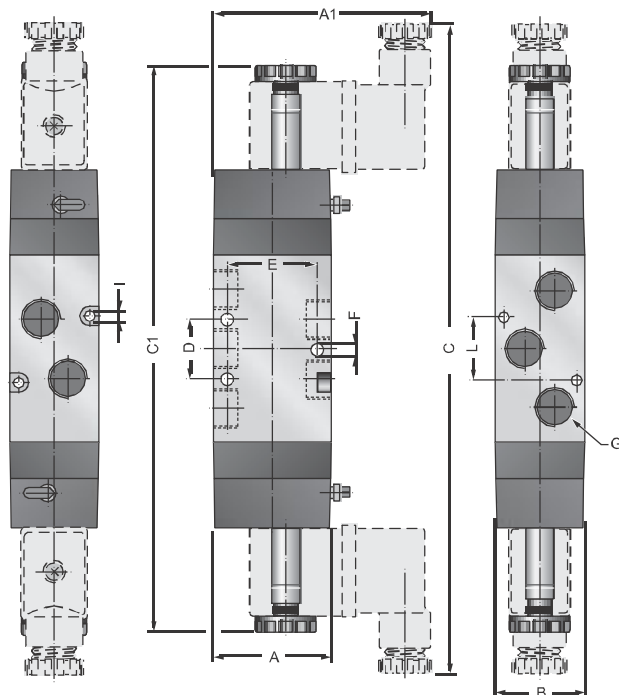
(\*) ATEX versions see / Versioni ATEX vedi P. B-113

Size Taglia	A	A1	B	C	C1	D	E	ØF	G	ØI	L
1/8	30	63	26	150	136	18	23	4,25	G1/8	3,25	28,6
(*) 1/4	40	73	30	158	143	20	30	4,25	G1/4	3,25	21
(*) 1/2	60	60	40	221	207	40	50	5,5	G1/2	—	—

**SOLENOID VALVE / 5/2**

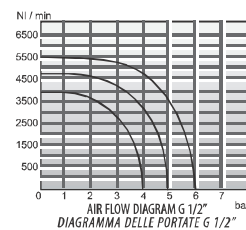
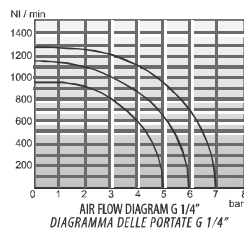
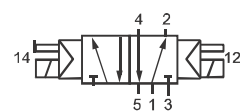
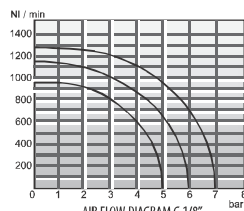
DOUBLE SOLENOID VALVE / *DOPPIO COMANDO ELETTROPNEUMATICO*

**E52W2S01. - ....**



**DIAGRAMS / DIAGRAMMI**

**SIMBOL / SIMBOLO**



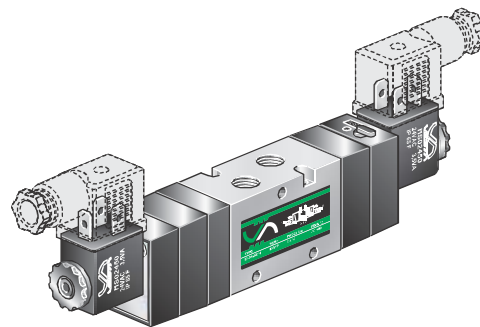
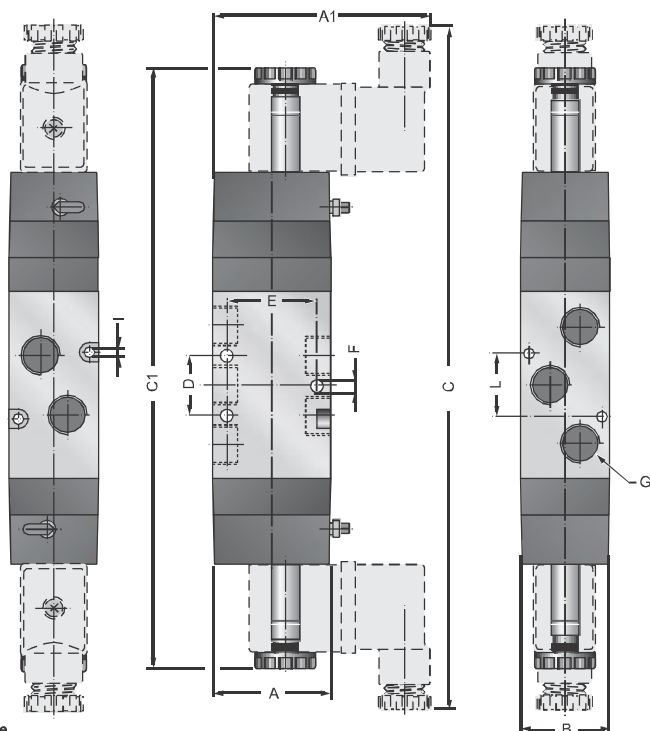
Size Taglia	A	A1	B	C	C1	D	E	ØF	G	ØI	L
1/8	30	63	26	215	186	18	23	4,25	G1/8	3,25	28,6
(*) 1/4	40	73	30	220	191	20	30	4,25	G1/4	3,25	21
(*) 1/2	60	60	40	280	252	40	50	5,5	G1/2	—	—

(\*) ATEX versions see P. B-113  
Versioni ATEX vedi P. B-113

**SOLENOID VALVE / 5/3**

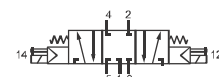
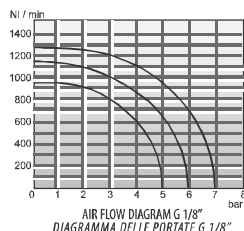
DOUBLE SOLENOID VALVE / *DOPPIO COMANDO ELETTROPNEUMATICO*

**E53W2S. 1. - ....**

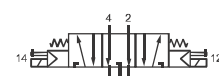


**DIAGRAMS / DIAGRAMMI**

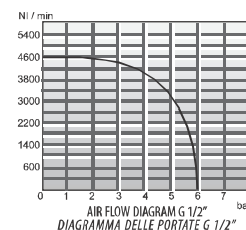
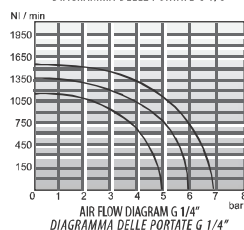
**SIMBOLS / SIMBOLI**



**E53W2S61 - .....**



**E53W2S91 - .....**



Size Taglia	A	A1	B	C	C1	D	E	ØF	G	ØI	L
1/8	30	63	26	227	198	18	23	4,25	G1/8	3,25	28,6
1/4	40	73	30	232	203	20	30	4,25	G1/4	3,25	21
1/2	60	60	40	280	252	40	50	5,5	G1/2	—	—

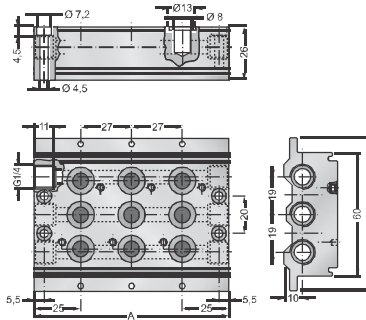
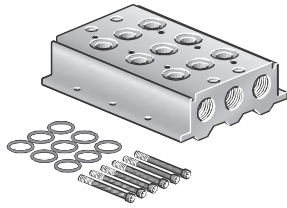
(\*) ATEX versions see P. B-113  
Versioni ATEX vedi P. B-113





## ME .18

DOUBLE INLET MANIFOLD FOR ASSEMBLING VALVES AND SOLENOID VALVES G1/8  
 BASE A DOPPIO INGRESSO PER ASSEMBLAGGIO VALVOLE ED ELETTROVALVOLE G1/8



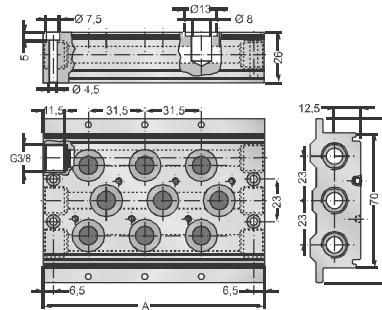
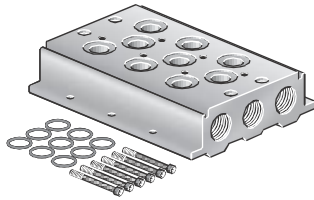
- Completely of gasket and screw for assembling valves on manifold.
- Nella confezione sono presenti le guarnizioni e le viti per fissare le valvole alla base.

### CODES / CODICI

Code Codice	A A	Place Posti
ME 218	77	2
ME 318	104	3
ME 418	131	4
ME 518	158	5
ME 618	185	6
ME 718	212	7
ME 818	239	8
ME 918	266	9
ME 1018	293	10

## ME .14

DOUBLE INLET MANIFOLD FOR ASSEMBLING VALVES AND SOLENOID VALVES G1/4  
 (\*) BASE A DOPPIO INGRESSO PER ASSEMBLAGGIO VALVOLE ED ELETTROVALVOLE G1/4



- Completely of gasket and screw for assembling valves on manifold.
- Nella confezione sono presenti le guarnizioni e le viti per fissare le valvole alla base.

### CODES / CODICI

Code Codice	A A	Place Posti
ME 214	91,5	2
ME 314	123,5	3
ME 414	154,5	4
ME 514	186,5	5
ME 614	217,5	6
ME 714	249,5	7
ME 814	280,5	8
ME 914	312,5	9
ME 1014	343,5	10

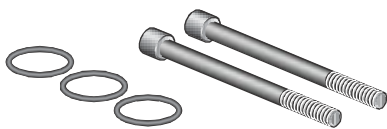
(\*) ATEX versions see / Versioni ATEX vedi P. B-113

## SEALS KIT AND ACCESSORIES FOR VALVES AND SOLENOID VALVES G 1/8 AND G 1/4 RICAMBI ED ACCESSORI PER VALVOLE ED ELETTROVALVOLE G 1/8 E G 1/4

### KM 018 (G1/8)

### KM 014 (G1/4)

ASSEMBLING KIT  
 KIT DI ASSEMBLAGGIO

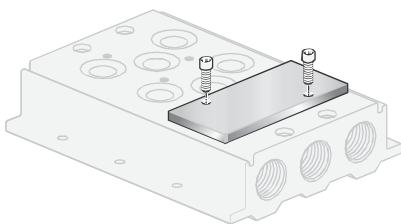


- Subbases are supplied with assembling screws and seals.
- Kit of screws and seals can be supplied also as spare parts with the code **KM 018** and **KM 014**.
- Le basi sono complete delle viti e delle guarnizioni necessarie per il fissaggio delle valvole.
- Tuttavia può essere fornito come ricambio il kit **KM 018** per il fissaggio di singole valvole da G1/8 oppure **KM 014** per il fissaggio di singole valvole da G1/4

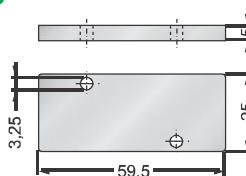
### PCH 018 (G1/8)

### PCH 014 (G1/4)

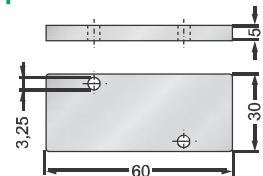
PLUG-FLAT  
 CHIUSURA POSTO INUTILIZZATO



#### PCH 018

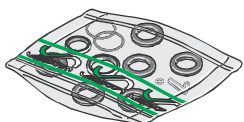


#### PCH 014



## SET . 1/4 SG

SEALS KIT  
 KIT GUARNIZIONI DI RICAMBIO



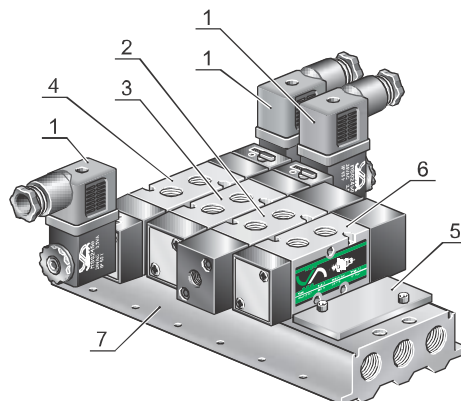
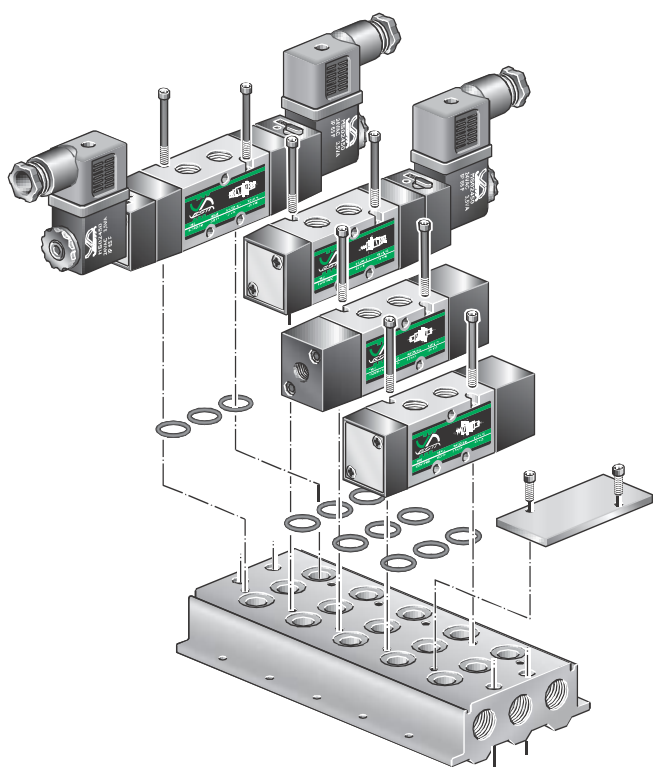
Seals kit code - Codice del kit

- SET 1 1/4 SG:** for G1/4 **mono-stable** valves - per valvole **monostabili** G1/4.
- SET 2 1/4 SG:** for G1/4 **bi-stable** valves - per valvole **bistabili** G1/4

Example / Esempio: E52W1SM14-02400 ---> **SET 1 1/4 SG**      E52W2S014-02400 ---> **SET 2 1/4 SG**



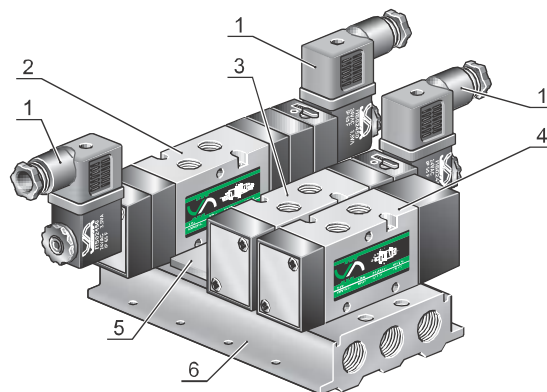
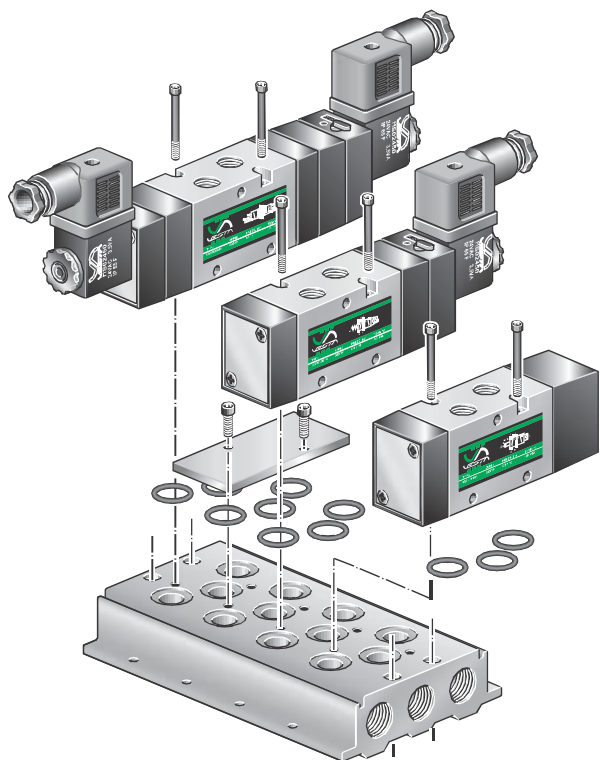
**EXAMPLE OF MODULAR ASSEMBLING VALVES AND SOLENOID VALVES G1/8  
ESEMPIO DI ASSEMBLAGGIO MODULARE DI VALVOLE ED ELETTROVALVOLE G1/8**



Components needed for assembling manifold on the picture.  
Esempio di componenti necessari a realizzare la batteria raffigurata.

Position Posizione	Quantity Quantità	Code Codice
1 .....	N° 3 .....	CEP/1
2 .....	N° 1 .....	V52V2P018
3 .....	N° 1 .....	E52W1S018 - 02450
4 .....	N° 1 .....	E52W2S018 - 02450
5 .....	N° 1 .....	PCH 018
6 .....	N° 1 .....	V52V1PM18
7 .....	N° 1 .....	ME 518

**EXAMPLE OF MODULAR ASSEMBLING VALVES AND SOLENOID VALVES G1/4  
ESEMPIO DI ASSEMBLAGGIO MODULARE DI VALVOLE ED ELETTROVALVOLE G1/4**



Components needed for assembling manifold on the picture.  
Esempio di componenti necessari a realizzare la batteria raffigurata.

Position Posizione	Quantity Quantità	Code Codice
1 .....	N° 3 .....	CEP/1
2 .....	N° 1 .....	E53W2S914 - 02450
3 .....	N° 1 .....	E52W1SM14 - 02450
4 .....	N° 1 .....	V52V1PM14
5 .....	N° 1 .....	PCH014
6 .....	N° 1 .....	ME 414



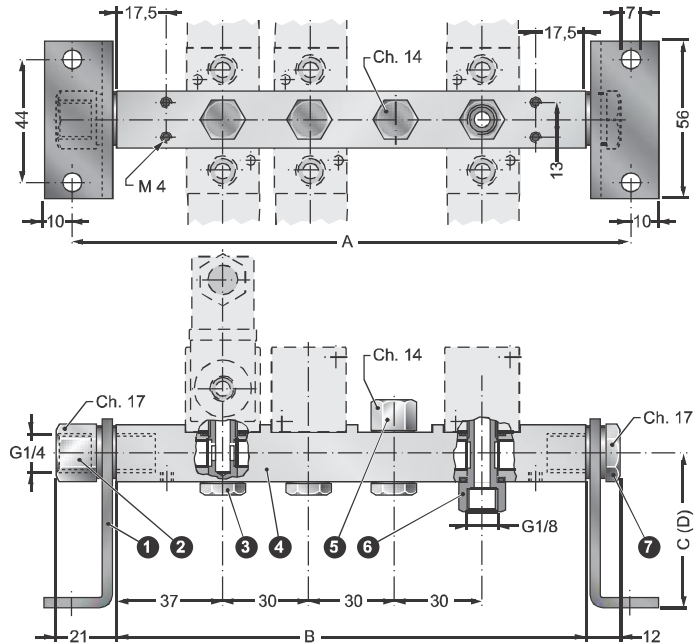
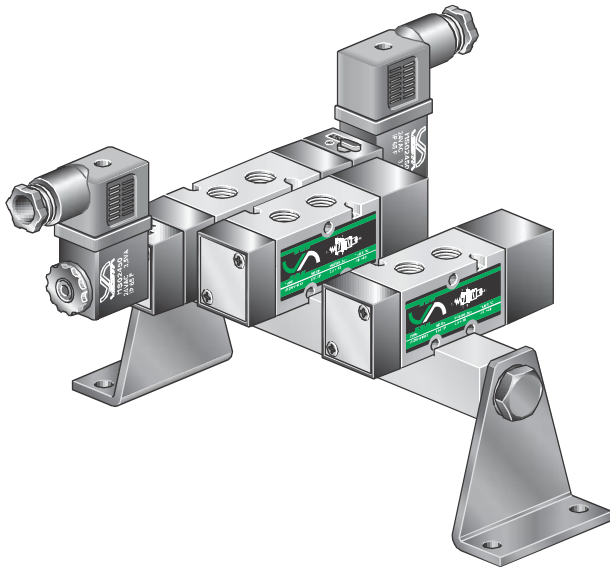
## MANIFOLD ASSEMBLING VALVES AND SOLENOID VALVES G1/8 ASSEMBLAGGIO SU COLLETTORE DELLE VALVOLE ED ELETTROVALVOLE G 1/8

**RTCOV . 18**

**SBCOV . 18**

**SACOV . 18**

MANIFOLDS WITH COMMON INLET AIR FOR G1/8 VALVES  
COLLETTORI PER VALVOLE FILETTATE G1/8



### CODES / CODICI

Code Codice	A	B	C	D	Place Posti
----------------	---	---	---	---	----------------

ASSEMBLED MANIFOLD **RT018** WITH FITTINGS  
COLLETTORE **RT018** COMPLETO DI RACCORDI

<b>RTCOV218</b> .....	-	104	-	-	2
<b>RTCOV318</b> .....	-	134	-	-	3
<b>RTCOV418</b> .....	-	164	-	-	4
<b>RTCOV518</b> .....	-	194	-	-	5

ASSEMBLED MANIFOLD **RT018** WITH FITTINGS AND LOW SUPPORTS **SB018**  
COLLETTORE **RT018** COMPLETO DI RACCORDI E SUPPORTI BASSI **SB018**

<b>SBCOV218</b> .....	134	104	72	-	2
<b>SBCOV318</b> .....	164	134	72	-	3
<b>SBCOV418</b> .....	194	164	72	-	4
<b>SBCOV518</b> .....	224	194	72	-	5

ASSEMBLED MANIFOLD **RT018** WITH FITTINGS AND HIGH SUPPORTS **SA018**  
COLLETTORE **RT018** COMPLETO DI RACCORDI E SUPPORTI ALTI **SA018**

<b>SACOV218</b> .....	134	104	-	125	2
<b>SACOV318</b> .....	164	134	-	125	3
<b>SACOV418</b> .....	194	164	-	125	4
<b>SACOV518</b> .....	224	194	-	125	5

Position Posizione	Code Codice	Description Descrizione
1	<b>SB018</b> (ref. C) ..... <b>SA018</b> (ref. D) .....	Low supports mounted "C" / Supporto basso "C" High supports mounted "D" / Supporto alto "D"
2	<b>RFS18</b>	Fixing supports fitting with inlet air Raccordo fissaggio supporto con connessione
3	<b>RT018</b>	Fixing valve fitting Raccordo fissaggio valvola
4	<b>COV218</b> ..... <b>COV318</b> ..... <b>COV418</b> ..... <b>COV518</b> .....	Manifold 2 valves / Collettore 2 valvole Manifold 3 valves / Collettore 3 valvole Manifold 4 valves / Collettore 4 valvole Manifold 5 valves / Collettore 5 valvole
5	<b>TF018</b>	Closed fitting Tappo chiusura raccordo
6	<b>RTP18</b>	Fixing valve fitting with inlet air Raccordo di fissaggio valvola passante
7	<b>RC018</b>	Fixing supports fitting Raccordo di chiusura collettore

Maximum numbers of valves depends on: air consumption, number of valves contemporary in use user's air flow.  
Fitting and supports are supplied with washers

Il numero massimo di valvole dipende dal consumo totale d'aria, da quante valvole vengono azionate contemporaneamente e dalla portata degli utilizzi collegati a valle. I raccordi di fissaggio valvole e supporti vengono forniti completi di rondelle di tenuta.

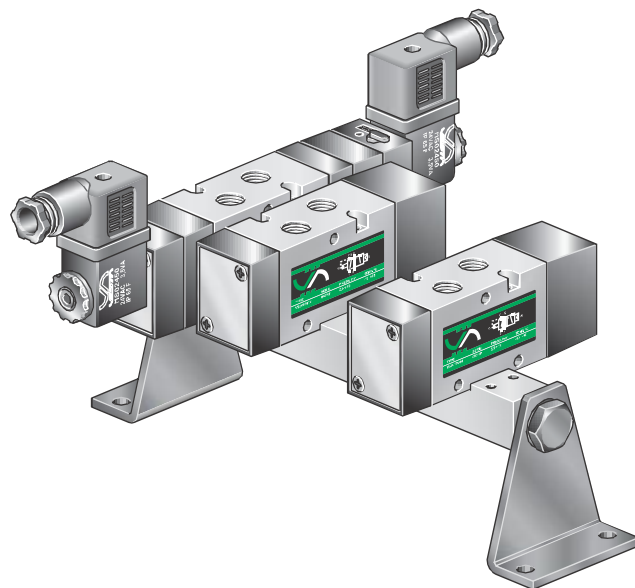
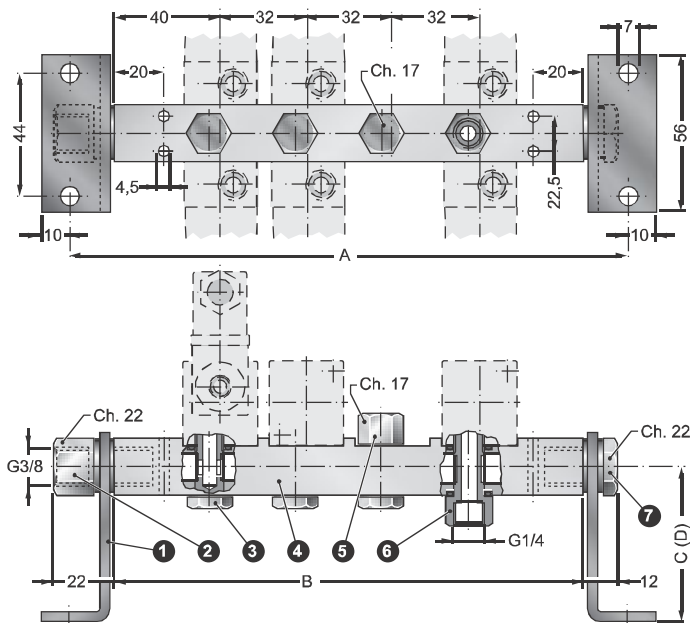
**MANIFOLD ASSEMBLING VALVES AND SOLENOID VALVES G1/4**  
**ASSEMBLAGGIO SU COLLETTORE DELLE VALVOLE ED ELETTROVALVOLE G 1/4**

**RTCOV . 14**

**SBCOV . 14**

**SACOV . 14**

MANIFOLDS WITH COMMON INLET AIR FOR G1/4 VALVES  
 COLLETTORI PER VALVOLE FILETTATE G1/4



CODES / CODICI

Position Posizione	Code Codice	Description Descrizione
1	<b>SB014</b> (ref. C) ..... <b>SA014</b> (ref. D) .....	Low supports mounted "C" / Supporto basso "C" High supports mounted "D" / Supporto alto "D"
2	<b>RFS14</b>	Fixing supports fitting with inlet air Raccordo fissaggio supporto con connessione
3	<b>RT014</b>	Fixing valve fitting Raccordo fissaggio valvola
4	<b>COV214</b> ..... <b>COV314</b> ..... <b>COV414</b> ..... <b>COV514</b> .....	Manifold 2 valves / Collettore 2 valvole Manifold 3 valves / Collettore 3 valvole Manifold 4 valves / Collettore 4 valvole Manifold 5 valves / Collettore 5 valvole
5	<b>TF014</b>	Closed fitting Tappo chiusura raccordo
6	<b>RTP14</b>	Fixing valve fitting with inlet air Raccordo di fissaggio valvola passante
7	<b>RC014</b>	Fixing supports fitting Raccordo di chiusura collettore

Code Codice	A	B	C	D	Place Posti
----------------	---	---	---	---	----------------

ASSEMBLED MANIFOLD **RT014** WITH FITTINGS  
 COLLETTORE **RT014** COMPLETO DI RACCORDI

<b>RTCOV214</b> .....	-	112	.....	-	.....	2
<b>RTCOV314</b> .....	-	144	.....	-	.....	3
<b>RTCOV414</b> .....	-	176	.....	-	.....	4
<b>RTCOV514</b> .....	-	208	.....	-	.....	5

ASSEMBLED MANIFOLD **RT014** WITH FITTINGS AND LOW SUPPORTS **SB014**  
 COLLETTORE **RT014** COMPLETO DI RACCORDI E SUPPORTI BASSI **SB014**

<b>SBCOV214</b> .....	134	104	.....	95	.....	2
<b>SBCOV314</b> .....	164	134	.....	95	.....	3
<b>SBCOV414</b> .....	194	164	.....	95	.....	4
<b>SBCOV514</b> .....	224	194	.....	95	.....	5

ASSEMBLED MANIFOLD **RT014** WITH FITTINGS AND HIGH SUPPORTS **SA014**  
 COLLETTORE **RT014** COMPLETO DI RACCORDI E SUPPORTI ALTI **SA014**

<b>SACOV214</b> .....	134	104	.....	-	.....	133	2
<b>SACOV314</b> .....	164	134	.....	-	.....	133	3
<b>SACOV414</b> .....	194	164	.....	-	.....	133	4
<b>SACOV514</b> .....	224	194	.....	-	.....	133	5

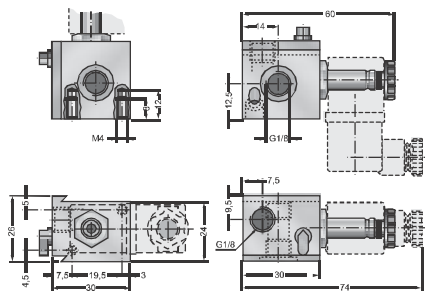
Maximum numbers of valves depends on: air consumption, number of valves contemporary in use user's air flow.  
 Fitting and supports are supplied with washers

*Il numero massimo di valvole dipende dal consumo totale d'aria, da quante valvole vengono azionate contemporaneamente e dalla portata degli utilizzi collegati a valle. I raccordi di fissaggio valvole e supporti vengono forniti completi di rondelle di tenuta.*





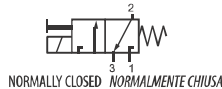
BE.M-.....NC Version



DIRECT ACTING SOLENOID VALVE 3/2 G1/8 WITH MANUAL OVERRIDE  
ELETTOVALVOLA A COMANDO DIRETTO 3/2 G1/8 CON COMANDO MANUALE

BE 1M - .....

BE 1M ..... NC (#)



NORMALLY CLOSED NORMALMENTE CHIUSA

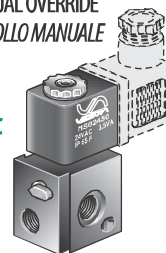
BE 1M ..... NO (#)



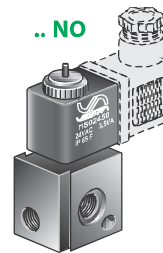
5 Watt  
NORMALLY OPEN NORMALMENTE APERTA

WITH MANUAL OVERRIDE  
CON CONTROLLO MANUALE

.. NC



.. NO

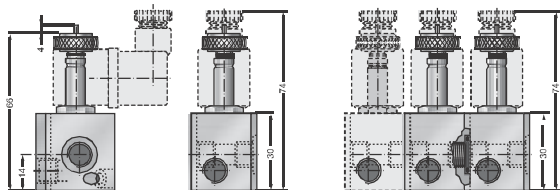


(#) MANUAL OVERRIDE  
CONTROLLO MANUALE

BE . M -..... NO

The electrically actuated valves normally open, single or multiple base-plate, code **BE\_M-.....NO**, are supplied with manual override on the figure and **coil 5 Watt**.

Le elettrovalvole a comando diretto normalmente aperte, singole o in batteria, con codice **BE\_M-.....NO** sono fornite con comando manuale come in figura e con **solenoide di 5 Watt**.



COILS AND ACCESSORIES FOR SOLENOID VALVES / SOLENOIDI ED ACESSORI PER ELETTOVALVOLE

G1/8 PLUG  
TAPPO G1/8

PL-BE

Plug for single valve function (BE 1) or for manifold.  
Tappo di chiusura per elettropilota singolo oppure per elettropiloti in batteria



ASSEMBLING KIT  
KIT DI ASSEMBLAGGIO

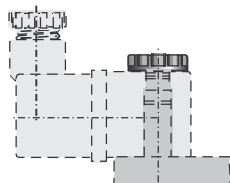
KM-BE

Kit for assembling single valve into multiple station subbase.  
kit **KM BE** composto da 1 vite + 1 O-Ring necessario per il fissaggio di ogni elettropilota **BE 1** in batteria.

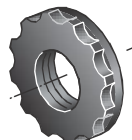


STANDARD  
STANDARD

GE

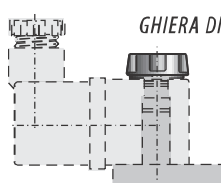


Coil locking nut with open exhaust (standard equipment).  
Ghiera di bloccaggio bobina con scarico aperto (dotazione standard).

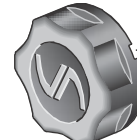


COIL LOCKING NUT MS  
GHIERA DI BLOCCAGGIO BOBINA MS

GE1



On request, solenoid valves available with coil locking nut with radial exhaust valve.  
A richiesta le elettrovalvole sono fornite con ghiera di bloccaggio bobina con scarico radiale.



DIRECT ACTUATED VALVES 3/2 NC TUBE Ø4mm ELETTOVALVOLE A COMANDO DIRETTO 3/2 NC TUBO Ø4mm

MBE - [ ] 4 - [ ] [ ] [ ] [ ] [ ]

Number of station valves  
Numero posti

2, 4, 6, ....., 16

Coil / Solenoide: (see CS / vedere CS P. B-52)

- 00000 .. No coil / Senza solenoide
- 01200 .. 12 V DC
- 02400 .. 24 V DC
- 02450 .. 24 V 50/60Hz AC
- 11050 .. 110 V 50/60Hz AC
- 22050 .. 220 V 50/60Hz AC

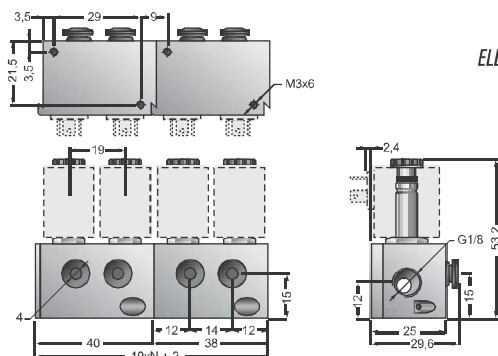
TECHNICAL FEATURES

Flow section .....	Ø1 mm
Nominal Flow .....	50NI/min
Working pressure .....	0-9bar
Environment temperature range .....	-10 °C ÷ +50 °C
Temperature range of medium .....	0 °C ÷ +40 °C
Solenoids .....	Refer to CS series page B-52

CARATTERISTICHE TECNICHE

Diametro nominale .....	Ø1 mm
Portata nominale .....	50NI/min
Pressione esercizio .....	0-9bar
Temperatura ambiente .....	-10 °C ÷ +50 °C
Temperatura fluido .....	0 °C ÷ +40 °C
Solenoide .....	Vedere CS pag. B-52

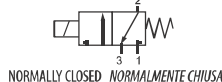
N° = Numbers of base-plate / Numero di posti della base



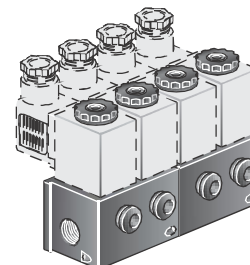
DIRECT ACTING SOLENOID VALVES 3/2 TUBE Ø4mm - MANIFOLD  
ELETTOVALVOLE A COMANDO DIRETTO 3/2 TUBO Ø4mm IN BATTERIA

MBE- . 4-.....

MBE-4-.....



NORMALLY CLOSED NORMALMENTE CHIUSA







## DIRECT ACTUATED VALVES 3/2 NC G1/8 - ELETTROVALVOLE A COMANDO DIRETTO 3/2 NC G1/8

**MBE - 8 - - - - -**

Number of station valves  
Numero posti  
**2, 4, 6, .....**, 16

**M** with manual control  
con controllo manuale  
(Standard without manual control  
Standard senza controllo manuale)

Coil / Solenoide: (see / vedere P.)  
**00000** .. No coil / Senza solenoide  
**01200** .. 12 V DC  
**02400** .. 24 V DC  
**02450** .. 24 V 50/60Hz AC  
**11050** .. 110 V 50/60Hz AC  
**22050** .. 220 V 50/60Hz AC

For versions only 5 Watt coil.  
Per versioni solo solenoidi 5 Watt.

**NC** Normally closed  
Normalmente chiusa  
**NO** Normally open  
Normalmente aperta

### TECHNICAL FEATURES

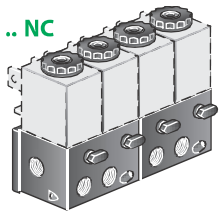
Flow section .....	Ø1,2mm
Nominal Flow .....	80NI/min
Working pressure .....	0-9bar
Environment temperature range .....	-10 °C ÷ +50 °C
Temperature range of medium .....	0 °C ÷ +40 °C
Solenoids .....	Refer to MS series page B-36

### CARATTERISTICHE TECNICHE

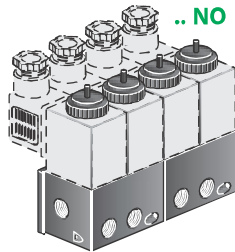
Diametro nominale .....	Ø1,2mm
Portata nominale .....	80NI/min
Pressione esercizio .....	0-9bar
Temperatura ambiente .....	-10 °C ÷ +50 °C
Temperatura fluido .....	0 °C ÷ +40 °C
Solenoide .....	Vedere MS pag. B-36

## MBE- . 8- . - . - . . . . .

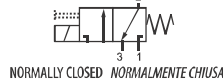
DIRECT ACTING SOLENOID VALVES 3/2 G1/8 - MANIFOLD  
ELETTROVALVOLE A COMANDO DIRETTO 3/2 G1/8 IN BATTERIA



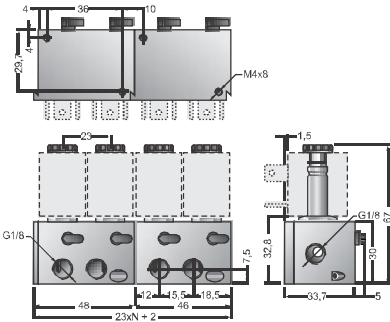
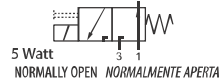
WITH MANUAL OVERRIDE  
CON CONTROLLO MANUALE



**MBE-8-.....-NC**



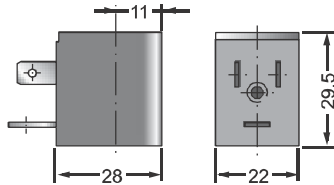
**MBE-8-.....-NO (#)**



N° = Numbers of base-plate  
Numero di posti della base

## MS . . . . .

COIL  
SOLENOIDE



### CODES / CODICI

Ordination code Codice ordinazione	Voltage Tensione
<b>MS01200</b> .....	12 V DC
<b>MS02400</b> .....	24 V DC
<b>MS02450</b> .....	24 V 50/60Hz AC
<b>MS11050</b> (*) .....	110 V 50/60Hz AC
<b>MS22050</b> (*) .....	220 V 50/60Hz AC

(\*) Please see page / Vedi pag. B-37

### TECHNICAL FEATURES

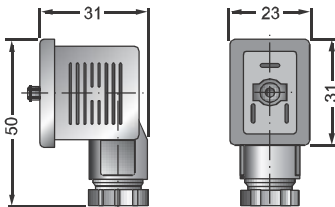
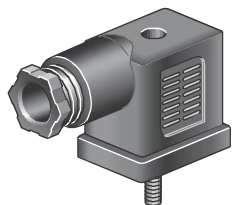
Standard voltage .....	12, 24 V DC 24, 110, 220 V AC (50/60 Hz)
Solenoid characteristics .....	2,5 Watt in DC; 3,5 VA in AC
Tension .....	± 10%
Ambient temperature range .....	-20 °C ÷ +50 °C
Degree of .....	Class F
Exopy .....	Incapsulated

### CARATTERISTICHE TECNICHE

Tensione standard .....	12, 24 V DC 24, 110, 220 V AC (50/60 Hz)
Prestazioni bobina .....	2,5 Watt in DC; 3,5 VA in AC
Tensione nominale .....	± 10% a bobina calda
Limiti di temperatura ambiente .....	-20 °C ÷ +50 °C
Protezione .....	IP 65 secondo IEC 144 con connettore e guarnizioni montate
Bobina .....	Classe F, Filo rame classe 200 °C
Sovrastampatura .....	Resina epossidica

## CEP-1 . . . . .

SOLENOID CONNECTOR  
CONNETTORE



### CODES / CODICI

Description Descrizione	Code Codice	Tension Tensione
Universal connector Connettore universale	<b>CEP-1</b>	All tension Tutte le tensioni
Connector with led Connettore con led	<b>CEP-1 L 10 / 50</b> <b>CEP-1 L 70 / 250</b>	10/50 V AC / DC 70/250 V AC / DC
Connector with led and varistor Connettore con led e varistore	<b>CEP-1 LV 24</b> <b>CEP-1 LV 110</b> <b>CEP-1 LV 220</b>	24 V AC / DC 110 V AC / DC 220 V AC / DC

### TECHNICAL FEATURES

Wire connection .....	With screwed terminals
Gland thread .....	PG 9
Number of poles .....	2 Poles + earth
Housing colour .....	Black, transparent in the led version.

### CARATTERISTICHE TECNICHE

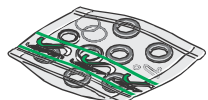
Connessione cavi .....	Con morsetti a vite
Filettatura passacavo .....	PG 9
N° Poli .....	2 Poli + terra
Colori connettore .....	Nero, trasparente nelle versioni con led.

## SET . 1/2 SG

SEALS KIT  
KIT GUARNIZIONI DI RICAMBIO

Seals kit code - Codice del kit

**SET 1 1/2 SG:** for G1/2 mono-stable valves - per valvole monostabili G1/2.  
**SET 2 1/2 SG:** for G1/2 bi-stable valves - per valvole bistabili G1/2.



Example / Esempio: **E52W1SM12-02400** --> **SET 1 1/2 SG**      **E52W2S012-02400** --> **SET 2 1/2 SG**



**INSTRUCTIONS FOR USE OF THE FOLLOWING VESTA PRODUCTS**

**IL PRESENTE MANUALE DI USO E MANUTENZIONE È VALIDO PER I SEGUENTI PRODOTTI VESTA:**

COILS SINGLES OR ASSEMBLED ON VALVES / SOLENOIDI SINGOLI O ASSEMBLATI SU ELETTROVALVOLE:

MS11050, MS22050, CS11050, CS22050, SCN11050, SCN22050

**Please pay attention to the following Vesta products:**

Coil and connector offer protection from dust and water to IP65 only when correctly installed with the fixing screw and rubber gasket which are supplied as standard (grommet, coil seal, "O" ring).

**Prescrizioni di montaggio per preservare il grado di protezione IP65**

Per preservare il grado di protezione IP65 del collegamento elettrico è necessario eseguire il montaggio nel seguente modo:

- Prima di effettuare il collegamento elettrico dei cavi al connettore infilare nel cavo stesso il pressacavo avvitando il serracavo sul connettore.
- Montare la guarnizione bobina fra bobina e connettore, quindi fissare il connettore alla bobina con l'apposita vite, avvitandola adeguatamente.
- Montare quindi la bobina sulla valvola posizionando l'anello di tenuta (OR) nell'apposita sede della bobina.

**Ground connection**

Ground connection must be secure and adequate.

**Messa a terra**

La bobina prevede il morsetto a terra che deve essere collegato opportunamente all'impianto di messa a terra dell'installazione che deve essere realizzata a regola d'arte.

**Electrical connection**

When choosing the cable for electrical connections, take into account the location and environment of the installation (ex. Following the CEI 60204-1 standard).

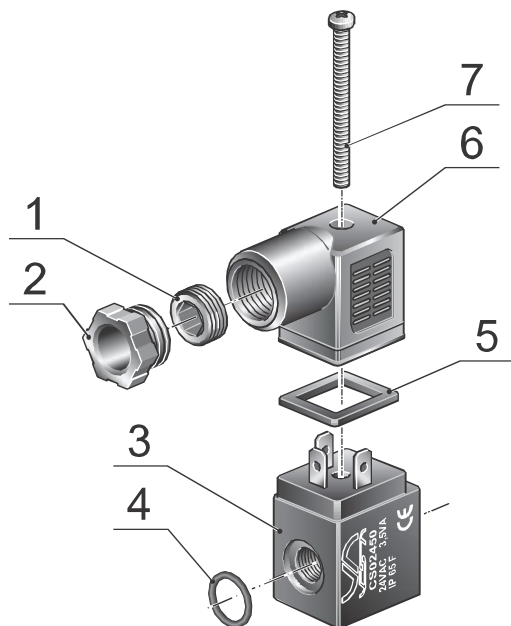
**Collegamento elettrico**

I conduttori utilizzati per il collegamento devono essere scelti e montati a regola d'arte tenuto conto dell'ambiente e delle condizioni di utilizzo nonché delle caratteristiche elettriche di impiego (tensione e corrente di esercizio). Si consiglia di seguire, ove applicabile, la pertinente normativa applicabile (ad es. CEI EN 60204-1).

**Should the above instructions not be followed to the letter Vesta Automation will not be hold responsible.**

**L'installatore e l'utilizzatore sono tenuti ad attenersi scrupolosamente alle indicazioni impartite.**

**Qualsiasi omissione solleverà Vesta Automation s.r.l. da ogni responsabilità e danno conseguenti.**



Coils and accessories for solenoid valves.  
Solenoidi ed accessori per elettrovalvole.

Position Posizione	Description Descrizione
1	Grommet / Pressacavo
2	Gland nut / Serracavo
3	Solenoid coil / Bobina
4	O-Ring / OR
5	Coil seal / Guarnizione bobina
6	Connector / Connettore
7	Fixing screw / Vite



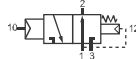
# INDEX / INDICE

## G1/8 MINI VALVES AND MINI SOLENOID VALVES SERIES "K" / MINI VALVOLE E MINI ELETTROVALVOLE SERIE "K"



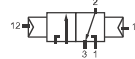
**K32P1618**

SINGLE PNEUMATIC PILOT - INTERNAL PRESSURE RETURN  
COMANDO PNEUMATICO - RIT. MOLLA MECCANICA E PNEUMATICA



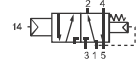
**K32P1918**

SINGLE PNEUMATIC PILOT - INTERNAL PRESSURE RETURN  
COMANDO PNEUMATICO - RIT. MOLLA MECCANICA E PNEUMATICA



**K32P2018**

DOUBLE PNEUMATIC PILOT  
DOPPIO COMANDO PNEUMATICO



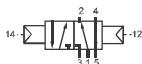
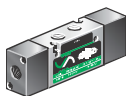
**K52P1018**

SINGLE PNEUMATIC PILOT - INTERNAL PRESSURE RETURN  
COMANDO PNEUMATICO - RIT. MOLLA MECCANICA E PNEUMATICA

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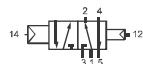
pag. B-44

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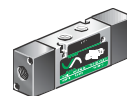
**K52P2018**

DOUBLE PNEUMATIC PILOT  
DOPPIO COMANDO PNEUMATICO



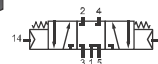
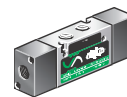
**K52DP218**

DOUBLE DIFFERENTIAL PNEUMATIC PILOT  
DOPPIO COMANDO PNEUMATICO DIFFERENZIALE



**K53P2318**

DOUBLE PNEUMATIC PILOT (MID-POSITION PRESSURIZED)  
DOPPIO COMANDO PNEUMATICO (CENTRI IN PRESSIONE)



**K53P2618**

DOUBLE PNEUMATIC PILOT (MID-POSITION CLOSED)  
DOPPIO COMANDO PNEUMATICO (CENTRI CHIUSI)

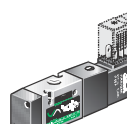
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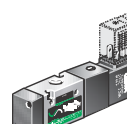
**K53P2918**

DOUBLE PNEUMATIC PILOT (MID-POSITION EXHAUSTED)  
DOPPIO COMANDO PNEUMATICO (CENTRI APERTI)



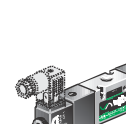
**K32W1S618**

SINGLE SOLENOID PILOT - INTERNAL PRESSURE RETURN  
COMANDO ELETTROPNEUMATICO - RIPOSIZIONAMENTO A MOLLA



**K32W1S918**

SINGLE SOLENOID PILOT - INTERNAL PRESSURE RETURN  
COMANDO ELETTROPNEUMATICO - RIPOSIZIONAMENTO A MOLLA



**K32W2S018**

DOUBLE SOLENOID PILOT  
DOPPIO COMANDO ELETTROPNEUMATICO

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**K52W1018**

SINGLE SOLENOID PILOT - INTERNAL PRESSURE RETURN  
COMANDO ELETTROPNEUMATICO - RIPOSIZIONAMENTO A MOLLA

**K52W2018**

DOUBLE SOLENOID PILOT  
DOPPIO COMANDO ELETTROPNEUMATICO

**K52W10E8**

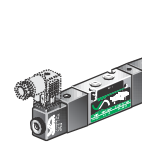
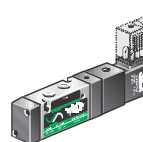
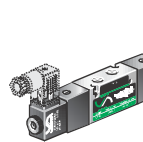
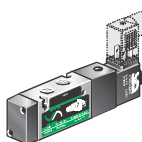
SINGLE SOLENOID PILOT - EXTERNAL PRESSURE RETURN  
COMANDO ELETTROPNEUMATICO - PILOTAGGIO ESTERNO

**K52W20E8**

DOUBLE SOLENOID PILOT - EXTERNAL PRESSURE RETURN  
DOPPIO COMANDO ELETTROPNEUM. - PILOTAGGIO ESTERNO

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**K53W2S318**

DOUBLE SOLENOID PILOT (MID-POSITION PRESSURIZED)  
DOPPIO COMANDO ELETTROPNEUM. (CENTRI IN PRESSIONE)

**K53W2S618**

DOUBLE SOLENOID PILOT (MID-POSITION CLOSED)  
DOPPIO COMANDO ELETTROPNEUMATICO (CENTRI CHIUSI)

**K53W2S918**

DOUBLE SOLENOID PILOT (MID-POSITION EXHAUSTED)  
DOPPIO COMANDO ELETTROPNEUMATICO (CENTRI APERTI)

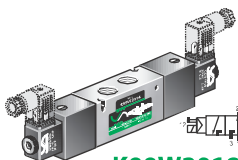
**K66W2018**

DOUBLE 3/2 N.C. SPRING RETURN VALVE  
DOPPIA VALVOLA 3/2 N.C. RITORNO A MOLLA MECCANICA

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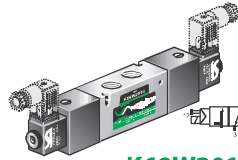
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**K99W2018**

DOUBLE 3/2 N.O. SPRING RETURN VALVE  
DOPPIA VALVOLA 3/2 N.O. RITORNO A MOLLA MECCANICA



**K69W2018**

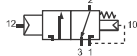
3/2 N.C. + 3/2 N.O. VALVES SPRING RETURN  
VALVOLA 3/2 N.C. + VALVOLA 3/2 N.O. RITORNO A MOLLA MECCANICA



**KME . 18**

ENBLOC TILL 10 SIZES MAX  
BASE DOPPIO INGRESSO FINO A 10 POSTI

**MINI VALVES AND MINI SOLENOID VALVES SERIES "K" / MINI VALVOLE E MINI ELETTROVALVOLE SERIE "K" G1/4-G1/2**



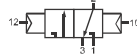
**K32P161.**

SINGLE PNEUMATIC PILOT - INTERNAL PRESSURE RETURN  
COMANDO PNEUMATICO - RIT. MOLLA MECCANICA E PNEUMATICA



**K32P191.**

SINGLE PNEUMATIC PILOT - INTERNAL PRESSURE RETURN  
COMANDO PNEUMATICO - RIT. MOLLA MECCANICA E PNEUMATICA



**K32P201.**

DOUBLE PNEUMATIC PILOT  
DOPPIO COMANDO PNEUMATICO

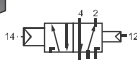


**K52P101.**

SINGLE PNEUMATIC PILOT - INTERNAL PRESSURE RETURN  
COMANDO PNEUMATICO - RIT. MOLLA MECCANICA E PNEUMATICA

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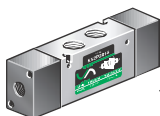
pag. B-44



**K52DP214**

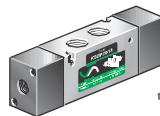
DOUBLE DIFFERENTIAL PNEUMATIC PILOT  
DOPPIO COMANDO PNEUMATICO DIFFERENZIALE

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**K52P201.**

DOUBLE PNEUMATIC PILOT  
DOPPIO COMANDO PNEUMATICO



**K53P231.**

DOUBLE PNEUMATIC PILOT (MID-POSITION PRESSURIZED)  
DOPPIO COMANDO PNEUMATICO (CENTRI IN PRESSIONE)

pag. B-45



**K53P261.**

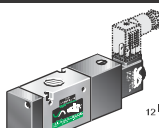
DOUBLE PNEUMATIC PILOT (MID-POSITION CLOSED)  
DOPPIO COMANDO PNEUMATICO (CENTRI CHIUSI)



**K53P291.**

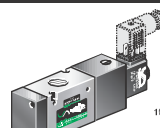
DOUBLE PNEUMATIC PILOT (MID-POSITION EXHAUSTED)  
DOPPIO COMANDO PNEUMATICO (CENTRI APERTI)

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**K32W1S61.**

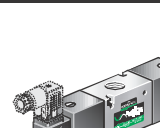
SINGLE SOLENOID PILOT - INTERNAL PRESSURE RETURN  
COMANDO ELETTROPNEUMATICO - RIPOSIZIONAMENTO A MOLLA



**K32W1S91.**

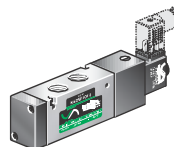
SINGLE SOLENOID PILOT - INTERNAL PRESSURE RETURN  
COMANDO ELETTROPNEUMATICO - RIPOSIZIONAMENTO A MOLLA

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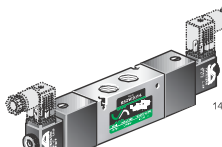
**K32W2S01.**

DOUBLE SOLENOID PILOT  
DOPPIO COMANDO ELETTROPNEUMATICO



**K52W101.**

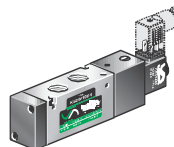
SINGLE SOLENOID PILOT - INTERNAL PRESSURE RETURN  
COMANDO ELETTROPNEUMATICO - RIPOSIZIONAMENTO A MOLLA



**K52W201.**

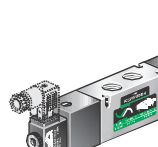
DOUBLE SOLENOID PILOT  
DOPPIO COMANDO ELETTROPNEUMATICO

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**K52W10E.**

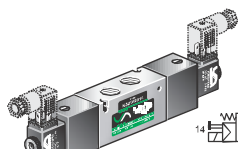
SINGLE SOLENOID PILOT - EXTERNAL PRESSURE RETURN  
COMANDO ELETTROPNEUMATICO - PILOTAGGIO ESTERNO



**K52W20E.**

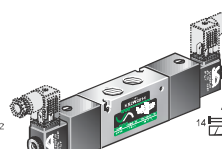
DOUBLE SOLENOID PILOT - EXTERNAL PRESSURE RETURN  
DOPPIO COMANDO ELETTROPNEUM. - PILOTAGGIO ESTERNO

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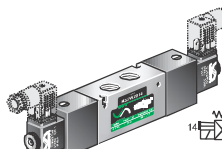
**K53W2S31.**

DOUBLE SOLENOID PILOT (MID-POSITION PRESSURIZED)  
DOPPIO COMANDO ELETTROPNEUM. (CENTRI IN PRESSIONE)



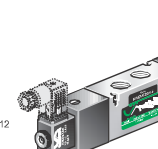
**K53W2S61.**

DOUBLE SOLENOID PILOT (MID-POSITION CLOSED)  
DOPPIO COMANDO ELETTROPNEUMATICO (CENTRI CHIUSI)



**K53W2S91.**

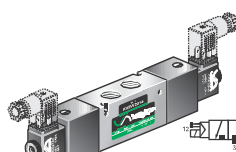
DOUBLE SOLENOID PILOT (MID-POSITION EXHAUSTED)  
DOPPIO COMANDO ELETTROPNEUMATICO (CENTRI APERTI)



**K66W2014**

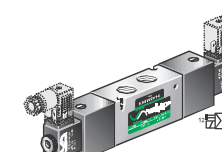
DOUBLE 3/2 N.C. SPRING RETURN VALVE  
DOPPIA VALVOLA 3/2 N.C. RITORNO A MOLLA MECCANICA

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**K99W2014**

DOUBLE 3/2 N.O. SPRING RETURN VALVE  
DOPPIA VALVOLA 3/2 N.O. RITORNO A MOLLA MECCANICA



**K69W2014**

3/2 N.C. + 3/2 N.O. VALVES SPRING RETURN  
VALVOLA 3/2 N.C. + VALVOLA 3/2 N.O. RITORNO A MOLLA MECCANICA

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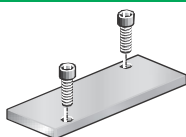


**KME . 14**

ENBLOC TILL 10 SIZES MAX  
BASE DOPPIO INGRESSO FINO A 10 POSTI

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**ACCESSORIES / ACCESSORI**



**KPCH0..**

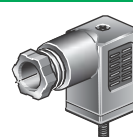
PLUG FLAT  
CHIUSURA POSTO INUTILIZZATO

pag. B-52



**CS.....**

COILS  
SOLENOIDI PER ELETTROVALVOLE



**CEP/0... ..**

SOLENOID CONNECTORS  
CONNETTORI

pag. B-52



## BUILDING FEATURES / CARATTERISTICHE COSTRUTTIVE

Series **K** mini-valves and solenoid valves are built in compact dimensions and are capable to be assembled on manifolds. In order to assure their performance, particular care and attention have been offered in developing each component for this product.

Possibility to operate continuously without lubrication (**A**).

The spool is manufactured in a light alloy (**B**).

This offers lasting durability and a high working frequency (**E**) : due to the manufacturing of the internal moving parts, inertia and friction are greatly reduced, and a better resistance to the external aggressive agents is assured by the nickel treatment (**C**).

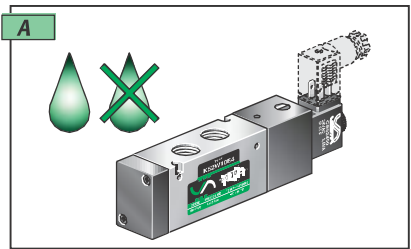
The nominal air flow of the valve is around 730, 1300, 4000 NI/min (**D**), despite of its small dimensions.

The solenoid valves, complete with coil and connector, follows EEC directives on the electromagnetic compatibility (89/336/EEC) and low voltage (73/23/EEC).

*Le mini valvole ed elettrovalvole Vesta serie **K** funzionano secondo il principio del cassetto bilanciato (vedi fig. 1 e 2), presentano ingombri molto ridotti e la possibilità di assemblaggio in batterie compatte.*

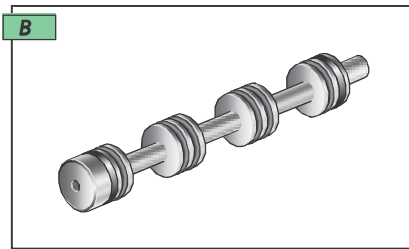
*Particolare cura è stata prestata nella progettazione e realizzazione di ogni singolo componente del prodotto, al fine di consentire elevate prestazioni funzionali. Caratteristiche comuni a tutte le valvole della serie sono l'alta velocità di scambio (**E**), la possibilità di funzionamento continuo privo di lubrificazione (**A**) ottenuto con l'impiego di materiali particolari come, ad esempio, la spola, realizzata in lega leggera (**B**), ed il corpo, in alluminio trattato al nichel (**C**). Tutto ciò garantisce una elevata frequenza di lavoro e una lunga vita del sistema, grazie ad una riduzione dell'inerzia delle parti mobili, ad una riduzione degli attriti interni e ad un maggior grado di resistenza agli agenti aggressivi esterni. Particolarmente interessante, nonostante le ridotte dimensioni, la portata nominale: 730, 1300, 4000 NI/min. (**D**).*

*Le elettrovalvole complete di bobina e connettore, sono conformi alle direttive CEE relative alla compatibilità elettromagnetica (89/336/CEE) ed alla bassa tensione (73/23/CEE).*



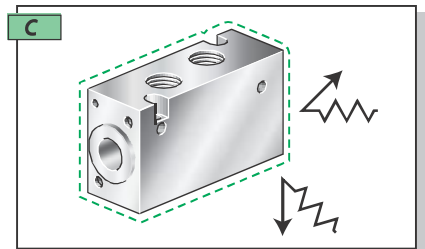
Possibility to operate continuously without lubrication.

*Possibilità di funzionamento continuo privo di lubrificazione.*



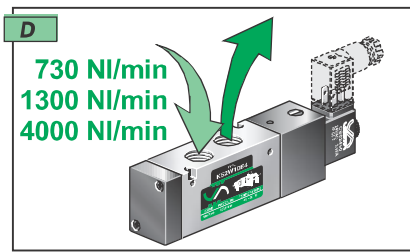
Light alloy spool.

*Spola in lega leggera.*



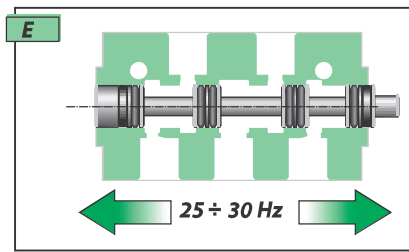
Nickel treated body.

*Corpo in alluminio trattato al nichel.*



Nominal air flow: (730, 1300, 4000 NI/min.

*Alta portata nominale: (730, 1300, 4000 NI/min a 6 bar).*



High working frequency.

*Alta velocità di scambio.*



## WORKING PRINCIPLE / PRINCIPIO DI FUNZIONAMENTO

In the example here below ( **K52W1018-02450** - 5/2 valve, single solenoid, spring return ), when the valve stands in the normal position, ports **4 - 5** and **1 - 2** are connected and the position is kept thanks to the pressure assured to the smallest piston and to the spring force (right side of the valve). When the valve is actuated, the same pressure is fed to the biggest piston. Its bigger surface create a force which allows to the spool to move and therefore to connect ports **4 - 1** and **2 - 3**. Spring return assures (grant) the normal position of the spool even if no pressure is brought to the valve.

In the bistable versions, the position of the valve remains in its last switched state.

*Il principio di funzionamento del distributore 5/2 (nell'esempio l'elettrovalvola **K52W1018-02450** con comando elettropneumatico e riposizionamento a molla) consiste nel mantenere la spola in posizione di riposo per azione sia di una molla meccanica che per effetto della pressione creata dalla fonte d'aria compressa presente nel condotto di alimentazione **1** sulla spola stessa ( fig. 1 ) collegando le vie **1- 2** e **4 - 5**.*

*L'eccitazione del solenoide mette in comunicazione il condotto **1** con la camera dove è alloggiato il pistone di comando. Quest'ultimo contrasta l'insieme delle forze create dalla molla e dalla pressione sul lato opposto della spola, spostandola in modo tale da collegare i canali **1- 4** e **2- 3** ( fig. 2).*

*Diseccitando il solenoide si ripristina la posizione iniziale. La combinazione del sistema a molla meccanica con il riposizionamento pneumatico consente di avere sempre la spola in posizione di riposo anche dopo la caduta di pressione del sistema.*

*Nei sistemi bistabili (doppio comando elettropneumatico o doppio comando pneumatico) in assenza di segnale rimangono i collegamenti formatisi nell'ultimo azionamento.*

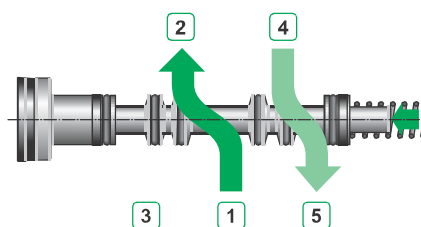
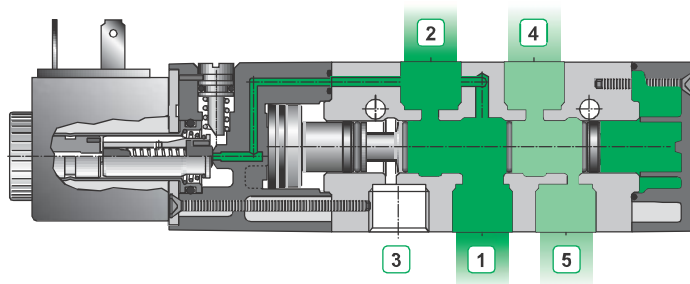


fig. 1

NORMAL POSITION / POSIZIONE A RIPOSO

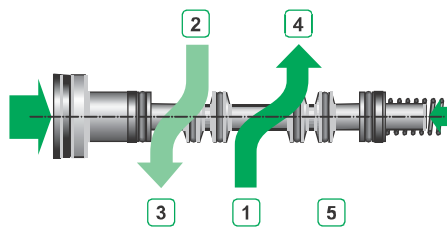
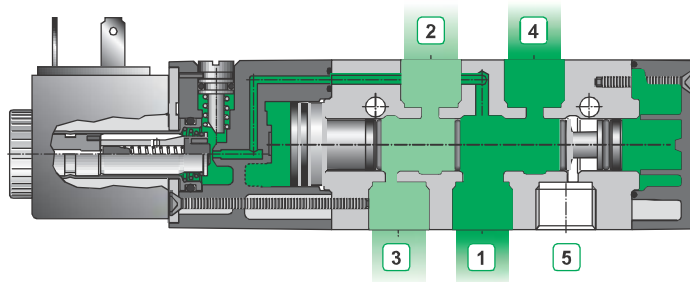
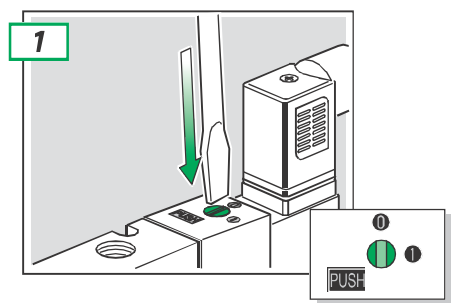


fig. 2

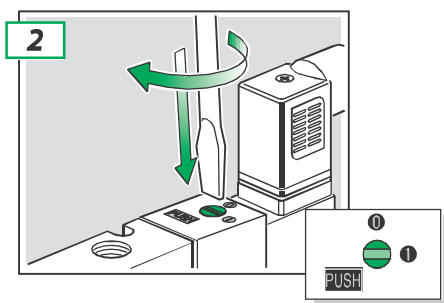
ACTUATED POSITION / POSIZIONE DI LAVORO

## MANUAL OVERRIDING / AZIONAMENTO COMANDO MANUALE



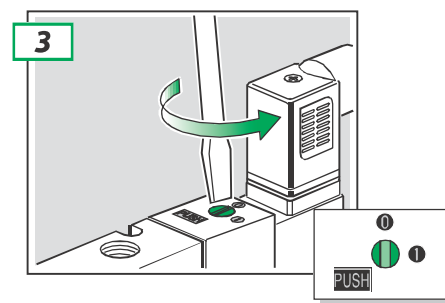
Push to actuated valve without locking. **Relise the button to get back to normal position.**

*Per azionare la valvola, durante la fase di collaudo con pressione in linea senza collegamento elettrico, usare un adeguato cacciavite per premere la vite del comando manuale. Rilasciare per ripristinare la condizione di riposo.*



To active the valve permanently, push the M/O using a screwdriver and rotate clockwise 90°.

*Per azionare la valvola in modo permanente premere la vite del comando manuale e ruotare in senso orario sino alla posizione 1.*



To get back to normal position push the M/O again and turn 90° anti-clockwise.

*Ruotare in senso antiorario la vite del comando manuale per ripristinare la condizione di riposo.*



## SERIE K

## TECHNICAL FEATURES / CARATTERISTICHE TECNICHE

### COMMON TECHNICAL FEATURES K SERIE / CARATTERISTICHE TECNICHE COMUNI SERIE K

<b>Port connections</b> .....	<b>G1/8, G1/4</b>	<b>Connessioni di lavoro</b> .....	<b>G1/8, G1/4</b>
Flow section .....	<b>G1/8" = Ø 6 mm</b>	Diametro nominale .....	<b>G1/8" = Ø 6 mm</b>
	<b>G1/4" = Ø 8 mm</b>		<b>G1/4" = Ø 8 mm</b>
	<b>G1/2" = Ø 14 mm</b>		<b>G1/2" = Ø 14 mm</b>
Environment temperature range .....	-10 °C ÷ +50 °C	Temperatura ambiente .....	-10 °C ÷ +50 °C
Temperature range of medium .....	0 °C ÷ +40 °C	Temperatura fluido .....	0 °C ÷ +40 °C
Lubrication .....	Not required	Lubrificazione .....	Non necessaria
Medium .....	Filtered air	Aria filtrata .....	Aria filtrata
Reference pressure .....	6 bar	Pressione nominale .....	6 bar
Nominal air flow 3/2 and 5/2 valves (valves 5/3) .....	<b>G1/8": 730 (552) NI/min</b>	Portata nominale valvole 3/2 e 5/2 (valvole 5/3) .....	<b>G1/8": 730 (552) NI/min</b>
	<b>G1/4": 1300 (1040) NI/min</b>		<b>G1/4": 1300 (1040) NI/min</b>
	<b>G1/2": 4000 (3500) NI/min</b>		<b>G1/2": 4000 (3500) NI/min</b>

### PNEUMATIC VALVES FEATURES / CARATTERISTICHE VALVOLE PNEUMATICHE

	K32P1618	K32P1918	K32P2018	K52P1018	K52DP218	K52P2018	K53P2318	K53P2618	K53P2918	
<b>G 1/8"</b>	Nominal pilot pressure (bar) Pressione di pilotaggio nominale (bar)	3,1 bar (9 bar)	3,1 bar (9 bar)	0,97 bar	3,1 bar (9 bar)	(12) 1,35 bar (14) 0,97 bar	0,97 bar	3 bar	3 bar	3 bar
	Nominal max frequency (Hz) Frequenza max nominale (Hz)	30 Hz	30 Hz	33 Hz	30 Hz	30 Hz	33 Hz	10 Hz	10 Hz	10 Hz
	Operating pressure range (bar) Pressione di esercizio (bar)	2,5 ÷ 9 bar	2,5 ÷ 9 bar	0 ÷ 9 bar	2,5 ÷ 9 bar	0 ÷ 9 bar	0 ÷ 9 bar	0 ÷ 9 bar	0 ÷ 9 bar	0 ÷ 9 bar
<b>G 1/4"</b>	Nominal pilot pressure (bar) Pressione di pilotaggio nominale (bar)	3,1 bar (9 bar)	3,1 bar (9 bar)	0,97 bar	3,1 bar (9 bar)	(12) 1,35 bar (14) 0,97 bar	0,97 bar	3 bar	3 bar	3 bar
	Nominal max frequency (Hz) Frequenza max nominale (Hz)	30 Hz	30 Hz	33 Hz	30 Hz	30 Hz	33 Hz	10 Hz	10 Hz	10 Hz
	Operating pressure range (bar) Pressione di esercizio (bar)	2,5 ÷ 9 bar	2,5 ÷ 9 bar	0 ÷ 9 bar	2,5 ÷ 9 bar	0 ÷ 9 bar	0 ÷ 9 bar	0 ÷ 9 bar	0 ÷ 9 bar	0 ÷ 9 bar
<b>G 1/2"</b>	Nominal pilot pressure (bar) Pressione di pilotaggio nominale (bar)	3,1 bar (9 bar)	3,1 bar (9 bar)	0,97 bar <sup>r</sup>	3,1 bar (9 bar)	-	0,97 bar	3 bar	3 bar	3 bar
	Nominal max frequency (Hz) Frequenza max nominale (Hz)	15 Hz	15 Hz	18 Hz	15 Hz	-	18 Hz	10 Hz	10 Hz	10 Hz
	Operating pressure range (bar) Pressione di esercizio (bar)	2,5 ÷ 9 bar	2,5 ÷ 9 bar	0 ÷ 9 bar	2,5 ÷ 9 bar	-	0 ÷ 9 bar	0 ÷ 9 bar	0 ÷ 9 bar	0 ÷ 9 bar

### SOLENOID VALVES FEATURES / CARATTERISTICHE ELETTROVALVOLE

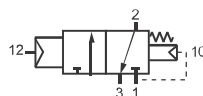
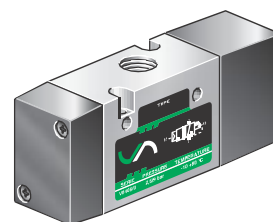
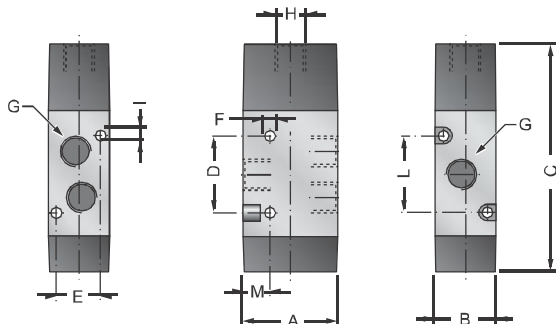
	K32W15618	K32W1918	K32W25018	K52W1018	K52W2018	K52W10E8	K52W20E8	K53W25318	K66W2018	
<b>G 1/8"</b>	Nominal max frequency (Hz) Frequenza max nominale (Hz)	27Hz AC 17Hz DC	27Hz AC 17Hz DC	42Hz AC 34Hz DC	27Hz AC 17Hz DC	42Hz AC 34Hz DC	27Hz AC 17Hz DC	42Hz AC 34Hz DC	12Hz AC 10Hz DC	27Hz AC 17Hz DC
	Operating pressure range (bar) Pressione di esercizio (bar)	2,5÷9 bar	2,5÷9 bar	1,5÷9 bar	2,5÷9 bar	1,5÷9 bar	0÷9 bar	0÷9 bar	3÷9 bar	3÷9 bar
	External pilot port Connessione di pilotaggio esterna	-	-	-	-	-	M5	M5	-	-
	Pilot pressure Pressione di pilotaggio	-	-	-	-	-	3÷9 bar	3÷9 bar	-	-
<b>G 1/4"</b>	Nominal max frequency (Hz) Frequenza max nominale (Hz)	27Hz AC 17Hz DC	27Hz AC 17Hz DC	42Hz AC 34Hz DC	27Hz AC 17Hz DC	42Hz AC 34Hz DC	27Hz AC 17Hz DC	42Hz AC 34Hz DC	12Hz AC 10Hz DC	27Hz AC 17Hz DC
	Operating pressure range (bar) Pressione di esercizio (bar)	2,5÷9 bar	2,5÷9 bar	1,5÷9 bar	2,5÷9 bar	1,5÷9 bar	0÷9 bar	0÷9 bar	3÷9 bar	3÷9 bar
	External pilot port Connessione di pilotaggio esterna	-	-	-	-	-	M5	M5	-	-
	Pilot pressure Pressione di pilotaggio	-	-	-	-	-	3÷9 bar	3÷9 bar	-	-
<b>G 1/2"</b>	Nominal max frequency (Hz) Frequenza max nominale (Hz)	13Hz AC 11Hz DC	13Hz AC 11Hz DC	17Hz AC 16Hz DC	13Hz AC 11Hz DC	17Hz AC 16Hz DC	13Hz AC 11Hz DC	17Hz AC 16Hz DC	13Hz AC 8Hz DC	13Hz AC 8Hz DC
	Operating pressure range (bar) Pressione di esercizio (bar)	2,5÷9 bar	2,5÷9 bar	1,5÷9 bar	2,5÷9 bar	1,5÷9 bar	0÷9 bar	0÷9 bar	3÷9 bar	3÷9 bar
	External pilot port Connessione di pilotaggio esterna	-	-	-	-	-	M5	M5	-	-
	Pilot pressure Pressione di pilotaggio	-	-	-	-	-	3÷9 bar	3÷9 bar	-	-

For electrical features solenoid pilot see p. B-52 for G1/8 and pp. B-35 ÷ B-37 for G1/4.  
Caratteristiche elettriche elettrovalvole per solenoide vedi p. B-52 per G1/8. e pp. B-35 + B-37 per G1/4.

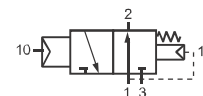
**VALVE / VALVOLA 3/2**

SINGLE PNEUMATIC PILOT - INTERNAL PRESSURE RETURN AND SPRING  
 COMANDO PNEUMATICO - RIPOSIZIONAMENTO A MOLLA PNEUMATICA E MECCANICA

**K32P1.1.**



**K32P161.**

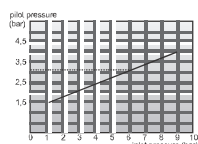


**K32P191.**

**SIMBOLS / SIMBOLI**

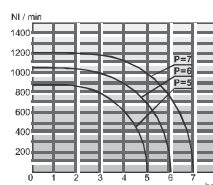
**DIAGRAMS / DIAGRAMMI**

**DIAGRAM / DIAGRAMMA**

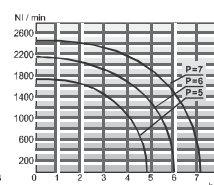


PILOT PRESSURE  
 DIAGRAMMA DELLA PRESSIONE DI PILOTAGGIO

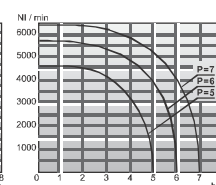
Size Taglia	A	B	C	D	E	ØF	G	H	ØI	L	M
1/8	28	18	66,2	22,2	13	3,2	G1/8	G1/8	3,2	22,2	8
1/4	32	22	75,3	29,3	16,2	4,2	G1/4	G1/8	3,5	29,3	7,3
1/2	50	30	108	45,6	-	5,2	G1/2	G1/8	-	-	11



AIR FLOW DIAGRAM G1/8"  
 DIAGRAMMA DELLE PORTATE G1/8"



AIR FLOW DIAGRAM G1/4"  
 DIAGRAMMA DELLE PORTATE G1/4"

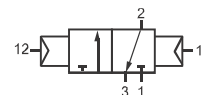
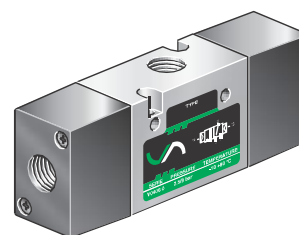
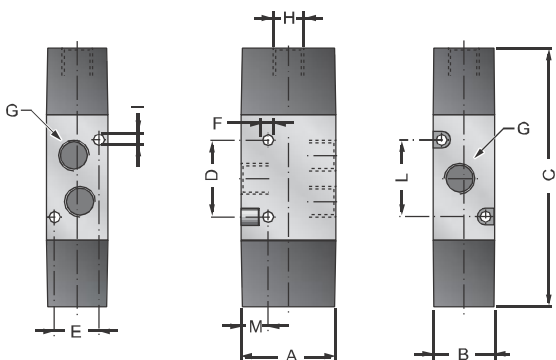


AIR FLOW DIAGRAM G1/2"  
 DIAGRAMMA DELLE PORTATE G1/2"

**VALVE / VALVOLA 3/2**

DOUBLE PNEUMATIC PILOT / DOPPIO COMANDO PNEUMATICO

**K32P201.**

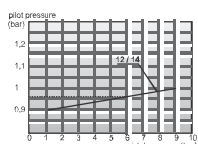


**K32P201.**

**SIMBOL / SIMBOLO**

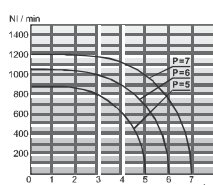
**DIAGRAMS / DIAGRAMMI**

**DIAGRAM / DIAGRAMMA**

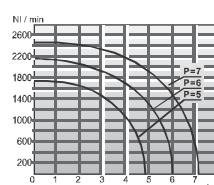


PILOT PRESSURE  
 DIAGRAMMA DELLA PRESSIONE DI PILOTAGGIO

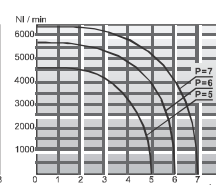
Size Taglia	A	B	C	D	E	ØF	G	H	ØI	L	M
1/8	28	18	76,2	22,2	13,5	3,2	G1/8	G1/8	3,2	22,2	8
1/4	32	22	88,3	29,3	16,2	4,2	G1/4	G1/8	3,5	29,3	7
1/2	50	30	121	45,6	-	5,2	G1/2	G1/8	-	-	11



AIR FLOW DIAGRAM G1/8"  
 DIAGRAMMA DELLE PORTATE G1/8"



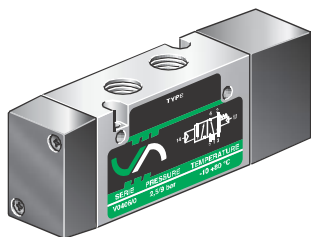
AIR FLOW DIAGRAM G1/4"  
 DIAGRAMMA DELLE PORTATE G1/4"



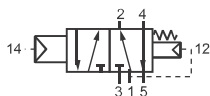
AIR FLOW DIAGRAM G1/2"  
 DIAGRAMMA DELLE PORTATE G1/2"



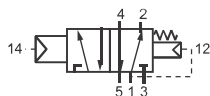
## K52P101.



### SIMBOLS / SIMBOLI

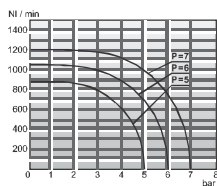


K52P1018

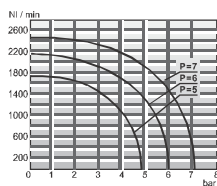


K52P1014 - K52P1012

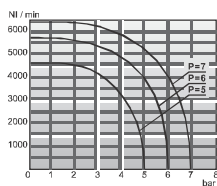
### DIAGRAMS / DIAGRAMMI



AIR FLOW DIAGRAM G1/8"  
DIAGRAMMA DELLE PORTATE G1/8"



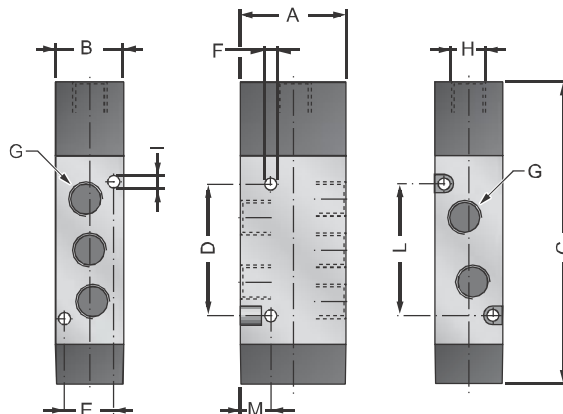
AIR FLOW DIAGRAM G1/4"  
DIAGRAMMA DELLE PORTATE G1/4"



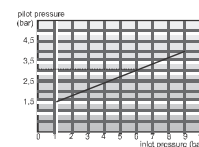
AIR FLOW DIAGRAM G1/4"  
DIAGRAMMA DELLE PORTATE G1/4"

### VALVE / VALVOLA 5/2

SINGLE PNEUMATIC PILOT - INTERNAL PRESSURE RETURN AND SPRING  
COMANDO PNEUMATICO - RIPOSIZIONAMENTO A MOLLA PNEUMATICA E MECCANICA



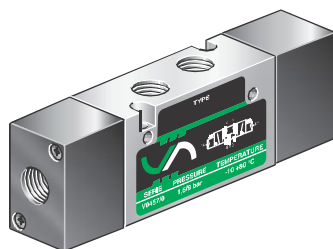
### DIAGRAM / DIAGRAMMA



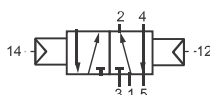
PILOT PRESSURE  
DIAGRAMMA DELLA PRESSIONE DI PILOTAGGIO

Size Taglia	A	B	C	D	E	ØF	G	H	ØI	L	M
1/8	28	18	80	35	13	3,2	G1/8	G1/8	3,2	35	8
1/4	32	22	96	50	16,2	4,2	G1/4	G1/8	3,5	50	7,3
1/2	50	30	137	74,6	-	5,2	G1/2	G1/8	-	-	11

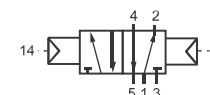
## K52P201.



### SIMBOLS / SIMBOLI

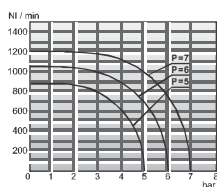


K52P2018

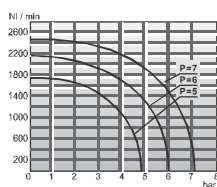


K52P2014 - K52P2012

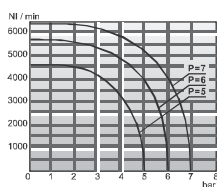
### DIAGRAMS / DIAGRAMMI



AIR FLOW DIAGRAM G1/8"  
DIAGRAMMA DELLE PORTATE G1/8"



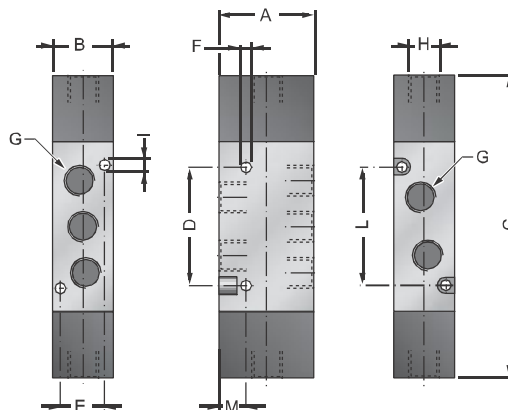
AIR FLOW DIAGRAM G1/4"  
DIAGRAMMA DELLE PORTATE G1/4"



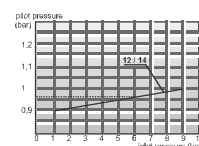
AIR FLOW DIAGRAM G1/2"  
DIAGRAMMA DELLE PORTATE G1/2"

### VALVE / VALVOLA 5/2

DOUBLE PNEUMATIC PILOT / DOPPIO COMANDO PNEUMATICO



### DIAGRAM / DIAGRAMMA

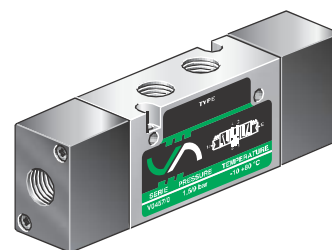
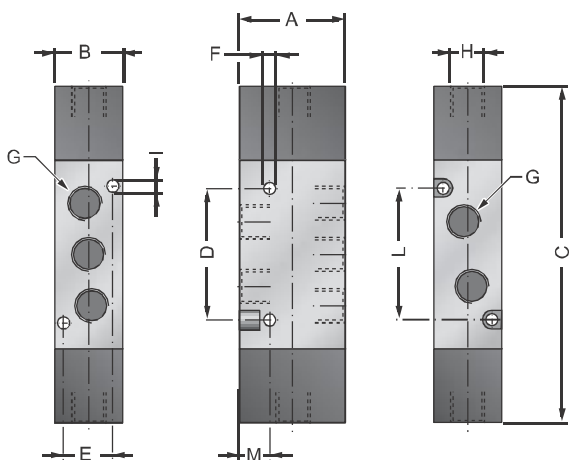


PILOT PRESSURE  
DIAGRAMMA DELLA PRESSIONE DI PILOTAGGIO

Size Taglia	A	B	C	D	E	ØF	G	H	ØI	L	M
1/8	28	18	89	35	13	3,2	G1/8	G1/8	3,2	35	8
1/4	32	22	109	50	16,2	4,2	G1/4	G1/8	3,5	50	7,3
1/2	50	30	108	45,6	-	5,2	G1/2	G1/8	-	-	11

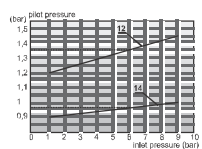
**VALVE / 5/2**  
DOUBLE DIFFERENTIAL PNEUMATIC PILOT  
DOPPIO COMANDO PNEUMATICO DIFFERENZIALE

**K52DP21.**



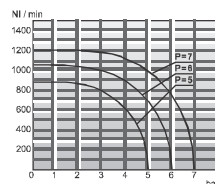
**DIAGRAMS / DIAGRAMMI**

**DIAGRAM / DIAGRAMMA**

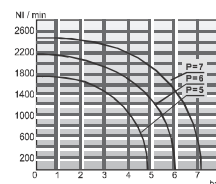


PILOT PRESSURE  
DIAGRAMMA DELLA PRESSIONE DI PILOTAGGIO

Size Taglia	A	B	C	D	E	ØF	G	H	ØI	L	M
1/8	28	18	89	35	13	3,2	G1/8	G1/8	3,2	35	8
1/4	32	22	109	50	16,2	4,2	G1/4	G1/8	3,5	50	7,3



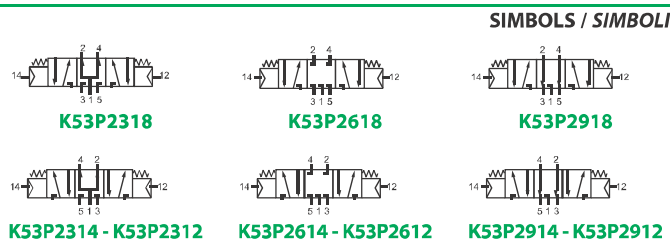
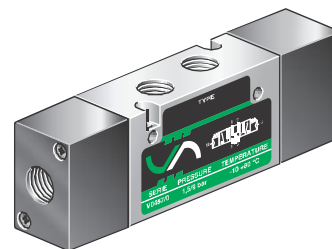
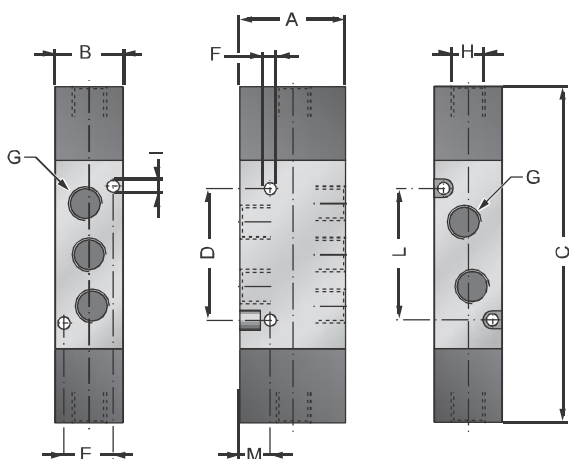
AIR FLOW DIAGRAM G1/8"  
DIAGRAMMA DELLE PORTATE G1/8"



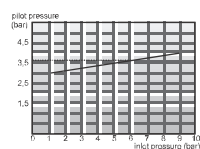
AIR FLOW DIAGRAM G1/4"  
DIAGRAMMA DELLE PORTATE G1/4"

**VALVE / VALVOLA 5/3**  
DOUBLE PNEUMATIC PILOT (MID-POSITION PRESSURIZED) / DOPPIO COMANDO PNEUMATICO (CENTRI IN PRESSIONE)  
DOUBLE PNEUMATIC PILOT (MID-POSITION CLOSED) / DOPPIO COMANDO PNEUMATICO (CENTRI CHIUSI)  
DOUBLE PNEUMATIC PILOT (MID-POSITION EXHAUSTED) / DOPPIO COMANDO PNEUMATICO (CENTRI APERTI)

**K53P2.1.**

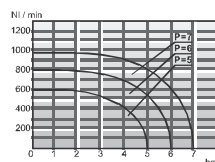


**DIAGRAM / DIAGRAMMA**

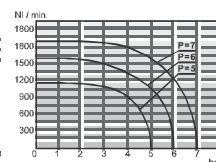


PILOT PRESSURE  
DIAGRAMMA DELLA PRESSIONE DI PILOTAGGIO

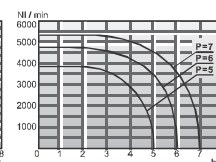
Size Taglia	A	B	C	D	E	ØF	G	H	ØI	L	M
1/8	28	18	89	35	13	3,2	G1/8	G1/8	3,2	35	8
1/4	32	22	109	50	16,2	4,2	G1/4	G1/8	3,5	50	7,3
1/2	50	30	108	45,6	-	5,2	G1/2	G1/8	-	-	11



AIR FLOW DIAGRAM G 1/8"  
DIAGRAMMA DELLE PORTATE G 1/8"



AIR FLOW DIAGRAM G 1/4"  
DIAGRAMMA DELLE PORTATE G 1/4"



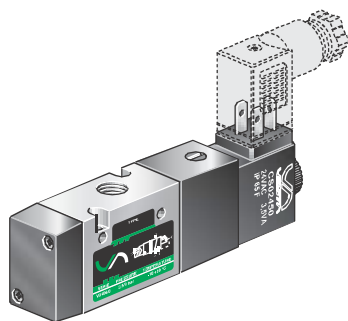
AIR FLOW DIAGRAM G 1/2"  
DIAGRAMMA DELLE PORTATE G 1/2"

**DIAGRAMS / DIAGRAMMI**

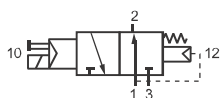




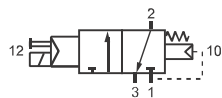
## K32W1S.1.



### SIMBOLS / SIMBOLI

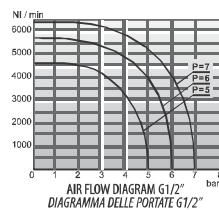
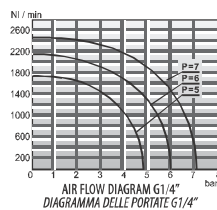
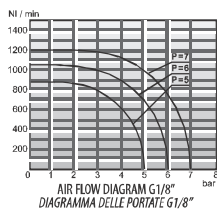


K32W1S918 - K32W1S914  
K32W1S912



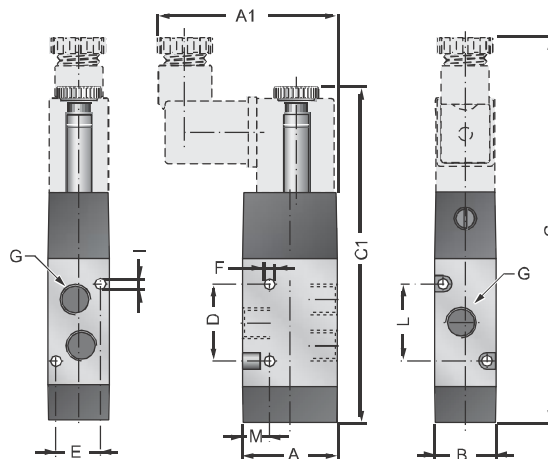
K32W1S618 - K32W1S614  
K32W1S612

### DIAGRAMS / DIAGRAMMI



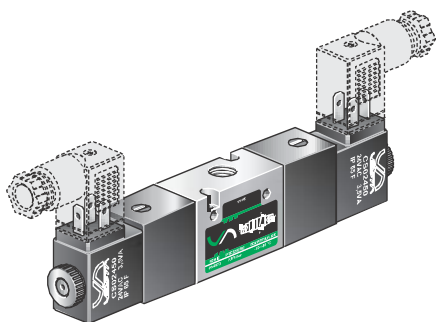
## VALVE / 3/2

SINGLE SOLENOID PILOT - INTERNAL PRESSURE RETURN AND SPRING  
COMANDO ELETTROPNEUMATICO - RIPOSIZIONAMENTO A MOLLA PNEUMATICA E MECCANICA

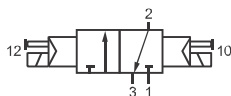


Size Taglia	A	A1	B	C	C1	D	E	ØF	G	ØI	L	M
1/8	28	~53	18	112,5	~99	22,2	13	3,2	G1/8	3,2	22,2	8
1/4	32	~55	22	121	~107,5	29,3	16,2	4,2	G1/4	3,5	29,3	7,3
1/2	50	~75	30	~150	~137	45,6	-	5,2	G1/2	-	-	11

## K32W2S01.

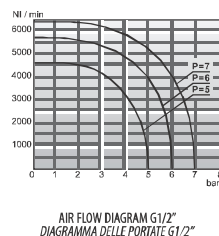
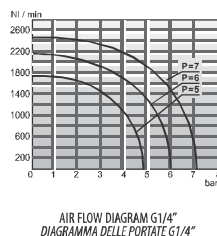
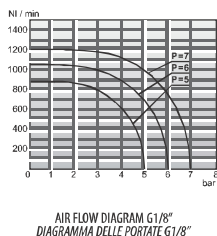


### SIMBOLS / SIMBOLI



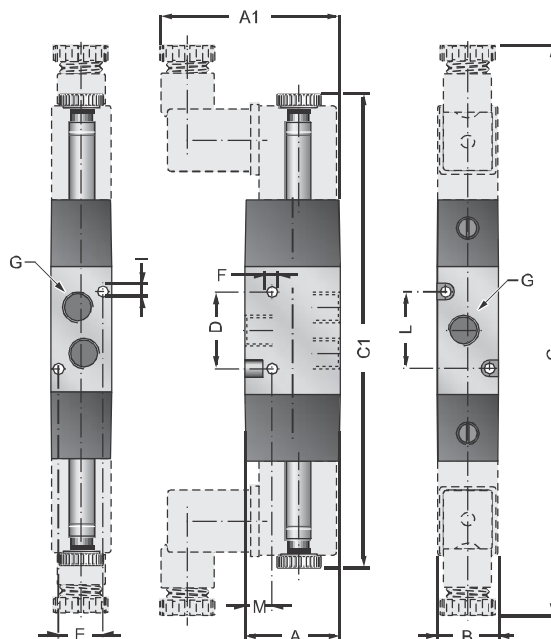
K32W2S018 - K32W2S014 - K32W2S012

### DIAGRAMS / DIAGRAMMI



## VALVE / VALVOLA 3/2

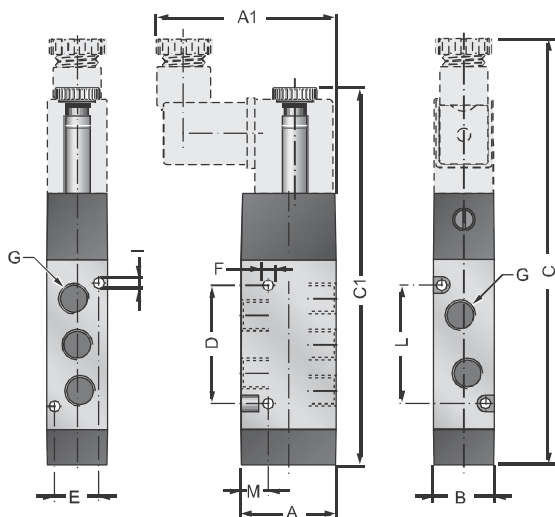
DOUBLE SOLENOID PILOT / DOPPIO COMANDO ELETTROPNEUMATICO



Size Taglia	A	A1	B	C	C1	D	E	ØF	G	ØI	L	M
1/8	28	~53	18	170	~143	22,2	13	3,2	G1/8	3,2	22,2	8
1/4	32	~55	22	181	~154	29,3	16,2	4,2	G1/4	3,5	29,3	7,3
1/2	50	~75	30	~210	~180	45,6	-	5,2	G1/2	-	-	11

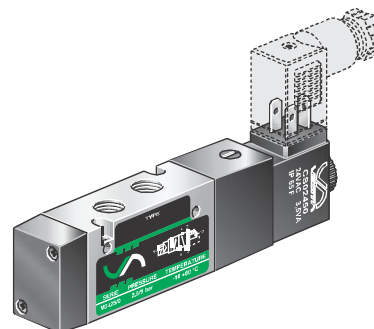
**VALVE / VALVOLA 5/2**

SINGLE SOLENOID PILOT - INTERNAL PRESSURE RETURN AND SPRING  
 COMANDO ELETTROPNEUMATICO - RIPOSIZIONAMENTO A MOLLA PNEUMATICA E MECCANICA

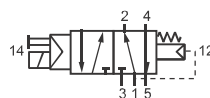


Size Taglia	A	A1	B	C	C1	D	E	ØF	G	ØI	L	M
1/8	28	~53	18	~125,5	112	35	13	3,2	G1/8	3,2	35	8
1/4	32	~55	22	142,5	~129	50	16,2	4,2	G1/4	3,5	50	7,3
1/2	50	~75	30	~180	~166	46	-	5,2	G1/2	-	-	11

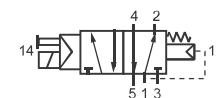
**K52W101.**



**SIMBOLS / SIMBOLI**

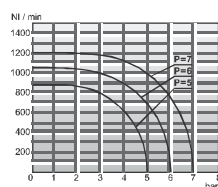


**K52W1018**

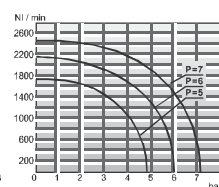


**K52W1014 - K52W1012**

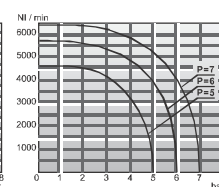
**DIAGRAMS / DIAGRAMMI**



AIR FLOW DIAGRAM G1/8"  
 DIAGRAMMA DELLE PORTATE G1/8"



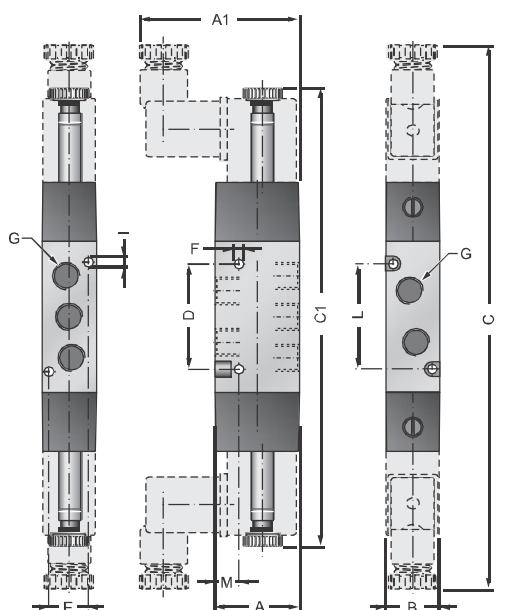
AIR FLOW DIAGRAM G1/4"  
 DIAGRAMMA DELLE PORTATE G1/4"



AIR FLOW DIAGRAM G1/2"  
 DIAGRAMMA DELLE PORTATE G1/2"

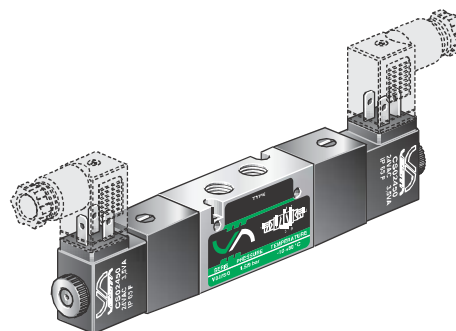
**VALVE / 5/2**

DOUBLE SOLENOID PILOT / DOPIO COMANDO ELETTROPNEUMATICO

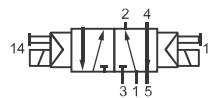


Size Taglia	A	A1	B	C	C1	D	E	ØF	G	ØI	L	M
1/8	28	~53	18	180	~152	35	13	3,2	G1/8	3,2	35	8
1/4	32	~55	22	202	~174	50	16,2	4,2	G1/4	3,5	50	7,3
1/2	50	~75	30	~240	~210	45,6	-	5,2	G1/2	-	-	11

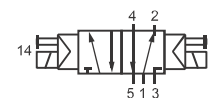
**K52W201.**



**SIMBOLS / SIMBOLI**

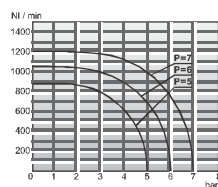


**K52W2018**

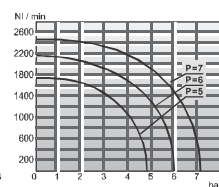


**K52W2014 - K52W2012**

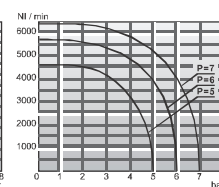
**DIAGRAMS / DIAGRAMMI**



AIR FLOW DIAGRAM G1/8"  
 DIAGRAMMA DELLE PORTATE G1/8"



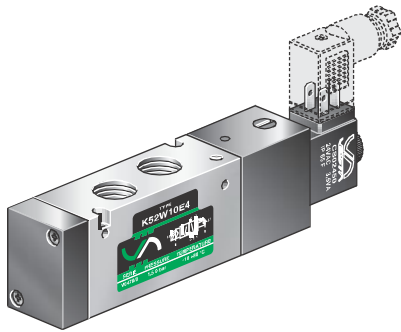
AIR FLOW DIAGRAM G1/4"  
 DIAGRAMMA DELLE PORTATE G1/4"



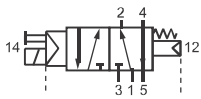
AIR FLOW DIAGRAM G1/2"  
 DIAGRAMMA DELLE PORTATE G1/2"



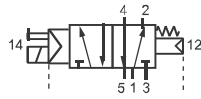
## K52W10E.



### SIMBOLS / SIMBOLI

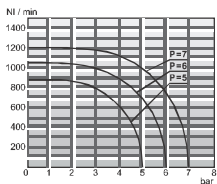


K52W10E8

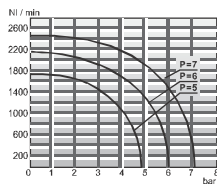


K52W10E4 - K52W10E2

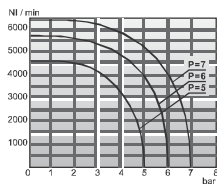
### DIAGRAMS / DIAGRAMMI



AIR FLOW DIAGRAM G1/8"  
DIAGRAMMA DELLE PORTATE G1/8"

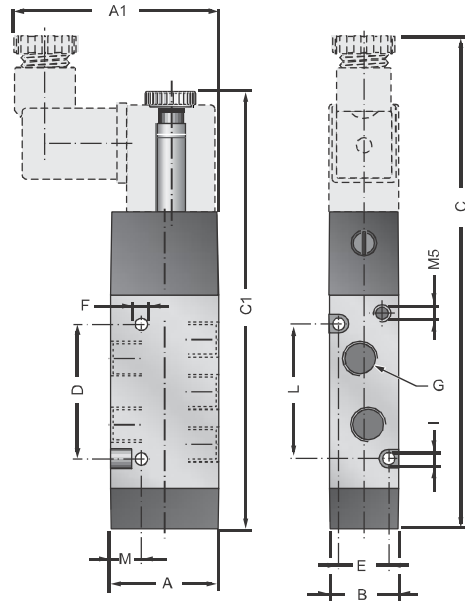


AIR FLOW DIAGRAM G1/4"  
DIAGRAMMA DELLE PORTATE G1/4"



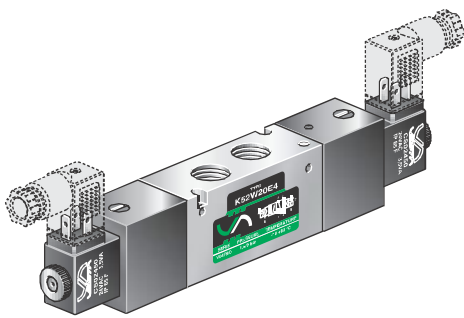
AIR FLOW DIAGRAM G1/2"  
DIAGRAMMA DELLE PORTATE G1/2"

## VALVE / 5/2 SINGLE SOLENOID PILOT - EXTERNAL PRESSURE RETURN COMANDO ELETTROPNEUMATICO - PILOTAGGIO ESTERNO

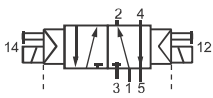


Size Taglia	A	B	C	D	E	ØF	G	ØI	L	M	A1	C1
1/8	28	18	127	35	13	3,2	G1/8	3,2	35	8	53	112
1/4	32	22	142,5	50	16,2	4,2	G1/4	3,5	50	7,3	55	129
1/2	50	30	~180	46	-	5,2	G1/2	-	-	11	~75	~166

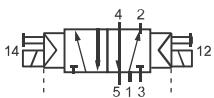
## K52W20E.



### SIMBOLS / SIMBOLI

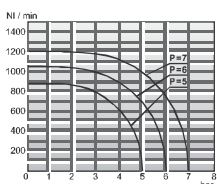


K52W20E8

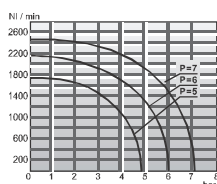


K52W20E4 - K52W20E2

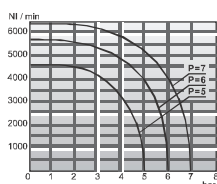
### DIAGRAMS / DIAGRAMMI



AIR FLOW DIAGRAM G1/8"  
DIAGRAMMA DELLE PORTATE G1/8"

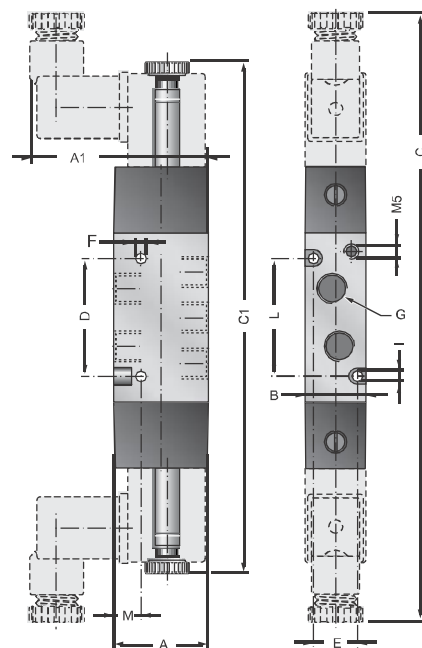


AIR FLOW DIAGRAM G1/4"  
DIAGRAMMA DELLE PORTATE G1/4"



AIR FLOW DIAGRAM G1/2"  
DIAGRAMMA DELLE PORTATE G1/2"

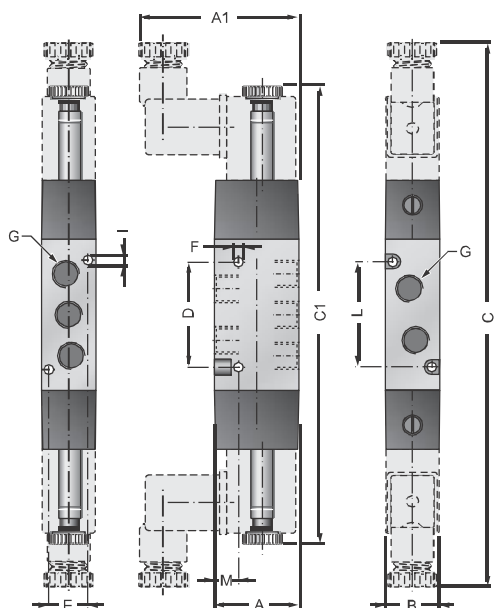
## VALVE / VALVOLA 5/2 DOUBLE SOLENOID PILOT - EXTERNAL PRESSURE RETURN DOPPIO COMANDO ELETTROPNEUMATICO - PILOTAGGIO ESTERNO



Size Taglia	A	B	C	D	E	ØF	G	ØI	L	M	A1	C1
1/8	28	18	180	35	13	3,2	G1/8	3,2	35	8	53	152
1/4	32	22	202	50	16,2	4,2	G1/4	3,5	50	7,3	55	174
1/2	50	30	~240	45,6	-	5,2	G1/2	-	-	11	~75	~210

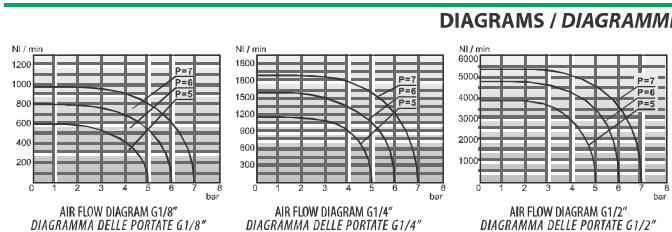
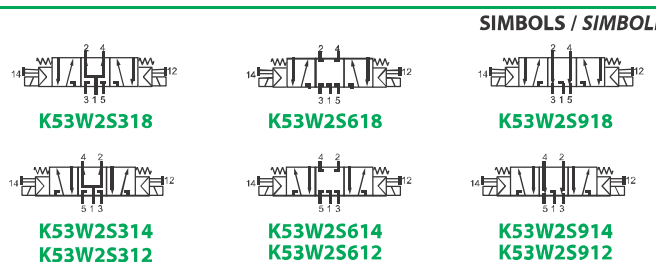
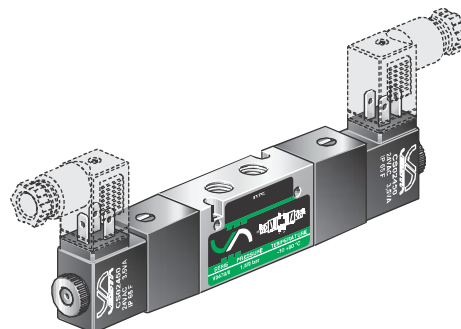
**VALVE / 5/3**

DOUBLE PNEUMATIC PILOT (MID-POSITION PRESSURIZED) / **DOPPIO COMANDO PNEUMATICO (CENTRI IN PRESSIONE)**  
 DOUBLE PNEUMATIC PILOT (MID-POSITION CLOSED) / **DOPPIO COMANDO PNEUMATICO (CENTRI CHIUSI)**  
 DOUBLE PNEUMATIC PILOT (MID-POSITION EXHAUSTED) / **DOPPIO COMANDO PNEUMATICO (CENTRI APERTI)**



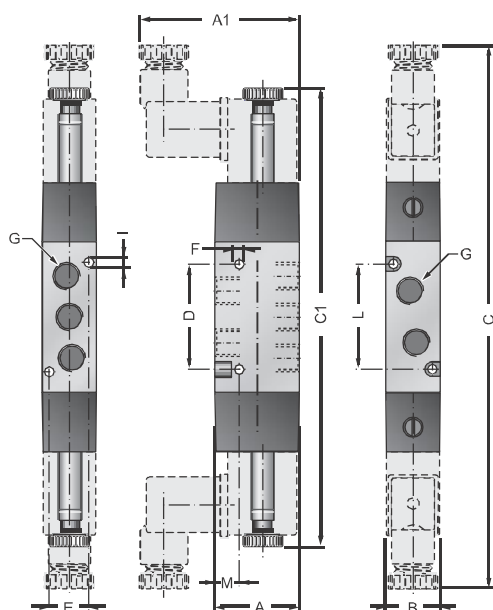
Size Taglia	A	A1	B	C	C1	D	E	ØF	G	ØI	L	M
1/8	28	~53	18	180	~152	35	13	3,2	G1/8	3,2	35	8
1/4	32	~55	22	202	~174	50	16,2	4,2	G1/4	3,5	50	7,3
1/2	50	~75	30	~240	~210	45,6	-	5,2	G1/2	-	-	11

**K53W2S. 1.**



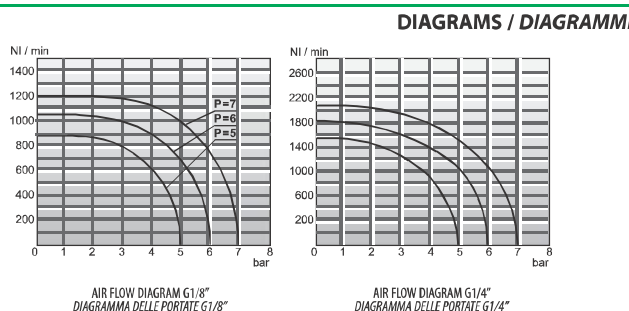
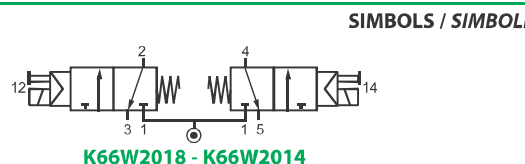
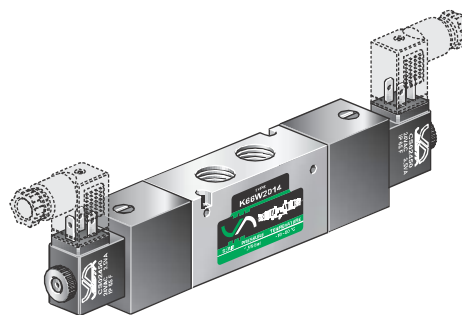
**DOUBLE 3/2 VALVE / DOPPIA 3/2**

DUBLE 3/2 N.C. SPRING RETURN VALVE  
 DOPPIA VALVOLA 3/2 N.C. RITORNO A MOLLA MECCANICA



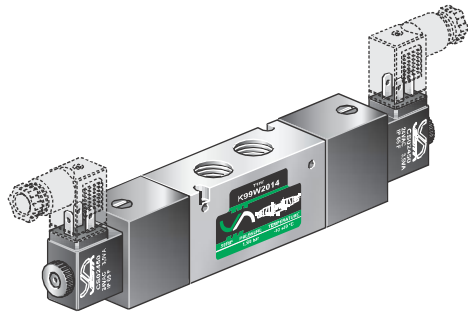
Size Taglia	A	A1	B	C	C1	D	E	ØF	G	ØI	L	M
1/8	28	~53	18	180	~152	35	13	3,2	G1/8	3,2	35	8
1/4	32	~55	22	202	~174	50	16,2	4,2	G1/4	3,5	50	7,3

**K66W201.**

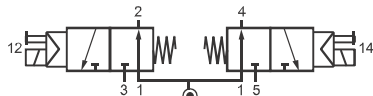




## K99W201.

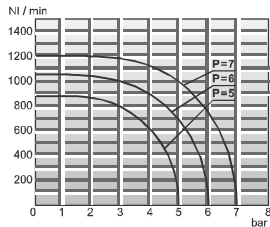


### SIMBOLS / SIMBOLI

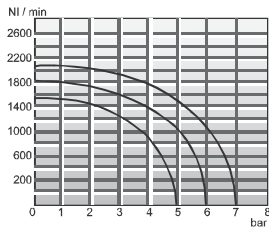


K99W2018 - K99W2014

### DIAGRAMS / DIAGRAMMI

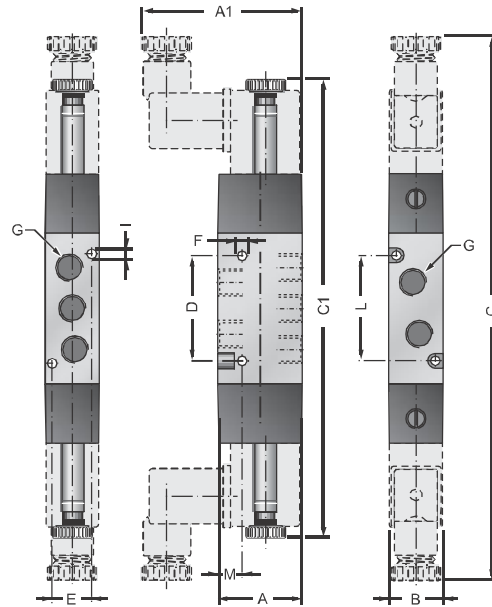


AIR FLOW DIAGRAM G1/8"  
DIAGRAMMA DELLE PORTATE G1/8"



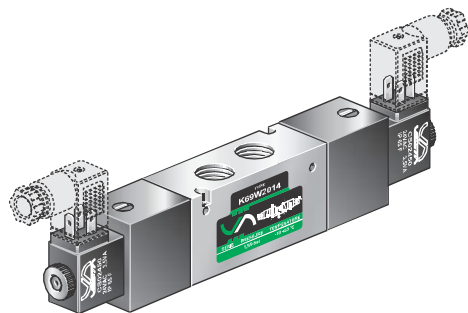
AIR FLOW DIAGRAM G1/4"  
DIAGRAMMA DELLE PORTATE G1/4"

## DOUBLE 3/2 VALVE / DOPPIA VALVOLA 3/2 DUBLE 3/2 N.O. SPRING RETURN VALVE DOPPIA VALVOLA 3/2 N.O. RITORNO A MOLLA MECCANICA

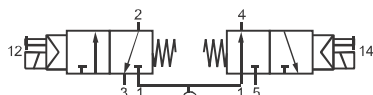


Size Taglia	A	A1	B	C	C1	D	E	ØF	G	ØI	L	M
1/8	28	~53	18	180	~152	35	13	3,2	G1/8	3,2	35	8
1/4	32	~55	22	202	~174	50	16,2	4,2	G1/4	3,5	50	7,3

## K69W201.

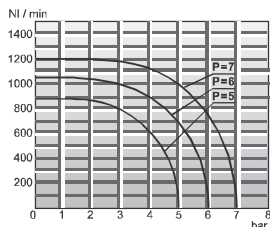


### SIMBOLS / SIMBOLI

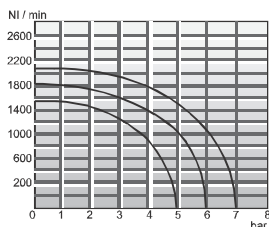


K69W2018 - K69W2014

### DIAGRAMS / DIAGRAMMI

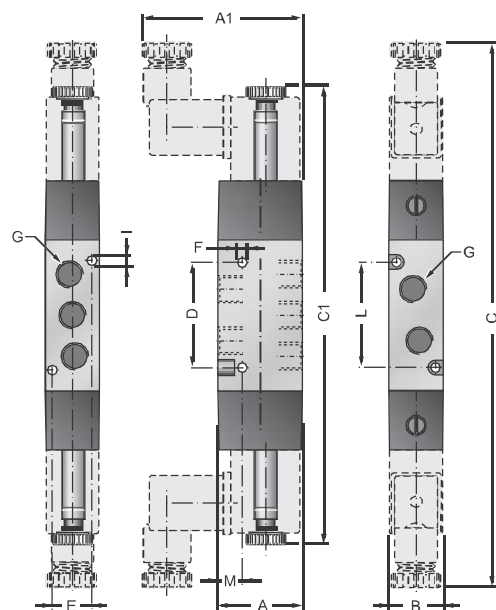


AIR FLOW DIAGRAM G1/8"  
DIAGRAMMA DELLE PORTATE G1/8"



AIR FLOW DIAGRAM G1/4"  
DIAGRAMMA DELLE PORTATE G1/4"

## DOUBLE 3/2 VALVE / DOPPIA VALVOLA 3/2 3/2 N.C. + 3/2 N.O. VALVES SPRING RETURN VALVOLA 3/2 N.C. + VALVOLA 3/2 N.O. RITORNO A MOLLA MECCANICA

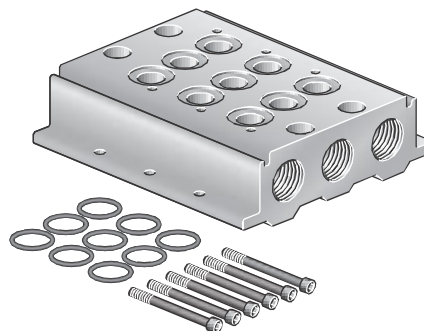
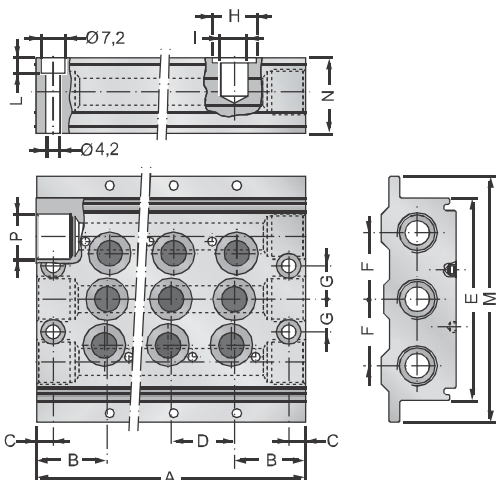


Size Taglia	A	A1	B	C	C1	D	E	ØF	G	ØI	L	M
1/8	28	~53	18	180	~152	35	13	3,2	G1/8	3,2	35	8
1/4	32	~55	22	202	~174	50	16,2	4,2	G1/4	3,5	50	7,3



MANIFOLD  
BASE A DOPPIO INGRESSO

KME ...



Size Taglia	B	C	D	E	F	G	ØH	ØI	L	M	N	P
1/8	21	5	19	60	19	10	13	8	4,5	74,5	26	G1/4
1/4	25	6,5	23	70	23	11,5	15,9	10	5	85	26	G3/8

CODES / CODICI

Code Codice	A	Place Posti
KME218	61	2
KME318	80	3
KME418	99	4
KME518	118	5
KME618	137	6
KME718	156	7
KME818	175	8
KME918	194	9
KME1018	213	10
KME1218	251	12
KME1418	289	14
KME1618	327	16
KME214	73	2
KME314	96	3
KME414	119	4
KME514	142	5
KME614	165	6
KME714	188	7
KME814	211	8
KME914	234	9
KME1014	257	10
KME1214	303	12
KME1414	349	14
KME1614	395	16

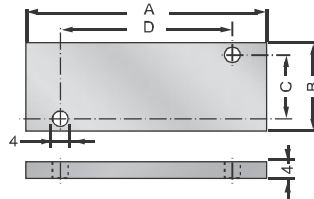
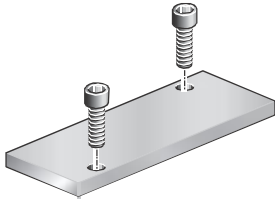
- Available upon request manifold up to 20 places.
- Valves fixing screws and seals are supplied with manifold.
- Subbase fixing screws not supplied.
- Manifold supplied assembled on demand.
- A richiesta sono fornibili basi sino a 20 posti
- Le viti e le guarnizioni per il fissaggio delle valvole vengono fornite con la base.
- Il fissaggio alla base è a cura del cliente.
- A richiesta, la base può essere fornita preassemblata.



## COILS SOLENOID VALVES AND ACCESSORIES - SOLENOIDI PER ELETTROVALVOLE ED ACCESSORI

### KPCH01.

PLUG FLAT  
CHIUSURA POSTO INUTILIZZATO



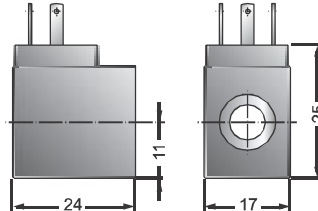
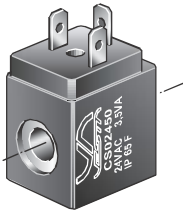
Plug flat includes assembling screws.

La piastrina di chiusura dei posti non utilizzati della base è fornita con le relative viti di fissaggio.

Size Taglia	A	B	C	D	Code Codice
1/8	49	18	13	35,5	KPCH018
1/4	60	22	16,2	50	KPCH014

### CS.....

COILS  
SOLENOIDI PER ELETTROVALVOLE



#### CODES / CODICI

Code ordination Codice ordinazione	Voltage Tensione
CS01200	12 V DC
CS02400	24 V DC
CS02450	24 V 50/60Hz AC
CS11050 (*)	110 V 50/60Hz AC
CS22050 (*)	220 V 50/60Hz AC

(\*) Please see page / Vedi pag. B-37

#### TECHNICAL FEATURES

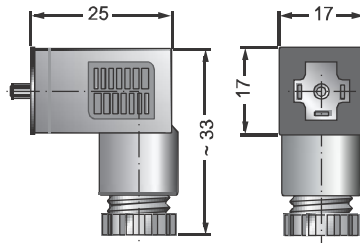
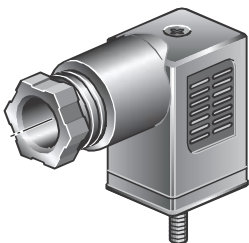
Standard tensions	12, 24, V DC 24, 110, 220 V AC (50/60 Hz)
Other tensions	Contact our commercial department
Duty cycle	100% (continuous)
Power at 20 °C	2,4 Watt DC; 3,5 VA AC
Nominal tension	± 10% during normal working
Operating temperature range	-20 °C ÷ +50 °C
Degree of protection	Fixed plug IP 65 (IEC 144) with connector
Insulation	Class F
Materials	Wire class H - coil moulding glass filled nylon

#### CARATTERISTICHE TECNICHE

Tensioni standard	12, 24, V DC 24, 110, 220 V AC (50/60 Hz)
Altre tensioni	Interpellare il ns. servizio tecnico commerciale
Funzionamento	100% ED alla potenza ed alla temperatura ambiente indicata
Potenza assorbita a 20 °C	2,4 Watt in DC; 3,5 VA in AC
Tensione nominale	± 10% a bobina calda
Limiti di temperatura ambiente	-20 °C ÷ +50 °C
Protezione	IP 65 secondo IEC 144 con connettore
Bobina	Bobina completa classe F
Materiali	Rivestimento nylon caricato vetro filo di rame classe H

### CEP/0.....

SOLENOID CONNECTORS  
CONNETTORI



#### CODES / CODICI

Description Descrizione	Code Codice	Voltage Tensione
Universal connector Connettore universale	CEP/0	All tension Tutte le tensioni
Connector with led Connettore con led	CEP/0 L 10 / 50 CEP/0 L 70 / 250	10/50 V AC / DC 70/250 V AC / DC
Connector with led and varistor Connettore con led e varistore	CEP/0 LV 24 CEP/0 LV 110 CEP/0 LV 220	24 V AC / DC 110 V AC / DC 220 V AC / DC

#### TECHNICAL FEATURES

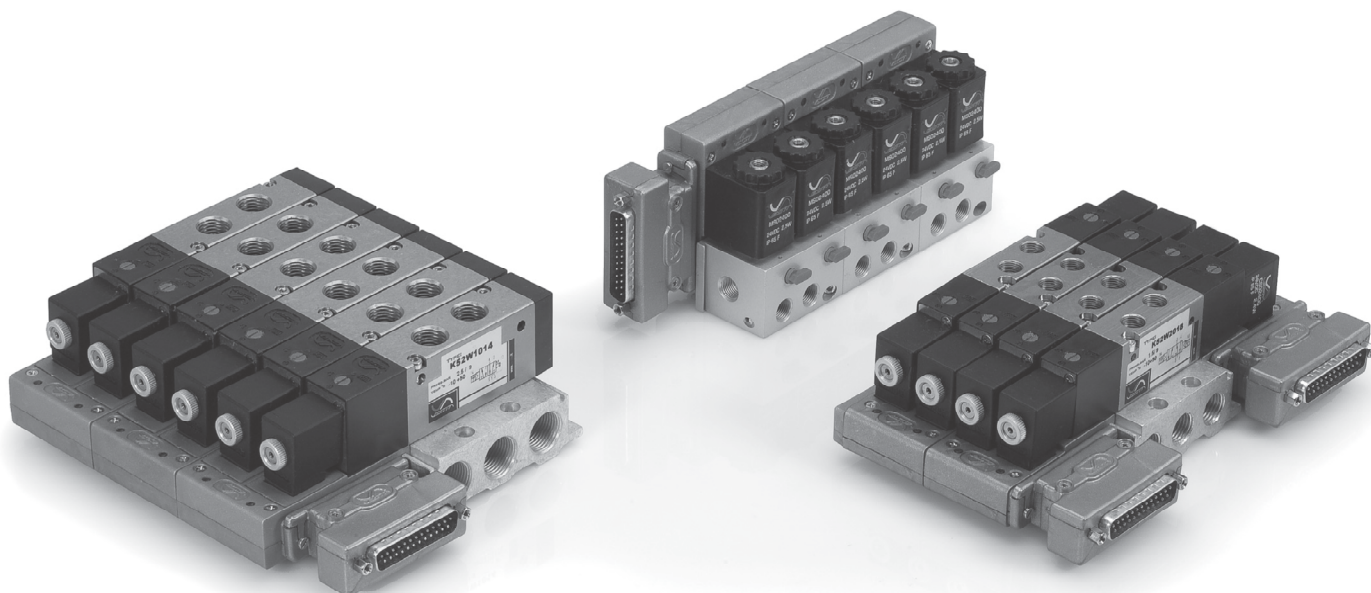
Wire connection	With screwed terminals
Gland thread	PG 7
Number of poles	2 Poles + earth
Housing colour	Black, transparent in the led version.

#### CARATTERISTICHE TECNICHE

Connessione cavi	Con morsetti a vite
Filettatura passacavo	PG 7
N° Poli	2 Poli + terra
Colori connettore	Nero, trasparente nelle versioni con led.

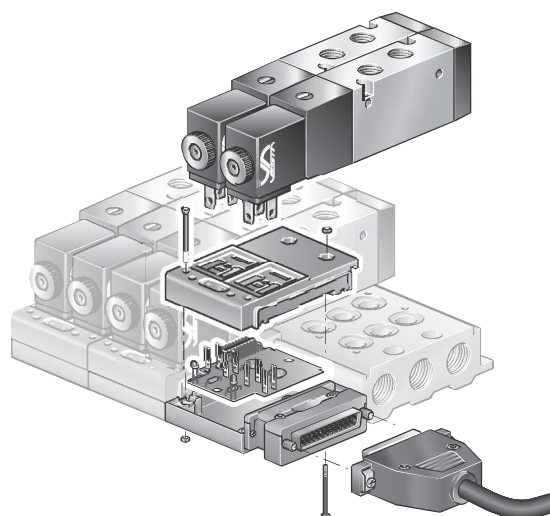
**VERSATILE MULTIPOLE CONNECTION  
CONNESSIONE MULTIPOLARE VERSATILE**

**MPV**



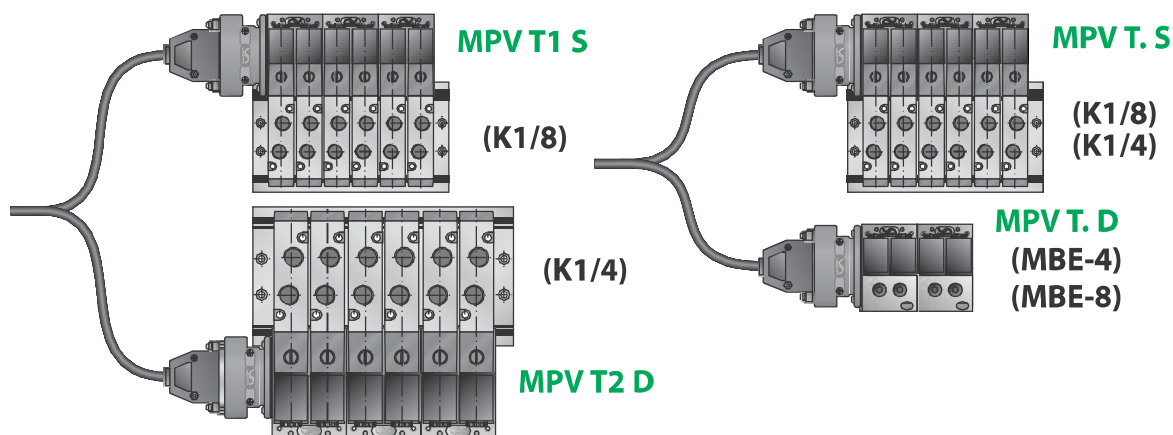
With **Vesta MPV** system, offering integrated electrical connections, it is possible to connect different versions of manifold valves. Each module connection is designed for 2 valves and it is available in two different sizes: size T1 and size T2. With size T1 it is possible to assemble manifolds of K1/8 valves and direct actuated valves MPB Ø4; with size T2 it is possible to assemble manifolds of K1/4 valves and direct actuated valves MPB G1/8. The MPV system is available with solenoid valves K1/8 and K1/4 series in all versions 5/2, 5/3 and 2x3/2. The **Vesta MPV** system is compact, versatile, easy to assembly and can operate up to 32 solenoids. It is available with 24V DC or 24 V AC voltage solenoids with led and varistor protection as standard.

*Il sistema **Vesta MPV** di connessione elettrica integrata consente di collegare isole di valvole di taglia e tipologia differenti. I moduli di collegamento elettrico sono a 2 posti valvola ciascuno e sono fornibili in due taglie differenti: la taglia T1 e la taglia T2. La taglia T1 collega valvole k1/8 in batteria e valvole ad azionamento diretto della nuova serie MPB Ø4; la taglia T2 collega valvole K1/4 in batteria e valvole ad azionamento diretto della nuova serie MPB G1/8. Il sistema **MPV** supporta tutte le versioni di elettrovalvole 5/2, 5/3 e 2x3/2 della serie K1/8 e K1/4. La soluzione compatta, robusta e facile da assemblare consente di controllare fino a 32 solenoidi. La tensione dei solenoidi è di 24V DC o AC, ogni output è dotato di Led di presenza segnale e varistore di protezione alle sovratensioni.*



VALVOLE ED ELETTROVALVOLE VALVES AND SOLENOID VALVES

**SYSTEM VERSATILY EXAMPLES MPV / ESEMPIO DI VERSATILITA' DEL SISTEMA MPV**





# MPV T1 ELECTRICAL CONNECTION MODULE SIZE T1 MODULO DI COLLEGAMENTO ELETTRICO TAGLIA T1

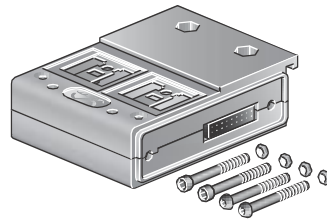
MODULE FOR ASSEMBLING OF FOLLOWING MANIFOLD:  
MODULO PER ASSEMBLARE LE SEGUENTI BATTERIE:

## MPK-18

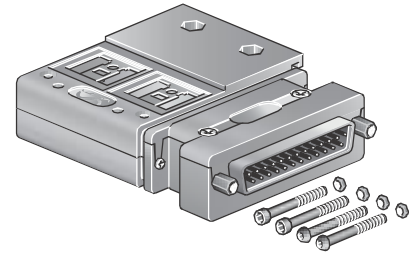
K1/8 SOLENOID VALVES  
ELETTROVALVOLE K1/8

## MPB-4

DIRECT ACTUATED VALVES 3/2 TUBE Ø4  
ELETTROVALVOLE A COMANDO DIRETTO 3/2 TUBO Ø4



Connection for 2 valve stations  
Connessione per 2 valvole



FRONT connection for 2 valve stations  
Connessione FRONTALE per 2 valvole

### MPV T1 - □

- S** To use with cable MPW-16 and MPW-32  
Position N°0÷16  
Per cavo MPW-16 o MPW-32  
Posizione N°0÷16
- D** To use with cable MPW-32  
Position N°17÷32  
Per cavo MPW-32  
Posizione N°17÷32

### MPV T1 - □ SBD25

- S** To use with cable MPW-16 and MPW-32  
Position N°0÷16  
Per cavo MPW-16 o MPW-32  
Posizione N°0÷16
- D** To use with cable MPW-32  
Position N°17÷32  
Per cavo MPW-32  
Posizione N°17÷32

## MANIFOLD OF DIRECT ACTUATED VALVES 3/2 NC TUBE Ø4mm IN MULTIPOLE CONNECTION SYSTEM BATTERIA MULTIPOLARE DI ELETTROVALVOLE A COMANDO DIRETTO 3/2 NC TUBO Ø4mm

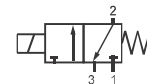
### MPB-4-□-□-□

Number of station valves  
Numero posti  
**2, 4, 6, ..., 16**

CS Solenoid (refer to page B-52)  
Solenoido CS (vedere pag. B-52)  
24V dc: **00**  
24V ac: **50**

- S** To use with cable MPW-16  
To use with cable MPW-32  
Position N°0÷16  
Per cavo MPW-16  
Per cavo MPW-32  
Posizione N°0÷16
- D** To use with cable MPW-32  
Position N°17÷32  
Per cavo MPW-32  
Posizione N°17÷32

SIMBOL / SIMBOLO

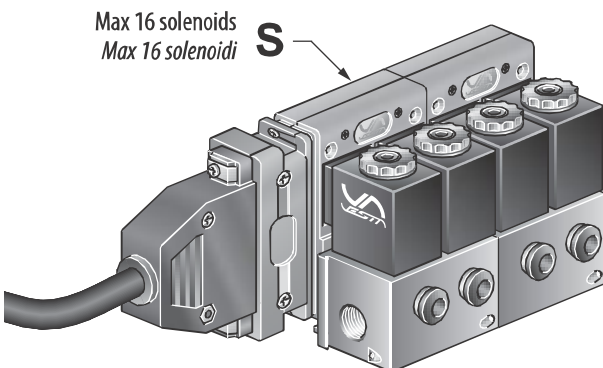


### TECHNICAL FEATURES

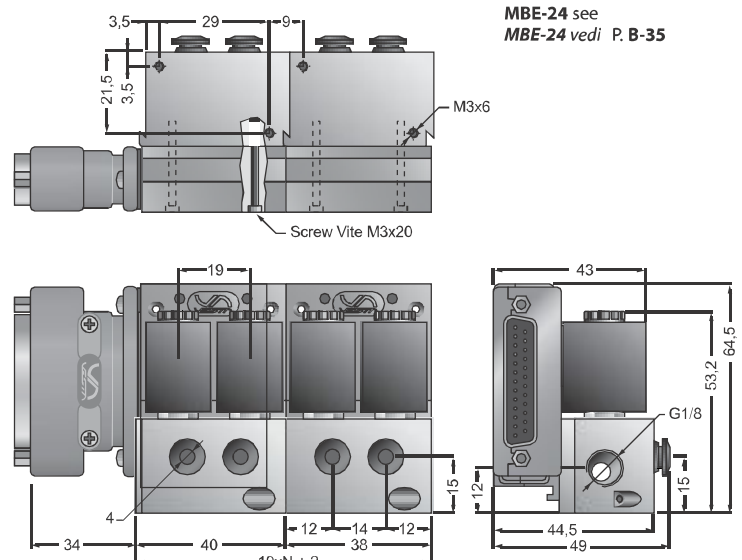
Flow section .....	Ø1 mm
Nominal Flow .....	50NI/min
Working pressure .....	0-9bar
Environment temperature range .....	-10 °C ÷ +50 °C
Temperature range of medium .....	0 °C ÷ +40 °C
Solenoids .....	Refer to CS series page B-52

### CARATTERISTICHE TECNICHE

Diametro nominale .....	Ø1mm
Portata nominale .....	50NI/min
Pressione esercizio .....	0-9bar
Temperatura ambiente .....	-10 °C ÷ +50 °C
Temperatura fluido .....	0 °C ÷ +40 °C
Solenoido .....	Vedere CS pag. B-52



Max 16 solenoids  
Max 16 solenoidi



**MANIFOLD OF K1/8 VALVES IN MULTIPOLE CONNECTION SYSTEM  
BATTERIA MULTIPOLARE DI VALVOLE K1/8**

**MPK-18-**



- B** 5/2 ways double solenoid valve (K52W2018)  
5/2 bistabile (K52W2018)
- C** 5/3 ways mid position closed (K53W2S618)  
5/3 centri chiusi (K53W2S618)
- D** 2x3/2 NC or 5/3 mid position open (K66W2018 o K53W2S918)  
2x3/2 NC o 5/3 centri aperti (K66W2018 o K53W2S918)
- E** 2x3/2 NO o 5/3 mid position pressurized (K99W2018 o K53W2S318)  
2x3/2 NO o 5/3 centri in pressione (K99W2018 o K53W2S318)
- F** 3/2NC +3/2NO (K96W2018)  
3/2NC +3/2NO (K96W2018)
- M** 5/2 ways single solenoid valve (K52W1018)  
5/2 monostabile (K52W1018)
- V** free place for single solenoid valve  
posto vuoto singolo solenoide
- W** free place for double solenoid valve  
posto vuoto doppio solenoide

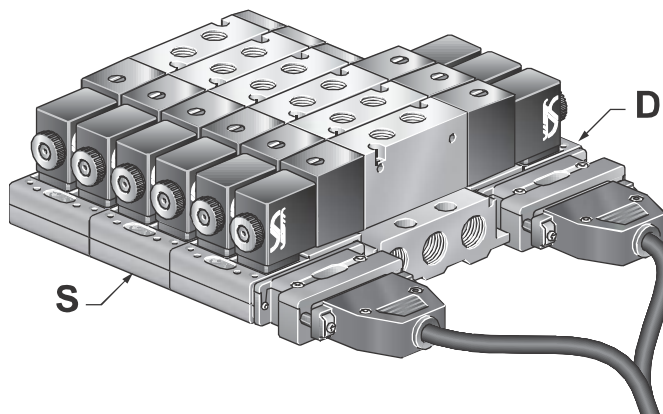
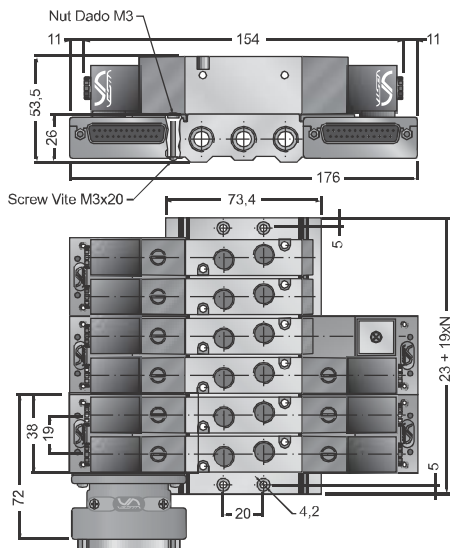
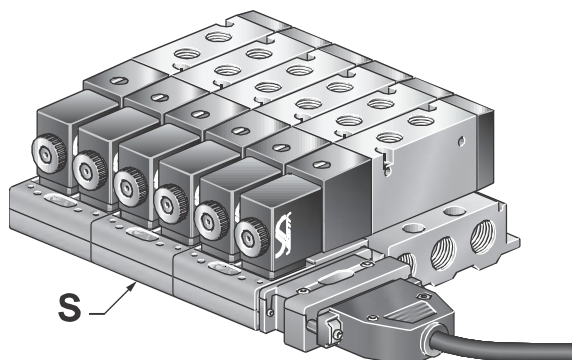
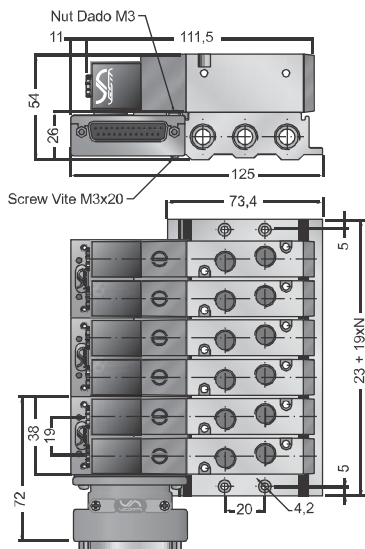
CS Solenoid (refer to page B-52)  
Solenoide CS (vedere pag. B-52)  
**00** 24V dc  
**50** 24V ac

**TECHNICAL FEATURES**

Working pressure .....	0-9bar
Environment temperature range .....	-10 °C ÷ +50 °C
Temperature range of medium .....	0 °C ÷ +40 °C
Valves .....	Refer to K1/8 series page B-42
Air flow .....	730NI/min

**CARATTERISTICHE TECNICHE**

Pressione esercizio .....	0-9bar
Temperatura ambiente .....	-10 °C ÷ +50 °C
Temperatura fluido .....	0 °C ÷ +40 °C
Valvole .....	Vedere K1/8 pag. B-42
Portata .....	730NI/min



VALVOLE ED ELETTROVALVOLE VALVES AND SOLENOID VALVES





# MPV T2 ELECTRICAL CONNECTION MODULE SIZE T2 MODULO DI COLLEGAMENTO ELETTRICO TAGLIA T2

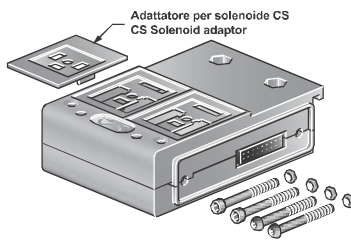
MODULE FOR ASSEMBLING OF FOLLOWING MANIFOLD:  
MODULO PER ASSEMBLARE LE SEGUENTI BATTERIE:

## MPK-14

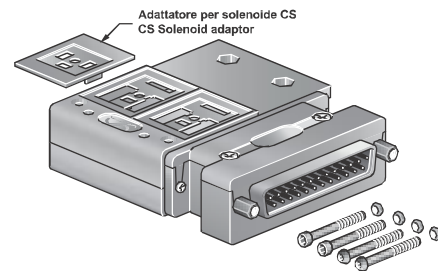
K1/4 SOLENOID VALVES  
ELETTROVALVOLE K1/4

## MPB-8

DIRECT ACTUATED VALVES 3/2 G1/8  
ELETTROVALVOLE A COMANDO DIRETTO 3/2 G1/8



Connection for 2 valve stations  
Connessione per 2 valvole



FRONT connection for 2 valve stations  
Connessione FRONTALE per 2 valvole

### MPV T2 - □

- S** To use with cable MPW-16 and MPW-32  
Position N°0÷16  
Per cavo MPW-16 o MPW-32  
Posizione N°0÷16
- D** To use with cable MPW-32  
Position N°17÷32  
Per cavo MPW-32  
Posizione N°17÷32

### MPV T2 - □ SBD25

- S** To use with cable MPW-16 and MPW-32  
Position N°0÷16  
Per cavo MPW-16 o MPW-32  
Posizione N°0÷16
- D** To use with cable MPW-32  
Position N°17÷32  
Per cavo MPW-32  
Posizione N°17÷32

## MANIFOLD OF DIRECT ACTUATED VALVES 3/2 NC - G1/8 IN MULTIPOLE CONNECTION SYSTEM BATTERIA MULTIPOLARE DI ELETTROVALVOLE A COMANDO DIRETTO 3/2 NC G1/8

**MPB-8-□-□-□-□**

Number of station valves  
Numero posti  
**2, 4, 6, ..., 16**

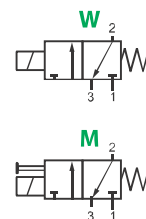
With override **M**  
Manuale

Without override **W**  
Senza manuale

MS Solenoid (refer to page B-36)  
Solenoid MS (vedere pag. B-36)  
24V dc: **00**  
24V ac: **50**

- S** To use with cable MPW-16  
To use with cable MPW-32  
Position N°0÷16  
Per cavo MPW-16  
Per cavo MPW-32  
Posizione N°0÷16
- D** To use with cable MPW-32  
Position N°17÷32  
Per cavo MPW-32  
Posizione N°17÷32

### SIMBOLS / SIMBOLI



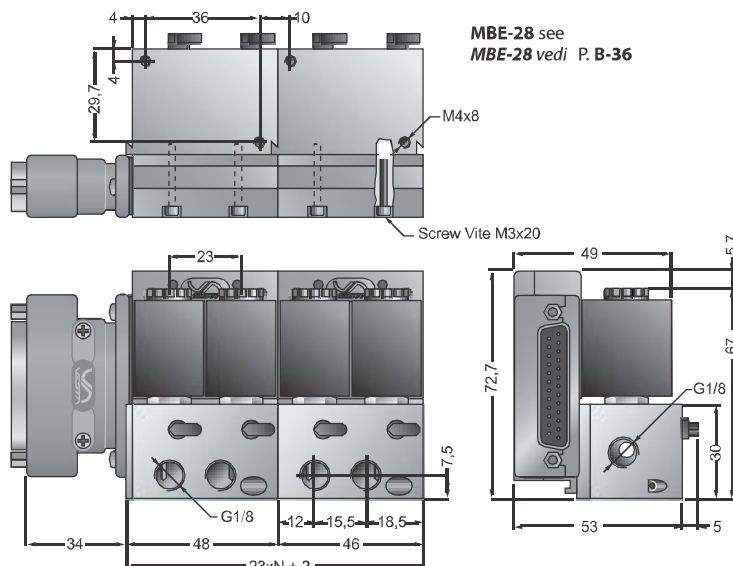
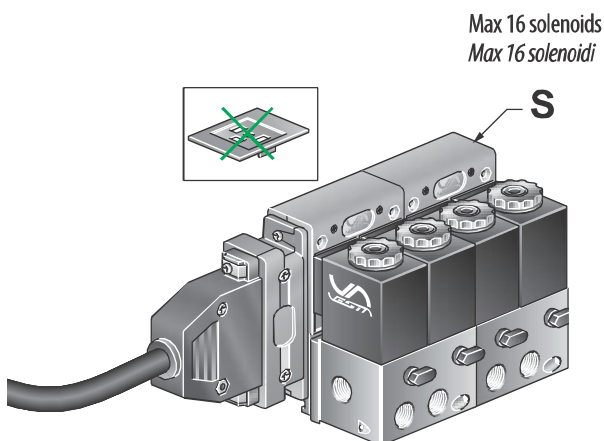
(\*) Available upon request N.O. solenoid operator max 6 bar  
Disponibile anche operatore N.A. su richiesta, max 6 bar

### TECHNICAL FEATURES

Flow section .....	Ø1,2mm
Nominal Flow .....	80NI/min
Working pressure .....	0-9bar
Environment temperature range .....	-10 °C ÷ +50 °C
Temperature range of medium .....	0 °C ÷ +40 °C
Solenoids .....	Refer to MS series page B-36

### CARATTERISTICHE TECNICHE

Diametro nominale .....	Ø1,2mm
Portata nominale .....	80NI/min
Pressione esercizio .....	0-9bar
Temperatura ambiente .....	-10 °C ÷ +50 °C
Temperatura fluido .....	0 °C ÷ +40 °C
Solenoid .....	Vedere MS pag. B-36



**MANIFOLD OF K1/4 VALVES IN MULTIPOLE CONNECTION SYSTEM  
BATTERIA MULTIPOLARE DI VALVOLE K1/4**

**MPK-14-**

Max 16 valve stations / Max 16 posti valvola



- B** 5/2 ways double solenoid valve (K52W2014)  
5/2 bistabile (K52W2014)
- C** 5/3 ways mid position closed (K53W2S614)  
5/3 centri chiusi (K53W2S614)
- D** 2x3/2 NC o 5/3 mid position open (K66W2014 o K53W2S914)  
2x3/2 NC o 5/3 centri aperti (K66W2014 o K53W2S914)
- E** 2x3/2 NO o 5/3 mid position pressurized (K99W2014 o K53W2S314)  
2x3/2 NO o 5/3 centri in pressione (K99W2014 o K53W2S314)
- F** 3/2NC + 3/2NO (K96W2014)  
3/2NC + 3/2NO (K96W2014)
- M** 5/2 ways single solenoid valve (K52W1014)  
5/2 monostabile (K52W1014)
- V** free place for single solenoid valve  
posto vuoto singolo solenoide
- W** free place for double solenoid valve  
posto vuoto doppio solenoide

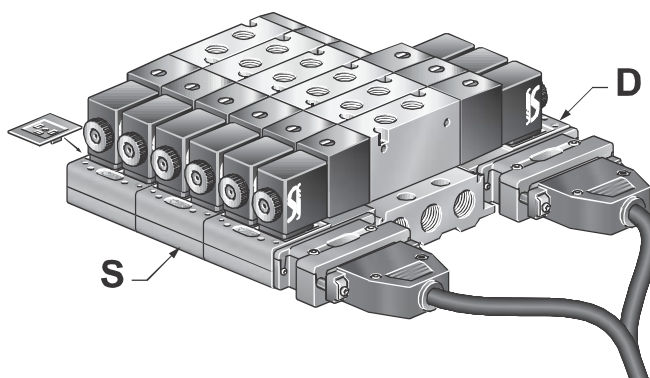
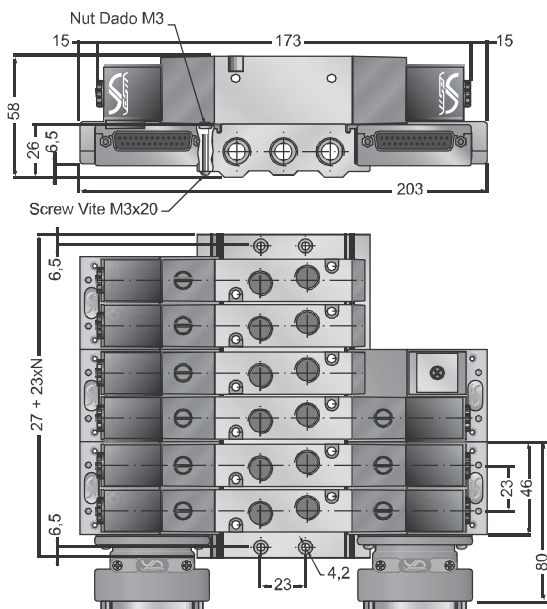
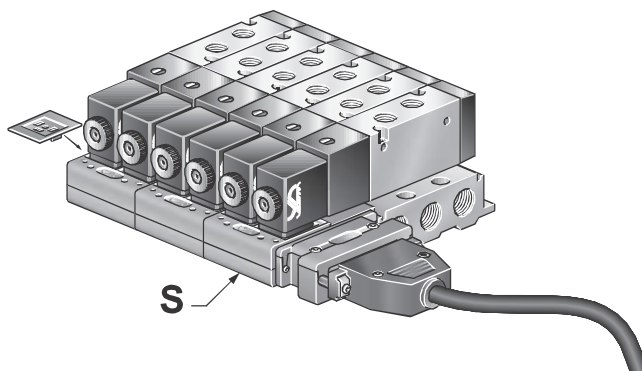
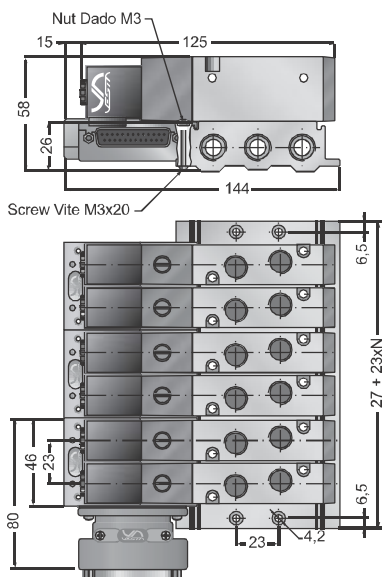
CS Solenoid (refer to page B-52)  
Solenoide CS (vedere pag. B-52)  
**00** 24V dc  
**50** 24V ac

**TECHNICAL FEATURES**

Working pressure .....	0-9bar
Environment temperature range .....	-10 °C ÷ +50 °C
Temperature range of medium .....	0 °C ÷ +40 °C
Valves .....	Refer to K1/4 series page B-42
Air flow .....	1300NI/min

**CARATTERISTICHE TECNICHE**

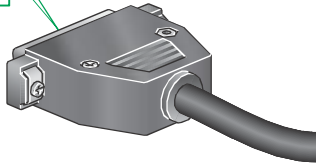
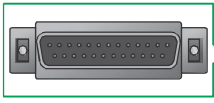
Pressione esercizio .....	0-9bar
Temperatura ambiente .....	-10 °C ÷ +50 °C
Temperatura fluido .....	0 °C ÷ +40 °C
Valvole .....	Vedere K1/4 pag. B-42
Portata .....	1300NI/min





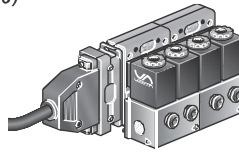
## MPW-SD25...

CABLE FOR SINGLE CONNECTION (STRAIGHT CABLE)  
CAVO A SINGOLA CONNESSIONE (CAVO DRITTO)

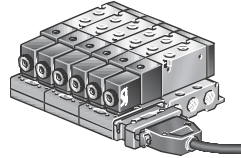


Cable length  
Lunghezza cavo

025 - 2500 mm  
050 - 5000 mm



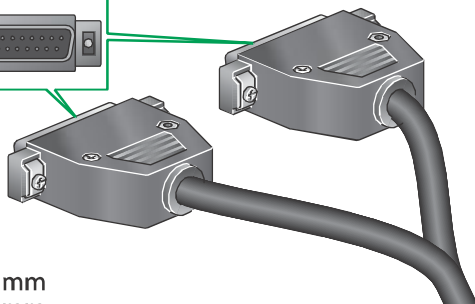
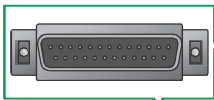
To use with **MPB-8 S** and **MPB-4 S**  
(Max 16 solenoids)  
Per **MPB-8 S** e **MPB-4 S**  
(Max 16 solenoidi)



To use with and With single solenoid valves  
(Max 16 solenoids)  
Per **MPK-18** e **MPK-14** Con valvole singolo  
solenoidi (Max 16 solenoidi)

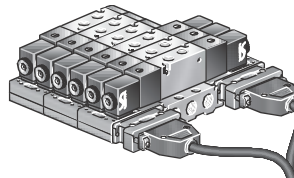
## MPW-YSD25...

CABLE FOR DOUBLE CONNECTION ("Y" CABLE)  
CAVO A DOPPIA CONNESSIONE (CAVO AD "Y")



Cable length  
Lunghezza cavo

025 - 2500 mm  
050 - 5000 mm

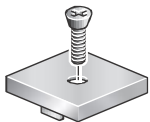


To use with **MPK-18** and **MPK-14** With double  
solenoid valves (Max 32 solenoids)  
Per **MPK-18** e **MPK-14** Con valvole doppio  
solenoidi (Max 32 solenoidi)

### ACCESSORIES / ACCESSORI

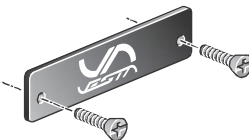
#### MPS

Plug for missing solenoid  
Chiusura per solenoide mancante



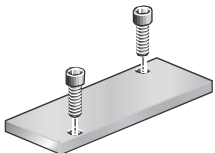
#### MPFP

End plug  
Terminale di chiusura



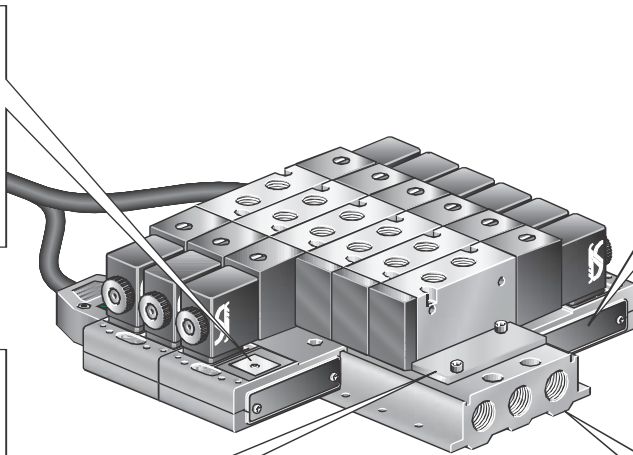
#### KPCH01 .

Features see:  
Caratteristiche vedi: **Pag. B-52**



#### KME ...

Features see:  
Caratteristiche vedi: **Pag. B-51**



# INDEX / INDICE

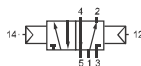
## MINI VALVES AND MINI SOLENOID VALVES ISO 18 SERIES / MINI VALVOLE E MINI ELETTROVALVOLE SERIE ISO 18



**SVP18 52 100**

SINGLE PNEUMATIC PILOT - INTERNAL PRESSURE RETURN  
COMANDO PNEUMATICO - RIPOSIZIONAMENTO MOLLA PNEUMATICA

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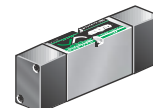
**SVP18 52 200**

DOUBLE PNEUMATIC PILOT  
DOPPIO COMANDO PNEUMATICO



**SVP18 52 2D0**

DOUBLE DIFFERENTIAL PNEUMATIC PILOT  
DOPPIO COMANDO PNEUMATICO DIFFERENZIALE



**SVP18 53 230**

DOUBLE PNEUMATIC PILOT (CENTRE POSITION IN PRESSURE)  
DOPPIO COMANDO PNEUMATICO (CENTRI IN PRESSIONE)

pag. B-63



**SVP18 53 260**

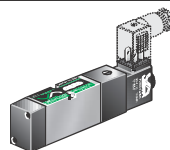
DOUBLE PNEUMATIC PILOT (CENTRE POSITION CLOSED)  
DOPPIO COMANDO PNEUMATICO (CENTRI CHIUSI)

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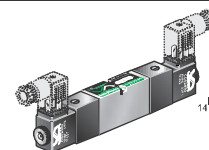
**SVP18 53 290**

DOUBLE PNEUMATIC PILOT (CENTRE POSITION OPEN)  
DOPPIO COMANDO PNEUMATICO (CENTRI APERTI)



**SVE18 52 100 - .....**

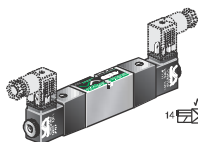
SINGLE SOLENOID PILOT - INTERNAL PRESSURE RETURN  
COMANDO ELETTROPNEUMATICO - RIPOSIZIONAMENTO MOLLA PNEUMATICA



**SVE18 52 200 - .....**

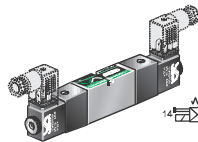
DOUBLE SOLENOID PILOT  
DOPPIO COMANDO ELETTROPNEUMATICO

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**SVE18 53 230 - .....**

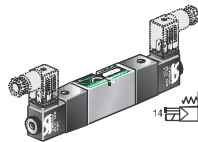
DOUBLE SOLENOID PILOT (CENTRE POSITION IN PRESSURE)  
DOPPIO COMANDO ELETTROPNEUMATICO (CENTRI IN PRESSIONE)



**SVE18 53 260 - .....**

DOUBLE SOLENOID PILOT (CENTRE POSITION CLOSED)  
DOPPIO COMANDO ELETTROPNEUMATICO (CENTRI CHIUSI)

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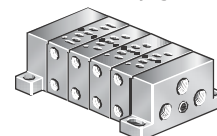


**SVE18 53 290 - .....**

DOUBLE SOLENOID PILOT (CENTRE POSITION OPEN)  
DOPPIO COMANDO ELETTROPNEUMATICO (CENTRI APERTI)

pag. B-66

**BTC 18**  
**BMI 18 E**  
**BMI 18 EP**  
**BTI 18**  
**PCBM 18**



ISO-VDMA 24563 MODULAR MANIFOLD SIZE 18 mm  
BASI MODULARI/ISO-VDMA, TAGLIA 18 mm



## BUILDING FEATURES ISO 24563 / CARATTERISTICHE COSTRUTTIVE VALVOLE ISO 24563

Series **SV . 18** valves and solenoid valves are built in compact dimensions for very flexible and small manifolds.

The solenoid valves, complete with coil and connector, follows EEC directives on the electromagnetic compatibility (89/336/EEC) and low voltage (73/23/EEC). The **SV . 18** valves are built with high quality materials and components, and thanks to this the quality, reliability and performances are very high

*Le valvole ed elettrovalvole Vesta serie **SV . 18** funzionano secondo il principio del cassetto bilanciato (vedi fig. 1 e 2 ), presentano ingombri molto ridotti per l'assemblaggio in batterie compatte.*

*Le elettrovalvole complete di bobina e connettore, sono conformi alle direttive CEE relative alla compatibilità elettromagnetica (89/336/CEE) ed alla bassa tensione (73/23/CEE). L'impiego di materiali e componenti di alta qualità conferisce alla serie **SV . 18** caratteristiche di qualità, prestazioni ed affidabilità molto elevate.*

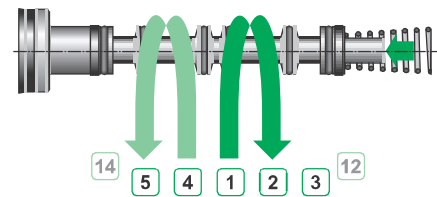
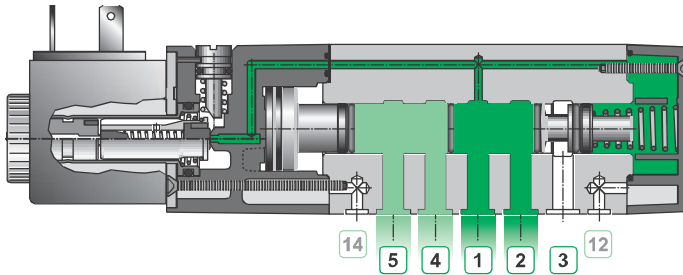


fig. 1

NORMAL POSITION / POSIZIONE A RIPOSO

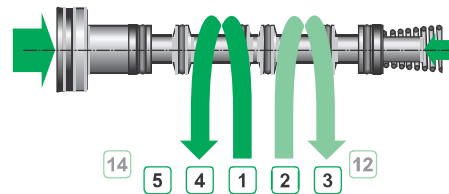
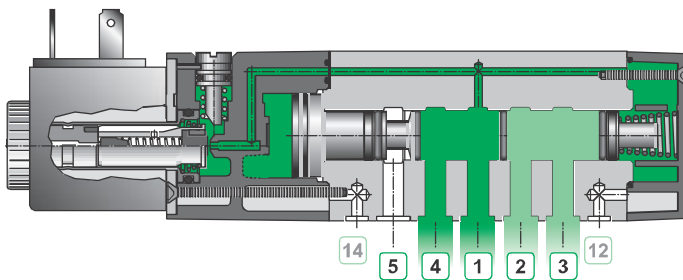


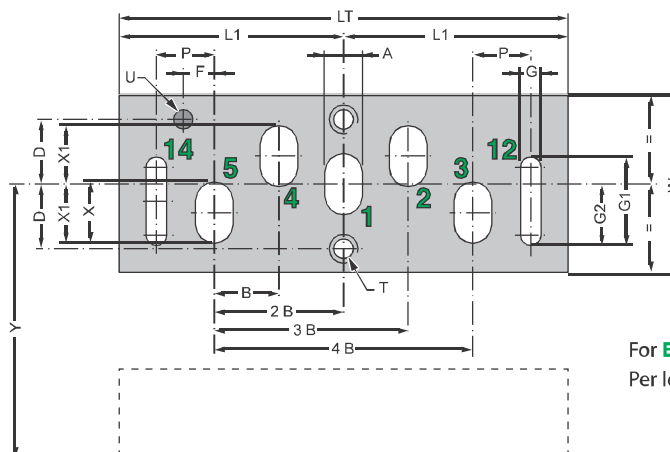
fig. 2

ACTUATED POSITION / POSIZIONE DI LAVORO

## MOUNTING INTERFACE SURFACE ISO 24563 / DIMENSIONI DEI PIANI DI POSA ISO 24563

Standard **ISO - 24563**, indicates the main dimensions of the mounting interface surface; the minimum distance of each subbase and the port connection numbers as figure shows. **VESTA** subbase design is in compliance with the **VDMA** standards.

*La norma **ISO - 24563**, emanata dall'Organismo Internazionale di Standardizzazione e accettata da tutti i grandi utilizzatori, stabilisce le dimensioni del piano di posa del distributore, l'interasse minimo tra due basi affiancate e la numerazione delle connessioni di entrata e di uscita come da schema a fianco riportato. Nella concezione delle basi **VESTA**, inoltre, si sono seguite le raccomandazioni **VDMA** che definiscono in maniera più precisa la geometria della base stessa.*



For **E** and **EP** manifold version see  
Per le basi versione **E** ed **EP** vedi ..... **Pag. B-66**

	A	B	D	F	G	G1	G2	L1	LT	P	T	U	W min.	X	X1	Y	Area mm <sup>2</sup>
ISO 18 mm	3,5	7	6,25	3	2	8	6	25	50	6	M3	Ø3,2 x 4	18	6,5	5,25	19	20



## TECHNICAL FEATURES / CARATTERISTICHE TECNICHE

## SERIE SVP18 - SVE18

### COMMON TECHNICAL FEATURES SVP18 AND SVE18

Fixing .....	2 manifold holes Ø 3,1
Port connections .....	ISO -VDMA 24563 standard
Flow section .....	Ø 4,5 mm
Ambient temperature range .....	-10 °C / +50 °C
Temperature range of medium .....	0 °C / +40 °C

Lubrication .....	Not required
Medium .....	Filtered air
Reference pressure .....	6 bar
Nominal air flow 5/2 valves .....	480 NI/min
Nominal air flow 5/3 valves .....	390 NI/min

### PNEUMATIC VALVES FEATURES SVP18

<b>SVP18 52 100</b>	Nominal pilot pressure .....	3,1 bar (9 bar)
	Nominal max. frequency .....	30 Hz
	<b>Operating pressure range .....</b>	<b>2,5 ÷ 9 bar</b>

<b>SVP18 52 200</b>	Nominal pilot pressure .....	0,97 bar
	Nominal max. frequency .....	33 Hz
	<b>Operating pressure range .....</b>	<b>0 ÷ 9 bar</b>

<b>SVP18 52 2D0</b>	Nominal pilot (12) pressure .....	1,35 bar
	Nominal pilot (14) pressure .....	0,97 bar
	Nominal max. frequency .....	30 Hz
	<b>Operating pressure range .....</b>	<b>0 ÷ 9 bar</b>

<b>SVP18 53 230</b>	Nominal pilot pressure .....	3 bar
	Nominal max. frequency .....	10 Hz
	<b>Operating pressure range .....</b>	<b>0 ÷ 9 bar</b>

<b>SVP18 53 260</b>	Nominal pilot pressure .....	3 bar
	Nominal max. frequency .....	10 Hz
	<b>Operating pressure range .....</b>	<b>0 ÷ 9 bar</b>

<b>SVP18 53 290</b>	Nominal pilot pressure .....	3 bar
	Nominal max. frequency .....	10 Hz
	<b>Operating pressure range .....</b>	<b>0 ÷ 9 bar</b>

### SOLENOID VALVES FEATURES SVE18

	AC	DC	
<b>SVE18 52 100</b>	Nominal max. frequency .....	27 Hz	17 Hz
	<b>Operating pressure range ... 2,5 ÷ 9 bar</b>		

	AC	DC	
<b>SVE18 52 200</b>	Nominal max. frequency .....	42 Hz	34 Hz
	<b>Operating pressure range ... 1,5 ÷ 9 bar</b>		

<b>SVE18 53 230</b>	Nominal max. frequency .....	12 Hz	10 Hz
	<b>Operating pressure range ... 3 ÷ 9 bar</b>		

<b>SVE18 53 260</b>	Nominal max. frequency .....	12 Hz	10 Hz
	<b>Operating pressure range ... 3 ÷ 9 bar</b>		

<b>SVE18 53 290</b>	Nominal max. frequency .....	12 Hz	10 Hz
	<b>Operating pressure range ... 3 ÷ 9 bar</b>		

For electrical features solenoid pilot SVE18 serie see pp. B-52

### CARATTERISTICHE TECNICHE COMUNI SVP18 E SVE18

Fissaggio .....	2 fori Ø 3,1 per montaggio su base
Connessioni .....	ISO -VDMA 24563 standard
Diametro nominale .....	Ø 4,5 mm
Temperatura ambiente .....	-10 °C / +50 °C
Temperatura fluido .....	0 °C / +40 °C

Lubrificazione .....	Non necessaria
Fluido .....	Aria filtrata
Pressione nominale .....	6 bar
Portata nominale valvole 5/2 .....	480 NI/min
Portata nominale valvole 5/3 .....	390 NI/min

### CARATTERISTICHE VALVOLE PNEUMATICHE SVP18

<b>SVP18 52 100</b>	Pressione di pilotaggio nominale .....	3,1 bar (9 bar)
	Frequenza max. nominale .....	30 Hz
	<b>Pressione di esercizio .....</b>	<b>2,5 ÷ 9 bar</b>

<b>SVP18 52 200</b>	Pressione di pilotaggio nominale .....	0,97 bar
	Frequenza max. nominale .....	33 Hz
	<b>Pressione di esercizio .....</b>	<b>0 ÷ 9 bar</b>

<b>SVP18 52 2D0</b>	Pressione di pilotaggio (12) nominale .....	1,35 bar
	Pressione di pilotaggio (14) nominale .....	0,97 bar
	Frequenza max. nominale .....	30 Hz
	<b>Pressione di esercizio .....</b>	<b>0 ÷ 9 bar</b>

<b>SVP18 53 230</b>	Pressione di pilotaggio nominale .....	3 bar
	Frequenza max. nominale .....	10 Hz
	<b>Pressione di esercizio .....</b>	<b>0 ÷ 9 bar</b>

<b>SVP18 53 260</b>	Pressione di pilotaggio nominale .....	3 bar
	Frequenza max. nominale .....	10 Hz
	<b>Pressione di esercizio .....</b>	<b>0 ÷ 9 bar</b>

<b>SVP18 53 290</b>	Pressione di pilotaggio nominale .....	3 bar
	Frequenza max. nominale .....	10 Hz
	<b>Pressione di esercizio .....</b>	<b>0 ÷ 9 bar</b>

### CARATTERISTICHE ELETTROVALVOLE SVE18

	AC	DC	
<b>SVE18 52 100</b>	Frequenza max. nominale .....	27 Hz	17 Hz
	<b>Pressione di esercizio .....</b>		

	AC	DC	
<b>SVE18 52 200</b>	Frequenza max. nominale .....	42 Hz	34 Hz
	<b>Pressione di esercizio .....</b>		

<b>SVE18 53 230</b>	Frequenza max. nominale .....	12 Hz	10 Hz
	<b>Pressione di esercizio .....</b>		

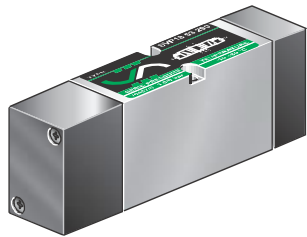
<b>SVE18 53 260</b>	Frequenza max. nominale .....	12 Hz	10 Hz
	<b>Pressione di esercizio .....</b>		

<b>SVE18 53 290</b>	Frequenza max. nominale .....	12 Hz	10 Hz
	<b>Pressione di esercizio .....</b>		

Caratteristiche elettriche bobina per elettrovalvole SVE18 vedi pp. B-52

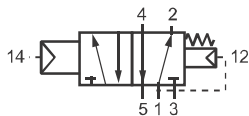


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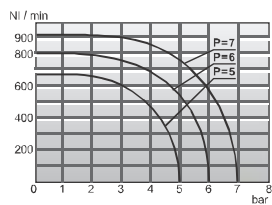


**VALVE / VALVOLA 5/2**  
SINGLE PNEUMATIC PILOT - INTERNAL PRESSURE RETURN  
COMANDO PNEUMATICO - RIPOSIZIONAMENTO A MOLLA PNEUMATICA

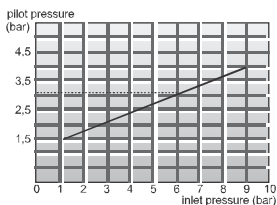
## SIMBOL / SIMBOLO



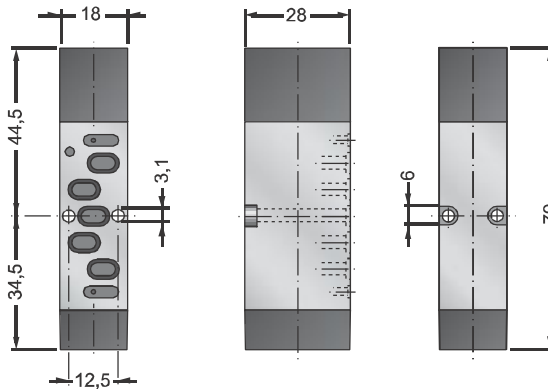
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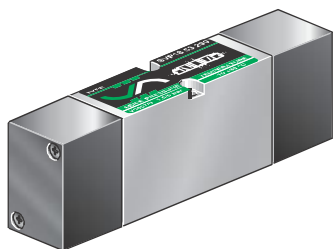
AIR FLOW DIAGRAM  
DIAGRAMMA DELLE PORTATE



PILOT PRESSURE / INLET PRESSURE  
DIAGRAMMA DELLA PRESSIONE DI PILOTAGGIO

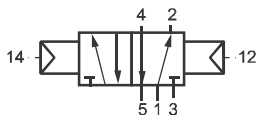


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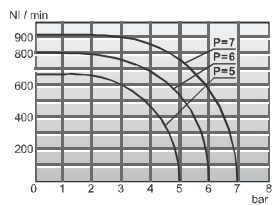


**VALVE / VALVOLA 5/2**  
DOUBLE PNEUMATIC PILOT  
DOPPIO COMANDO PNEUMATICO

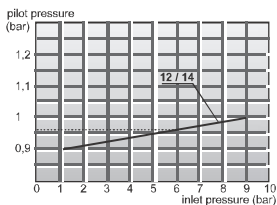
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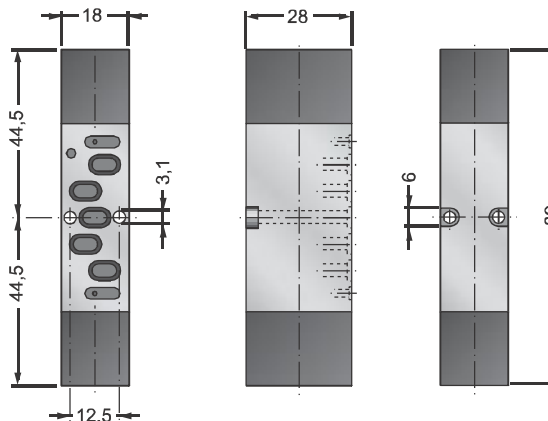
## DIAGRAMS / DIAGRAMMI



AIR FLOW DIAGRAM  
DIAGRAMMA DELLE PORTATE

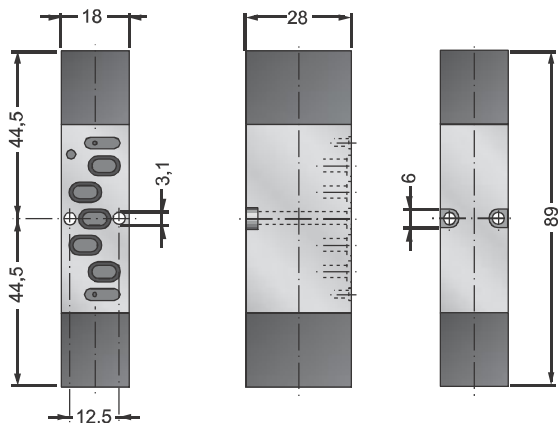
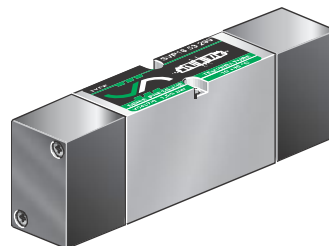


PILOT PRESSURE / INLET PRESSURE  
DIAGRAMMA DELLA PRESSIONE DI PILOTAGGIO

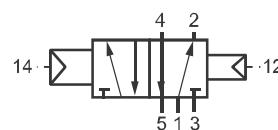


**VALVE / VALVOLA 5/2**  
 DOUBLE DIFFERENTIAL PNEUMATIC PILOT  
 DOPPIO COMANDO PNEUMATICO DIFFERENZIALE

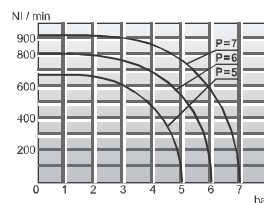
**SVP18 52 2D0**



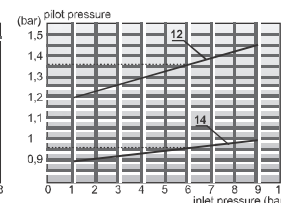
**SYMBOL / SIMBOLO**



**DIAGRAMS / DIAGRAMMI**



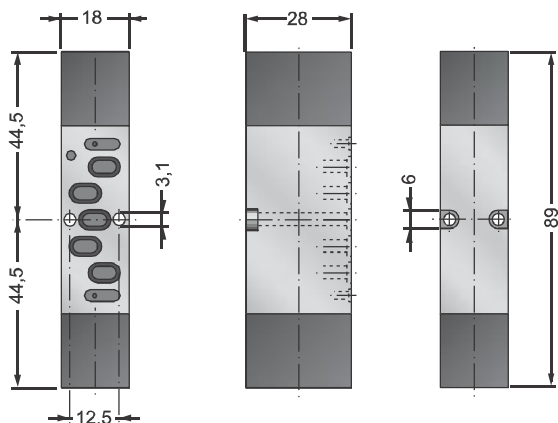
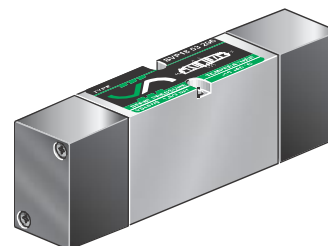
AIR FLOW DIAGRAM  
 DIAGRAMMA DELLE PORTATE



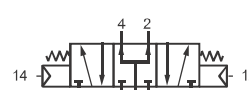
PILOT PRESSURE / INLET PRESSURE  
 DIAGRAMMA DELLA PRESSIONE DI PILOTAGGIO

**VALVE / VALVOLA 5/3**  
 DOUBLE PNEUMATIC PILOT - SPRING RETURN  
 DOPPIO COMANDO PNEUMATICO - RITORNO A MOLLA

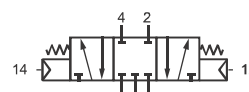
**SVP18 53 2.0**



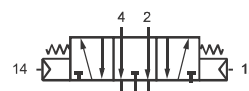
**SYMBOLS / SIMBOLI**



**SVP18 53 230**

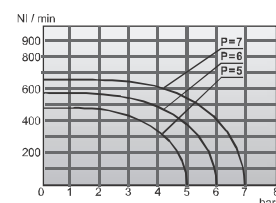


**SVP18 53 260**

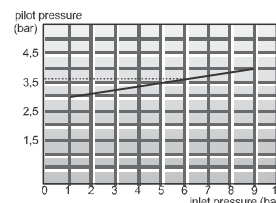


**SVP18 53 290**

**DIAGRAMS / DIAGRAMMI**



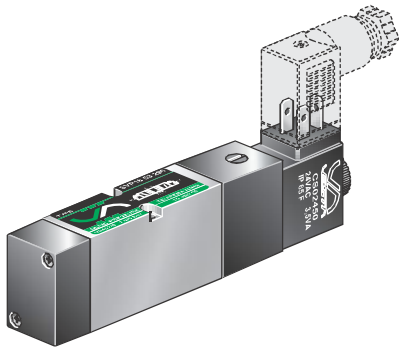
AIR FLOW DIAGRAM / DIAGRAMMA DELLE PORTATE



PILOT PRESSURE / INLET PRESSURE  
 DIAGRAMMA DELLA PRESSIONE DI PILOTAGGIO

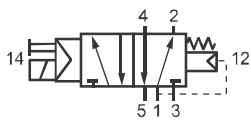


## SVE18 52 100 - ....

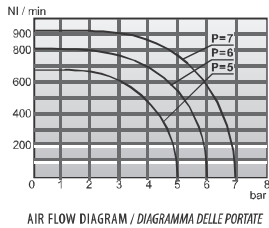


### SOLENOID VALVE / ELETTROVALVOLA 5/2 SINGLE SOLENOID PILOT - INTERNAL PRESSURE RETURN COMANDO ELETTROPNEUMATICO - RIPOSIZIONAMENTO A MOLLA PNEUMATICA

#### SIMBOL / SIMBOLO

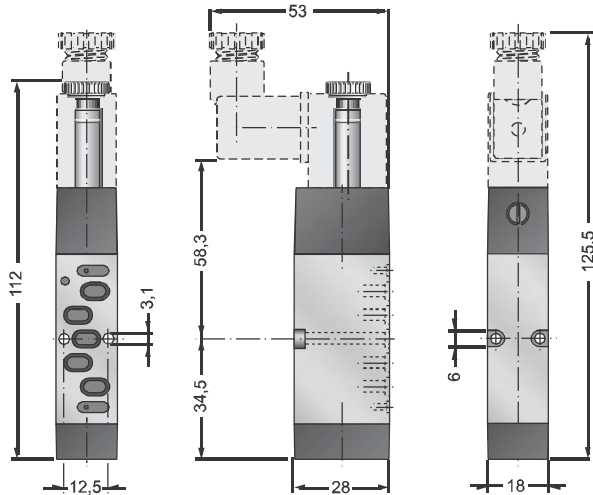


#### DIAGRAM / DIAGRAMMA

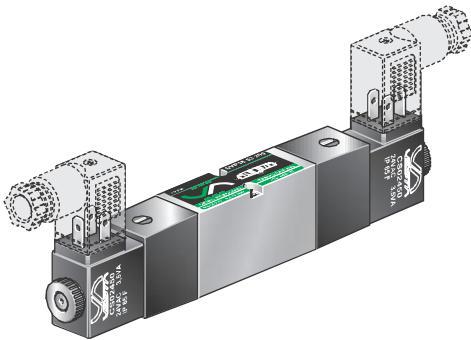


#### CODES / CODICI

Ordination code Codice ordinazione	Voltage Tensione
SVE18 52 100-00000	No coil / Senza solenoide
SVE18 52 100-01200	12 V DC
SVE18 52 100-02400	24 V DC
SVE18 52 100-02450	24 V 50/60Hz AC
SVE18 52 100-11050	110 V 50/60Hz AC
SVE18 52 100-22050	220 V 50/60Hz AC

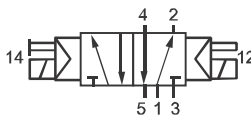


## SVE18 52 200 - ....

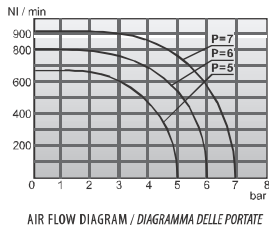


### SOLENOID VALVE / 5/2 DOUBLE SOLENOID PILOT DOPPIO COMANDO ELETTROPNEUMATICO

#### SIMBOL / SIMBOLO

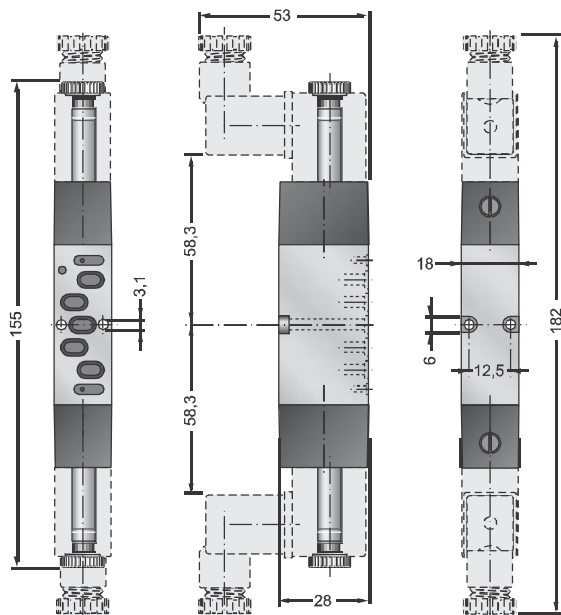


#### DIAGRAM / DIAGRAMMA



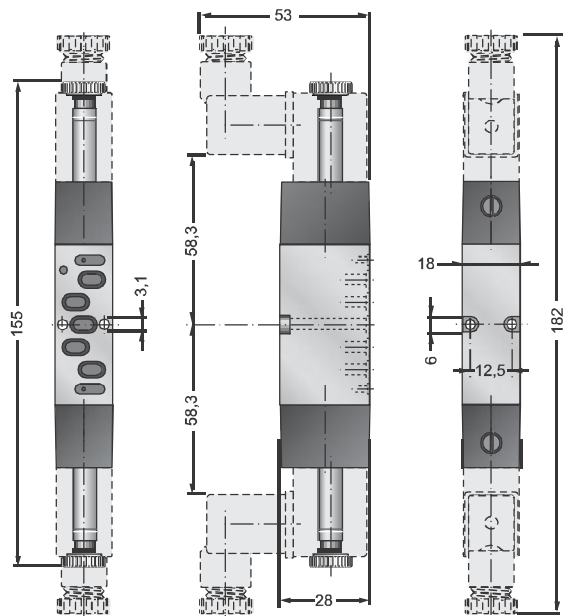
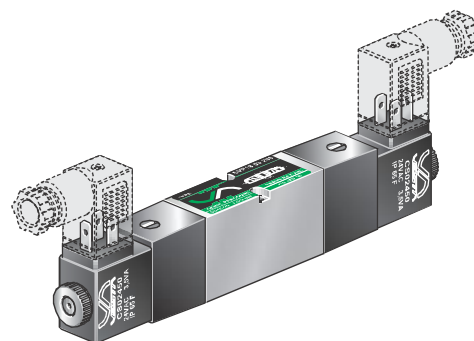
#### CODES / CODICI

Ordination code Codice ordinazione	Voltage Tensione
SVE18 52 200-00000	No coils / Senza solenoidi
SVE18 52 200-01200	12 V DC
SVE18 52 200-02400	24 V DC
SVE18 52 200-02450	24 V 50/60Hz AC
SVE18 52 200-11050	110 V 50/60Hz AC
SVE18 52 200-22050	220 V 50/60Hz AC



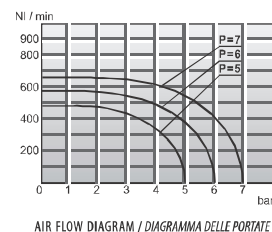
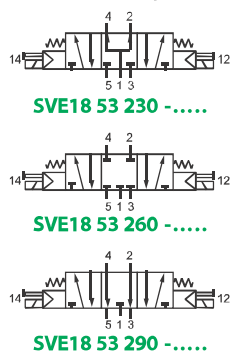
**SOLENOID VALVE / ELETTROVALVOLA 5/3**  
 DOUBLE SOLENOID PILOT  
 DOPPIO COMANDO ELETTROPNEUMATICO

**SVE18 53 2.0 - .....**



**SIMBOL / SIMBOLO**

**DIAGRAM / DIAGRAMMA**



**CODES / CODICI**

Ordination code Codice ordinazione	Voltage Tensione
<b>SVE18 53 2.0-00000</b> .....	No coils / Senza solenoidi
<b>SVE18 53 2.0-01200</b> .....	12 V DC
<b>SVE18 53 2.0-02400</b> .....	24 V DC
<b>SVE18 53 2.0-02450</b> .....	24 V 50/60Hz AC
<b>SVE18 53 2.0-11050</b> .....	110 V 50/60Hz AC
<b>SVE18 53 2.0-22050</b> .....	220 V 50/60Hz AC





## ISO 18 MANIFOLD / BATTERIA ISO 18

**BTC 18**

END PLATE  
BASE DI CHIUSURA

**BMI 18 E**

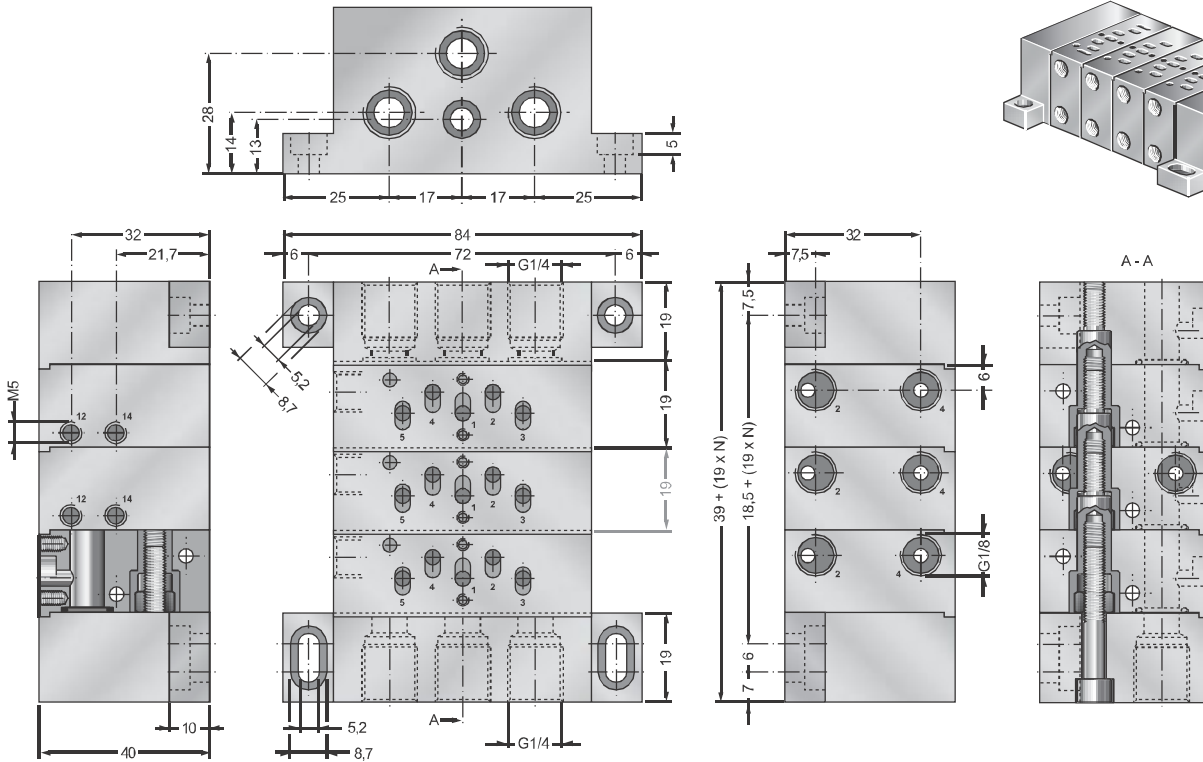
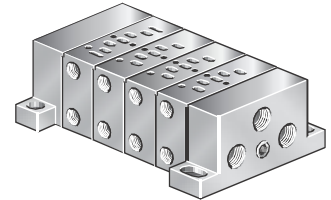
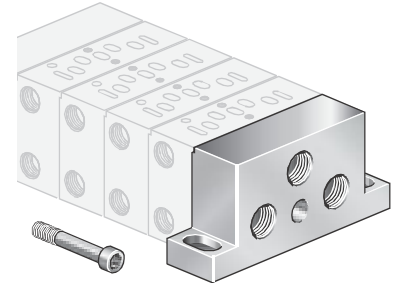
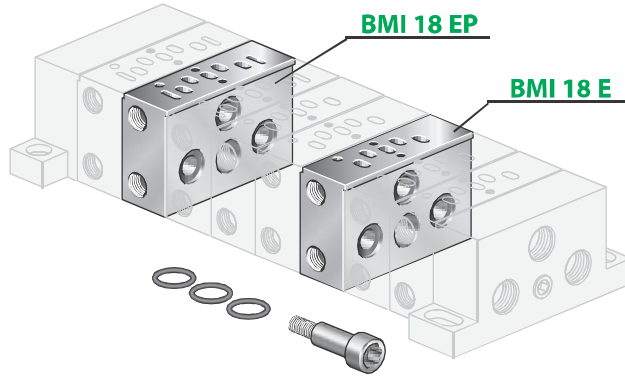
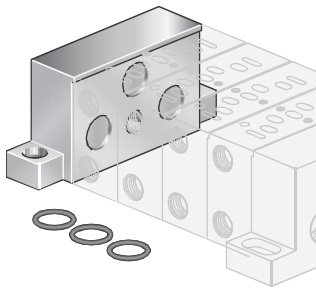
MIDDLE PLATE FOR SOLENOID VALVE MOUNTING  
BASE INTERMEDIA PER IL MONTAGGIO DI ELETTROVALVOLE

**BTI 18**

INLET END PLATE  
BASE DI INGRESSO

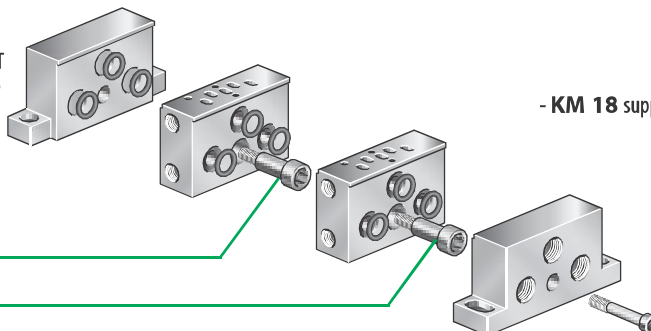
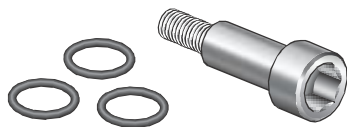
**BMI 18 EP**

MIDDLE PLATE FOR PNEUMATIC AND SOLENOID VALVE MOUNTING  
BASE INTERMEDIA PER IL MONTAGGIO DI VALVOLE PNEUMATICHE ED ELETTROPNEUMATICHE



**KM 18**

ASSEMBLING KIT  
KIT DI RICAMBIO



- **KM 18** supplied with **BMI 18 E** and **BTI 18 P**,  
- Supplied separately on demand.

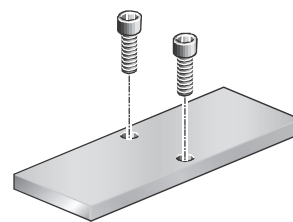
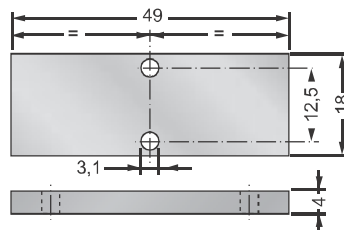
- Il kit **KM 18** viene fornito  
con le basi **BMI 18 E** e **BTI 18 P**,  
- A richiesta può essere fornito  
come ricambio.

PLUG FLAT  
CHIUSURA POSTO INUTILIZZATO

PCBM 18

Plug flat includes assembling screws.

La piastrina di chiusura dei posti non utilizzati della base è fornita con le relative viti di fissaggio.

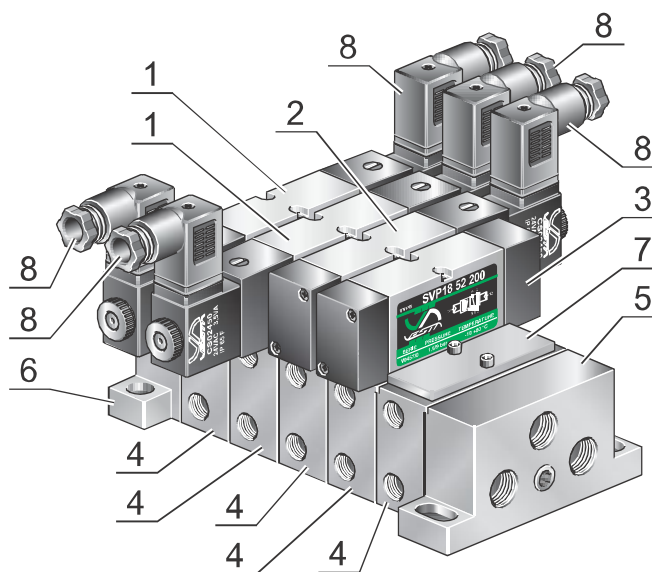


HOW TO ASSEMBLE ISO 18 MANIFOLD / ESEMPIO DI ASSEMBLAGGIO BATTERIA ISO 18

Components needed to assemble the manifold in figure.

Esempio di componenti necessari a realizzare la batteria raffigurata.

Position Posizione	Quantity Quantità	Ordination code Codice ordinazione
1	N° 2	SVE18 52 200 - 02450
2	N° 1	SVE18 52 100 - 02450
3	N° 1	SVP18 52 200
4	N° 5	BMI 18
5	N° 1	BTI 18
6	N° 1	BTC 18
7	N° 1	PCBM 18
8	N° 5	CEP/0



- Valves fixing screws and seals are supplied with valves.
- Subbase fixing screws not supplied.
- Manifold supplied assembled on demand.
- **KM 18** available as spare part separatly.

- Le viti e le guarnizioni per il fissaggio vengono fornite con le valvole.
- Il fissaggio alla base è a cura del cliente.
- A richiesta, la base può essere fornita preassemblata.
- A richiesta, il kit **KM 18** può essere fornito come ricambio.

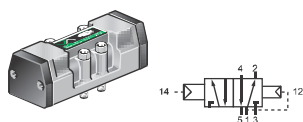
For electrical features solenoid pilot see p. B-52.  
Caratteristiche elettriche bobina per elettrovalvole vedi p. B-52.



# INDEX / INDICE

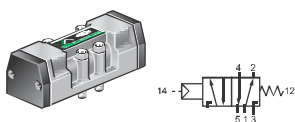
(\*) ATEX versions see / Versioni ATEX vedi P. B-113

## VALVES AND SOLENOID VALVES ISO 5599 SIZE 1 / VALVOLE E ELETTROVALVOLE ISO 5599 TAGLIA 1



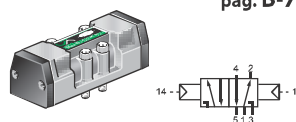
**SVP4 52 100**

SINGLE PNEUMATIC PILOT - INTERNAL PRESSURE RETURN  
COMANDO PNEUMATICO - RIPOSIZIONAMENTO PNEUMATICO



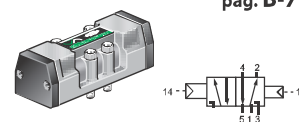
(\*) **SVP4 52 1M0**

SINGLE PNEUMATIC PILOT - SPRING RETURN  
COMANDO PNEUMATICO - RIPOSIZIONAMENTO MOLLA MECCANICA



(\*) **SVP4 52 200**

DOUBLE PNEUMATIC PILOT  
DOPPIO COMANDO PNEUMATICO

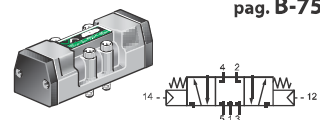


**SVP4 52 2D0**

DOUBLE DIFFERENTIAL PNEUMATIC PILOT  
DOPPIO COMANDO PNEUMATICO DIFFERENZIALE

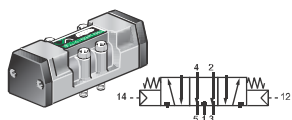
pag. B-74

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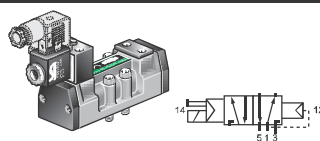
**SVP4 53 260**

DOUBLE PNEUMATIC PILOT (CENTRE POSITION CLOSED)  
DOPPIO COMANDO PNEUMATICO (CENTRI CHIUSI)



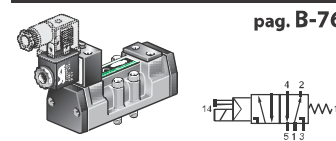
**SVP4 53 290**

DOUBLE PNEUMATIC PILOT (CENTRE POSITION OPEN)  
DOPPIO COMANDO PNEUMATICO (CENTRI APERTI)



**SVE5 52 100 - .....**

SINGLE SOLENOID PILOT - INTERNAL PRESSURE RETURN  
COMANDO ELETTROPNEUMATICO - RIPOSIZIONAMENTO PNEUMATICO

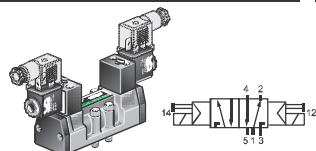


(\*) **SVE5 52 1M0 - .....**

SINGLE SOLENOID PILOT - SPRING RETURN  
COMANDO ELETTROPNEUMATICO - RIPOSIZ. MOLLA MECCANICA

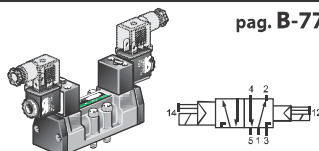
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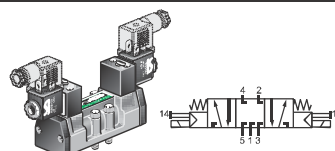
(\*) **SVE5 52 200 - .....**

DOUBLE SOLENOID PILOT  
DOPPIO COMANDO ELETTROPNEUMATICO



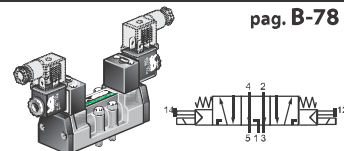
**SVE5 52 2D0 - .....**

DOUBLE DIFFERENTIAL SOLENOID PILOT  
DOPPIO COMANDO ELETTROPNEUMATICO DIFFERENZIALE



**SVE5 53 260 - .....**

DOUBLE SOLENOID PILOT (CENTRE POSITION CLOSED)  
DOPPIO COMANDO ELETTROPNEUMATICO (CENTRI CHIUSI)

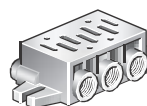


**SVE5 53 290 - .....**

DOUBLE SOLENOID PILOT (CENTRE POSITION OPEN)  
DOPPIO COMANDO ELETTROPNEUMATICO (CENTRI APERTI)

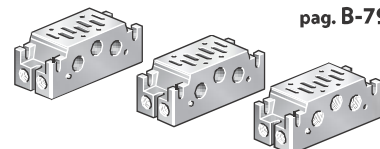
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(\*) **BS 1**

ISO 5599 SINGLE MANIFOLD BASE SIZE 1  
BASE SINGOLA ISO 5599 TAGLIA 1

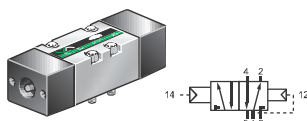


(\*) **BTC 1** (\*) **BMI 1** (\*) **BTI 1**

ISO 5599 MODULAR MANIFOLD BASES SIZE 1  
BASI MODULARI ISO 5599 TAGLIA 1

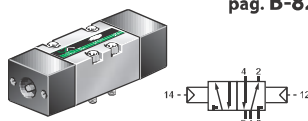
pag. B-79

## VALVES AND SOLENOID VALVES ISO 5599 SIZE 2 / VALVOLE E ELETTROVALVOLE ISO 5599 TAGLIA 2



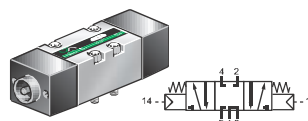
**SVP2 52 100**

SINGLE PNEUMATIC PILOT - INTERNAL PRESSURE RETURN  
COMANDO PNEUMATICO - RIPOSIZIONAMENTO PNEUMATICO



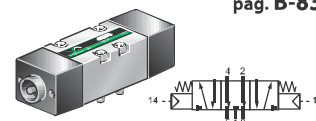
**SVP2 52 200**

DOUBLE PNEUMATIC PILOT  
DOPPIO COMANDO PNEUMATICO



**SVP2 53 260**

DOUBLE PNEUMATIC PILOT (CENTRE POSITION CLOSED)  
DOPPIO COMANDO PNEUMATICO (CENTRI CHIUSI)

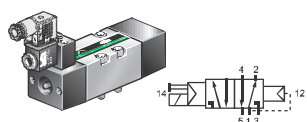


**SVP2 53 290**

DOUBLE PNEUMATIC PILOT (CENTRE POSITION OPEN)  
DOPPIO COMANDO PNEUMATICO (CENTRI APERTI)

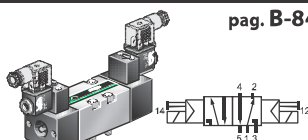
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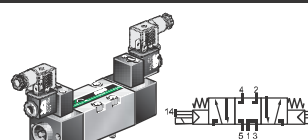
**SVE2 52 100 - .....**

SINGLE SOLENOID PILOT - INTERNAL PRESSURE RETURN  
COMANDO ELETTROPNEUMATICO - RIPOSIZIONAMENTO PNEUMATICO



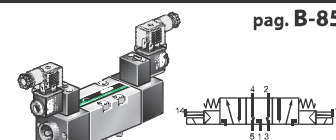
**SVE2 52 200 - .....**

DOUBLE SOLENOID PILOT  
DOPPIO COMANDO ELETTROPNEUMATICO



**SVE2 53 260 - .....**

DOUBLE SOLENOID PILOT (CENTRE POSITION CLOSED)  
DOPPIO COMANDO ELETTROPNEUMATICO (CENTRI CHIUSI)



**SVE2 53 290 - .....**

DOUBLE SOLENOID PILOT (CENTRE POSITION OPEN)  
DOPPIO COMANDO ELETTROPNEUMATICO (CENTRI APERTI)

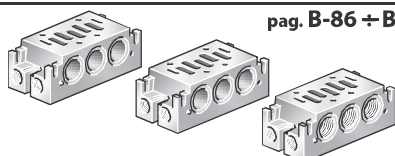
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**BS 2**

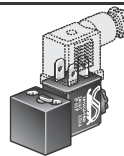
ISO 5599 SINGLE MANIFOLD BASE SIZE 2  
BASE SINGOLA ISO 5599 TAGLIA 2



**BTC 2 BMI 2 BTI 2**

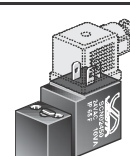
ISO 5599 MODULAR MANIFOLD BASES SIZE 2  
BASI MODULARI ISO 5599 TAGLIA 2

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**ELBAC - .....**

CNOMO SOLENOID VALVE 2,5 Watt - 3,5 V A COIL  
ELETTROPILOTA CNOMO CON BOBINA 2,5 Watt - 3,5 V A



**ELCDC - .....**

CNOMO SOLENOID VALVE 2,5 Watt - 3,5 V A COIL  
ELETTROPILOTA CNOMO CON BOBINA 2,5 Watt - 3,5 V A

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## BUILDING FEATURES / CARATTERISTICHE COSTRUTTIVE

Valves and solenoid valves series **SVE** and **SVP** are manufactured according to the ISO 5599/1 standards (see here below).

The choice of high quality materials and the technical solution adopted allows to the ISO valves to reach a good performance even in harsh environmental conditions. The spool, made by a light alloy aluminium, nickel treated by Niploy Process (see fig. **A**) to give its surface a smooth finish and a better resistance to aggressive agent. Its particular shape allows high nominal flow rates (see fig. **D**) and the combination with self lubricating lip rubber seals (see fig. **B**) bring to reduced internal friction (see fig. **C**) and provides the valve with a long lasting durable life span.

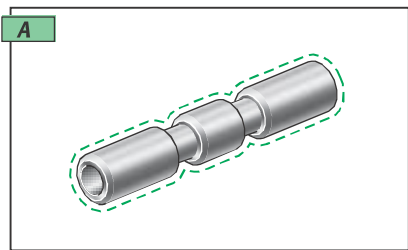
The ISO valves can operate continuously without lubrication (see fig. **E**) and are sealed against working environment.

*Le valvole ed elettrovalvole VESTA serie **SVE** e **SVP** sono prodotte in conformità alle normative ISO 5599/1 (si veda la scheda tecnica a fondo pagina).*

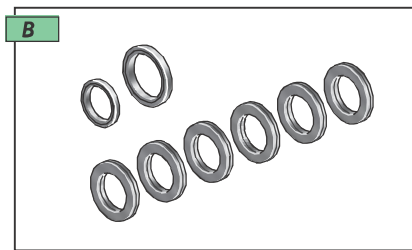
*Le soluzioni tecniche adottate ed i materiali impiegati hanno permesso di realizzare un prodotto che presenta elevate prestazioni funzionali anche in condizioni di impiego particolarmente gravose.*

*La spola, costruita in lega leggera e progettata per consentire elevate portate nominali (**D**), viene trattata superficialmente al nickel (Niploy Process) (**A**) onde acquisire una durezza maggiore ed una più elevata resistenza agli agenti aggressivi. La combinazione tra la spola e le guarnizioni in elastomero nitrilico con profilo del labbro anti-usura (**B**), permette, accanto ad una riduzione degli attriti, una alta velocità di scambio e cicli di lavoro elevati (**C**), garantendo una maggiore durata della meccanica interna. Tutti i modelli di valvola serie **SVE** e **SVP** possono essere utilizzati anche in assenza di lubrificazione (**E**). L'ermeticità di funzionamento verso l'ambiente di lavoro ne fa inoltre un prodotto adatto all'impiego in settori cosiddetti "difficili" (**F**).*

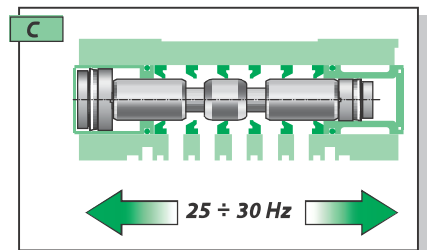
*Nelle pagine che seguono tutte le caratteristiche funzionali di ciascuna valvola sono convalidate dal Dipartimento di Meccanica del Politecnico di Torino.*



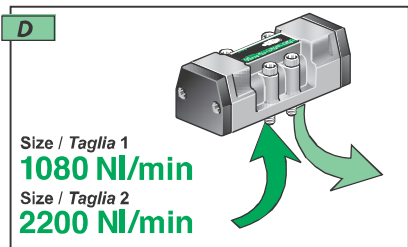
Light alloy spool with Niploy Process treated surface.  
*Spola in lega leggera con trattamento superficiale Niploy Process.*



Self lubricating lip rubber seals.  
*Guarnizioni in elastomero nitrilico con profilo del labbro antiusura.*

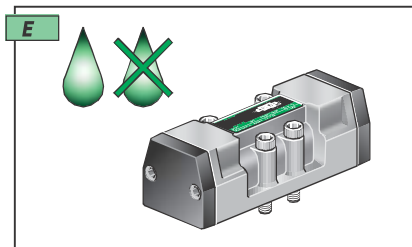


High working frequency.  
*Alta velocità di scambio per cicli di lavoro elevati.*

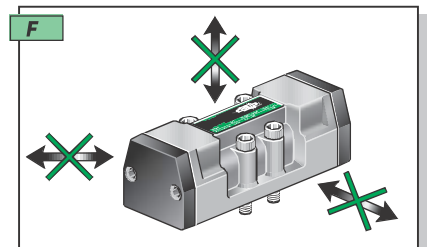


Size / Taglia 1  
**1080 NI/min**  
Size / Taglia 2  
**2200 NI/min**

Nominal air flow (1080 and 2200 NI/min 5/2 valves).  
*Alta portata nominale (1080 e 2200 NI/min per le valvole 5/2).*



Possibility of operating continuously without lubrication.  
*Possibilità di funzionamento continuo privo di lubrificazione.*



Sealed against working environment.  
*Ermeticità di funzionamento verso l'ambiente di lavoro.*

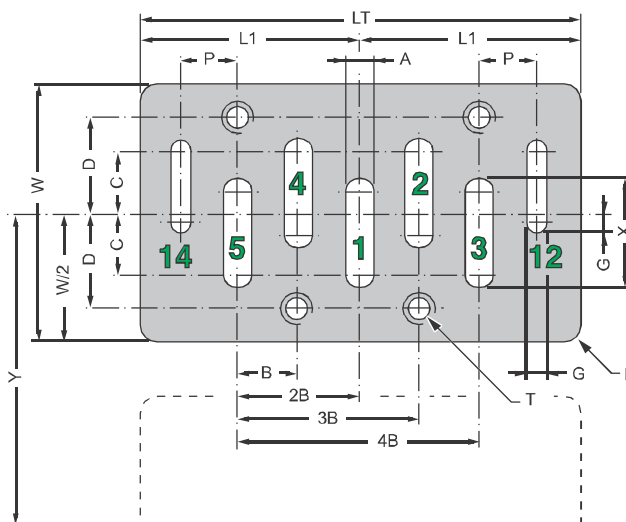


**MOUNTING INTERFACE SURFACE ISO 5599 / 1 / DIMENSIONI DEI PIANI DI POSA ISO 5599 / 1**

Standard ISO 5599/1, indicates the main dimensions of the mounting interface surface; the minimum distance of each subbase and the port connection numbers as figure shows.

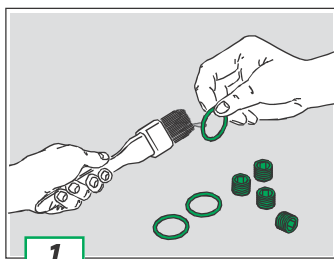
While VESTA subbase design is in compliance with the CETOP standards and the solenoid pilot mounting interface surface follows the CNOMO standard.

La norma ISO 5599/1, emanata dall'Organismo Internazionale di Standardizzazione e accettata da tutti i grandi utilizzatori, stabilisce le dimensioni del piano di posa del distributore, l'interasse minimo tra due basi affiancate e la numerazione delle connessioni di entrata e di uscita come da schema a fianco riportato. Nella concezione delle basi VESTA, inoltre, si sono seguite le raccomandazioni CETOP che definiscono in maniera più precisa la geometria della base stessa. Il piano di posa dell'elettropilota, infine, è conforme a quanto previsto dalle normative CNOMO.



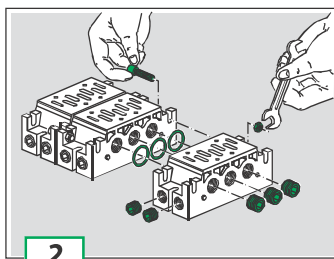
	A	B	C	D	G	L1 min.	LT min.	P	R max	T	W min.	X	Y min.	
SIZE 1	4,5	9	9	14	3	32,5	65	8,5	2,5	M5x0,8	38	16,5	43	TAGLIA 1
SIZE 2	7	12	10	19	3	40,5	81	10	3	M6x1	50	22	56	TAGLIA 2

**HOW TO ASSEMBLE MANIFOLDS AND RELATED ACCESSORIES  
CONSIGLI DI MONTAGGIO DELLE BASI MODULARI E RELATIVI ACCESSORI**



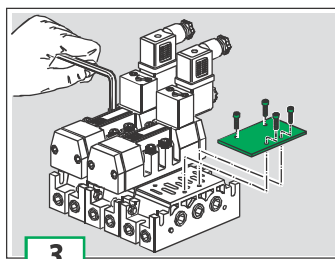
**1**  
Before assembling the single subbases :  
- lubricate seals with grease;  
- cover all male thread with teflon or glue.

Prima di assemblare tra di loro le basi lubrificare le guarnizioni con apposito grasso, rivestire la parte filettata dei tappi di chiusura delle connessioni inutilizzate nonché dei raccordi di collegamento con collante fermafiletto o teflon, avendo cura che i residui non vengano dispersi nei condotti.



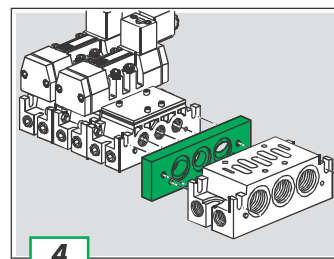
**2**  
Verify the right position of the seals to avoid leakages.  
Fix the fixing screws until tight.

E' importante verificare il corretto montaggio delle guarnizioni sulle relative sedi per evitare che durante il serraggio delle basi possano subire schiacciamenti o tagli. Posizionare inoltre i bulloni di fissaggio completamente in fondo alle rispettive asole per garantire la stabilità del fissaggio.



**3**  
Lubricate coupling valve seals.  
Close the unused subbase with a flat plate.

Lubrificare la guarnizione di accoppiamento delle valvole e procedere al montaggio delle stesse. Chiudere le basi eventualmente inutilizzate con l'apposita piastrina di chiusura.



**4**  
It is possible to interface manifold size 1 and 2 with the INTF 1-2 adapter plate, following the assembly instruction above indicated.

E' possibile interfacciare basi di taglia 1 con basi di taglia 2 per mezzo dell'interfaccia INTF 1-2, seguendo le stesse modalità di montaggio delle basi sopra descritte.

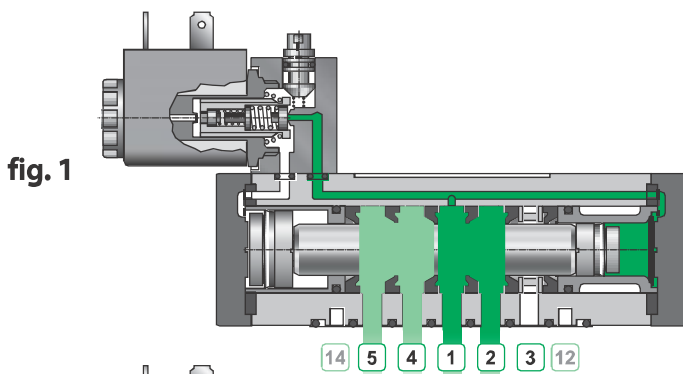


## WORKING PRINCIPLE / PRINCIPIO DI FUNZIONAMENTO

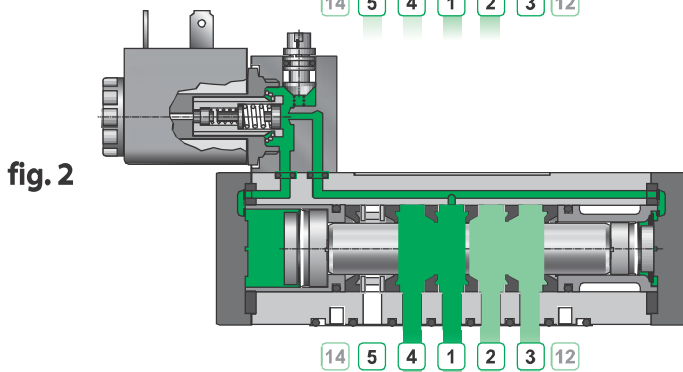
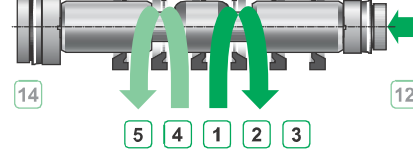
In the example below, when the valve stands in the normal position, ports 4 - 5 and 1 - 2 are connected and the position is kept thanks to the pressure assured to the smallest piston (right side of the valve). When the valve is actuated, the same pressure is fed to the biggest piston. It's bigger surface create a force which allows the spool to move and therefore to connect ports 4 - 1 and 2 - 3. In the mechanical spring version, the valve is kept in the normal position by a mechanical spring. In the bistable version, the position of the valve remains in its last switched state.

Il principio di funzionamento del distributore 5/2 (nell'esempio l'elettrovalvola **SVE5 52 100 - 02450** con comando elettropneumatico e riposizionamento a molla pneumatica) consiste nel mantenere costantemente in pressione il pistone di riposizionamento (fig. 1), utilizzando la fonte d'aria compressa presente nel condotto di alimentazione 1, collegando le vie 1 - 2 e 4 - 5. L'eccitazione del solenoide mette in comunicazione il condotto 1 con la camera dove è alloggiato il pistone di comando. Quest'ultimo, avendo un'area di spinta maggiore del pistone di riposizionamento, sposta la spola in modo tale da collegare i canali 1 - 4 e 2 - 3 (fig. 2). Diseccitando il solenoide si ripristina la posizione iniziale.

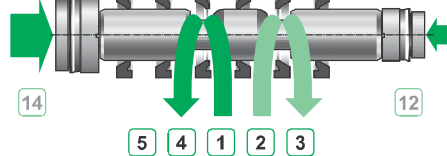
Nei sistemi bistabili (doppio comando elettropneumatico o doppio comando pneumatico) in assenza di segnale rimangono i collegamenti formati nell'ultimo azionamento.



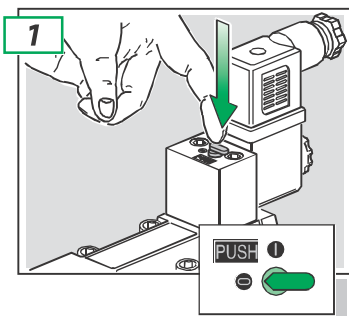
NORMAL POSITION  
POSIZIONE A RIPOSO



ACTUATED POSITION  
POSIZIONE DI LAVORO

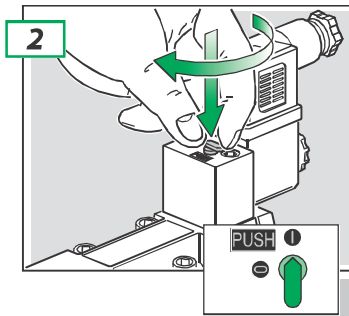


## MANUAL OVERRIDING / AZIONAMENTO COMANDO MANUALE



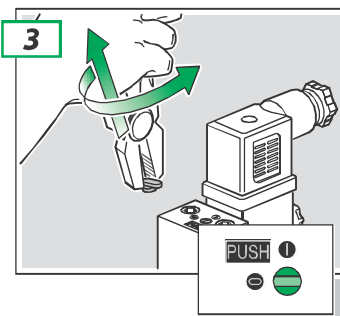
1 Push to actuated valve without locking. **Relise the button to get back to normal position.**

Per azionare la valvola, durante la fase di collaudo con pressione in linea senza collegamento elettrico, premere la leva del comando manuale. Rilasciare per ripristinare la condizione di riposo.



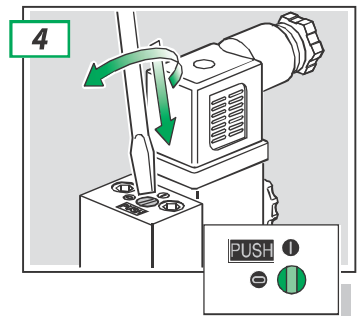
2 To activate the valve permanently push the M/O (manual override) and rotate clockwise 90°. **To return to normal position, push the M/O again and turn 90° anti-clockwise.**

Per azionare la valvola in modo permanente premere la leva del comando manuale e ruotare in senso orario sino alla posizione 1. Ruotare in senso antiorario per ripristinare la condizione di riposo.



3 Should the M/O no longer be required, then turn the M/O anticlockwise until it breaks off.

Terminato il collaudo ruotare in senso antiorario la leva sino alla rottura.



4 Should the M/O be required after breaking off, then a screwdriver may be used.

Per interventi successivi sul comando manuale usare un adeguato cacciavite ed operare come al punto 1 o 2.

## TECHNICAL FEATURES / CARATTERISTICHE TECNICHE

## SERIE SVP4 - SVE5

### COMMON TECHNICAL FEATURES SVP4 AND SVE5

Fixing .....	Single subbase pag. B-73 Manifold mounting pag. B-73
Flow section .....	Ø 13 mm
Ambient temperature range .....	-10 °C ÷ +50 °C
Temperature range of medium .....	0 °C ÷ +40 °C
Lubrication .....	Not required
Medium .....	Filtered air
Reference temperature .....	+20 °C
Reference pressure .....	6 bar

#### VALVES AND SOLENOID VALVES 5/2

Nominal air flow .....	1080 NI/min
Fluid conductance "C" .....	4,34 NI/s bar
Critical pressure ratio "b" .....	0,212

#### VALVES AND SOLENOID VALVES 5/3

Nominal air flow .....	800 NI/min
Fluid conductance "C" .....	3,22 NI/s bar
Critical pressure ratio "b" .....	0,265

### PNEUMATIC VALVES FEATURES SVP4

<b>SVP4 52 100</b> Nominal pilot pressure .....	4 bar (10 bar)
Nominal max. frequency .....	21 Hz
<b>Operating pressure range</b> .....	<b>2,5 ÷ 10 bar</b>

<b>SVP4 52 200</b> Nominal pilot pressure .....	1,3 bar
Nominal max. frequency .....	30 Hz
<b>Operating pressure range</b> .....	<b>1,5 ÷ 10 bar</b>

<b>SVP4 52 2D0</b> Nominal pilot (12) pressure .....	1,4 bar
Nominal pilot (14) pressure .....	2,2 bar
Nominal max. frequency .....	25 Hz

<b>SVP4 53 260</b> Nominal pilot pressure .....	3,6 bar
<b>SVP4 53 290</b> Nominal max. frequency .....	8 Hz
Nominal suggested frequency .....	6 Hz
<b>Operating pressure range</b> .....	<b>3 ÷ 10 bar</b>

### SOLENOID VALVES FEATURES SVE5

	AC	DC
<b>SVE5 52 100</b> Nominal frequency (max) .....	16 Hz	13 Hz
Average actining response .....	18 ms	21 ms
<b>SVE5 52 1D0</b> Average disactioning response .....	33 ms	44 ms
<b>Operating pressure range</b> .....	<b>2,5 ÷ 10 bar</b>	

	AC	DC
<b>SVE5 52 200</b> Nominal frequency (max) .....	27 Hz	21 Hz
Average actining response .....	11 ms	14 ms
Average disactioning response .....	11 ms	14 ms
<b>Operating pressure range</b> .....	<b>1,5 ÷ 10 bar</b>	

<b>SVE5 52 2D0</b> Nominal frequency (max) .....	25 Hz	19 Hz
Average actining response .....	11 ms	14 ms
Average disactioning response .....	12 ms	15 ms
<b>Operating pressure range</b> .....	<b>2,5 ÷ 10 bar</b>	

<b>SVE5 53 260</b> Nominal frequency (max) .....	8 Hz	8 Hz
<b>SVE5 53 290</b> Nominal frequency suggested .....	6 Hz	6 Hz
Average actining response .....	30 ms	35 ms
Average disactioning response .....	35 ms	40 ms
<b>Operating pressure range</b> .....	<b>3 ÷ 10 bar</b>	

For electrical features solenoid SVE5 with CNOMO pilot see pp. B-88.

### CARATTERISTICHE TECNICHE COMUNI SVP4 E SVE5

Fissaggio .....	Base singola uscita frontali pag. B-71 Basi in batteria pag. B-71
Diametro nominale .....	Ø 8 mm
Temperatura ambiente .....	-10 °C ÷ +50 °C
Temperatura fluido .....	0 °C ÷ +40 °C
Lubrificazione .....	Non necessaria
Fluido .....	Aria filtrata
Temperatura nominale .....	+20 °C
Pressione nominale .....	6 bar

#### VALVOLE ED ELETTROVALVOLE 5/2

Portata nominale .....	1080 NI/min
Valore conduttanza "C" .....	4,34 NI/s bar
Rapporto critico delle pressioni "b" .....	0,212

#### VALVOLE ED ELETTROVALVOLE 5/3

Portata nominale .....	800 NI/min
Valore conduttanza "C" .....	3,22 NI/s bar
Rapporto critico delle pressioni "b" .....	0,265

### CARATTERISTICHE VALVOLE PNEUMATICHE SVP4

<b>SVP4 52 100</b> Pressione di pilotaggio nominale .....	4 bar (10 bar)
Frequenza max nominale .....	21 Hz

<b>SVP4 52 200</b> Pressione di pilotaggio nominale .....	1,3 bar
Frequenza max nominale .....	30 Hz

<b>SVP4 52 2D0</b> Pressione di pilotaggio (12) nominale .....	1,4 bar
Pressione di pilotaggio (14) nominale .....	2,2 bar
Frequenza max nominale .....	25 Hz
<b>Pressione di esercizio</b> .....	<b>2,5 ÷ 10 bar</b>

<b>SVP4 53 260</b> Pressione di pilotaggio nominale .....	3,6 bar
<b>SVP4 53 290</b> Frequenza max nominale .....	8 Hz
Frequenza max consigliata .....	6 Hz
<b>Pressione di esercizio</b> .....	<b>3 ÷ 10 bar</b>

### CARATTERISTICHE ELETTROVALVOLE SVE5

	AC	DC
<b>SVE5 52 100</b> Frequenza max nominale .....	16 Hz	13 Hz
<b>SVE5 52 1D0</b> Tempo medio di risposta in eccitazione .....	18 ms	21 ms
Tempo medio di risp. in diseccitazione .....	33 ms	44 ms
<b>Pressione di esercizio</b> .....	<b>2,5 ÷ 10 bar</b>	

	AC	DC
<b>SVE5 52 200</b> Frequenza max nominale .....	27 Hz	21 Hz
Tempo medio di risposta in eccitazione .....	11 ms	14 ms
Tempo medio di risp. in diseccitazione .....	11 ms	14 ms
<b>Pressione di esercizio</b> .....	<b>1,5 ÷ 10 bar</b>	

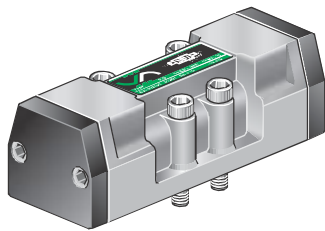
<b>SVE5 52 2D0</b> Frequenza max nominale .....	25 Hz	19 Hz
Tempo medio di risposta in eccitazione .....	11 ms	14 ms
Tempo medio di risp. in diseccitazione .....	12 ms	15 ms

<b>SVE5 53 260</b> Frequenza max nominale .....	8 Hz	8 Hz
<b>SVE5 53 290</b> Frequenza max nominale consigliata .....	6 Hz	6 Hz
Tempo medio di risposta in eccitazione .....	30 ms	35 ms
Tempo medio di risp. in diseccitazione .....	35 ms	40 ms
<b>Pressione di esercizio</b> .....	<b>3 ÷ 10 bar</b>	

Caratteristiche elettriche bobina per elettrovalvole SVE5 con elettropilota CNOMO vedi pp. B-88

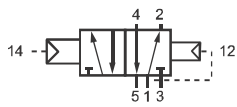


**SVP4 52 100**  
**SVP4 52 1M0** (\*)

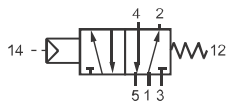


**VALVE / VALVOLA 5/2**  
 SINGLE PNEUMATIC PILOT - INTERNAL PRESSURE RETURN OR SPRING RETURN  
 COMANDO PNEUMATICO - RIPOSIZIONAMENTO A MOLLA PNEUMATICA O MOLLA MECCANICA

**SIMBOL / SIMBOLO**

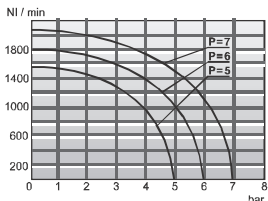


**SVP4 52 100**

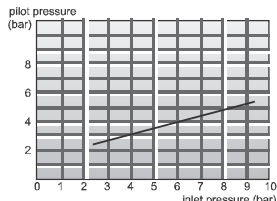


**(\*) SVP4 52 1M0**

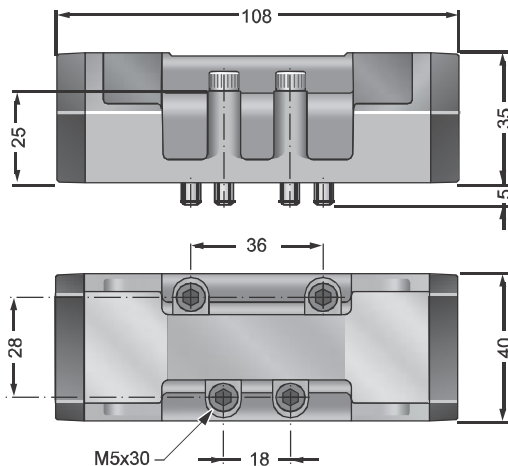
**DIAGRAMS / DIAGRAMMI**



AIR FLOW DIAGRAM  
 DIAGRAMMA DELLE PORTATE

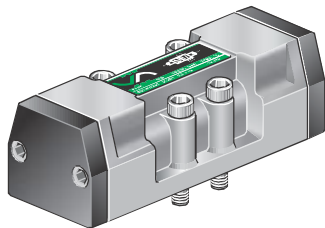


PILOT PRESSURE  
 DIAGRAMMA DELLA PRESSIONE DI PILOTAGGIO



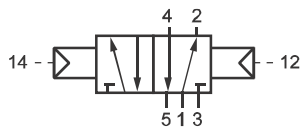
(\*) ATEX versions see / Versioni ATEX vedi P. B-113

**SVP4 52 200** (\*)

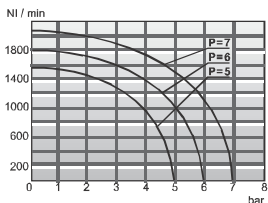


**VALVE / VALVOLA 5/2**  
 DOUBLE PNEUMATIC PILOT  
 DOPPIO COMANDO PNEUMATICO

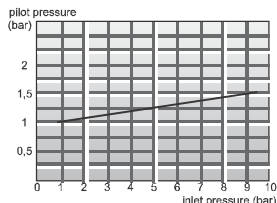
**SIMBOL / SIMBOLO**



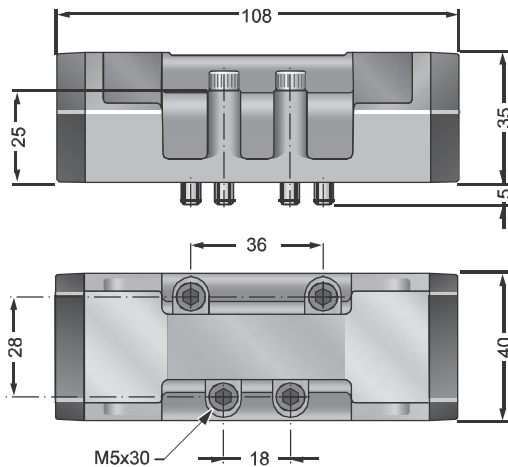
**DIAGRAMS / DIAGRAMMI**



AIR FLOW DIAGRAM  
 DIAGRAMMA DELLE PORTATE



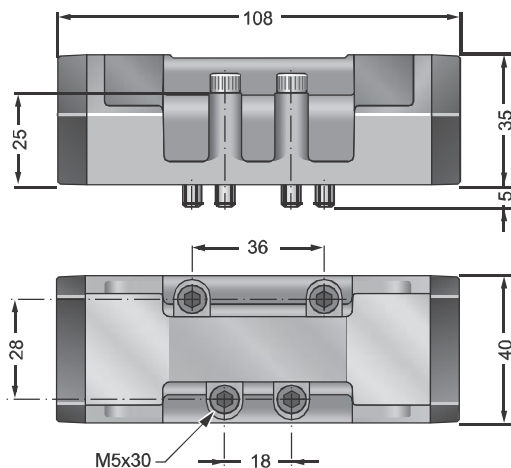
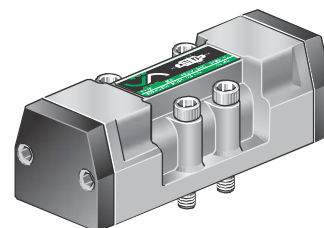
PILOT PRESSURE  
 DIAGRAMMA DELLA PRESSIONE DI PILOTAGGIO



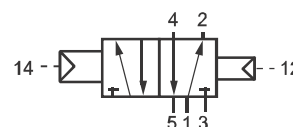
(\*) ATEX versions see / Versioni ATEX vedi P. B-113

**SVP4 52 2D0**

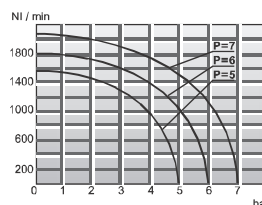
**VALVE / VALVOLA 5/2**  
 DOUBLE DIFFERENTIAL PNEUMATIC PILOT  
 DOPPIO COMANDO PNEUMATICO DIFFERENZIALE



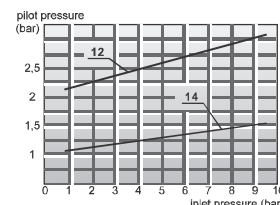
**SIMBOL / SIMBOLO**



**DIAGRAMS / DIAGRAMMI**



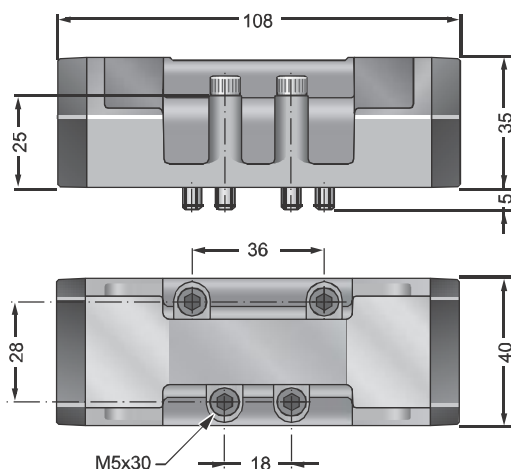
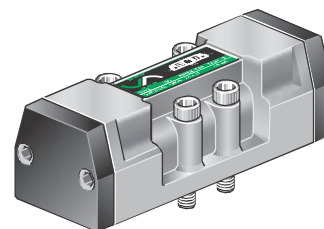
AIR FLOW DIAGRAM  
 DIAGRAMMA DELLE PORTATE



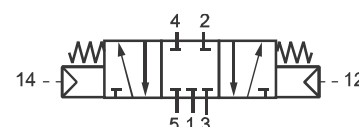
PILOT PRESSURE  
 DIAGRAMMA DELLA PRESSIONE DI PILOTAGGIO

**VALVE / VALVOLA 5/3**  
 DOUBLE PNEUMATIC PILOT - CENTER POSITIO CLOSED  
 DOPPIO COMANDO PNEUMATICO - CENTRI CHIUSI

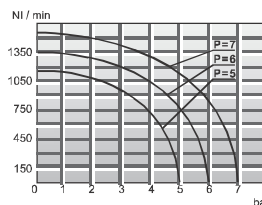
**SVP4 53 260**



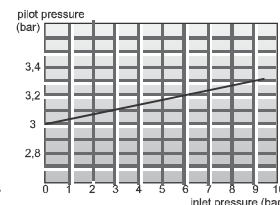
**SIMBOL / SIMBOLO**



**DIAGRAMS / DIAGRAMMI**



AIR FLOW DIAGRAM  
 DIAGRAMMA DELLE PORTATE



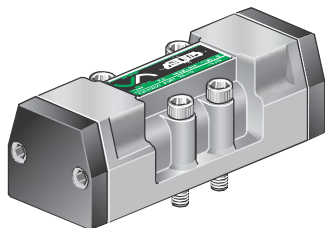
PILOT PRESSURE  
 DIAGRAMMA DELLA PRESSIONE DI PILOTAGGIO

VALVOLE ED ELETTROVALVOLE - VALVES AND SOLENOID VALVES



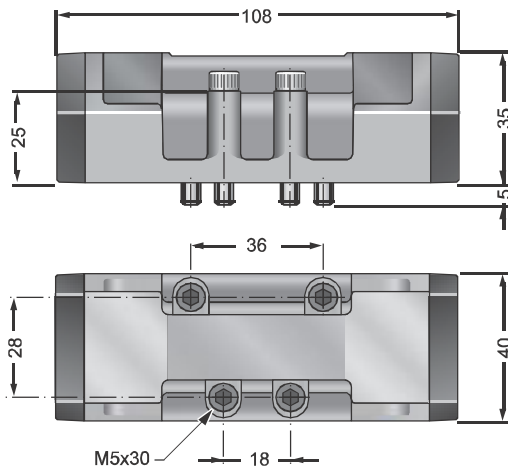
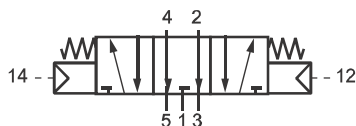


# SVP4 53 290

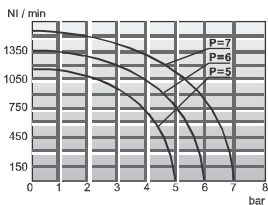


**VALVE / VALVOLA 5/3**  
**DOUBLE PNEUMATIC PILOT - CENTER POSITION OPEN**  
**DOPPIO COMANDO PNEUMATICO - CENTRI APERTI**

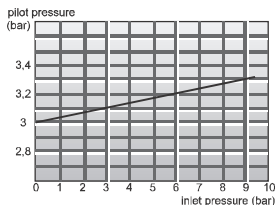
**SIMBOL / SIMBOLO**



**DIAGRAMS / DIAGRAMMI**

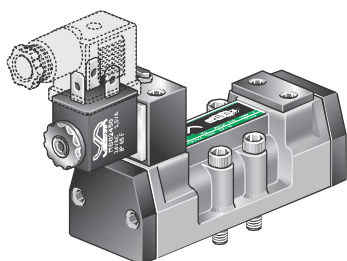


AIR FLOW DIAGRAM  
 DIAGRAMMA DELLE PORTATE

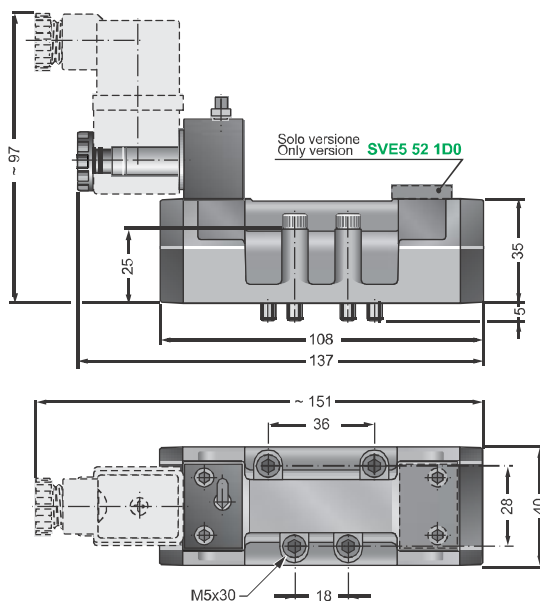


PILOT PRESSURE  
 DIAGRAMMA DELLA PRESSIONE DI PILOTAGGIO

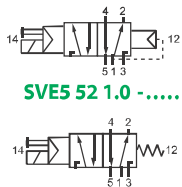
# SVE5 52 100 - .... SVE5 52 1M0 - .... (\*)



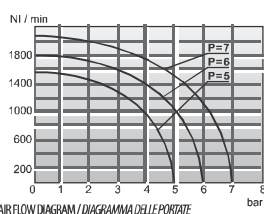
**SOLENOID VALVES / ELETTROVALVOLA 5/2**  
**SINGLE SOLENOID PILOT - INTERNAL PRESSURE RETURN OR SPRING RETURN**  
**COMANDO ELETTROPNEUMATICO - RIPOSIZIONAMENTO PNEUMATICO O MOLLA MECCANICA**



**SIMBOL / SIMBOLO**



**DIAGRAM / DIAGRAMMA**



AIR FLOW DIAGRAM / DIAGRAMMA DELLE PORTATE

**CODES / CODICI**

**Ordination code**  
**Codice ordinazione**

<b>SVE5 52 100-00000</b> .....	No coil / Senza solenoide
<b>SVE5 52 100-01200</b> .....	12 V DC
<b>SVE5 52 100-02400</b> .....	24 V DC
<b>SVE5 52 100-02450</b> .....	24 V 50/60Hz AC
<b>SVE5 52 100-11050</b> .....	110 V 50/60Hz AC
<b>SVE5 52 100-22050</b> .....	220 V 50/60Hz AC

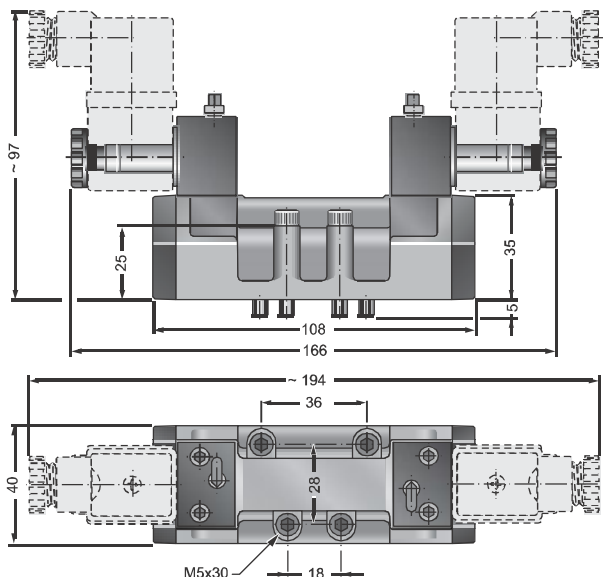
**Voltage**  
**Tensione**

It is possible from **SVE5 52 1D0** to obtain **SVE5 52 2D0** changing the plug with **ELBAC** (pag B-88).

E' possibile ordinare la versione **SVE5 52 1D0** che può successivamente essere equipaggiata con l'elettropilota cromo **ELBAC** (pag B-88) ottenendo la **SVE5 52 2D0** a doppio comando elettropneumatico differenziale.

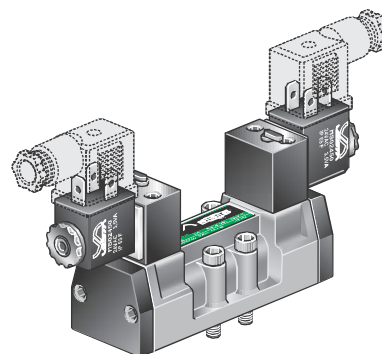
(\*) ATEX versions see / Versioni ATEX vedi P. B-113

**SOLENOID VALVES / ELETTROVALVOLA 5/2**  
 DOUBLE SOLENOID PILOT  
 DOPPIO COMANDO ELETTROPNEUMATICO

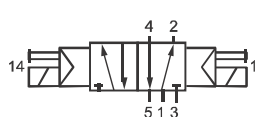


(\*) ATEX versions see / Versioni ATEX vedi P. B-113

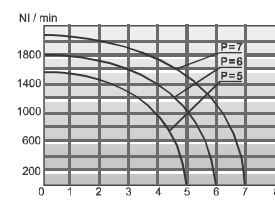
(\*) **SVE5 52 200 - .....**



**SIMBOL / SIMBOLO**



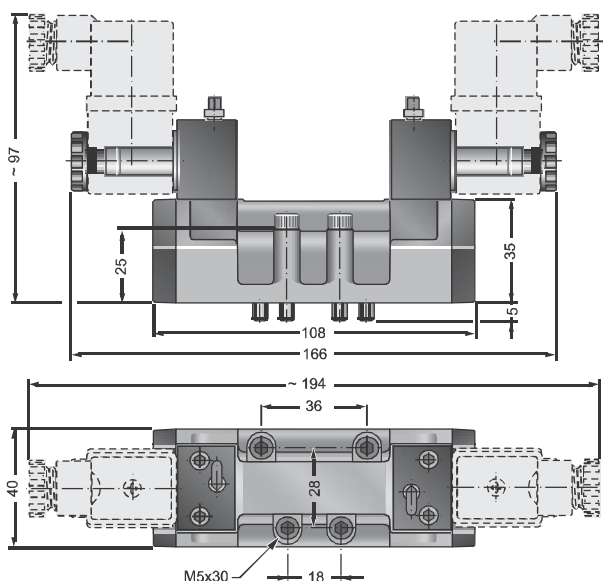
**DIAGRAM / DIAGRAMMA**



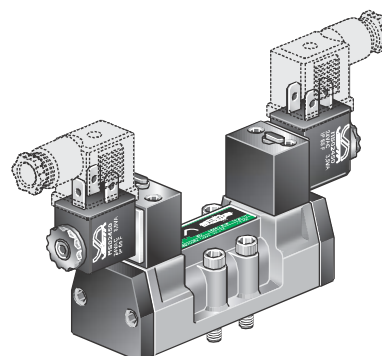
**CODES / CODICI**

Ordination code Codice ordinazione	Voltage Tensione
SVE5 52 200-00000	No coils / Senza solenoidi
SVE5 52 200-01200	12 V DC
SVE5 52 200-02400	24 V DC
SVE5 52 200-02450	24 V 50/60Hz AC
SVE5 52 200-11050	110 V 50/60Hz AC
SVE5 52 200-22050	220 V 50/60Hz AC

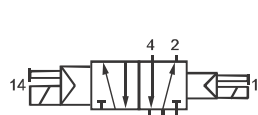
**SOLENOID VALVES / ELETTROVALVOLA 5/2**  
 DOUBLE DIFFERENTIAL SOLENOID PILOT  
 DOPPIO COMANDO ELETTROPNEUMATICO DIFFERENZIALE



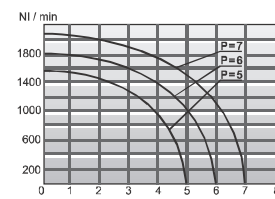
**SVE5 52 2D0 - .....**



**SIMBOL / SIMBOLO**



**DIAGRAM / DIAGRAMMA**

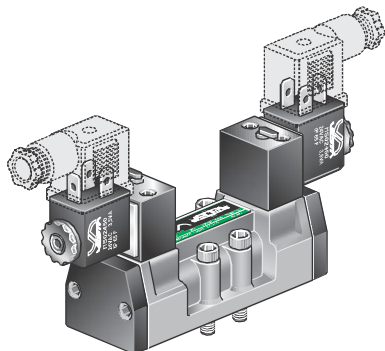


**CODES / CODICI**

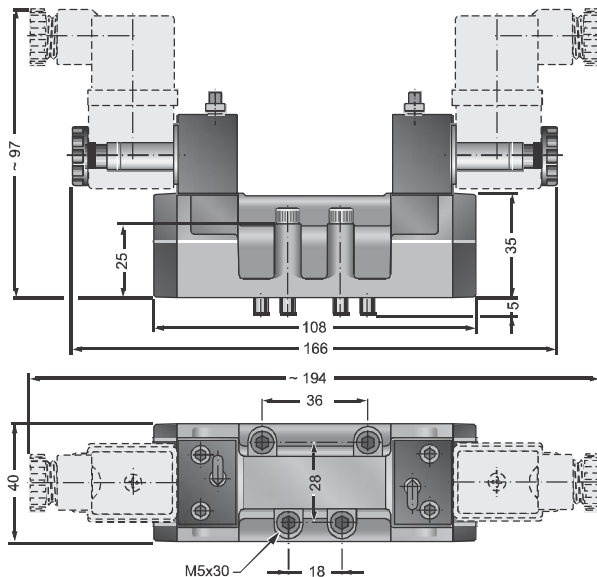
Ordination code Codice ordinazione	Voltage Tensione
SVE5 52 2D0-00000	No coils / Senza solenoidi
SVE5 52 2D0-01200	12 V DC
SVE5 52 2D0-02400	24 V DC
SVE5 52 2D0-02450	24 V 50/60Hz AC
SVE5 52 2D0-11050	110 V 50/60Hz AC
SVE5 52 2D0-22050	220 V 50/60Hz AC



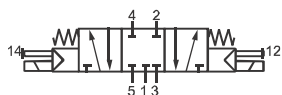
## SVE5 53 260 - .....



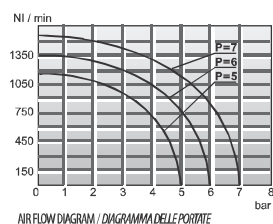
### SOLENOID VALVES / 5/3 DOUBLE SOLENOID PILOT - CENTER POSITION CLOSED DOPPIO COMANDO ELETTROPNEUMATICO - CENTRI CHIUSI



#### SIMBOL / SIMBOLO



#### DIAGRAM / DIAGRAMMA



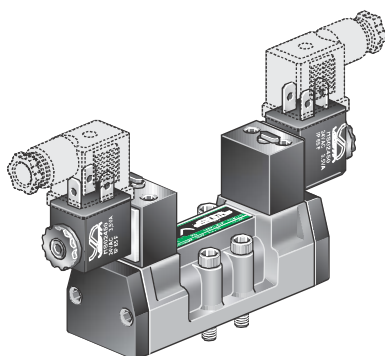
#### CODES / CODICI

##### Ordination code Codice ordinazione

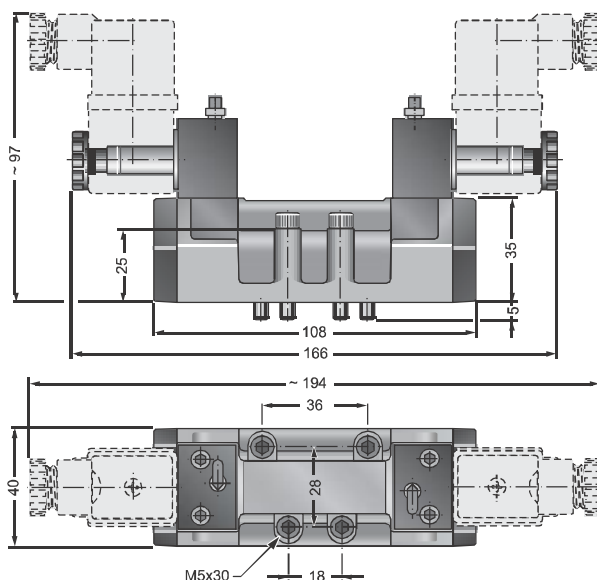
SVE5 53 260 -00000	.....	No coils / Senza solenoidi
SVE5 53 260 -01200	.....	12 V DC
SVE5 53 260 -02400	.....	24 V DC
SVE5 53 260 -02450	.....	24 V 50/60Hz AC
SVE5 53 260 -11050	.....	110 V 50/60Hz AC
SVE5 53 260 -22050	.....	220 V 50/60Hz AC

##### Voltage Tensione

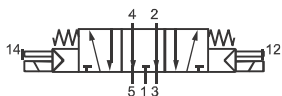
## SVE5 53 290 - .....



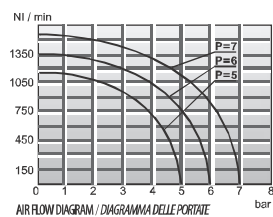
### SOLENOID VALVES / ELETTROVALVOLA 5/3 DOUBLE SOLENOID PILOT - CENTER POSITION OPEN DOPPIO COMANDO ELETTROPNEUMATICO - CENTRI APERTI



#### SIMBOL / SIMBOLO



#### DIAGRAM / DIAGRAMMA



#### CODES / CODICI

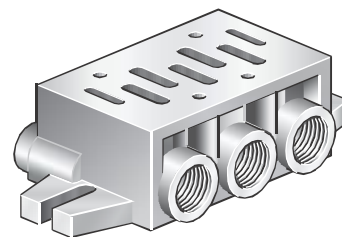
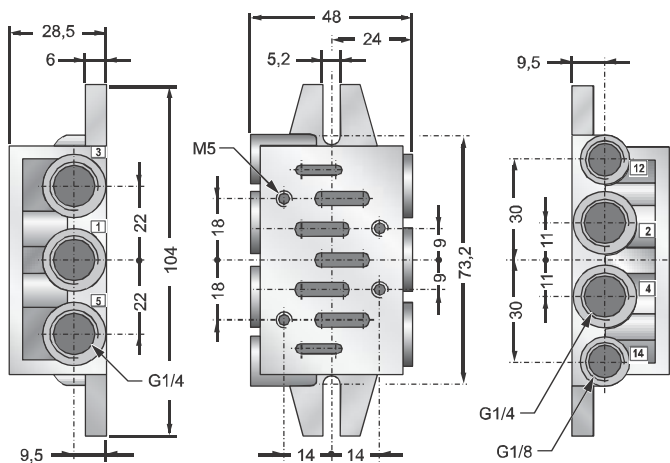
##### Ordination code Codice ordinazione

SVE5 53 290 -00000	.....	No coils / Senza solenoidi
SVE5 53 290 -01200	.....	12 V DC
SVE5 53 290 -02400	.....	24 V DC
SVE5 53 290 -02450	.....	24 V 50/60Hz AC
SVE5 53 290 -11050	.....	110 V 50/60Hz AC
SVE5 53 290 -22050	.....	220 V 50/60Hz AC

##### Voltage Tensione

**ISO 5599 SINGLE MANIFOLD SIZE 1  
BASE SINGOLA ISO 5599 TAGLIA 1**

(\*) **BS 1**

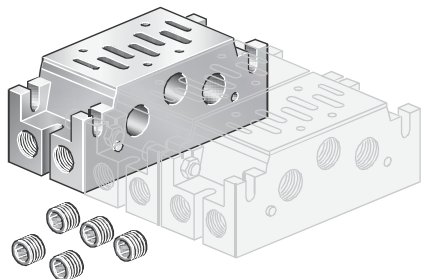


**SINGLE SUBBASE  
BASE SINGOLA USCITE LATERALI**

- Valves fixing screws supplied with valves.
- Subbase fixing screws not supplied.
- Manifold supplied assembled on demand.
- Le viti di fissaggio vengono fornite con le valvole.
- Il fissaggio alla base è a cura del cliente.
- La fornitura della base può essere completata, a richiesta, con il montaggio della valvola od elettrovalvola desiderata.

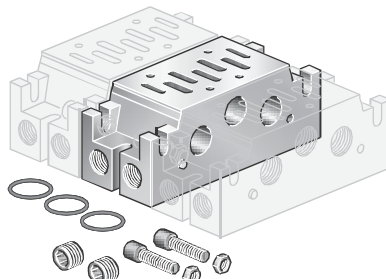
(\*) ATEX versions see / Versioni ATEX vedi P. B-113

(\*) **BTC 1**



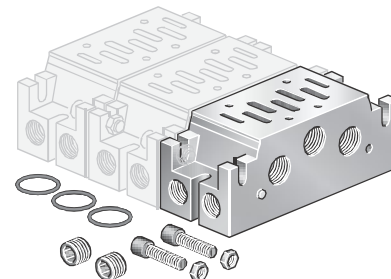
**END PLATE / BOTTOM SIDE OUT LET  
BASE DI CHIUSURA USCITE FONDO E LATERALI**

(\*) **BM I 1**



**MIDDLE PLATE / BOTTOM SIDE OUT LET  
BASE INTERMEDIA USCITE FONDO E LATERALI**

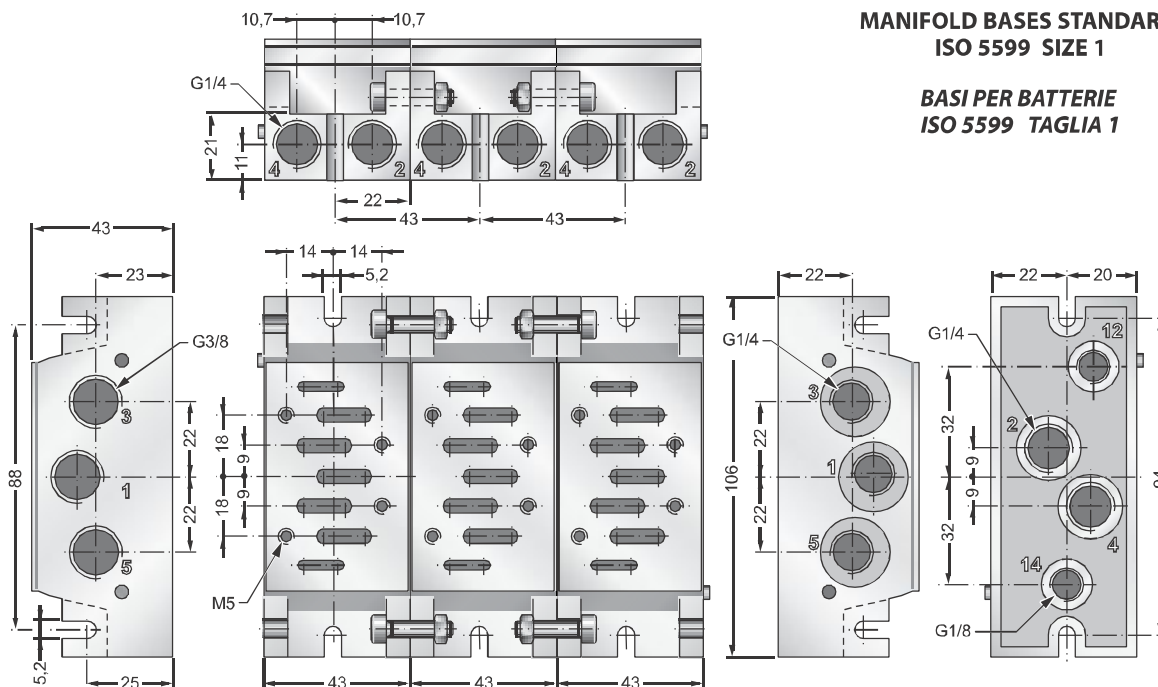
(\*) **BTI 1**



**INLET END PLATE / BOTTOM SIDE OUT LET  
BASE DI INGRESSO USCITE FONDO E LATERALI**

**MANIFOLD BASES STANDARD  
ISO 5599 SIZE 1**

**BASI PER BATTERIE  
ISO 5599 TAGLIA 1**

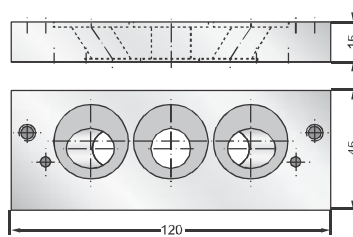
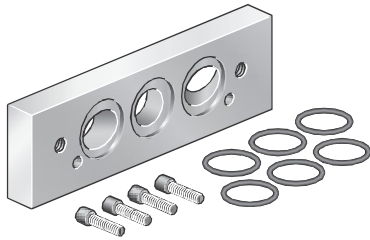


VALVOLE ED ELETTROVALVOLE VALVES AND SOLENOID VALVES



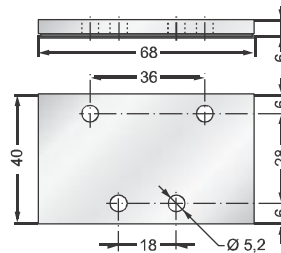
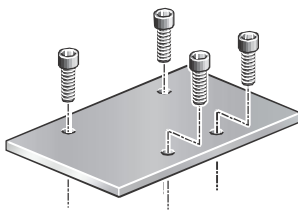
## INTF 1-2

ADAPTOR PLATE FROM **SIZE 1 TO SIZE 2**  
 INTERFACCIA PER BASI DA **TAGLIA 1 A TAGLIA 2**



## PCBM 1

PLUG FLAT  
 CHIUSURA POSTO INUTILIZZATO

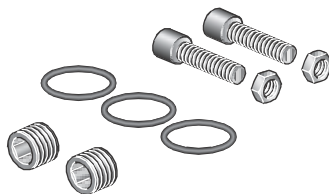


- Supplied with fixing screws.

- La piastrina di chiusura del posto inutilizzato viene fornita con le viti per il fissaggio sulla base.

## KM 1

ASSEMBLING KIT  
 KIT DI RICAMBIO

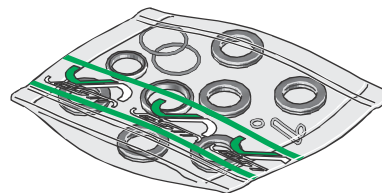


- **KM 1** supplied with **BMI 1** and **BTI 1**,  
 - Supplied separately on demand.

- Il kit **KM 1** viene fornito con le basi **BMI 1** e **BTI 1**,  
 - A richiesta può essere fornito come ricambio.

## SET . 1/4 SG

SEALS KIT  
 KIT GUARNIZIONI DI RICAMBIO



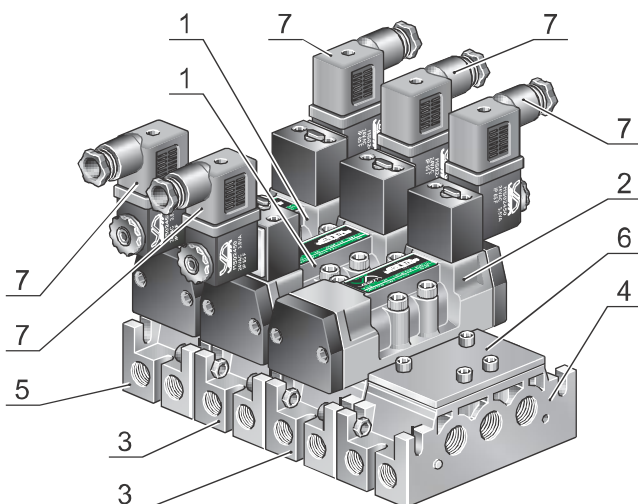
Seals kit code - Codice del kit

**SET 1 1/4 SG**: for ISO 1 **mono-stable** valves - per valvole **monostabili** ISO 1.

**SET 2 1/4 SG**: for ISO 1 **bi-stable** valves - per valvole **bistabili** ISO 1.

Example / Esempio: **SVE5 52 100 -02400** → **SET 1 1/4 SG**  
**SVE5 52 200 -02400** → **SET 2 1/4 SG**

## HOW TO ASSEMBLE A SIZE 1 MANIFOLD / ESEMPIO DI ASSEMBLAGGIO BATTERIA TAGLIA 1



Components needed to assemble the manifold in figure.  
 Esempio di componenti necessari a realizzare la batteria raffigurata.

Pos. Posizione	Quantity Quantità	Code Codice ordinazione
1 .....	N° 2 .....	<b>SVE5 52 200 - 02450</b>
2 .....	N° 1 .....	<b>SVE5 52 100 - 02450</b>
3 .....	N° 2 .....	<b>BMI 1</b>
4 .....	N° 1 .....	<b>BTI 1</b>
5 .....	N° 1 .....	<b>BTC 1</b>
6 .....	N° 1 .....	<b>PCBM 1</b>
7 .....	N° 5 .....	<b>CEP/ 1</b>

- Valves fixing screws and seals are supplied with valves.  
 - Subbase fixing screws not supplied.  
 - Manifold supplied assembled on demand.

- Le viti e le guarnizioni per il fissaggio vengono fornite con le valvole.  
 - Il fissaggio alla base è a cura del cliente.  
 - A richiesta, la base può essere fornita preassemblata.



## TECHNICAL FEATURES / CARATTERISTICHE TECNICHE

## SERIE SVP2 - SVE2

### COMMON TECHNICAL FEATURES SVP2 AND SVE2

Fixing .....	Single subbase pag. B-80
Flow section .....	Manifold mounting pag. B-80
Ambient temperature range .....	Ø 8 mm
Temperature range of medium .....	-10 °C ÷ +50 °C
Lubrication .....	0 °C ÷ +40 °C
Medium .....	Not required
Reference temperature .....	Filtered air
Reference pressure .....	+20 °C
	6 bar

<b>VALVES AND SOLENOID VALVES 5/2</b>	
Nominal air flow .....	2200 NI/min
Fluid conductance "C" .....	7,6 NI/s bar
Critical pressure ratio "b" .....	0,38

<b>VALVES AND SOLENOID VALVES 5/3</b>	
Nominal air flow .....	1800 NI/min
Fluid conductance "C" .....	7,1 NI/s bar
Critical pressure ratio "b" .....	0,45

### PNEUMATIC VALVES FEATURES SVP2

<b>SVP2 52 100</b>	Nominal pilot pressure .....	4 bar (10 bar)
	Nominal max. frequency .....	16 Hz
	<b>Operating pressure range</b> .....	<b>2,5 ÷ 10 bar</b>

<b>SVP2 52 200</b>	Nominal pilot pressure .....	1,3 bar
	Nominal max. frequency .....	25 Hz
	<b>Operating pressure range</b> .....	<b>1,5 ÷ 10 bar</b>

<b>SVP2 53 260</b>	Nominal pilot pressure .....	3,2 bar
	Nominal max. frequency .....	8 Hz
	Nominal suggested frequency .....	5 Hz
	<b>Operating pressure range</b> .....	<b>3 ÷ 10 bar</b>

<b>SVP2 53 290</b>	Nominal pilot pressure .....	3,2 bar
	Nominal max. frequency .....	8 Hz
	Nominal suggested frequency .....	5 Hz
	<b>Operating pressure range</b> .....	<b>3 ÷ 10 bar</b>

### SOLENOID VALVES FEATURES SVE2

	AC	DC
<b>SVE2 52 100</b>	Nominal frequency (max) .....	13 Hz 10 Hz
	Average actining response .....	21 ms 24 ms
	Average disactining response .....	36 ms 47 ms
	<b>Operating pressure range</b> .....	<b>2,5 ÷ 10 bar</b>

	AC	DC
<b>SVE2 52 200</b>	Nominal frequency (max) .....	24 Hz 18 Hz
	Average actining response .....	14 ms 17 ms
	Average disactining response .....	14 ms 17 ms
	<b>Operating pressure range</b> .....	<b>1,5 ÷ 10 bar</b>

<b>SVE2 53 260</b>	Nominal frequency (max) .....	8 Hz 8 Hz
	Nominal frequency suggested .....	5 Hz 5 Hz
	Average actining response .....	30 ms 35 ms
	Average disactining response .....	35 ms 40 ms
	<b>Operating pressure range</b> .....	<b>3 ÷ 10 bar</b>

<b>SVE2 53 290</b>	Nominal frequency (max) .....	8 Hz 8 Hz
	Nominal frequency suggested .....	5 Hz 5 Hz
	Average actining response .....	30 ms 35 ms
	Average disactining response .....	35 ms 40 ms
	<b>Operating pressure range</b> .....	<b>3 ÷ 10 bar</b>

For electrical features solenoid SVE5 with CNOMO pilot see pp. B-88.

### CARATTERISTICHE TECNICHE COMUNI SVP2 E SVE2

Fissaggio .....	Base singola uscita frontali pag. B-78
	Basi in batteria pag. B-78
Diametro nominale .....	Ø 8 mm
Temperatura ambiente .....	-10 °C ÷ +50 °C
Temperatura fluido .....	0 °C ÷ +40 °C
Lubrificazione .....	Non necessaria
Fluido .....	Aria filtrata
Temperatura nominale .....	+20 °C
Pressione nominale .....	6 bar

<b>VALVOLE ED ELETTROVALVOLE 5/2</b>	
Portata nominale .....	2200 NI/min
Valore conduttanza "C" .....	7,6 NI/s bar
Rapporto critico delle pressioni "b" .....	0,38

<b>VALVOLE ED ELETTROVALVOLE 5/3</b>	
Portata nominale .....	1800 NI/min
Valore conduttanza "C" .....	7,1 NI/s bar
Rapporto critico delle pressioni "b" .....	0,45

### CARATTERISTICHE VALVOLE PNEUMATICHE SVP2

<b>SVP2 52 100</b>	Pressione di pilotaggio nominale .....	4 bar (10 bar)
	Frequenza max nominale .....	16 Hz
	<b>Pressione di esercizio</b> .....	<b>2,5 ÷ 10 bar</b>

<b>SVP2 52 200</b>	Pressione di pilotaggio nominale .....	1,3 bar
	Frequenza max nominale .....	25 Hz
	<b>Pressione di esercizio</b> .....	<b>1,5 ÷ 10 bar</b>

<b>SVP2 53 260</b>	Pressione di pilotaggio nominale .....	3,2 bar
	Frequenza max nominale .....	8 Hz
	Frequenza max consigliata .....	5 Hz
	<b>Pressione di esercizio</b> .....	<b>3 ÷ 10 bar</b>

<b>SVP2 53 290</b>	Pressione di pilotaggio nominale .....	3,2 bar
	Frequenza max nominale .....	8 Hz
	Frequenza max consigliata .....	5 Hz
	<b>Pressione di esercizio</b> .....	<b>3 ÷ 10 bar</b>

### CARATTERISTICHE ELETTROVALVOLE SVE5

	AC	DC
<b>SVE2 52 100</b>	Frequenza max nominale .....	13 Hz 10 Hz
	Tempo medio di risposta in eccitazione .....	21 ms 24 ms
	Tempo medio di risp. in diseccitazione .....	36 ms 47 ms
	<b>Pressione di esercizio</b> .....	<b>2,5 ÷ 10 bar</b>

	AC	DC
<b>SVE2 52 200</b>	Frequenza max nominale .....	24 Hz 18 Hz
	Tempo medio di risposta in eccitazione .....	14 ms 17 ms
	Tempo medio di risp. in diseccitazione .....	14 ms 17 ms
	<b>Pressione di esercizio</b> .....	<b>1,5 ÷ 10 bar</b>

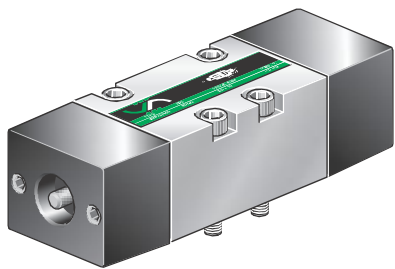
<b>SVE2 53 260</b>	Frequenza max nominale .....	8 Hz 8 Hz
	Frequenza max nominale consigliata .....	6 Hz 5 Hz
	Tempo medio di risposta in eccitazione .....	30 ms 35 ms
	Tempo medio di risp. in diseccitazione .....	35 ms 40 ms
	<b>Pressione di esercizio</b> .....	<b>3 ÷ 10 bar</b>

<b>SVE2 53 290</b>	Frequenza max nominale .....	8 Hz 8 Hz
	Frequenza max nominale consigliata .....	6 Hz 5 Hz
	Tempo medio di risposta in eccitazione .....	30 ms 35 ms
	Tempo medio di risp. in diseccitazione .....	35 ms 40 ms
	<b>Pressione di esercizio</b> .....	<b>3 ÷ 10 bar</b>

Caratteristiche elettriche bobina per elettrovalvole SVE5 con elettropilota CNOMO vedi pp. B-88.

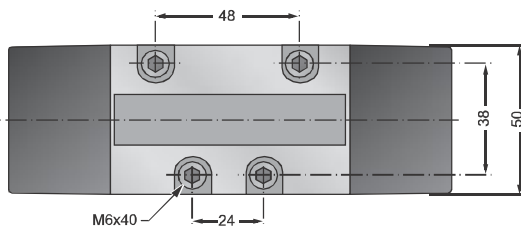
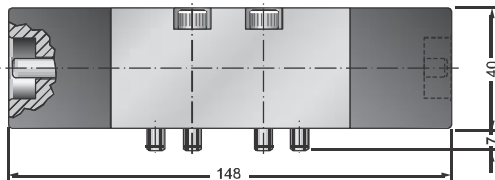
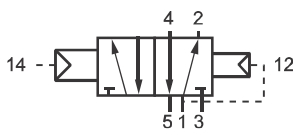


# SVP2 52 100

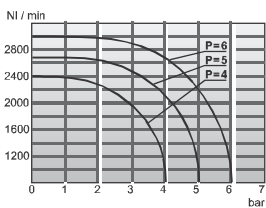


**VALVE / VALVOLA 5/2**  
SINGLE PNEUMATIC PILOT - INTERNAL PRESSURE RETURN  
COMANDO PNEUMATICO - RIPOSIZIONAMENTO MOLLA PNEUMATICA

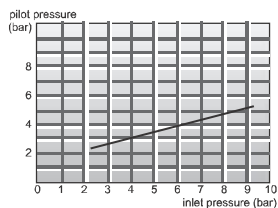
### SIMBOL / SIMBOLO



### DIAGRAMS / DIAGRAMMI

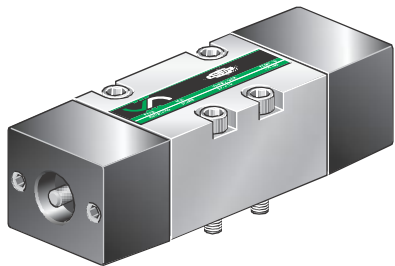


AIR FLOW DIAGRAM  
DIAGRAMMA DELLE PORTATE



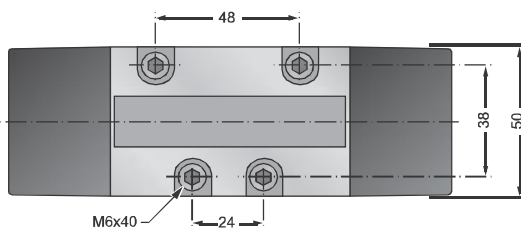
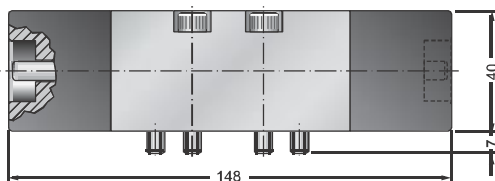
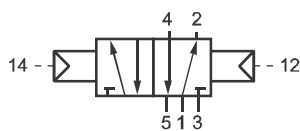
PILOT PRESSURE  
DIAGRAMMA DELLA PRESSIONE DI PILOTAGGIO

# SVP2 52 200

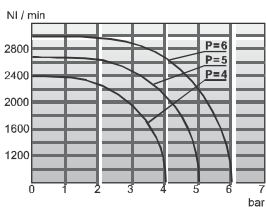


**VALVE / VALVOLA 5/2**  
DOUBLE PNEUMATIC PILOT  
DOPPIO COMANDO PNEUMATICO

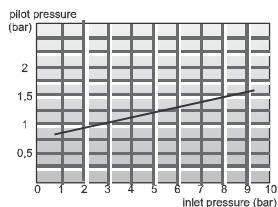
### SIMBOL / SIMBOLO



### DIAGRAMS / DIAGRAMMI

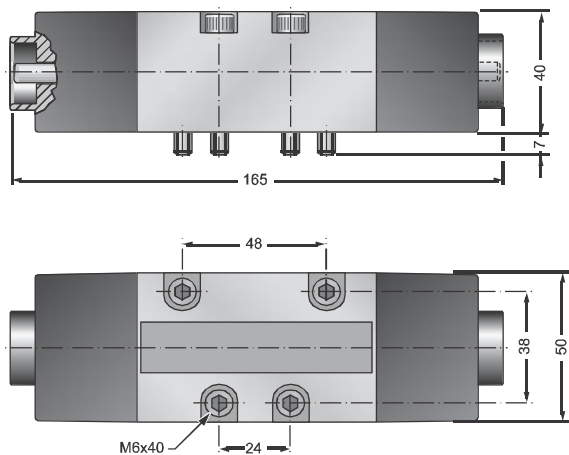


AIR FLOW DIAGRAM  
DIAGRAMMA DELLE PORTATE

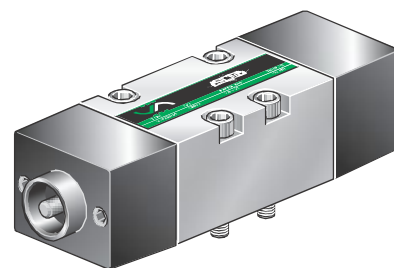


PILOT PRESSURE  
DIAGRAMMA DELLA PRESSIONE DI PILOTAGGIO

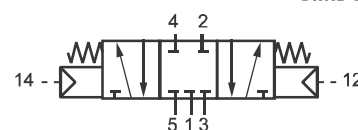
**VALVE / VALVOLA 5/3**  
 DOUBLE PNEUMATIC PILOT - CENTER POSITION CLOSED  
 DOPPIO COMANDO PNEUMATICO - CENTRI CHIUSI



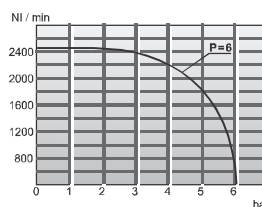
SVP2 53 260



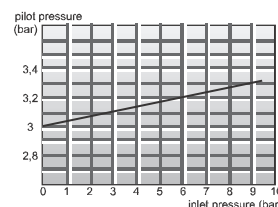
SIMBOL / SIMBOLO



DIAGRAMS / DIAGRAMMI

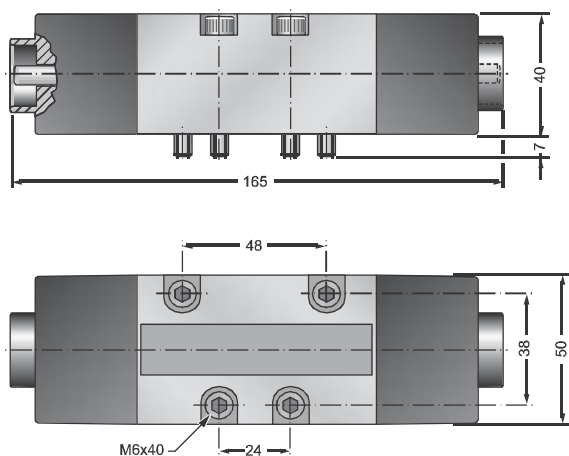


AIR FLOW DIAGRAM  
 DIAGRAMMA DELLE PORTATE

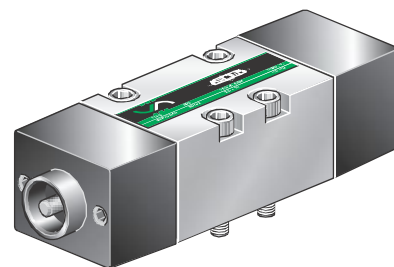


PILOT PRESSURE  
 DIAGRAMMA DELLA PRESSIONE DI PILOTAGGIO

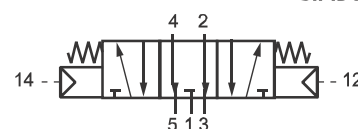
**VALVE / VALVOLA 5/3**  
 DOUBLE PNEUMATIC PILOT - CENTER POSITION OPEN  
 DOPPIO COMANDO PNEUMATICO - CENTRI APERTI



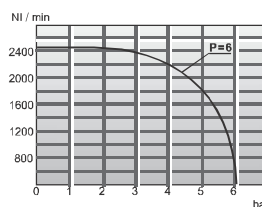
SVP2 53 290



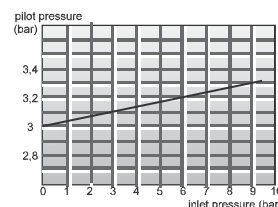
SIMBOL / SIMBOLO



DIAGRAMS / DIAGRAMMI



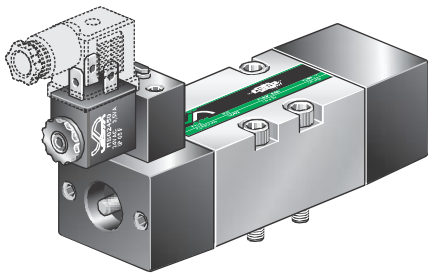
AIR FLOW DIAGRAM  
 DIAGRAMMA DELLE PORTATE



PILOT PRESSURE  
 DIAGRAMMA DELLA PRESSIONE DI PILOTAGGIO

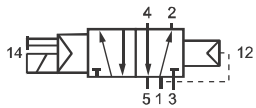


## SVE2 52 100 - .....

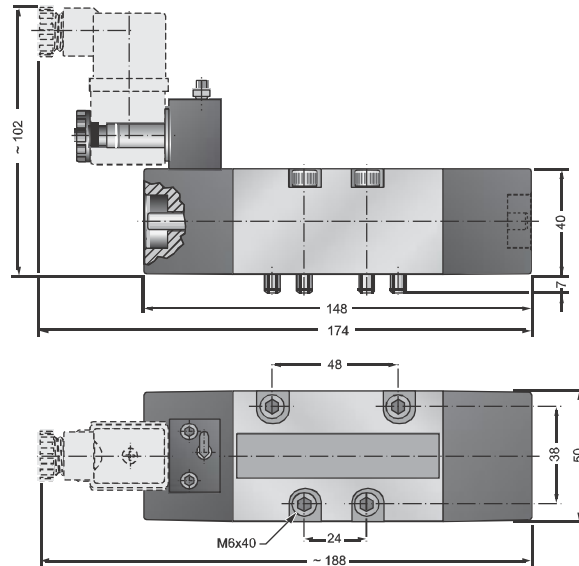
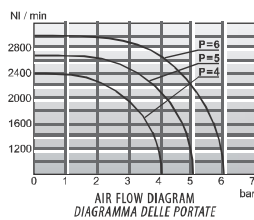


### SOLENOID VALVES / *ELETTROVALVOLA 5/2* SOLENOID PILOT - INTERNAL PRESSURE RETURN COMANDO ELETTROPNEUMATICO - RIPOSIZIONAMENTO MOLLA PNEUMATICA

#### SIMBOL / SIMBOLO



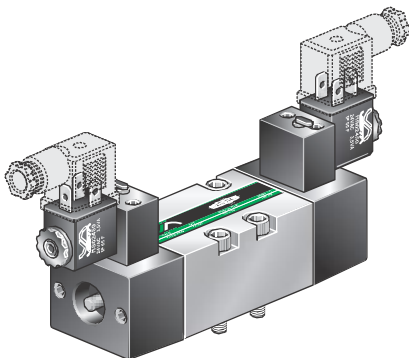
#### DIAGRAM / DIAGRAMMA



#### CODES / CODICI

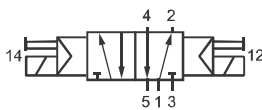
Ordination code Codice ordinazione	Voltage Tensione
SVE2 52 100-00000	No coil / Senza solenoide
SVE2 52 100-01200	12 V DC
SVE2 52 100-02400	24 V DC
SVE2 52 100-02450	24 V 50/60Hz AC
SVE2 52 100-11050	110 V 50/60Hz AC
SVE2 52 100-22050	220 V 50/60Hz AC

## SVE2 52 200 - .....

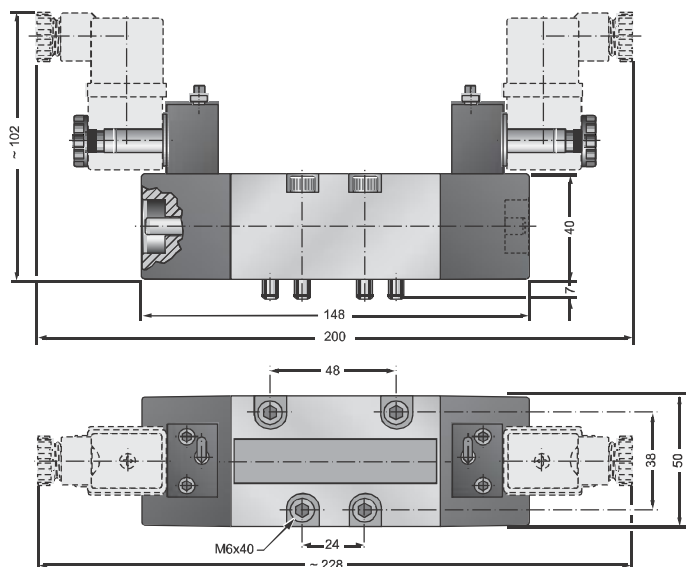
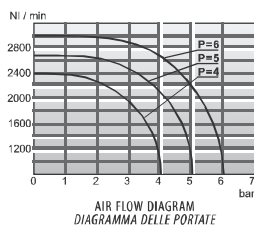


### SOLENOID VALVES / *ELETTROVALVOLA 5/2* DOUBLE SOLENOID PILOT DOPPIO COMANDO ELETTROPNEUMATICO

#### SIMBOL / SIMBOLO



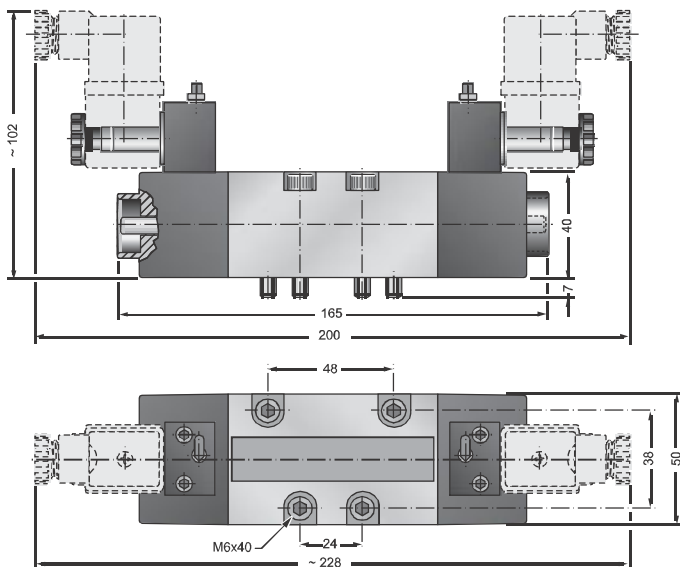
#### DIAGRAM / DIAGRAMMA



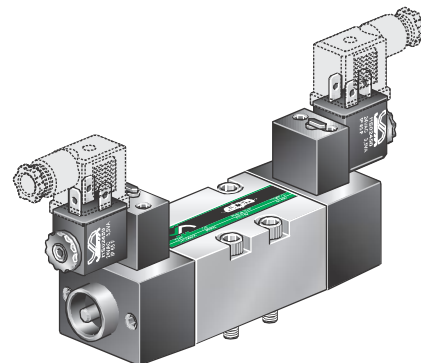
#### CODES / CODICI

Ordination code Codice ordinazione	Voltage Tensione
SVE2 52 200-00000	No coils / Senza solenoide
SVE2 52 200-01200	12 V DC
SVE2 52 200-02400	24 V DC
SVE2 52 200-02450	24 V 50/60Hz AC
SVE2 52 200-11050	110 V 50/60Hz AC
SVE2 52 200-22050	220 V 50/60Hz AC

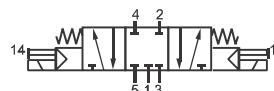
**SOLENOID VALVES / ELETTRORVALVOLA 5/3**  
 DOUBLE SOLENOID PILOT - CENTER POSITION CLOSED  
 DOPPIO COMANDO ELETTROPNEUMATICO - CENTRI CHIUSI



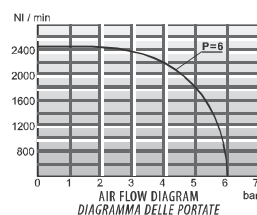
**SVE2 53 260 - ....**



**SIMBOL / SIMBOLO**



**DIAGRAM / DIAGRAMMA**



**CODES / CODICI**

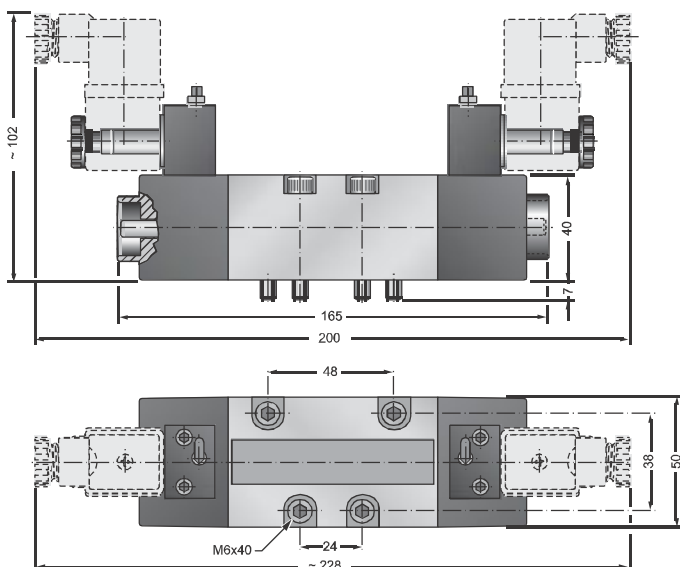
**Ordination code  
 Codice ordinazione**

<b>SVE2 53 260-00000</b> .....	No coils / Senza solenoidi
<b>SVE2 53 260-01200</b> .....	12 V DC
<b>SVE2 53 260-02400</b> .....	24 V DC
<b>SVE2 53 260-02450</b> .....	24 V 50/60Hz AC
<b>SVE2 53 260-11050</b> .....	110 V 50/60Hz AC
<b>SVE2 53 260-22050</b> .....	220 V 50/60Hz AC

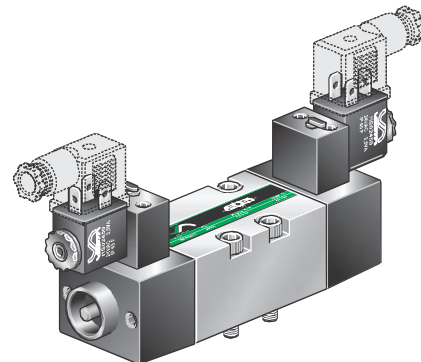
**Voltage  
 Tensione**

No coils / Senza solenoidi
12 V DC
24 V DC
24 V 50/60Hz AC
110 V 50/60Hz AC
220 V 50/60Hz AC

**SOLENOID VALVES / ELETTRORVALVOLA 5/3**  
 DOUBLE SOLENOID PILOT - CENTER POSITION OPEN  
 DOPPIO COMANDO ELETTROPNEUMATICO - CENTRI APERTI



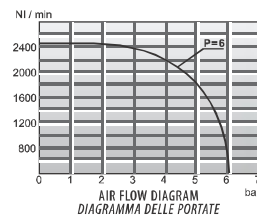
**SVE2 53 290 - ....**



**SIMBOL / SIMBOLO**



**DIAGRAM / DIAGRAMMA**



**CODES / CODICI**

**Ordination code  
 Codice ordinazione**

<b>SVE2 53 290-00000</b> .....	No coils / Senza solenoidi
<b>SVE2 53 290-01200</b> .....	12 V DC
<b>SVE2 53 290-02400</b> .....	24 V DC
<b>SVE2 53 290-02450</b> .....	24 V 50/60Hz AC
<b>SVE2 53 290-11050</b> .....	110 V 50/60Hz AC
<b>SVE2 53 290-22050</b> .....	220 V 50/60Hz AC

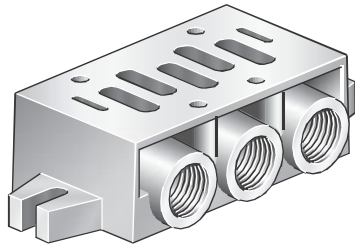
**Voltage  
 Tensione**

No coils / Senza solenoidi
12 V DC
24 V DC
24 V 50/60Hz AC
110 V 50/60Hz AC
220 V 50/60Hz AC





## BS 2

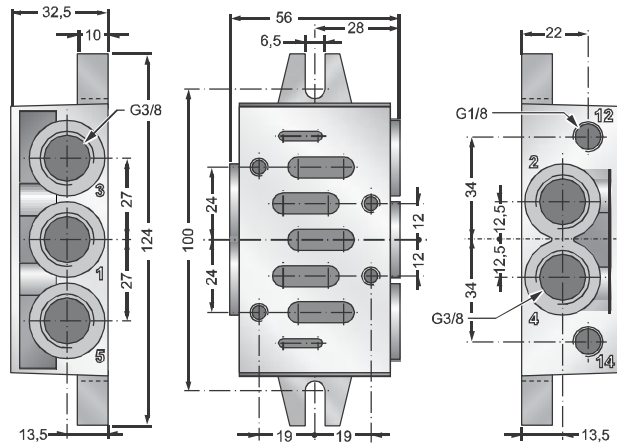


SINGLE MANIFOLD BASE / BASE SINGOLA USCITE LATERALI

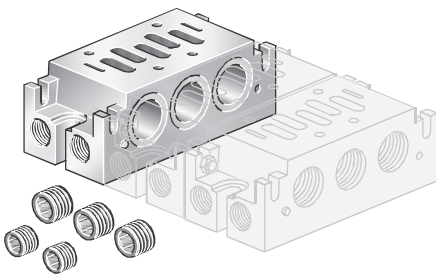
- Valves fixing screws supplied with valves.
- Subbase fixing screws not supplied.
- Manifold supplied assembled on demand.

- Le viti di fissaggio vengono fornite con le valvole.
- Il fissaggio alla base è a cura del cliente.
- La fornitura della base può essere completata, a richiesta, con il montaggio della valvola od elettrovalvola desiderata.

## ISO 5599 SINGLE SUBBASE SIZE 2 BASE SINGOLA ISO 5599 TAGLIA 2

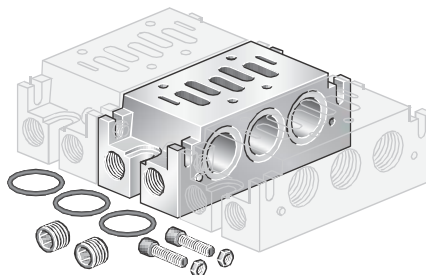


## BTC 2



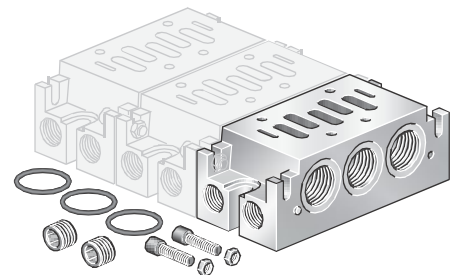
END PLATE / BOTTOM SIDE OUTLET  
BASE DI CHIUSURA USCITE FONDO E LATERALI

## BM I 2



MIDDLE PLATE / BOTTOM SIDE OUTLET  
BASE INTERMEDIA USCITE FONDO E LATERALE LATERALI

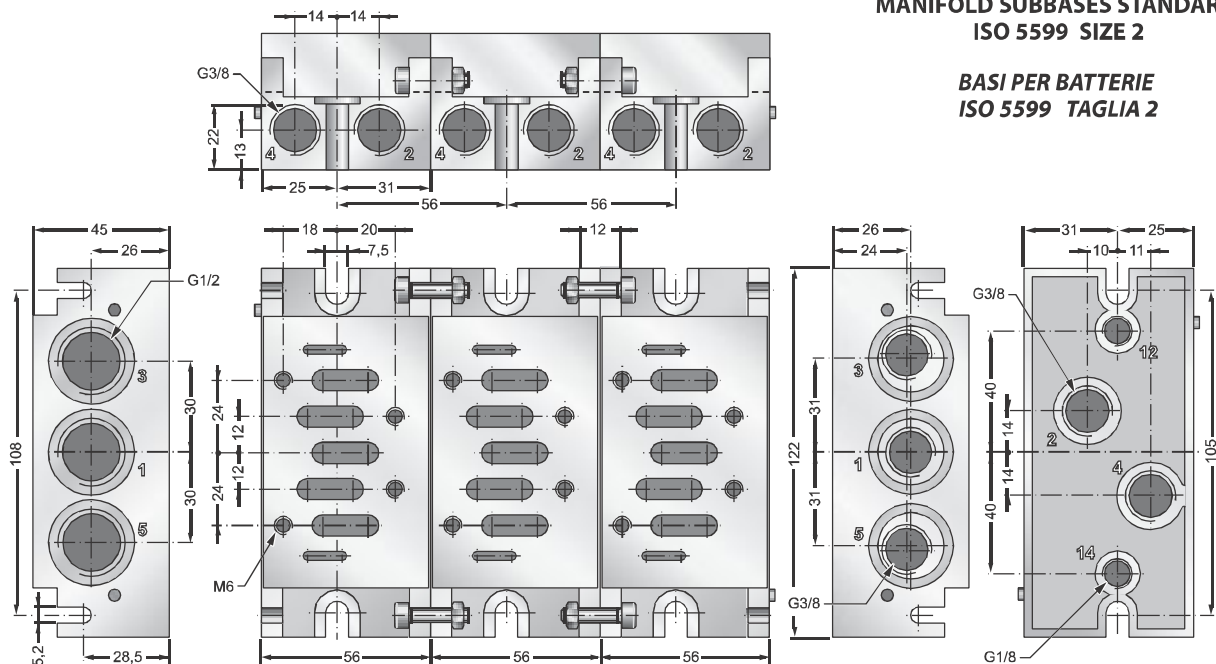
## BTI 2



INLET END PLATE / BOTTOM SIDE OUTLET  
BASE DI INGRESSO USCITE FONDO E LATERALI

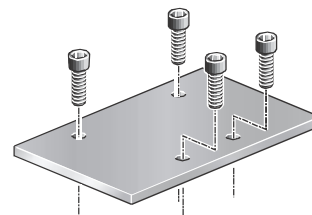
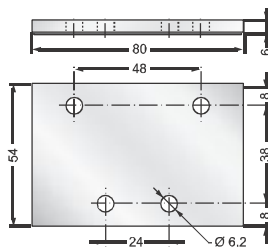
## MANIFOLD SUBBASES STANDARD ISO 5599 SIZE 2

### BASI PER BATTERIE ISO 5599 TAGLIA 2



PLUG FLAT  
CHIUSURA POSTO INUTILIZZATO

PCBM 2

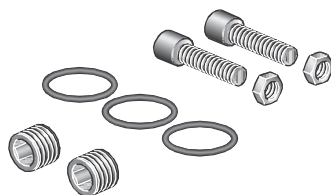


- Supplied with fixing screws.

- La piastrina di chiusura del posto inutilizzato viene fornita con le viti per il fissaggio sulla base.

ASSEMBLING KIT  
KIT DI RICAMBIO

KM 2

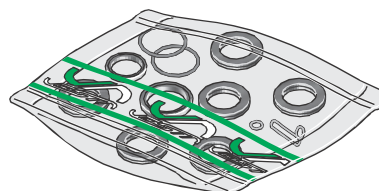


- **KM 2** supplied with **BMI 2** and **BTI 2**,  
- Supplied separately on demand.

- Il kit **KM 2** viene fornito con le basi **BMI 2** e **BTI 2**,  
- A richiesta può essere fornito come ricambio.

SEALS KIT  
KIT GUARNIZIONI DI RICAMBIO

SET . 1/2 SG



Seals kit code - Codice del kit

**SET 1 1/2 SG:** for ISO 2 **mono-stable** valves - per valvole **monostabili** ISO 2.

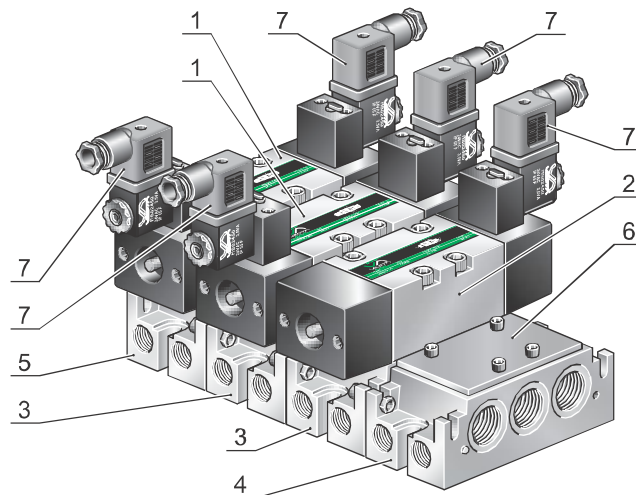
**SET 2 1/2 SG:** for ISO 2 **bi-stable** valves - per valvole **bistabili** ISO 2.

Example / Esempio: **SVE2 52 100 -02400** → **SET 1 1/2 SG**  
**SVE2 52 200 -02400** → **SET 2 1/2 SG**

HOW TO ASSEMBLE A SIZE 2 MANIFOLD / ESEMPIO DI ASSEMBLAGGIO BATTERIA TAGLIA 2

Components needed to assemble the manifold in figure.  
Esempio di componenti necessari a realizzare la batteria raffigurata.

Pos. Posizione	Quantity Quantità	Code Codice ordinazione
1 .....	N° 2 .....	<b>SVE2 52 200 - 02450</b>
2 .....	N° 1 .....	<b>SVE2 52 100 - 02450</b>
3 .....	N° 2 .....	<b>BMI 2</b>
4 .....	N° 1 .....	<b>BTI 2</b>
5 .....	N° 1 .....	<b>BTC 2</b>
6 .....	N° 1 .....	<b>PCBM 2</b>
7 .....	N° 5 .....	<b>CEP/1</b>

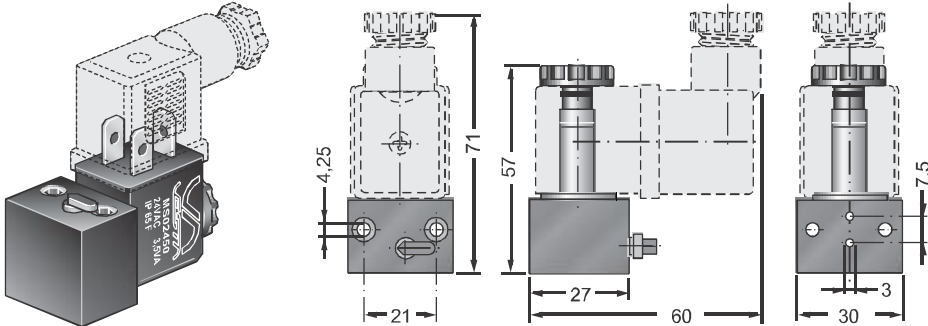




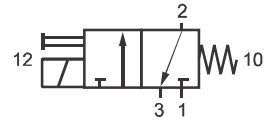
**CNOMO PILOT CONTROL SOLENOID VALVES AND ACCESSORIES / ELETTRPILOTI CNOMO ED ACCESSORI**

**ELBAC - .....**

CNOMO PILOT CONTROL SOLENOID VALVE  
ELETTRPILOTA CNOMO CON BOBINA **DIN 43650-A**



**SIMBOL / SIMBOLO**



**CODES / CODICI**

Code Codice ordinazione	Voltage Tensione
<b>ELBAC - 00000</b> .....	No coil / Senza solenoide
<b>ELBAC - 01200</b> .....	12 V DC
<b>ELBAC - 02400</b> .....	24 V DC
<b>ELBAC - 02450</b> .....	24 V 50/60Hz AC
<b>ELBAC - 11050 (*)</b> .....	110 V 50/60Hz AC
<b>ELBAC - 22050 (*)</b> .....	220 V 50/60Hz AC

(\*) Please see page / Vedi pag. B-37

**TECHNICAL FEATURES**

Flow section .....	Ø 1 mm
Ambient temperature range .....	-10 °C ÷ +50 °C
Temperature range of medium .....	0 °C ÷ +50 °C
Lubrication .....	Not required
Medium .....	Filtered air
Operating pressure range .....	0 ÷ 10 bar
Reference temperature .....	+20 °C
Reference pressure .....	6 bar
Nominal air flow .....	80 NI/min

Coils electrical features ..... See MS ..... (pag. B-35 + B-37)

**CARATTERISTICHE TECNICHE**

Diametro nominale .....	Ø 1 mm
Temperatura ambiente .....	-10 °C ÷ +50 °C
Temperatura fluido .....	0 °C ÷ +50 °C
Lubrificazione .....	Non necessaria
Fluido .....	Aria filtrata
Pressione d'esercizio .....	0 ÷ 10 bar
Temperatura nominale .....	+20 °C
Pressione nominale .....	6 bar
Portata nominale .....	80 NI/min

Caratteristiche elettriche bobina ..... Vedi MS ..... (pag. B-35 + B-37)

**SOLENOID VALVES OPTIONS SERIES SVE 5 ... AND SVE 2 ...  
OPZIONI PER ELETTROVALVOLE SERIE SVE 5 ... E SVE 2 ...**

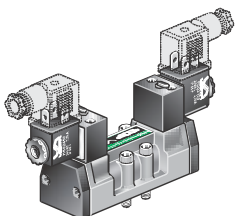
Series SVE5 ... and SVE2 ... **on request** can mount CNOMO solenoid pilots, with connectors in according DIN 43650 - B (see **ELCDC** page B-89) changing the order codes in:

Le elettrovalvole SVE5 ... e SVE2 ... possono essere equipaggiate **su richiesta** con elettropiloti CNOMO con connettore in accordo alle norme DIN 43650 - B (**vedi ELCDC** pagina B-89) sostituendo nell'ordinazione il codice standard:

**SVE5 ... ----> SVE6 ... (size 1)**

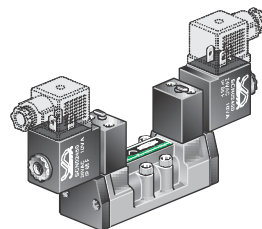
**SVE2 ... ----> SVE3 ... (size 2).**

**example / esempio**



**SVE5 52 200-02450**  
with CNOMO solenoids  
24 V at 50 Hz AC; 2,5 Watt  
(MS.. coil)

con elettropiloti CNOMO solenoidi da  
24 V a 50 Hz AC; potenza di 2,5 Watt  
(bobina MS..)



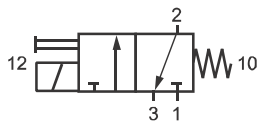
**SVE6 52 200-02450**  
with CNOMO solenoids  
24 V at 50 Hz AC; 2,5 Watt  
in according DIN 43650 - B (SCN.. coil)

con elettropiloti CNOMO solenoidi da  
24 V a 50 Hz AC; potenza di 2,5 Watt  
conforme DIN 43650 - B (bobina SCN..)

CNOMO PILOT CONTROL SOLENOID VALVE  
ELETTROPILOTA CNOMO CON BOBINA **DIN 43650-B**

**ELCDC - ....**

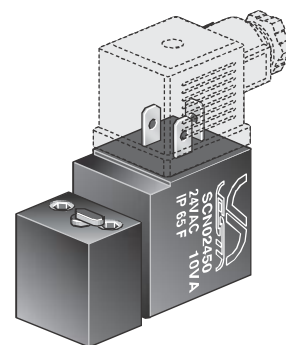
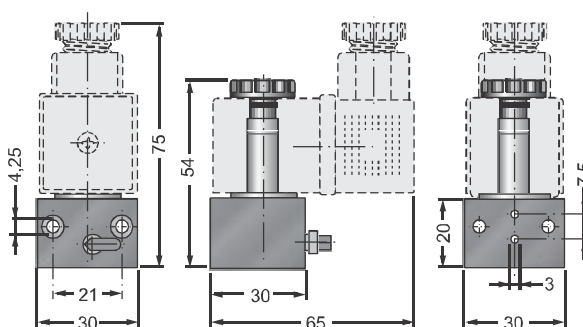
**SIMBOL / SIMBOLO**



**CODES / CODICI**

Ordination code Codice ordinazione	Voltage Tensione
<b>ELCDC - 00000</b> .....	No coil / Senza solenoide
<b>ELCDC - 01200</b> .....	12 V DC
<b>ELCDC - 02400</b> .....	24 V DC
<b>ELCDC - 02450</b> .....	24 V 50/60Hz AC
<b>ELCDC - 11050</b> (*) .....	110 V 50/60Hz AC
<b>ELCDC - 22050</b> (*) .....	220 V 50/60Hz AC

(\*) Please see page / Vedi pag. B-37



**TECHNICAL FEATURES**

Flow section .....	Ø 1,5 mm
Ambient temperature range .....	-10 °C ÷ +50 °C
Temperature range of medium .....	0 °C ÷ +50 °C
Lubrication .....	Not required
Medium .....	Filtered air
Operating pressure range .....	0 ÷ 10 bar
Reference temperature .....	+20 °C
Reference pressure .....	6 bar
Nominal air flow .....	100 NI/m in
Coils electrical features .....	See SCN..... (pag. B-89)

**CARATTERISTICHE TECNICHE**

Diametro nominale .....	Ø 1,5 mm
Temperatura ambiente .....	-10 °C ÷ +50 °C
Temperatura fluido .....	0 °C ÷ +50 °C
Lubrificazione .....	Non necessaria
Fluido .....	Aria filtrata
Pressione d'esercizio .....	0 ÷ 10 bar
Temperatura nominale .....	+20 °C
Pressione nominale .....	6 bar
Portata nominale .....	100 NI/m in
Caratteristiche elettriche bobina .....	Vedi SCN..... (pag. B-89)

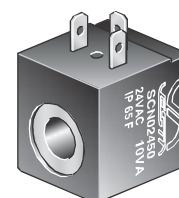
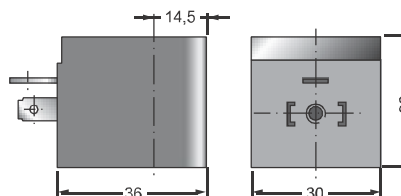
COIL FOR **ELCDC** SOLENOID VALVE  
SOLENOIDE PER ELETTROPILOTA

**SCN .....**

**CODES / CODICI**

Ordination code Codice ordinazione	Voltage Tensione
<b>SCN01200</b> .....	12 V DC
<b>SCN02400</b> .....	24 V DC
<b>SCN02450</b> .....	24 V 50/60Hz AC
<b>SCN11050</b> (*) .....	110 V 50/60Hz AC
<b>SCN22050</b> (*) .....	220 V 50/60Hz AC

(\*) Please see page / Vedi pag. B-37



DIN 43650 - A

**TECHNICAL FEATURES**

Standard voltage .....	12, 24 V DC 24,110, 220 V AC (50/60 Hz)
Solenoid characteristics .....	2,5 Watt in DC; 3,5 V A in AC
Voltage .....	± 10% (continuos)
Ambient temperature range .....	-20 °C ÷ +50 °C
Degree of protection .....	Fixed plug IP 65 with connector
Pins according .....	DIN 43650 - B
Insulation .....	Class F
Expy .....	Incapsulated

**CARATTERISTICHE TECNICHE**

Tensione standard .....	12, 24 V DC 24,110, 220 V AC (50/60 Hz)
Prestazioni bobina .....	2,5 Watt in DC; 3,5 V A in AC
Tensione nominale .....	± 10% a bobina calda
Limiti di temperatura ambiente .....	-20 °C ÷ +50 °C
Protezione .....	IP 65 secondo IEC 144 con connettore e guarnizioni montate
Connessione elettrica .....	Secondo norma DIN 43650 - B
Bobina .....	Classe F; Filo rame classe 200 °C
Sovrastampatura .....	Resina epossidica

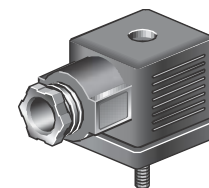
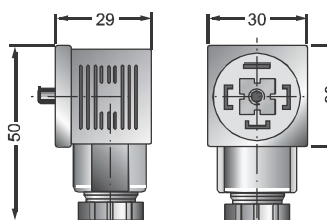
**CODES / CODICI**

SOLENOID CONNECTOR FOR **SCN** COIL  
CONNETTORE PER SOLENOIDE SERIE **SCN**

**CEP/2 .....**

Description Descrizione	Code Codice	Voltage Tensione
Universal connector Connettore universale	<b>CEP/2</b>	All tension Tutte le tensioni
Connector with led Connettore con led	<b>CEP/2 L 10 / 50</b> <b>CEP/2 L 70 / 250</b> (*)	10/50 V AC / DC 70/250 V AC / DC
Connector with led and varistor Connettore con led e varistore	<b>CEP/2 LV 24</b> <b>CEP/2 LV 110</b> (*) <b>CEP/2 LV 220</b> (*)	24 V AC / DC 110 V AC / DC 220 V AC / DC

(\*) Please see page / Vedi pag. B-37



**TECHNICAL FEATURES**

Wire connection .....	With screwed terminals
Gland thread .....	PG 11
Number of poles .....	2 Poles + earth
Housing colour .....	Black, transparent in the led version

**CARATTERISTICHE TECNICHE**

Connessione cavi .....	Con morsetti a vite
Filettatura passacavo .....	PG 11
N° Poli .....	2 Poli + terra
Colori connettore .....	Nero, trasparente nella versione con led.



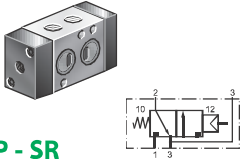


# INDEX / INDICE

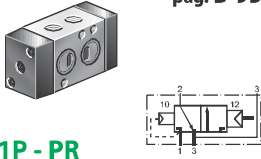
(\*) ATEX versions see / Versioni ATEX vedi P. B-113

## VALVES AND SOLENOID VALVES SERIES NAMUR 3/2 / VALVOLE ED ELETTROVALVOLE SERIE NAMUR 3/2

pag. B-95

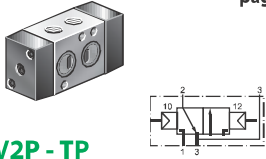


**(\*) NM32V1P - SR**  
SINGLE PNEUMATIC PILOT - SPRING RETURN  
COMANDO PNEUMATICO - MOLLA MECCANICA



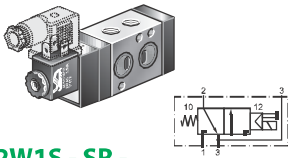
**NM32V1P - PR**  
SINGLE PNEUMATIC PILOT - INTERNAL PRESSURE RETURN  
COMANDO PNEUMATICO - MOLLA PNEUMATICA

pag. B-96

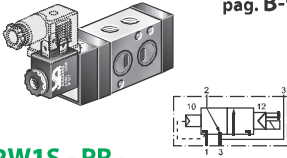


**(\*) NM32V2P - TP**  
DOUBLE PNEUMATIC PILOT  
DOPPIO COMANDO PNEUMATICO

pag. B-96

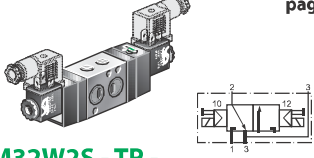


**(\*) NM32W1S - SR - .....**  
SOLENOID VALVE - SPRING RETURN  
COMANDO ELETTROPNEUMATICO - MOLLA MECCANICA



**NM32W1S - PR - .....**  
SOLENOID VALVE - INTERNAL PRESSURE RETURN  
COMANDO ELETTROPNEUMATICO - MOLLA PNEUMATICA

pag. B-97

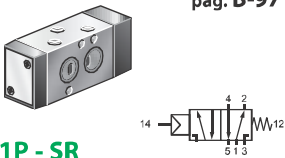


**(\*) NM32W2S - TP - .....**  
DOUBLE SOLENOID VALVE  
DOPPIO COMANDO ELETTROPNEUMATICO

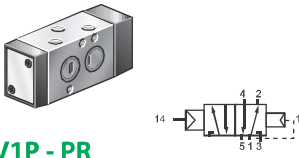
(\*) ATEX versions see / Versioni ATEX vedi P. B-113

## VALVES AND SOLENOID VALVES SERIES NAMUR 5/2 / VALVOLE ED ELETTROVALVOLE SERIE NAMUR 5/2

pag. B-97

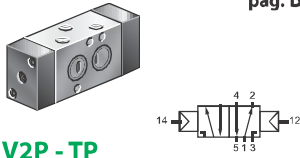


**(\*) NM52V1P - SR**  
SINGLE PNEUMATIC PILOT - SPRING RETURN  
COMANDO PNEUMATICO - MOLLA MECCANICA

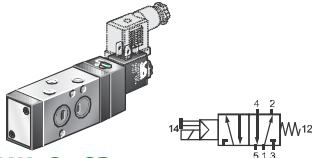


**NM52V1P - PR**  
SINGLE PNEUMATIC PILOT - INTERNAL PRESSURE RETURN  
COMANDO PNEUMATICO - MOLLA PNEUMATICA

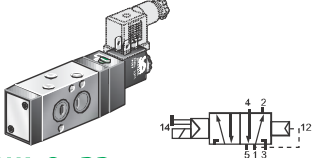
pag. B-98



**(\*) NM52V2P - TP**  
DOUBLE PNEUMATIC PILOT  
DOPPIO COMANDO PNEUMATICO

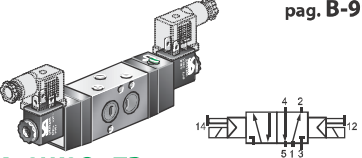


**(\*) NM52W1S - SR - .....**  
SOLENOID VALVE - SPRING RETURN  
COMANDO ELETTROPNEUMATICO - MOLLA MECCANICA



**NM52W1S - PR - .....**  
SOLENOID VALVE - INTERNAL PRESSURE RETURN  
COMANDO ELETTROPNEUMATICO - MOLLA PNEUMATICA

pag. B-99



**(\*) NM52W2S - TP - .....**  
DOUBLE SOLENOID VALVE  
DOPPIO COMANDO ELETTROPNEUMATICO



## BUILDING FEATURES / CARATTERISTICHE COSTRUTTIVE

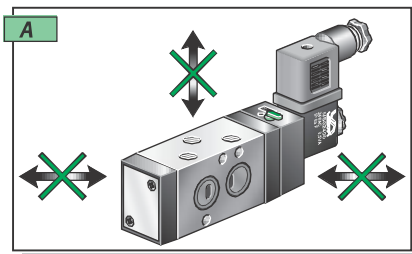
VESTA "NAMUR" valves are available in the 3/2 and 5/2 versions, with different forms of actuation (i.e. solenoid / pilot etc).

This series of valves present a high nominal air flow and no environmental contact between the namur valve and the actuator being switched (See Fig. **A**). These namur valves have a high working frequency and can be used with lubricated or non-lubricated air (See Fig. **B**), thanks to a spool made of a light alloy aluminium, nickel treated by "Niploy Process" (See Fig. **C**) to give the surface a smooth finish. The self lubricating lip rubber seals which the spool runs in, assures the valves of a long lasting durable life span.

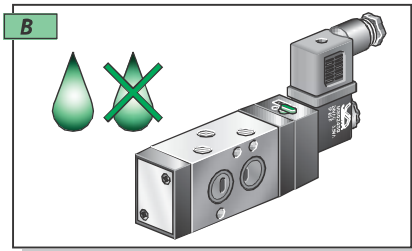
Le valvole ed elettrovalvole VESTA della serie **NAMUR** funzionano secondo il principio del distributore a cassetto bilanciato (vedi fig. 1 e 2).

La serie, realizzata nelle funzioni 3/2 e 5/2, viene fornita con più sistemi di azionamento e riposizionamento.

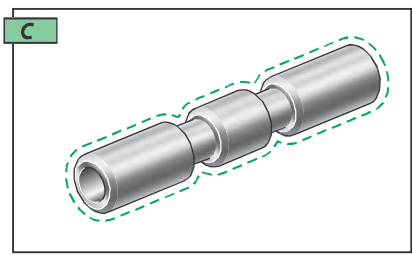
Le caratteristiche fondamentali sono: grande portata d'aria, ermeticità di funzionamento verso l'ambiente di lavoro nei modelli bistabili e in quelli con ritorno a molla pneumatica (**A**), alta velocità di scambio, possibilità di funzionamento continuo privo di lubrificazione (**B**) ottenuto con l'impiego di materiali particolari come, ad esempio, la spola realizzata in lega leggera con trattamento Niploy Process che le conferisce notevole durezza superficiale e caratteristiche autolubrificanti (**C**), e le guarnizioni in elastomero nitrilico con profilo a labbro antiusura.



Protected against working environment.  
*Protezione verso l'ambiente di lavoro.*



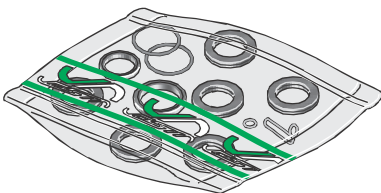
Possibility of operating continuously without lubrication.  
*Possibilità di funzionamento continuo privo di lubrificazione.*



Light alloy spool with Niploy Process treated surface.  
*Spola in lega leggera con trattamento speciale Niploy Process.*

### SET . 1/4 SG

SEALS KIT  
KIT GUARNIZIONI DI RICAMBIO



Seals kit code - Codice del kit

**SET 1 1/4 SG** for NAMUR **mono-stable** valves - per valvole NAMUR.

**SET 2 1/4 SG** for NAMUR **bi-stable** valves - per valvole NAMUR.

Example / Esempio: **NM32W15-SR-02400** → **SET 1 1/4 SG** **NM32W25-TP-02400** → **SET 2 1/4 SG**

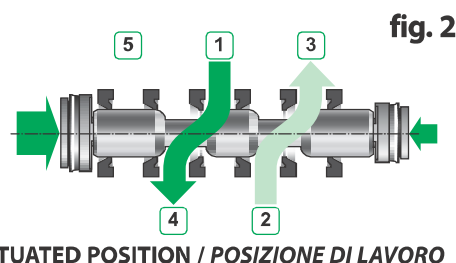
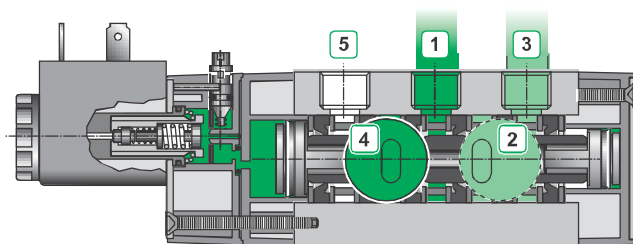
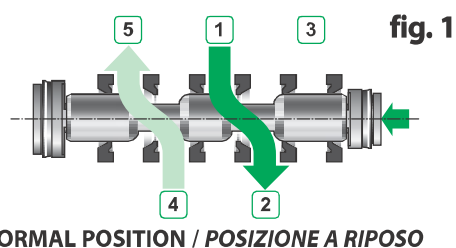
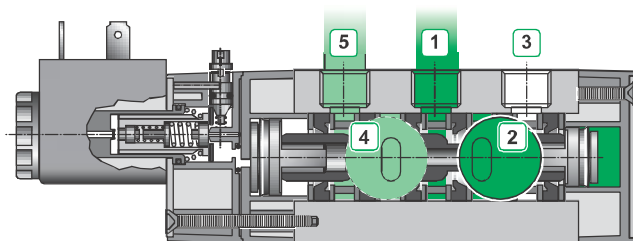
In the example here below, when the valve **NM52W1S-PR-02450** (see the draw) stands in the normal position, ports **4 - 5** and **1 - 2** are connected and the position is kept thanks to the pressure assured to the smallest piston (right side of the valve).

When the valve is actuated, the same pressure is fed to the biggest piston. It's bigger surface create a force which allows to the spool to move and therefore to connect ports **4 - 1** and **2 - 3**. In the mechanical spring version, the valve is kept in the normal position by a mechanical spring. In the bistable versions, the position of the valve remains in its last switched state.

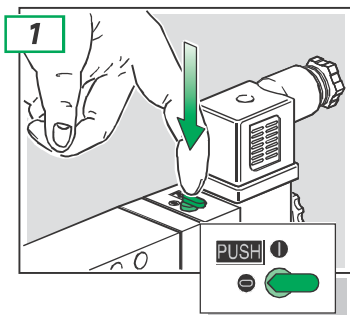
*Il principio di funzionamento dei distributori 3/2 e 5/2 (nell'esempio l'elettrovalvola **NM52W1S-PR-02450** con comando elettropneumatico e riposizionamento a molla pneumatica) consiste nel mantenere costantemente in pressione il pistone di riposizionamento (fig. 1), utilizzando la fonte d'aria compressa presente nel condotto di alimentazione 1, collegando le vie 1-2 e 4-5.*

*L'eccitazione del solenoide mette in comunicazione il condotto 1 con la camera dove è alloggiato il pistone di comando. Quest'ultimo, avendo un'area di spinta maggiore del pistone di riposizionamento, sposta la spola in modo tale da collegare i canali 1-4 e 2-3 (fig. 2).*

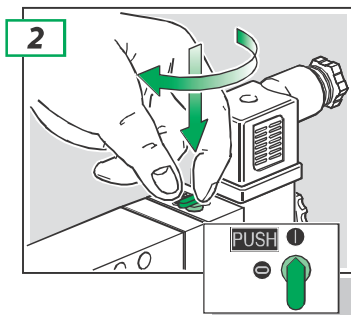
*Diseccitando il solenoide si ripristina la posizione iniziale. Nel sistema dotato di riposizionamento con molla meccanica il funzionamento è analogo, mentre nei sistemi bistabili (doppio comando elettropneumatico o doppio comando pneumatico) in assenza di segnale rimangono i collegamenti formati nell'ultimo azionamento.*



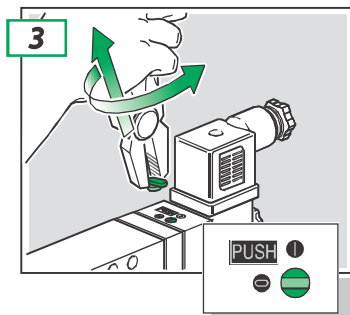
**MANUAL OVERRIDING / AZIONAMENTO COMANDO MANUALE**



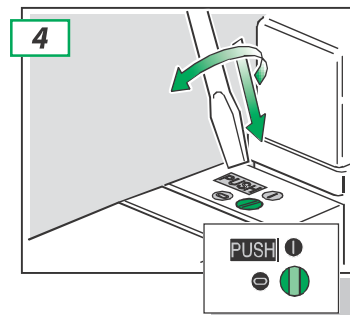
1 Push to actuated valve without locking. **Relise the button to get back to normal position.**



2 To active the valve permanently push the M/O (manual override) and rotate clockwise 90°. **To return to normal position, push the M/O again and turn 90° anti-clockwise.**



3 Should the M/O no longer be required, then turn the M/O anticlockwise until it breaks off.



4 Should the M/O be required after breaking off, then a screwdriver may be used.

*Per azionare la valvola, durante la fase di collaudo con pressione in linea senza collegamento elettrico, premere la leva del comando manuale. **Rilasciare per ripristinare la condizione di riposo.***

*Per azionare la valvola in modo permanente premere la leva del comando manuale e ruotare in senso orario sino alla posizione 1. **Ruotare in senso antiorario per ripristinare la condizione di riposo.***

*Terminato il collaudo ruotare in senso antiorario la leva sino alla rottura.*

*Per interventi successivi sul comando manuale usare un adeguato cacciavite ed operare come al punto 1 o 2.*



## SERIE **NM**

## TECHNICAL FEATURES / CARATTERISTICHE TECNICHE

### COMMON TECHNICAL FEATURES **NM**

Fixing .....	N° 2 Holes Ø 5,3	Medium .....	Filtered air
Port connections .....	G 1/4	Reference temperature .....	+20 °C
Flow section .....	Ø 8 mm	Reference pressure .....	6 bar
Environment temperature range .....	-10 °C / +50 °C	Nominal air flow .....	1080 NI/min
Temperature range of medium .....	0 °C / +40 °C	Fluid conductance "C" .....	4,34 NI/s bar
Lubrication .....	Not required	Critical pressure ratio "b" .....	0,212

### PNEUMATIC VALVES FEATURES **NM**

<b>NM32V1P - SR</b> <b>NM52V1P - SR</b>	Nominal max frequency .....	10 Hz
	Operating pressure range .....	2,5 ÷ 10 bar

<b>NM32V1P - PR</b> <b>NM52V1P - PR</b>	Nominal max frequency .....	20 Hz
	Operating pressure range .....	2,5 ÷ 10 bar

<b>NM32V2P - TP</b> <b>NM52V2P - TP</b>	Nominal max frequency .....	30 Hz
	Operating pressure range .....	1,5 ÷ 10 bar

### SOLENOID VALVES FEATURES **NM**

	AC	DC
<b>NM32W1S - SR</b> <b>NM52W1S - SR</b>		
Nominal max frequency .....	11 Hz	11 Hz
Response time - switch ON .....	19 ms	21 ms
Response time - switch OFF .....	35 ms	46 ms
Operating pressure range .....	2,5 ÷ 10 bar	

	AC	DC
<b>NM32W1S - PR</b> <b>NM52W1S - PR</b>		
Nominal max frequency .....	16 Hz	13 Hz
Response time - switch ON .....	18 ms	21 ms
Response time - switch OFF .....	33 ms	44 ms
Operating pressure range .....	2,5 ÷ 10 bar	

<b>NM32W2S - TP</b> <b>NM52W2S - TP</b>	Nominal max frequency .....	27 Hz	21 Hz
	Response time - switch ON .....	11 ms	14 ms
	Response time - switch OFF .....	11 ms	14 ms
	Operating pressure range .....	1,5 ÷ 10 bar	

For electrical features solenoid pilot NAMUR serie pp.  
B-35 ÷ B-37.

### CARATTERISTICHE TECNICHE COMUNI **NM**

Fissaggio .....	N° 2 fori Ø 5,3	Fluido .....	Aria filtrata
Connessioni .....	G 1/4	Temperatura nominale .....	+20 °C
Diametro nominale .....	Ø 8 mm	Pressione nominale .....	6 bar
Temperatura ambiente .....	-10 °C / +50 °C	Portata nominale .....	1080 NI/min
Temperatura fluido .....	0 °C / +40 °C	Valore conduttanza "C" .....	4,34 NI/s bar
Lubrificazione .....	Non necessaria	Rapporto critico delle pressioni "b" .....	0,212

### CARATTERISTICHE VALVOLE PNEUMATICHE **NM**

<b>NM32V1P - SR</b> <b>NM52V1P - SR</b>	Frequenza max nominale .....	10 Hz
	Pressione di esercizio .....	2,5 ÷ 10 bar

<b>NM32V1P - PR</b> <b>NM52V1P - PR</b>	Frequenza max nominale .....	20 Hz
	Pressione di esercizio .....	2,5 ÷ 10 bar

<b>NM32V2P - TP</b> <b>NM52V2P - TP</b>	Frequenza max nominale .....	30 Hz
	Pressione di esercizio .....	1,5 ÷ 10 bar

### CARATTERISTICHE ELETTROVALVOLE **NM**

	AC	DC
<b>NM32W1S - SR</b> <b>NM52W1S - SR</b>		
Frequenza max nominale .....	11 Hz	11 Hz
Tempo medio di risposta in eccitazione .....	19 ms	21 ms
Tempo medio di risposta in diseccitazione .....	35 ms	46 ms
Pressione di esercizio .....	2,5 ÷ 10 bar	

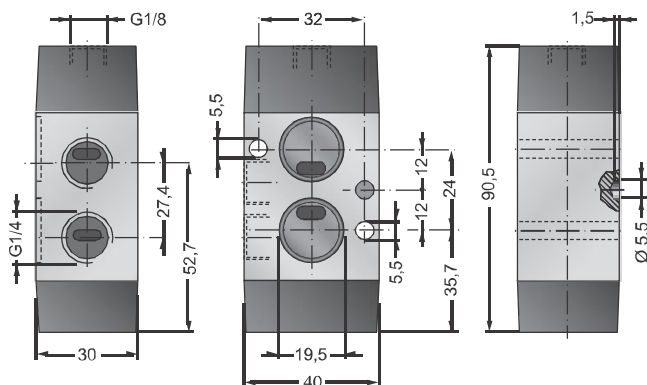
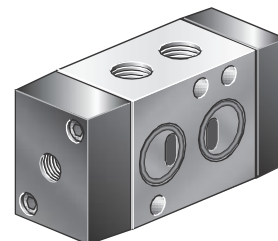
	AC	DC
<b>NM32W1S - PR</b> <b>NM52W1S - PR</b>		
Frequenza max nominale .....	16 Hz	13 Hz
Tempo medio di risposta in eccitazione .....	18 ms	21 ms
Tempo medio di risposta in diseccitazione .....	33 ms	44 ms
Pressione di esercizio .....	2,5 ÷ 10 bar	

<b>NM32W2S - TP</b> <b>NM52W2S - TP</b>	Frequenza max nominale .....	27 Hz	21 Hz
	Tempo medio di risposta in eccitazione .....	11 ms	14 ms
	Tempo medio di risposta in diseccitazione .....	11 ms	14 ms
	Pressione di esercizio .....	1,5 ÷ 10 bar	

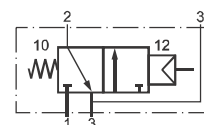
Caratteristiche elettriche bobina per elettrovalvole serie  
NAMUR vedi pp. B-35 ÷ B-37.

**NM32V1P - SR**

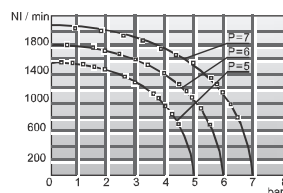
**VALVE / VALVOLA 3/2**  
 SINGLE PNEUMATIC PILOT - SPRING RETURN  
 COMANDO PNEUMATICO - RIPOSIZIONAMENTO A MOLLA MECCANICA



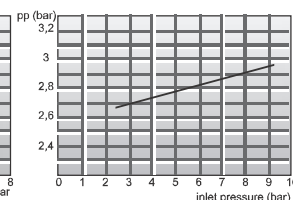
**SIMBOL / SIMBOLO**



**DIAGRAMS / DIAGRAMMI**



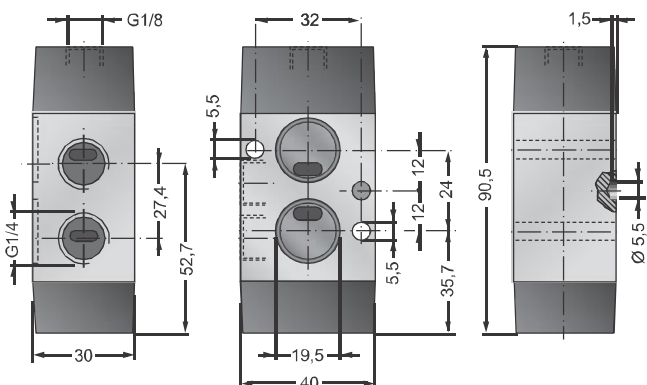
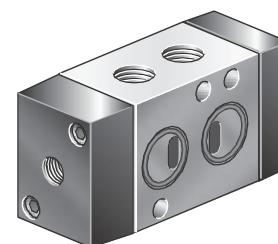
AIR FLOW DIAGRAM  
 DIAGRAMMA DELLE PORTATE



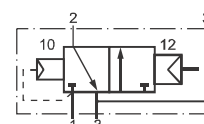
PILOT PRESSURE / INLET PRESSURE  
 DIAGRAMMA DELLA PRESSIONE DI PILOTAGGIO  
 IN RELAZIONE ALLA PRESSIONE DI ALIMENTAZIONE

**NM32V1P - PR**

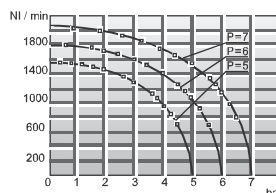
**VALVE / VALVOLA 3/2**  
 SINGLE PNEUMATIC PILOT - INTERNAL PRESSURE RETURN  
 COMANDO PNEUMATICO - RIPOSIZIONAMENTO A MOLLA PNEUMATICA



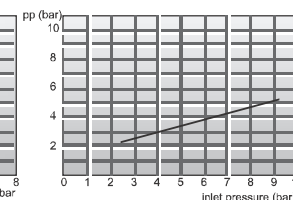
**SIMBOL / SIMBOLO**



**DIAGRAMS / DIAGRAMMI**



AIR FLOW DIAGRAM  
 DIAGRAMMA DELLE PORTATE



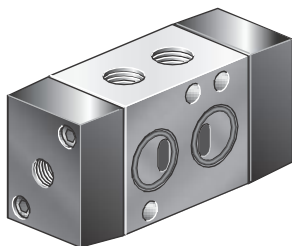
PILOT PRESSURE / INLET PRESSURE  
 DIAGRAMMA DELLA PRESSIONE DI PILOTAGGIO  
 IN RELAZIONE ALLA PRESSIONE DI ALIMENTAZIONE

VALVOLE ED ELETTROVALVOLE - VALVES AND SOLENOID VALVES

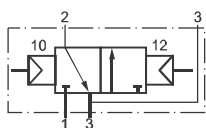




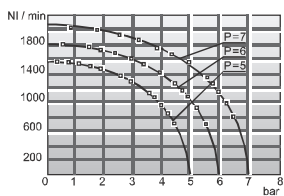
## NM32V2P - TP



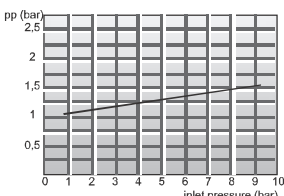
### SIMBOL / SIMBOLO



### DIAGRAMS / DIAGRAMMI

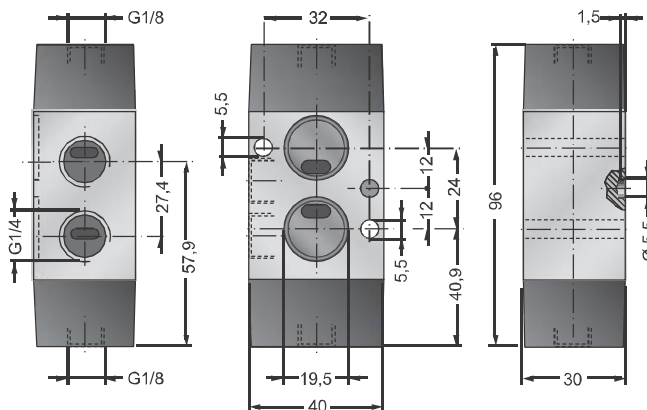


AIR FLOW DIAGRAM  
DIAGRAMMA DELLE PORTATE

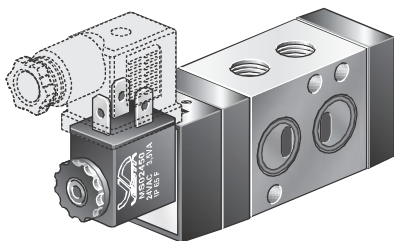


PILOT PRESSURE / INLET PRESSURE  
DIAGRAMMA DELLA PRESSIONE DI PILOTAGGIO  
IN RELAZIONE ALLA PRESSIONE DI ALIMENTAZIONE

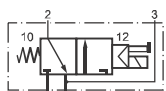
## VALVE / VALVOLA 3/2 DOUBLE PNEUMATIC PILOT DOPPIO COMANDO PNEUMATICO



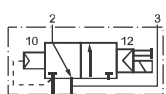
## NM32W1S - .R - .....



### SIMBOLS / SIMBOLI

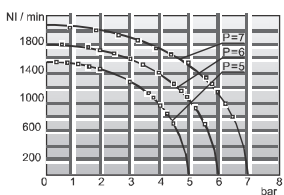


NM32W1S - SR - .....



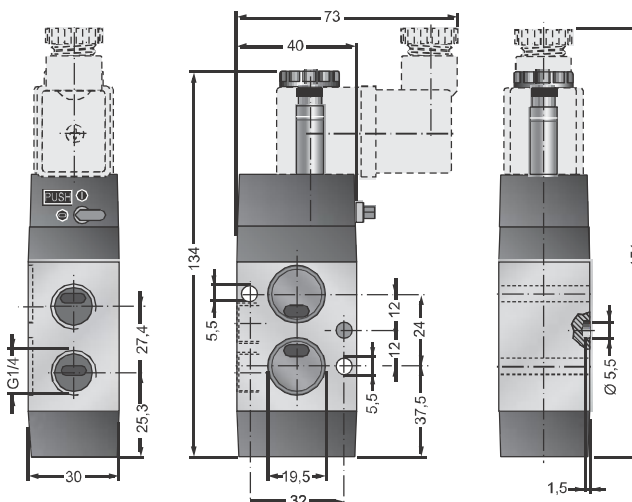
NM32W1S - PR - .....

### DIAGRAM / DIAGRAMMA



AIR FLOW DIAGRAM  
DIAGRAMMA DELLE PORTATE

## VALVE / VALVOLA 3/2 SOLENOID VALVE COMANDO ELETTROPNEUMATICO



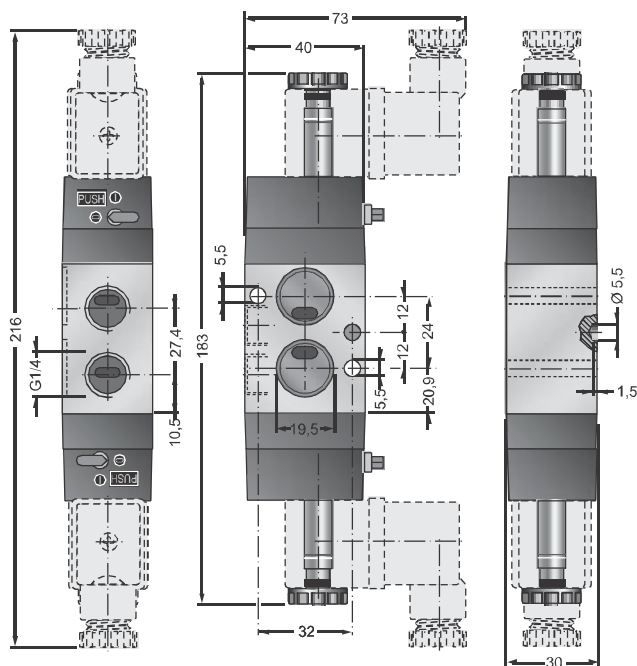
### CODES / CODICI

Ordination code  
Codice ordinazione

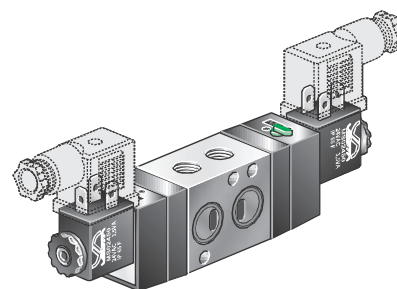
NM32W1S - .R - 00000 .....	No coil / Senza solenoide
NM32W1S - .R - 01200 .....	12 V DC
NM32W1S - .R - 02400 .....	24 V DC
NM32W1S - .R - 02450 .....	24 V 50/60Hz AC
NM32W1S - .R - 11050 .....	110 V 50/60Hz AC
NM32W1S - .R - 22050 .....	220 V 50/60Hz AC

Voltage  
Tensione

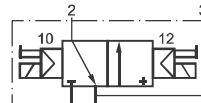
**VALVE / VALVOLA 3/2**  
 DOUBLE SOLENOID VALVE  
 DOPPIO COMANDO ELETTROPNEUMATICO



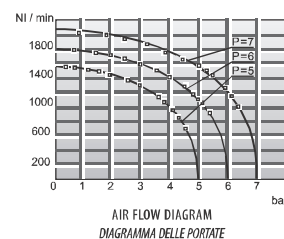
**NM32W2S - TP - ....**



**SIMBOL / SIMBOLO**



**DIAGRAM / DIAGRAMMA**



**CODES / CODICI**

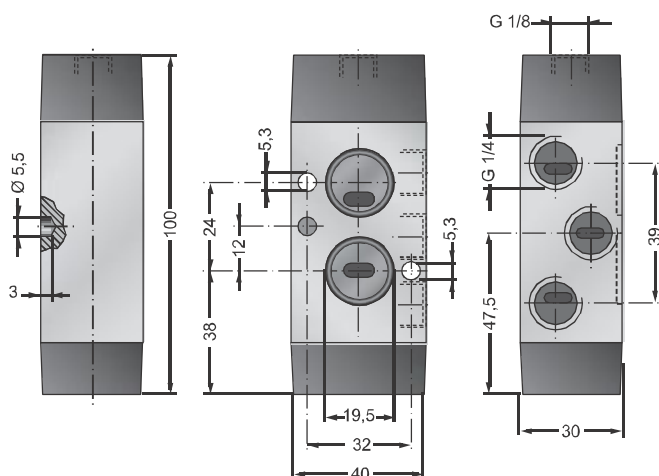
**Ordination code  
 Codice ordinazione**

- NM32W2S - TP - 00000 .....
- NM32W2S - TP - 01200 .....
- NM32W2S - TP - 02400 .....
- NM32W2S - TP - 02450 .....
- NM32W2S - TP - 11050 .....
- NM32W2S - TP - 22050 .....

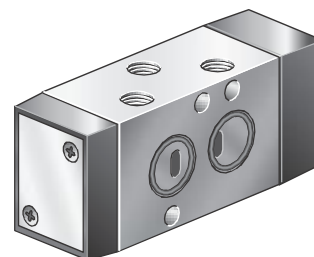
**Voltage  
 Tensione**

- No coils / Senza solenoidi
- 12 V DC
- 24 V DC
- 24 V 50/60Hz AC
- 110 V 50/60Hz AC
- 220 V 50/60Hz AC

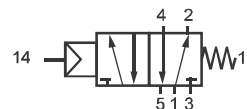
**VALVE / VALVOLA 5/2**  
 SINGLE PNEUMATIC PILOT - SPRING RETURN  
 COMANDO PNEUMATICO - RIPOSIZIONAMENTO A MOLLA MECCANICA



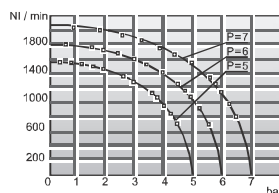
**NM52V1P - SR**



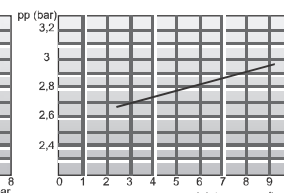
**SIMBOL / SIMBOLO**



**DIAGRAMS / DIAGRAMMI**



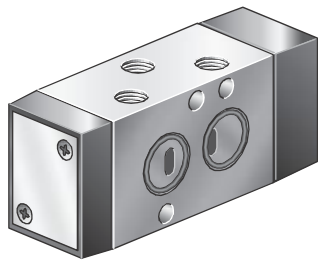
AIR FLOW DIAGRAM  
 DIAGRAMMA DELLE PORTATE



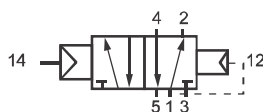
PILOT PRESSURE / INLET PRESSURE  
 DIAGRAMMA DELLA PRESSIONE DI PILOTAGGIO  
 IN RELAZIONE ALLA PRESSIONE DI ALIMENTAZIONE



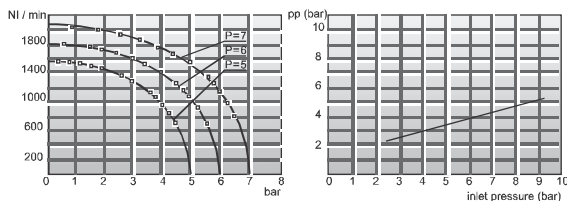
## NM52V1P - PR



### SIMBOL / SIMBOLO



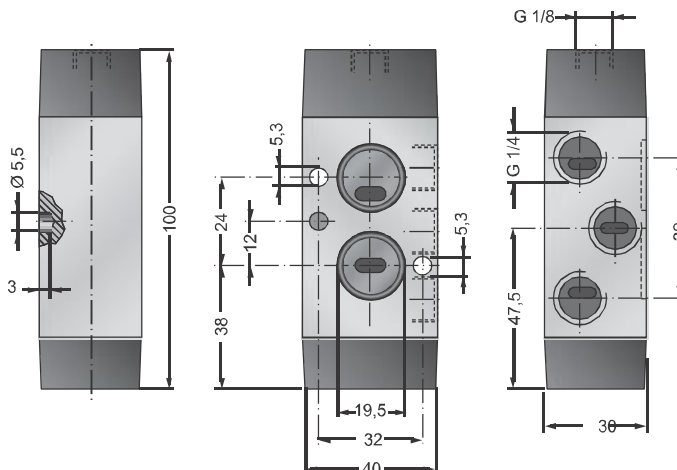
### DIAGRAMS / DIAGRAMMI



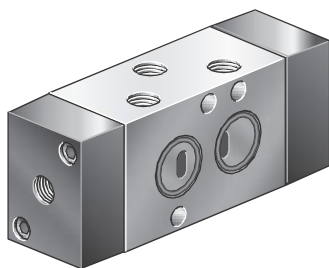
AIR FLOW DIAGRAM  
DIAGRAMMA DELLE PORTATE

PILOT PRESSURE / INLET PRESSURE  
DIAGRAMMA DELLA PRESSIONE DI PILOTAGGIO  
IN RELAZIONE ALLA PRESSIONE DI ALIMENTAZIONE

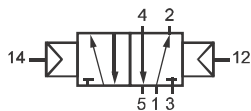
### VALVE / VALVOLA 5/2 SINGLE PNEUMATIC PILOT - INTERNAL PRESSURE RETURN COMANDO PNEUMATICO - RIPOSIZIONAMENTO A MOLLA PNEUMATICA



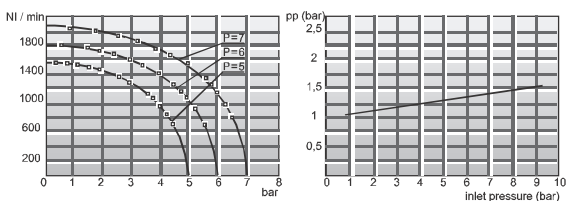
## NM52V2P - TP



### SIMBOL / SIMBOLO



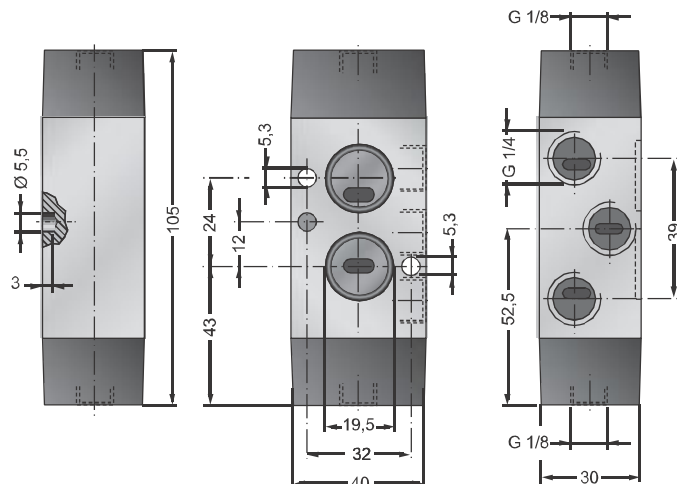
### DIAGRAMS / DIAGRAMMI



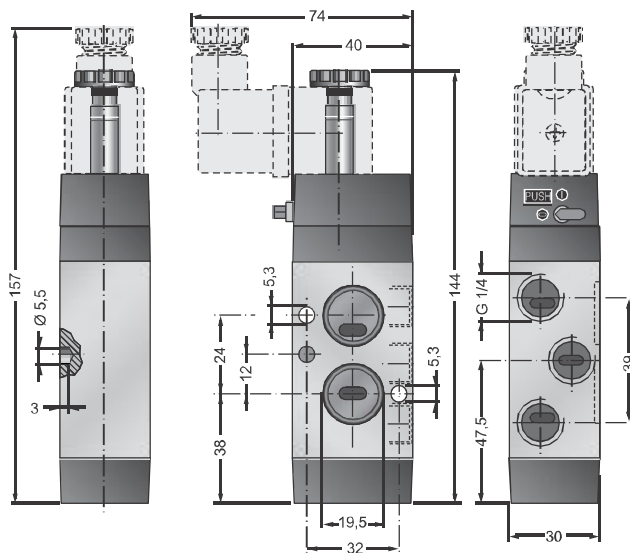
AIR FLOW DIAGRAM  
DIAGRAMMA DELLE PORTATE

PILOT PRESSURE / INLET PRESSURE  
DIAGRAMMA DELLA PRESSIONE DI PILOTAGGIO  
IN RELAZIONE ALLA PRESSIONE DI ALIMENTAZIONE

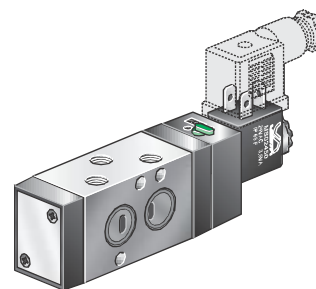
### VALVE / VALVOLA 5/2 DOUBLE PNEUMATIC PILOT DOPPIO COMANDO PNEUMATICO



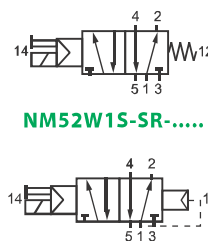
**VALVE / VALVOLA 5/2**  
**SOLENOID VALVE - SPRING RETURN**  
 COMANDO ELETTROPNEUMATICO - RIPOSIZIONAMENTO A MOLLA MECCANICA



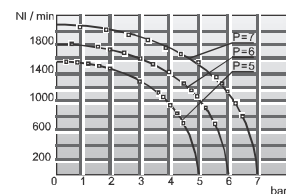
**NM52W1S - .R -.....**



**SIMBOLS / SIMBOLI**



**DIAGRAM / DIAGRAMMA**



AIR FLOW DIAGRAM  
 DIAGRAMMA DELLE PORTATE

**CODES / CODICI**

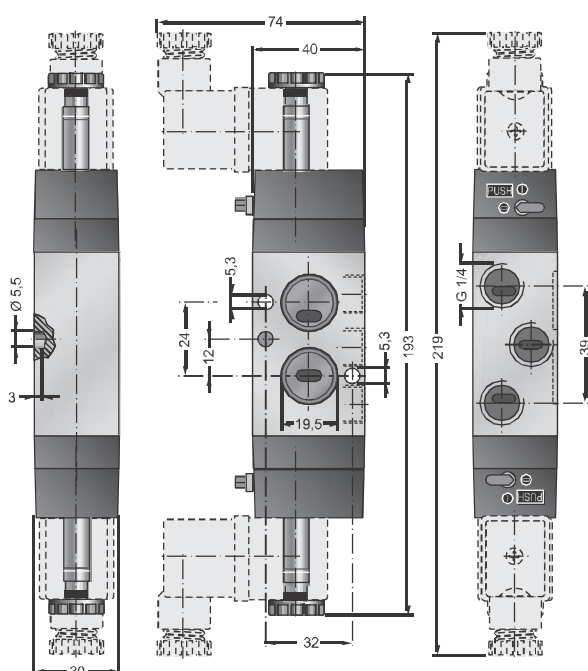
**Ordination code**

- NM52W1S - .R-00000 .....
- NM52W1S - .R-01200 .....
- NM52W1S - .R-02400 .....
- NM52W1S - .R-02450 .....
- NM52W1S - .R-11050 .....
- NM52W1S - .R-22050 .....

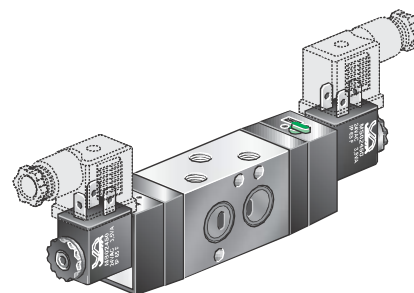
**Voltage**

- No coil / Senza solenoide
- 12 V DC
- 24 V DC
- 24 V 50/60Hz AC
- 110 V 50/60Hz AC
- 220 V 50/60Hz AC

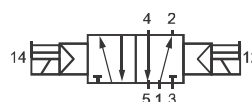
**VALVE / 5/2**  
**DOUBLE SOLENOID VALVE**  
 DOPPIO COMANDO ELETTROPNEUMATICO



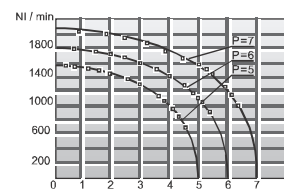
**NM52W2S TP -.....**



**SIMBOL / SIMBOLO**



**DIAGRAM / DIAGRAMMA**



AIR FLOW DIAGRAM  
 DIAGRAMMA DELLE PORTATE

**CODES / CODICI**

**Ordination code**  
**Codice ordinazione**

- NM52W2S - TP-00000 .....
- NM52W2S - TP-01200 .....
- NM52W2S - TP-02400 .....
- NM52W2S - TP-02450 .....
- NM52W2S - TP-11050 .....
- NM52W2S - TP-22050 .....

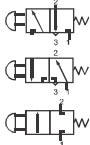
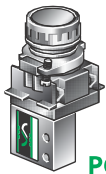
**Voltage**  
**Tensione**

- No coils / Senza solenoidi
- 12 V DC
- 24 V DC
- 24 V 50/60Hz AC
- 110 V 50/60Hz AC
- 220 V 50/60Hz AC



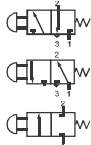
# INDEX / INDICE

## MANUAL VALVES / VALVOLE A COMANDO MANUALE



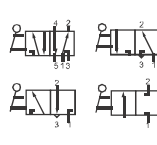
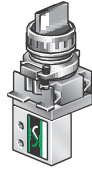
**PGI ..4**

PUSH BUTTON, SPRING RETURN  
COMANDO A PULSANTE



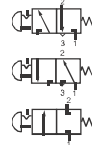
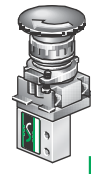
**PF ..4**

MUSHROOM PUSH BUTTON, SPRING RETURN  
COMANDO A FUNGO



**SR ..4**

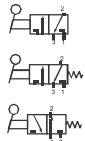
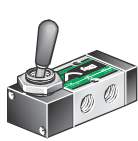
SHORT LEVER SELECTOR, MANUAL RETURN  
COMANDO A SELETTORE



**PFF ..4**

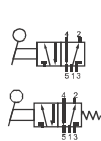
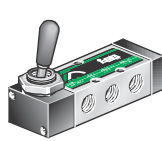
EMERGENCY PUSH BUTTON  
PULSANTE D' EMERGENZA

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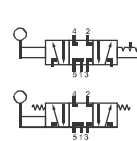
**VCML32..8**

VALVE 3/2, LEVER VALVE  
VALVOLA 3/2, COMANDO A LEVA



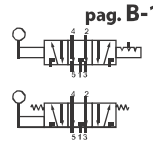
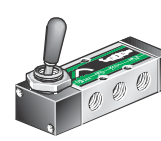
**VCML52.18**

VALVE 5/2, LEVER VALVE  
VALVOLA 5/2, COMANDO A LEVA



**VCML536.8**

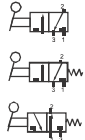
VALVE 5/3, LEVER VALVE  
VALVOLA 5/3, COMANDO A LEVA



**VCML539.8**

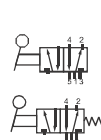
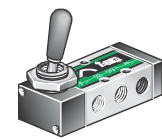
VALVE 5/3, LEVER VALVE  
VALVOLA 5/3, COMANDO A LEVA

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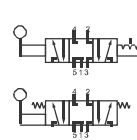
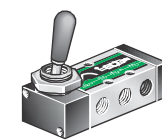
**VCML32..4**

VALVE 3/2, LEVER VALVE  
VALVOLA 3/2, COMANDO A LEVA



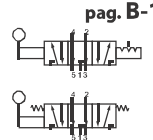
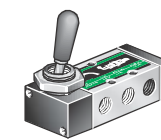
**VCML52.14**

VALVE 5/2, LEVER VALVE  
VALVOLA 5/2, COMANDO A LEVA



**VCML536.4**

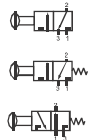
VALVE 5/3, LEVER VALVE  
VALVOLA 5/3, COMANDO A LEVA



**VCML539.4**

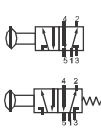
VALVE 5/3, LEVER VALVE  
VALVOLA 5/3, COMANDO A LEVA

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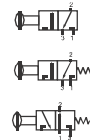
**VCMT32..8**

VALVE 3/2, BUTTON VALVE  
VALVOLA 3/2, COMANDO A TIRETTO



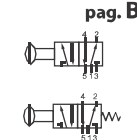
**VCMT52.18**

VALVE 3/2, BUTTON VALVE  
VALVOLA 3/2, COMANDO A TIRETTO



**VCMT32..4**

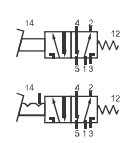
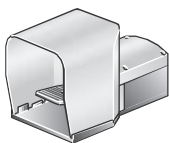
VALVE 3/2, BUTTON VALVE  
VALVOLA 3/2, COMANDO A TIRETTO



**VCMT52.14**

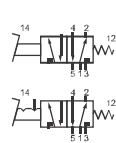
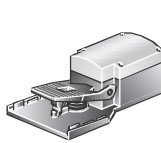
VALVE 3/2, BUTTON VALVE  
VALVOLA 3/2, COMANDO A TIRETTO

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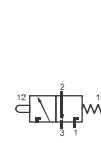
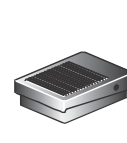
**VFPP52..4**

PORT CONNECTION G1/4 - FOOT-PEDAL VALVE  
CONNESSIONI G1/4 - COMANDO A PEDALE



**VFP52..4**

PORT CONNECTION G1/4 - FOOT-PEDAL VALVE  
CONNESSIONI G1/4 - COMANDO A PEDALE

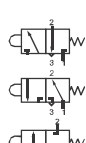


**VFPMA304**

PORT CONNECTION Ø4 - FOOT-PEDAL VALVE  
CONNESSIONI Ø4 - COMANDO A PEDALE

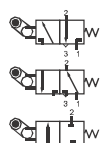
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## MECHANICAL VALVES / VALVOLE A COMANDO MECCANICO



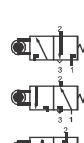
**MV ..4**

MECHANICAL VALVE  
MICROVALVOLA FINECORSA



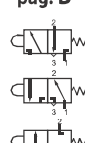
**MS ..4**

MECHANICAL VALVE  
MICROVALVOLA FINECORSA



**MR ..4**

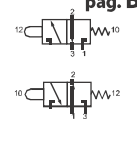
MECHANICAL VALVE  
MICROVALVOLA FINECORSA



**MA ..4**

MECHANICAL VALVE  
MICROVALVOLA FINECORSA

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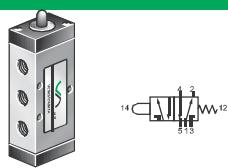
**VCMS32.M8**

VALVE 3/2, CAM ACTUATED VALVE  
VALVOLA 3/2, COMANDO A PUNTALE

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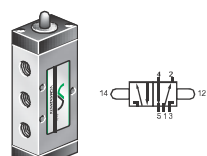


**MECHANICAL VALVES / VALVOLE A COMANDO MECCANICO**



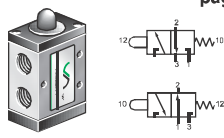
**VCMS52M18**

VALVE 5/2, CAM ACTUATED VALVE  
VALVOLA 5/2, COMANDO A PUNTALE



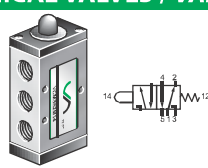
**VCMS52S18**

VALVE 5/2, CAM ACTUATED VALVE  
VALVOLA 5/2, COMANDO A PUNTALE



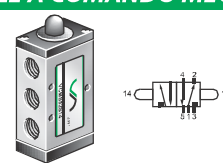
**VCMS32.M4**

VALVE 3/2, CAM ACTUATED VALVE  
VALVOLA 3/2, COMANDO A PUNTALE



**VCMS52M14**

VALVE 5/2, CAM ACTUATED VALVE  
VALVOLA 5/2, COMANDO A PUNTALE

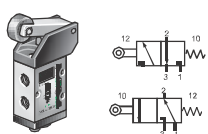


**VCMS52S14**

VALVE 5/2, CAM ACTUATED VALVE  
VALVOLA 5/2, COMANDO A PUNTALE

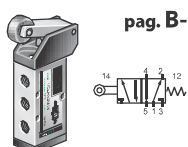
pag. B-107

pag. B-108



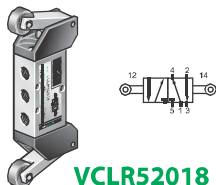
**VCLR32.M8**

VALVE 3/2, ROLLER-LEVER VALVE  
VALVOLA 3/2, COMANDO A RULLO



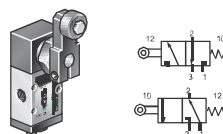
**VCLR52M18**

VALVE 5/2, ROLLER-LEVER VALVE  
VALVOLA 5/2, COMANDO A RULLO



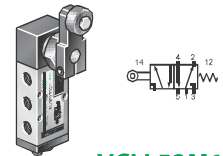
**VCLR52018**

VALVE 5/2, DUAL ROLLER-LEVER VALVE  
VALVOLA 5/2, DOPPIO COMANDO A RULLO



**VCLL32.M8**

LATERAL ROLLER-LEVEL VALVE  
VALVOLA AD AZIONAMENTO LEVA-RULLO LATERALE



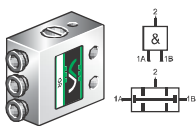
**VCLL52M18**

LATERAL ROLLER-LEVEL VALVE  
VALVOLA AD AZIONAMENTO LEVA-RULLO LATERALE

pag. B-108

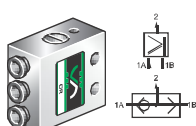
pag. B-109

**AUTOMATIC VALVES / VALVOLE AUTOMATICHE**



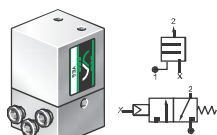
**AND**

LOGIC ELEMENT "AND" FUNCTION  
UNITA' LOGICA FUNZIONE "AND"



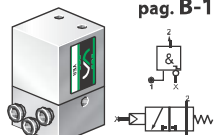
**OR**

LOGIC ELEMENT "OR" FUNCTION  
UNITA' LOGICA FUNZIONE "OR"



**YES**

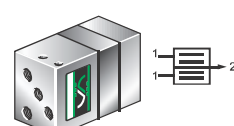
LOGIC ELEMENT "YES" FUNCTION  
UNITA' LOGICA FUNZIONE "YES"



**NOT**

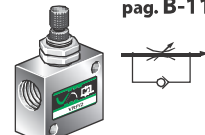
LOGIC ELEMENT "NOT" FUNCTION  
UNITA' LOGICA FUNZIONE "NOT"

pag. B-110



**SBI**

TWO - HAND SAFETY VALVE  
SICUREZZA BIMANUALE



**VRF**

FLOW REGULATORS  
REGOLATORE DI FLUSSO

pag. B-111

**MANUAL - MECHANICAL OPERATED VALVES / VALVOLE MANUALI MECCANICHE**

The choice of high quality materials and the technical solution adopted allows to the VESTA valves to reach good performances even in harsh environmental conditions. The spool is made in stainless steel. Its particular shape allows high nominal flow rates, and the combination with self lubricating lip rubber seals, reduce internal friction and provides the valve with a long lasting durable life span.

VESTA manual valves can operate continuously without lubrication.

Le valvole manuali e meccaniche VESTA sono disponibili in una vasta gamma di modelli e di taglie.

Le soluzioni tecniche adottate ed i materiali impiegati hanno permesso di realizzare un prodotto che presenta elevate prestazioni funzionali anche in condizioni di impiego particolarmente gravose. La combinazione tra la spola in acciaio inox e le guarnizioni in elastomero nitrilico con profilo del labbro anti-usura, permette, accanto ad una riduzione degli attriti, un' alta velocità di scambio e cicli di lavoro elevati, garantendo una maggiore durata della meccanica interna. Tutti i modelli di valvole possono essere utilizzati anche in assenza di lubrificazione.

**TECHNICAL FEATURES / CARATTERISTICHE TECNICHE**

**SERIE VC..**

**COMMON TECHNICAL FEATURES VALVES VCM - VCP - VCLR - VCLL**

Fixing .....	n°3 holes Ø 4,3
Port connection .....	G1/8 G1/4
Flow section .....	Ø 6 mm for G1/8 Ø 8 mm for G1/4
Ambient temperature range .....	-10 °C ÷ +50 °C
Temperature range of medium .....	0 °C ÷ +40 °C

Lubrication .....	Not required
Medium .....	Filtered air
Operating pressure range .....	0 ÷ 10 bar
Reference temperature .....	+20 °C
Reference pressure .....	6 bar
Nominal air flow .....	650 NI/min for G1/8 1080 NI/min for G1/4

**CARATTERISTICHE COMUNI VALVOLE VCM - VCP - VCLR - VCLL**

Fissaggio .....	n°3 fori laterali Ø 4,3
Connessioni .....	G1/8 G1/4
Diametro nominale .....	Ø 6 mm per G1/8 Ø 8 mm per G1/4
Temperatura ambiente .....	-10 °C ÷ +50 °C
Temperatura fluido .....	0 °C ÷ +40 °C

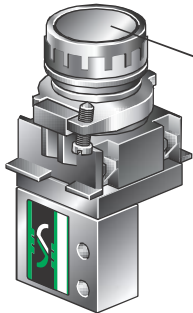
Lubrificazione .....	Non necessaria
Fluido .....	Aria filtrata
Pressione d'esercizio .....	0 ÷ 10 bar
Temperatura nominale .....	+20 °C
Pressione nominale .....	6 bar
Portata nominale .....	650 NI/min per G1/8 1080 NI/min per G1/4



## MANUAL MICROVALVES PUSH-IN Ø4 mm / MICROVALVOLE TUBO Ø4 mm

### PGI ..4

PUSH BUTTON - SPRING RETURN  
COMANDO A PULSANTE



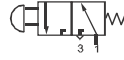
**PGI ..4 R**  
Red - Rosso

**PGI ..4 B**  
Black - Nero

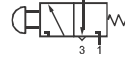
**PGI 504**



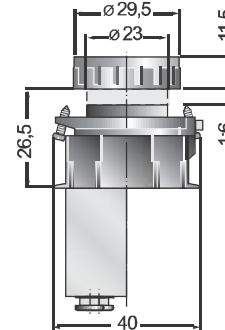
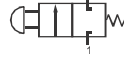
**PGI 314**



**PGI 304**

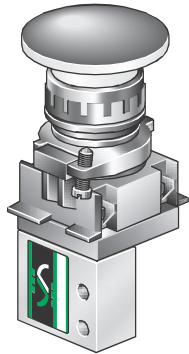


**PGI 204**

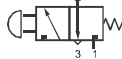


### PF ..4

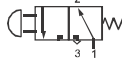
MUSHROOM PUSH BUTTON - SPRING RETURN  
COMANDO A FUNGO



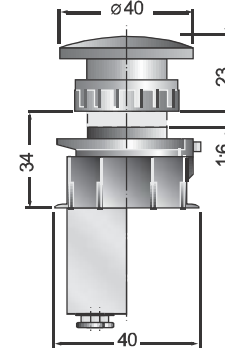
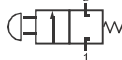
**PF 304**



**PF 314**

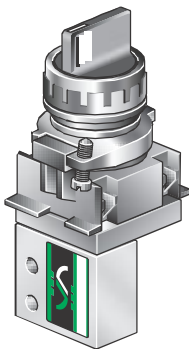


**PF 204**



### SR ..4

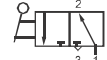
SHORT LEVER SELECTOR - MANUAL RETURN  
COMANDO A SELETTORE



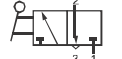
**SR 504**



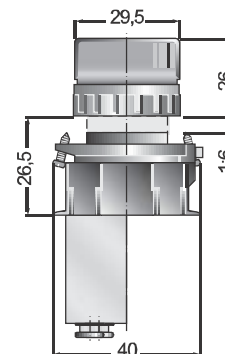
**SR 314**



**SR 304**

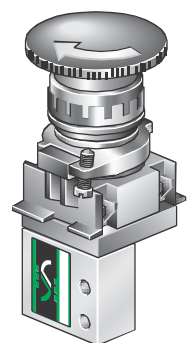


**SR 204**

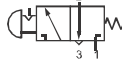


### PFF ..4

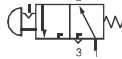
EMERGENCY PUSH BUTTON  
PULSANTE D' EMERGENZA



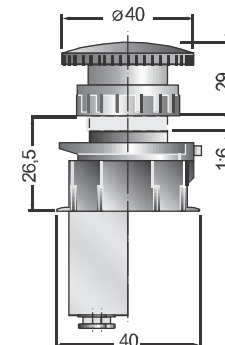
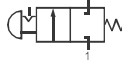
**PFF 304**



**PFF 314**



**PFF 204**



LEVER VALVES / VALVOLE COMANDO A LEVA

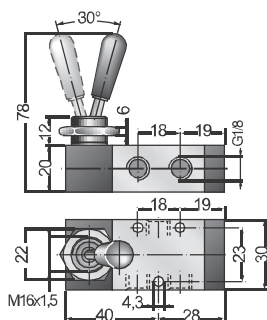
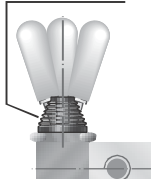
VALVE / VALVOLA 3/2

PORT CONNECTION G1/8 - LEVER VALVE  
CONNESSIONI G1/8 - COMANDO MANUALE A LEVA

**VCML32..8**

on request bellow protection  
a richiesta soffietto di protezione

**VCML ... BP**



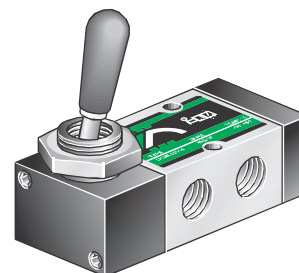
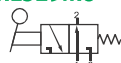
**VCML32018**



**VCML326M8**



**VCML329M8**

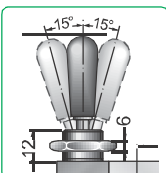


Available with rubber bellow protection  
Disponibile con soffietto di protezione

VALVE / VALVOLA 5/2 - 5/3

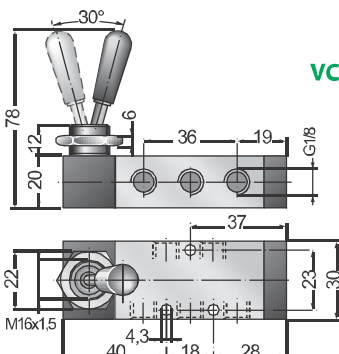
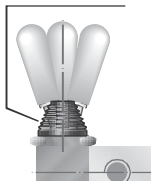
PORT CONNECTION G1/8 - LEVER VALVE  
CONNESSIONI G1/4 - COMANDO MANUALE A LEVA

**VCML5 ... 8**



on request bellow protection  
a richiesta soffietto di protezione

**VCML ... BP**



**VCML52018**



**VCML52M18**



**VCML53618**



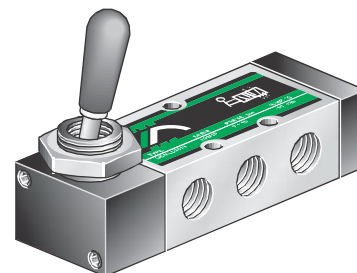
**VCML536M8**



**VCML53918**



**VCML539M8**



Available with rubber bellow protection  
Disponibile con soffietto di protezione

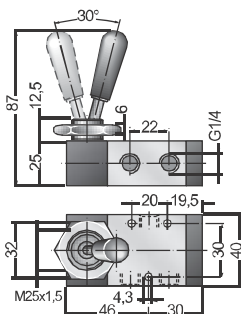
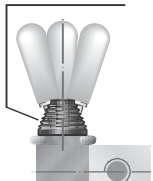
VALVE / VALVOLA 3/2

PORT CONNECTION G1/4 - LEVER VALVE  
CONNESSIONI G1/4 - COMANDO MANUALE A LEVA

**VCML32..4**

on request bellow protection  
a richiesta soffietto di protezione

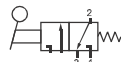
**VCML ... BP**



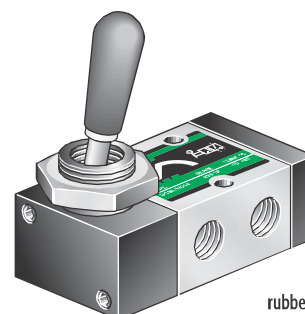
**VCML32014**



**VCML326M4**



**VCML329M4**

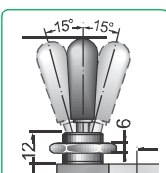


Available with  
rubber bellow protection  
Disponibile con soffietto di protezione

VALVE / VALVOLA 5/2 - 5/3

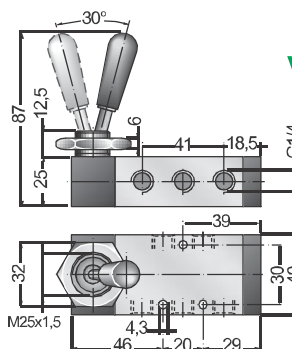
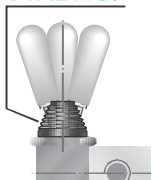
PORT CONNECTION G1/4 - LEVER VALVE  
CONNESSIONI G1/4 - COMANDO MANUALE A LEVA

**VCML5 ... 4**



on request bellow protection  
a richiesta soffietto di protezione

**VCML ... BP**



**VCML52014**



**VCML52M14**



**VCML53614**



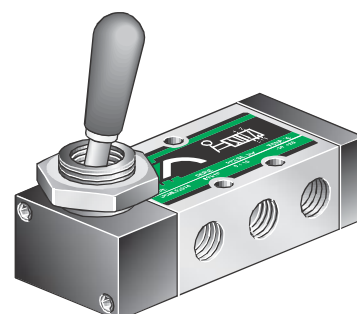
**VCML536M4**



**VCML53914**



**VCML539M4**



Available with rubber bellow protection  
Disponibile con soffietto di protezione



## BUTTON VALVES / VALVOLE COMANDO A TIRETTO

### VCMT32..8

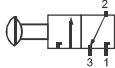
PORT CONNECTION G1/8 - BUTTON VALVE  
CONNESSIONI G1/8 - COMANDO A TIRETTO

VALVE / VALVOLA 3/2

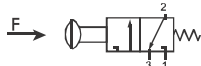
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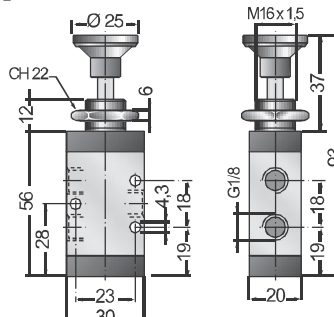
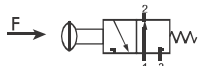
VCMT32018



VCMT326M8



VCMT329M8



### VCMT52.18

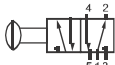
PORT CONNECTION G1/8 - BUTTON VALVE  
CONNESSIONI G1/8 - COMANDO A TIRETTO

VALVE / VALVOLA 5/2

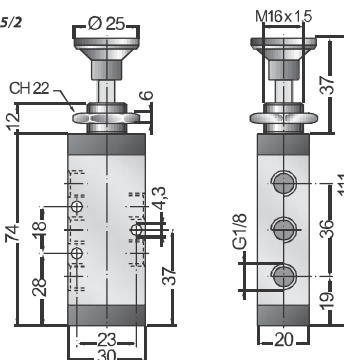
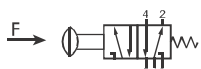
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F max = 40N



VCMT52018



VCMT52M18



### VCMT32..4

PORT CONNECTION G1/4 - BUTTON VALVE  
CONNESSIONI G1/4 - COMANDO A TIRETTO

VALVE / VALVOLA 3/2

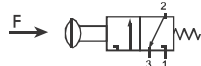
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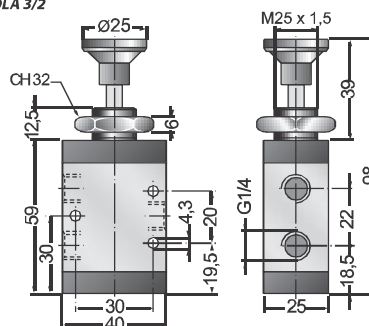
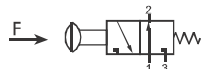
VCMT32014



VCMT326M4



VCMT329M4



### VCMT52.14

PORT CONNECTION G1/4 - BUTTON VALVE  
CONNESSIONI G1/4 - COMANDO A TIRETTO

VALVE / VALVOLA 5/2

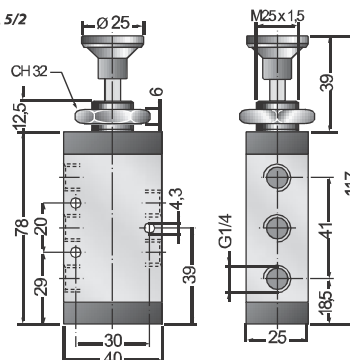
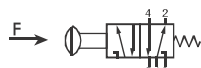
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VCMT52014



VCMT52M14

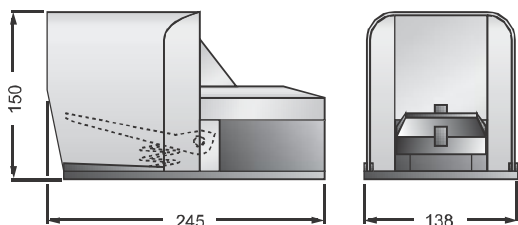


FOOT-PEDAL VALVES / VALVOLE COMANDO A PEDALE

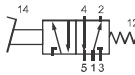
PORT CONNECTION G1/4 - FOOT-PEDAL VALVE  
 CONNESSIONI G1/4 - COMANDO A PEDALE

**VFPP52..4**

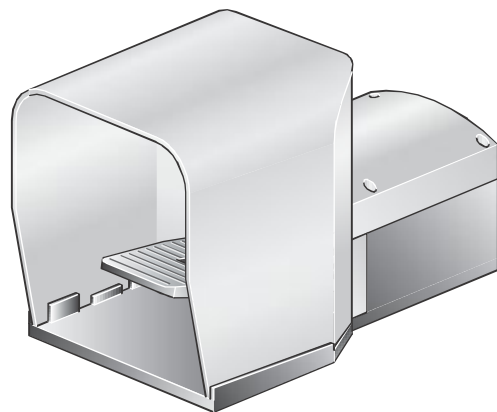
VALVE / VALVOLA 5/2



**VFPP52M14**



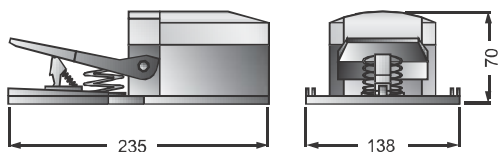
**VFPP52FP4**



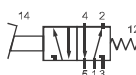
PORT CONNECTION G1/4 - FOOT-PEDAL VALVE  
 CONNESSIONI G1/4 - COMANDO A PEDALE

**VFP52..4**

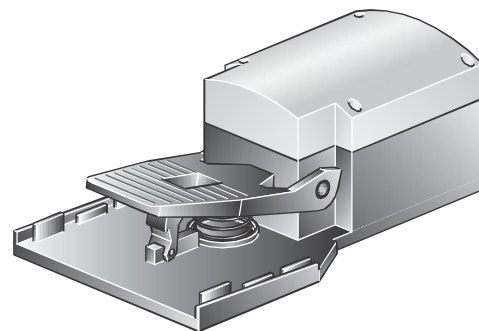
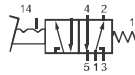
VALVE / VALVOLA 5/2



**VFP52M14**



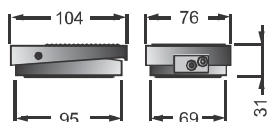
**VFP52FP4**



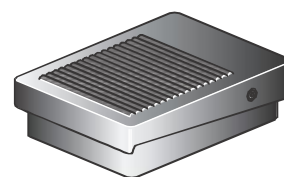
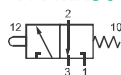
PORT CONNECTION Ø4 - FOOT-PEDAL VALVE  
 CONNESSIONI Ø4 - COMANDO A PEDALE

**VFPMA304**

VALVE / VALVOLA 3/2



**VFPMA304**





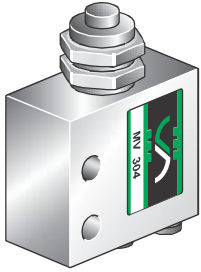


## MECHANICAL MICROVALVES PUSH-IN Ø4 mm / VALVOLE A COMANDO MECCANICO TUBO Ø4 mm

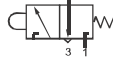
### MV ..4

MECHANICAL VALVE  
MICROVALVOLA FINECORSA

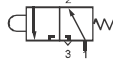
VALVE / VALVOLA 3/2 e 2/2



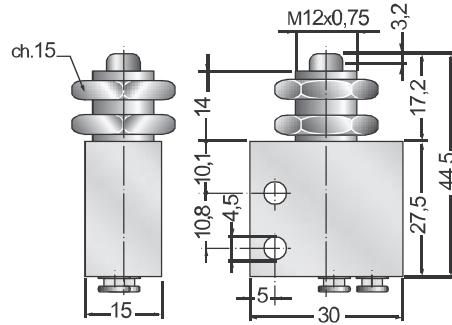
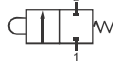
**MV 304**



**MV 314**



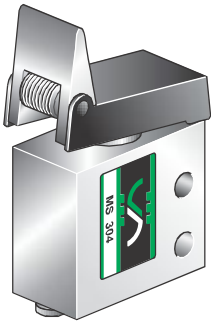
**MV 204**



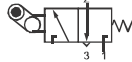
### MS ..4

MECHANICAL VALVE  
MICROVALVOLA FINECORSA

VALVE / VALVOLA 3/2 e 2/2



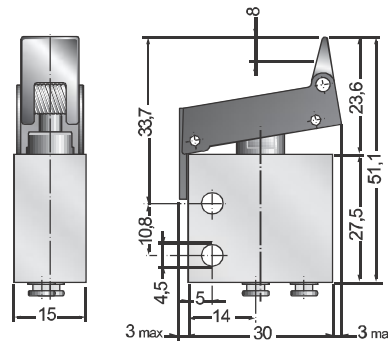
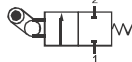
**MS 304**



**MS 314**



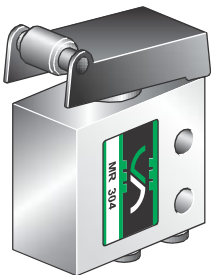
**MS 204**



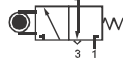
### MR ..4

MECHANICAL VALVE  
MICROVALVOLA FINECORSA

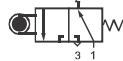
VALVE / VALVOLA 3/2 e 2/2



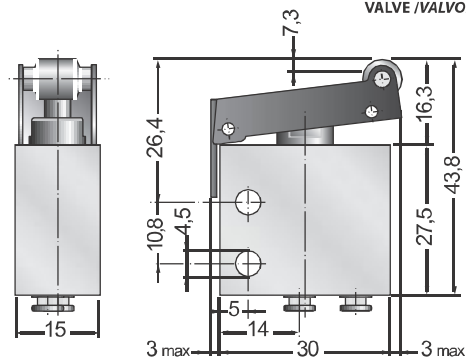
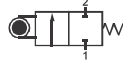
**MR 304**



**MR 314**



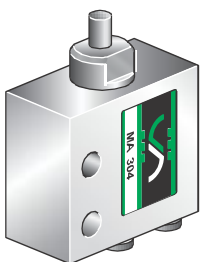
**MR 204**



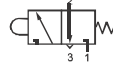
### MA ..4

MECHANICAL VALVE  
MICROVALVOLA FINECORSA

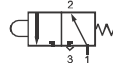
VALVE / VALVOLA 3/2 e 2/2



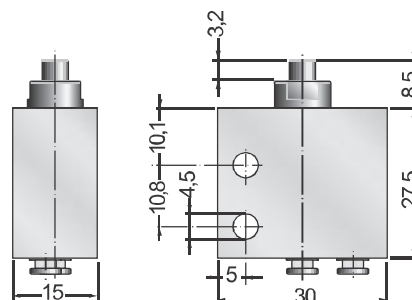
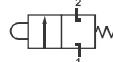
**MA 304**



**MA 314**



**MA 204**

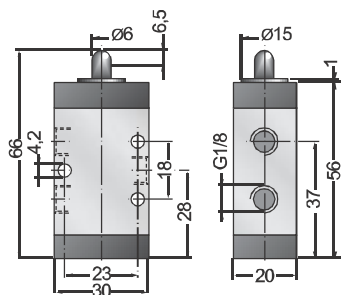


**CAM ACTUATED VALVES G1/8 / VALVOLE COMANDO A PUNTALE G1/8**

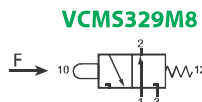
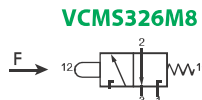
VALVE / VALVOLA 3/2

PORT CONNECTION G1/8 - CAM ACTUATED VALVE  
CONNESSIONI G1/8 - COMANDO A PUNTALE

**VCMS32.M8**



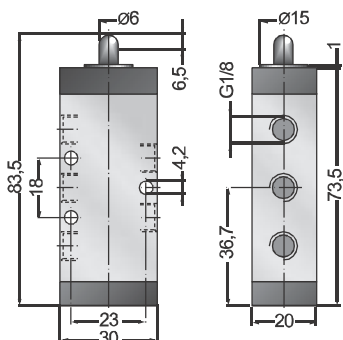
F min = 20N  
F max = 40N



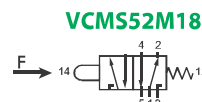
VALVE / VALVOLA 5/2

PORT CONNECTION G1/8 - CAM ACTUATED VALVE  
CONNESSIONI G1/8 - COMANDO A PUNTALE

**VCMS52M18**



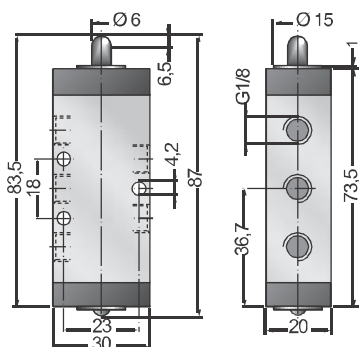
F min = 20N  
F max = 40N



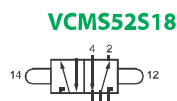
VALVE / VALVOLA 5/2

PORT CONNECTION G1/8 - CAM ACTUATED VALVE  
CONNESSIONI G1/8 - COMANDO A PUNTALE

**VCMS52S18**



F min = 20N  
F max = 40N

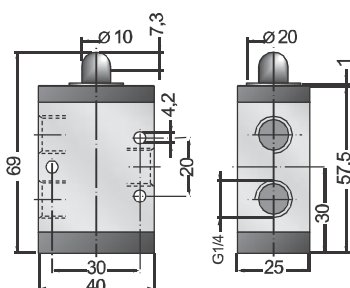


**CAM ACTUATED VALVES G1/4 / VALVOLE COMANDO A PUNTALE G1/4**

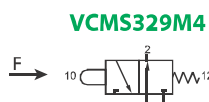
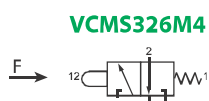
VALVE / VALVOLA 3/2

PORT CONNECTION G1/4 - CAM ACTUATED VALVE  
CONNESSIONI G1/4 - COMANDO A PUNTALE

**VCMS32.M4**



F min = 40N  
F max = 60N



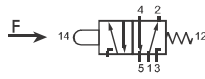


## VCMS52M14

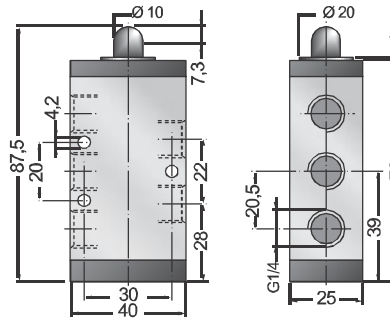
PORT CONNECTION G1/4 - CAM ACTUATED VALVE  
CONNESSIONI G1/4 - COMANDO A PUNTALE



**VCMS52M14**



F min = 40N  
F max = 60N



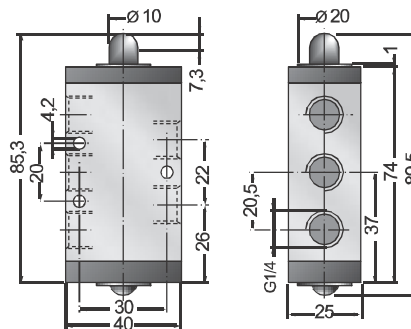
VALVE / VALVOLA 5/2

## VCMS52S14

PORT CONNECTION G1/4 - CAM ACTUATED VALVE  
CONNESSIONI G1/4 - COMANDO A PUNTALE



**VCMS52S14**

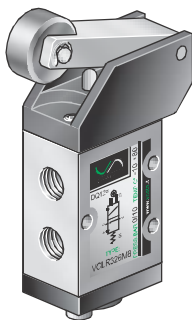


VALVE / VALVOLA 5/2

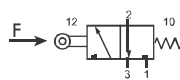
## ROLLER-LEVER MECHANICAL VALVES / VALVOLE AD AZIONAMENTO MECCANICO A LEVA-RULLO

### VCLR32 . M8

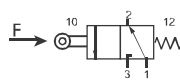
ROLLER-LEVER VALVE  
VALVOLA AD AZIONAMENTO LEVA-RULLO



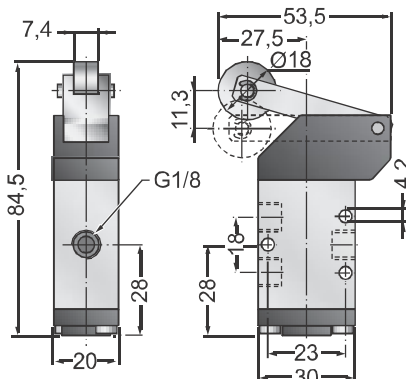
**VCLR326M8**



**VCLR329M8**



F min = 10N  
F max = 20N



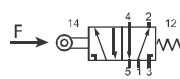
VALVE / VALVOLA 3/2

### VCLR52M18

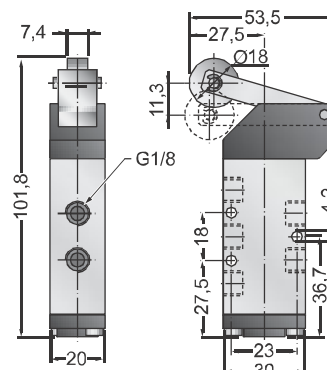
ROLLER-LEVER VALVE  
VALVOLA AD AZIONAMENTO LEVA-RULLO



**VCLR52M18**



F min = 10N  
F max = 20N

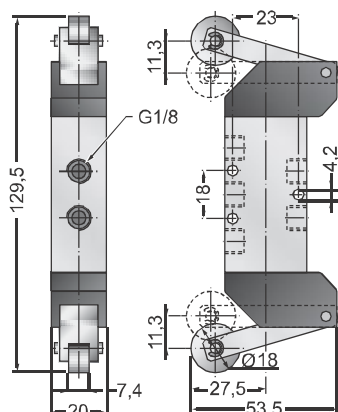


VALVE / VALVOLA 5/2

DUAL ROLLER-LEVER VALVE  
VALVOLA A DOPPIO AZIONAMENTO LEVA-RULLO

VCLR52018

VALVE / VALVOLA 5/2



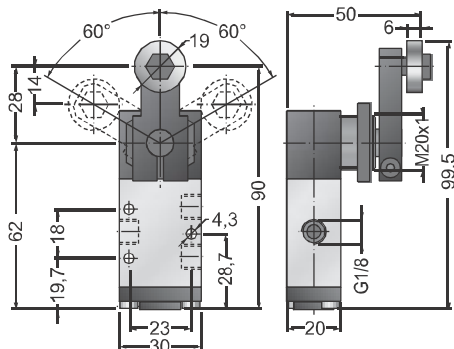
VCLR52018



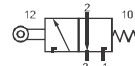
LATERAL ROLLER-LEVER VALVE  
VALVOLA AD AZIONAMENTO LEVA-RULLO LATERALE

VCLL32 . M8

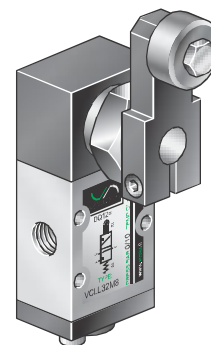
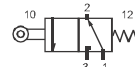
VALVE / VALVOLA 3/2



VCLL326M8



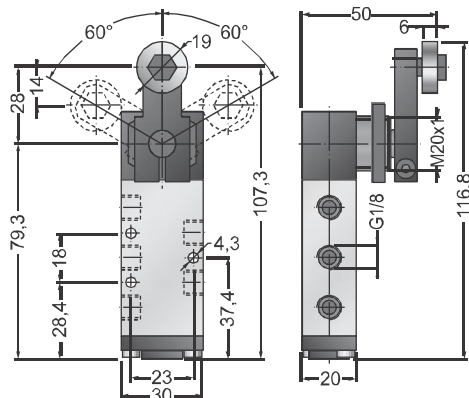
VCLL329M8



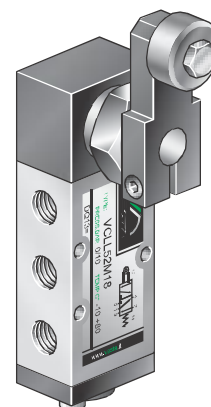
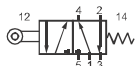
LATERAL ROLLER-LEVER VALVE  
VALVOLA AD AZIONAMENTO LEVA-RULLO LATERALE

VCLL52M18

VALVE / VALVOLA 3/2



VCLL52M18

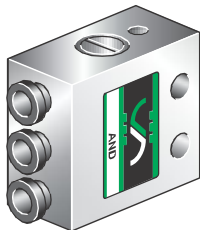




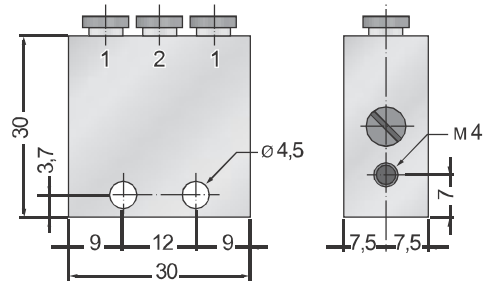
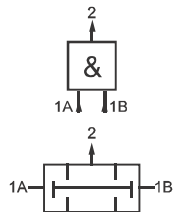
**AUTOMATIC MICROVALVES PUSH-IN Ø4 mm / MICROVALVOLE AUTOMATICHE TUBO Ø4 mm**

**AND 42**

LOGIC ELEMENT  
UNITA' LOGICA



**AND**

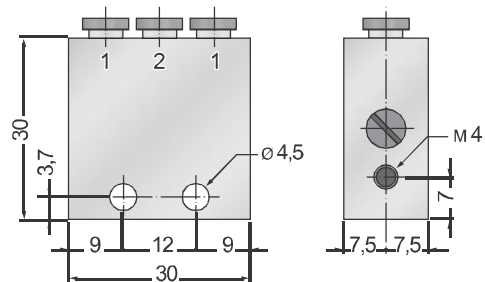
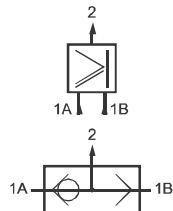


**OR 42**

LOGIC ELEMENT  
UNITA' LOGICA

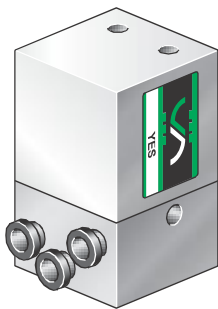


**OR**

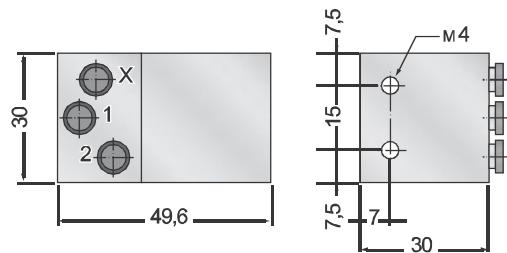
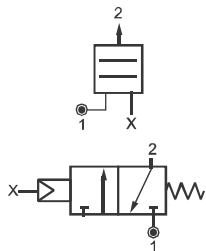


**YES**

LOGIC ELEMENT  
UNITA' LOGICA

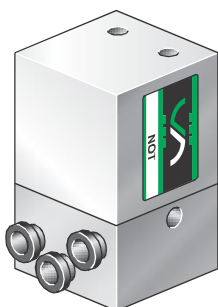


**YES**

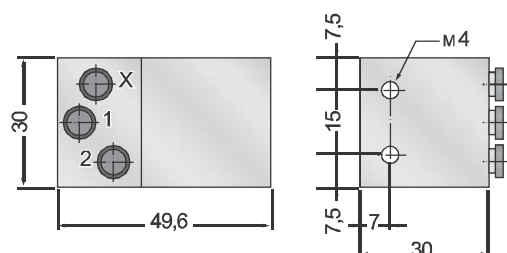
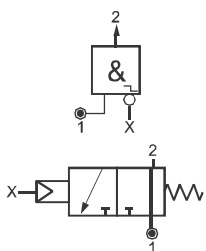


**NOT**

LOGIC ELEMENT  
UNITA' LOGICA



**NOT**

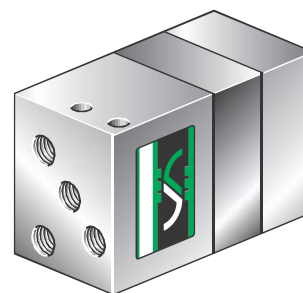
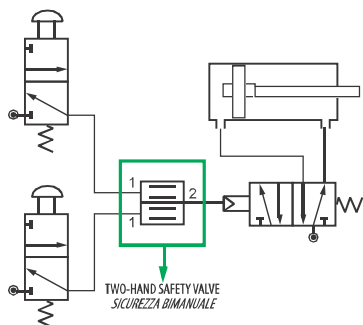




TWO - HAND SAFETY VALVE  
SICUREZZA BIMANUALE

SBI

APPLICATION SKETCH / SCHEMA APPLICATIVO



TECHNICAL FEATURES

Maximum flow rate .....	100 NL/min	Delay between two actuating signals .....	Dt < 0.5 s
Ports .....	G1/8"	Fluid .....	50m filtered air
Working pressure .....	3 ÷ 8 bar; 0.3 ÷ 0.8 MPa	Lubrication .....	Not required
Temperature range .....	Max +60°C		
Safety .....	As per EN 574 type 3A		

CARATTERISTICHE TECNICHE

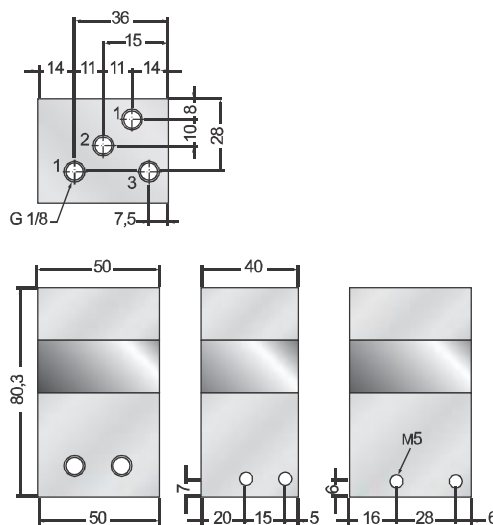
Portata massima .....	100 NL/min	Intervallo di tempo tra due segnali di comando .....	Dt < 0.5 s
Attacchi .....	G1/8"	Fluido .....	Aria filtrata 50m
Pressione d' esercizio .....	3 ÷ 8 bar; 0.3 ÷ 0.8 MPa	Lubrificazione .....	Non necessaria
Temperatura di esercizio .....	Max +60°C		
Sicurezza .....	Conforme alla norma EN 574 tipo 3A		

MATERIALS

Body .....	Aluminium 11S
Springs .....	Stainless steel
Seals .....	NBR
Internal parts .....	Ottone OT58

MATERIALI

Corpo .....	Alluminio 11S
Molle .....	INOX
Guarnizioni .....	NBR
Parti interne .....	Ottone OT58



This valve is used to pilot high-flow directional control valves connected to machines which have a high risk of injuries to the hands. The machine operator must simultaneously operate, in a safe area, two three-way manual valves for correct operation. The safety valve will ignore a single depression of one of the manual valves. To repeat the cycle both pilot signals must be exhausted and the manual valves simultaneously actuated again.

E' utilizzabile per il comando di valvole di potenza connesse a macchine che presentano un elevato rischio di infortunio alle mani. Impone all' operatore di utilizzare entrambe le mani per inviare l'impulso alla valvola di potenza, evitando in questo modo che esse vengano accidentalmente a trovarsi nell' area dei meccanismi in movimento.

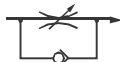
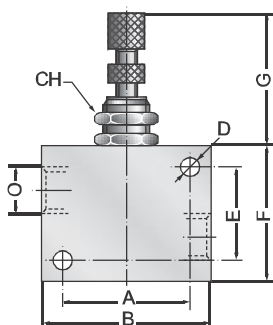
L'impulso di comando viene generato dalla sicurezza bimanuale solo in presenza di due segnali di azionamento contemporanei provenienti da microvalvole a tre vie NC da collegare ai due attacchi indicati con '1'. L' intervallo Dt tra questi due segnali, comunque inferiore a 0,5 sec., varia a seconda della pressione di alimentazione e può essere determinato facendo riferimento al grafico "risposta tempo-pressione".

La sicurezza bimanuale è dotata di un dispositivo antiripetitivo che garantisce la generazione di un solo impulso in presenza dei due segnali e procedere a un nuovo azionamento.

FLOW REGULATORS  
REGOLATORE DI FLUSSO

VRF

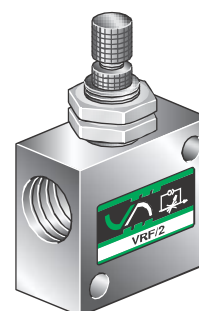
VRF.



Code Codice	A	B	CH	D	E
VRF 8	23	30	15	4,5	13
VRF 4	30	40	15	4,5	22
VRF 3	43	56	24	6,5	27
VRF 2	43	56	24	6,5	27

Code Codice	F	G	O	Thickness Spessore
VRF 8	20	35	1/8	17
VRF 4	30	35	1/4	22
VRF 3	40	43	3/8	30
VRF 2	40	43	1/2	30







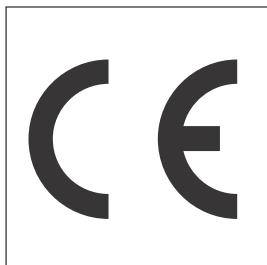
## TECHNICAL FEATURES / CARATTERISTICHE COSTRUTTIVE

**The 94/9/EC directive - ATEX (atmosphere explosive)**

Since the 1st July 2003 the 94/9/EC Directive is the only certification for devices used in certain explosive zones. Aim of the directive is to achieve a uniform level of safety and removing barriers to trade. The new requirements of the 94/9/EC have extended the safety level to the mechanical devices, taking in consideration the presence of dust in potentially explosive atmosphere. The marking of the device has become necessary in order to certify the products into the classifying zones. Sparks, arcs, hot surfaces, adiabatic compression, are some of the sources of ignition considered for Vesta ATEX production.

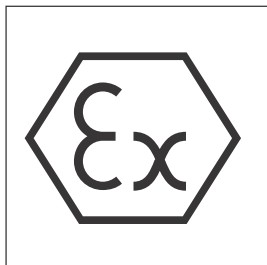
**Group II**

These equipments are used in areas where probability an explosive atmosphere (consisting of a mixture of air and gases, vapours or mixture of dust and air) will occur.



**Vesta Automation** gives all indications about group and categories of its ATEX products, furthermore advises users to an accurate classification of the zones into the specific case of use in which a potentially explosive atmosphere could be present. For a right and safety classification of the zones it's a good rule to follow the below European standard:

EN 60079-10 Classification of hazardous areas  
EN 50281-3 Classification of areas where combustible dusts are or may be present

**La direttiva 94/9/CE - ATEX (atmospheres explosive)**

A partire dal 1-7-2003 la Direttiva dell'unione Europea 94/9/CE è l'unica certificazione valida per le apparecchiature antideflagranti immesse nel mercato dell'UE. Obiettivo di tale direttiva è garantire la sicurezza e la salute delle persone e dei beni promuovendo la libera circolazione dei prodotti sopra citati su tutto il territorio della comunità europea fornendo un unico riferimento per impianti sotterranei (gruppo I) e di superficie (gruppo II).

Le novità introdotte dalla direttiva hanno ampliato il campo della sicurezza estendendolo agli apparecchi non elettrici e alla presenza di polveri combustibili introducendo delle zone di rischio e imponendo la marcatura CE.

Tra le fonti di accensioni non elettriche contemplate troviamo scintille, archi, superfici calde, compressioni adiabatiche, scariche elettrostatiche.

**Gruppo II**

Apparecchi destinati ad essere utilizzati in luoghi in cui è probabile che si presentino atmosfere esplosive causate da miscele di aria e gas, vapori o nebbie o da miscele di aria/polveri.

**Vesta Automation** fornisce le indicazioni relative al gruppo e categoria del prodotto, e consiglia l'utilizzatore ad un'attenta classificazione delle zone nel proprio contesto in termini di luoghi e attività lavorative che contengono o possono dar luogo a pericolo di esplosione. Per una corretta e sicura classificazione delle zone è buona regola riferirsi alle norme tecniche relative ai settori specifici, tra queste citiamo:

EN 60079-10 Classificazione dei luoghi per atmosfere esplosive per la presenza di gas  
EN 50281-3 Classificazione dei luoghi dove sono o possono essere presenti polveri combustibili



**ATEX** SERIE

**ATEX VALVES RANGE  
GAMMA VALVOLE ATEX**



**NON ELECTRICAL DEVICE MARKING EXAMPLE / ESEMPIO DI MARCATURA DI APPARECCHIO NON ELETTRICO**

<b>CE</b>	<b>Ex</b>	<b>II</b>	<b>2</b>	<b>GD</b>	<b>c</b>	<b>T3</b>	<b>T130°C</b>	<b>-15° ≤ Ta ≤ 60°C</b>														
CE symbol <i>Simbolo CE</i>	Ex symbol for use in hazardous areas <i>Simbolo antideflagrante</i>	Equipment group <i>Gruppo area di utilizzo</i>	Equipment category <i>Categoria</i>	Explosive atmosphere (G=gas, D=dust) <i>Tipo di atmosfera potenzialmente esplosiva (G=gas, D= polvere)</i>	Ignition protection category constructional safety - <b>c</b> encapsulation m, level mb - <b>m</b> <b>Tipo di protezione specifica</b> <i>protezione attraverso la sicurezza costruttiva - c</i> <i>protezione attraverso incapsulamento, livello mb - m</i>		Max surface temperature for use in dust-hazard areas <i>Classe di temperatura in riferimento alle polveri</i>	Environment temperature range in which the product can be used <i>Temperatura ambiente di esercizio</i>														
						<table border="1"> <thead> <tr> <th>Temperature class for gas <i>Classe di temperatura per gas</i></th> <th>Max surface temperature <i>Temperatura max di superficie</i></th> </tr> </thead> <tbody> <tr> <td>T1</td> <td>450°C</td> </tr> <tr> <td>T2</td> <td>300°C</td> </tr> <tr> <td>T3</td> <td>200°C</td> </tr> <tr> <td>T4</td> <td>135°C</td> </tr> <tr> <td>T5</td> <td>100°C</td> </tr> <tr> <td>T6</td> <td>85°C</td> </tr> </tbody> </table>		Temperature class for gas <i>Classe di temperatura per gas</i>	Max surface temperature <i>Temperatura max di superficie</i>	T1	450°C	T2	300°C	T3	200°C	T4	135°C	T5	100°C	T6	85°C	
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T2	300°C																					
T3	200°C																					
T4	135°C																					
T5	100°C																					
T6	85°C																					

**GROUP II non mining areas - GRUPPO II impianti non minerari**

Zone - Zona	Type of atmosphere <i>Tipo di atmosfera</i>	Presence of explosive atmosphere <i>Presenza di atmosfera esplosiva</i>	Category of devices <i>Categoria</i>
0	gas (G)	continuous, long period	1
20	dust - polveri (D)	continuo	
1	gas (G)	occasional	2
21	dust - polveri (D)	occasionale	
2	gas (G)	seldom, short periods	3
22	dust - polveri (D)	breve	

The class of an entire assembled system is the one of the lowest classified item.  
*Un assieme appartiene alla classe più bassa tra quelle dei particolari che lo compongono.*

Power valve - Valvola	Coil - Solenoide	Resulting category - Categoria risultante
II 2GD .... T4 T150°C	II 2GD .... T5	II 2GD .... T4 T150°C
II 2GD .... T4 T150°C	II 3GD .... T150°	II 3GD .... T4 T150°
II 2G ..... T4	II 2GD .... T5	II 2G ..... T4
II 2G ..... T4	II 2GD .... IIC T6	II 2G ..... IIC T4

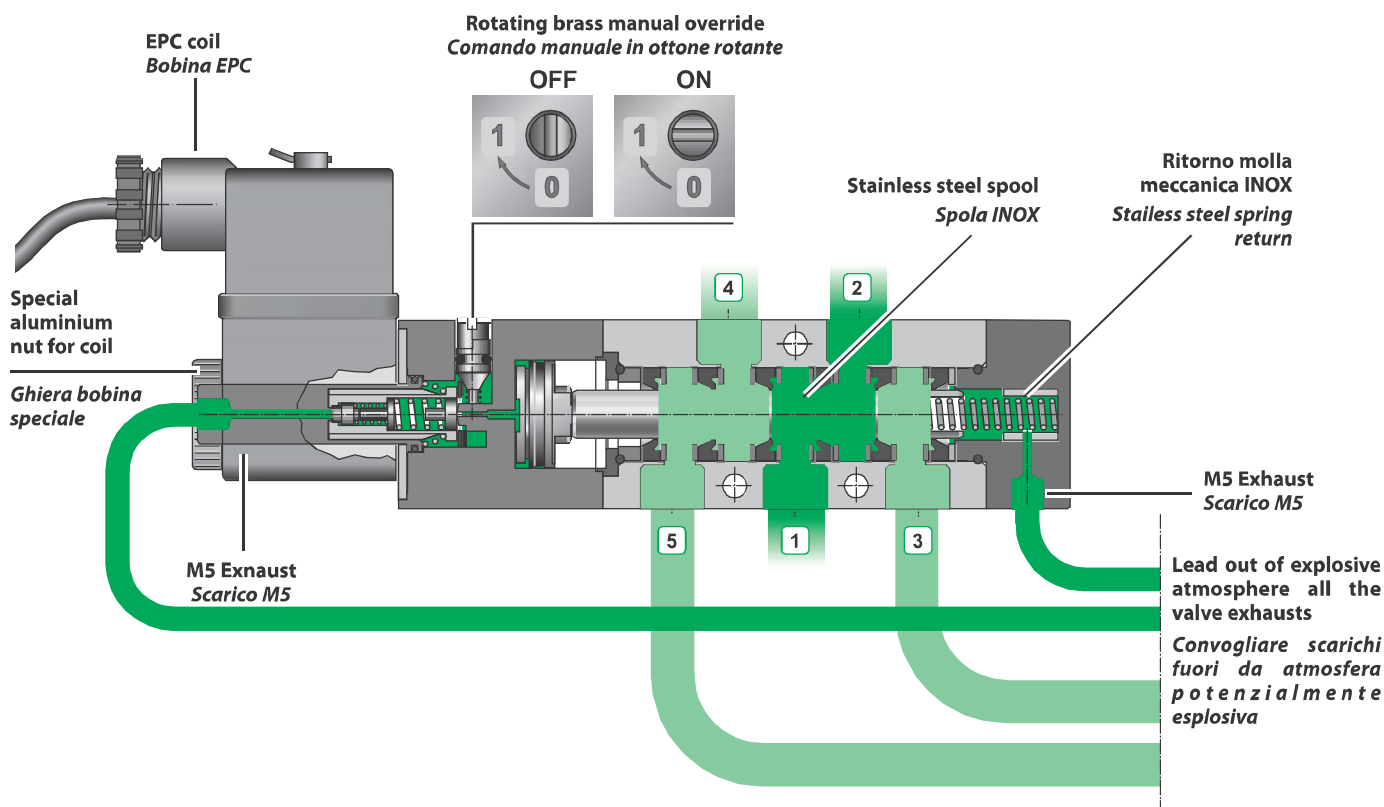


**ATEX VALVES RANGE  
GAMMA VALVOLE ATEX**

**SERIE ATEX**

Vesta ATEX valves satisfy all directives 94/9/EC to avoid mechanical risks of ignition in explosive atmosphere (category II2GD). Design, materials and technical solutions are made to prevent mechanical sparks, electrostatic charges, heating of surfaces due to friction, etc. All these solutions make Vesta ATEX valves in "constructional safety". They grant the earthing of all their parts, due to alodine surface treatment of body and heads operator. This treatment grants protection to products, while allows electrical conduction. All the parts are ATEX compliant and valves have overcome ATEX impact tests and protection degree IP65 tests. Use only EPC coils on Vesta ATEX solenoid valves.

Le valvole ATEX VESTA rispettano tutti i requisiti di sicurezza previsti dalla direttiva 94/9/CE per evitare il rischio meccanico di accensione di atmosfere potenzialmente esplosive di categoria II2GD. Questo risultato si è ottenuto con la scelta progettuale di materiali e di soluzioni tecniche atti a prevenire scintille, accumuli di cariche elettrostatiche, surriscaldamenti locali per attrito o sfregamento, ecc; pertanto la protezione viene garantita attraverso la sicurezza costruttiva. Le valvole ATEX VESTA consentono la messa a terra di tutte le loro parti, grazie al trattamento alodine sul corpo e sui fondelli che permette la conduzione elettrica e la protezione dagli agenti esterni. Tutta la componentistica utilizzata soddisfa i requisiti ATEX. Le valvole hanno superato i test d'impatto previsti dalla direttiva, nonché il test del grado di protezione IP 65. Le elettrovalvole ATEX VESTA devono essere equipaggiate esclusivamente con solenoidi ATEX serie EPC.



**TECHNICAL FEATURES - CARATTERISTICHE TECNICHE**

- ATEX category II2GD
- IP65 protection degree
- Aluminium body and heads operator with alodine surface treatment.
- NBR seals
- Brass spacers
- Medium T:  $0^{\circ} < T_{fluid} < 25^{\circ}C$
- Environment T:  $-5^{\circ} < T_{amb} < 50^{\circ}C$
- Medium: filtered air (quality 5 ISO 8573-1)
- Lubrication not required
- For technical features of atex valves please see the correspondent non atex valves
- For use instructions please see [www.vesta.it](http://www.vesta.it)
- For 94/9/EC atex directive please see pag B-113

- Classificazione atex II2GD
- Protezione IP65
- Fondelli e corpo alluminio con trattamento alodine
- Guarnizioni NBR
- Distanziali ottone
- T fluido:  $0^{\circ} < T_{fluid} < 25^{\circ}C$
- T ambiente:  $-5^{\circ} < T_{amb} < 50^{\circ}C$
- Fluido: aria filtrata (qualità 5 secondo ISO 8573-1)
- Lubrificazione non necessaria
- Per caratteristiche pneumatiche vedere codici corrispondenti senza la "X"
- Per manuale di uso e manutenzione consultare il sito [www.vesta.it](http://www.vesta.it)
- Per informazioni su direttiva 94/9/CE atex vedere pag B-113



# ATEX SERIE

# ATEX VALVES RANGE GAMMA VALVOLE ATEX

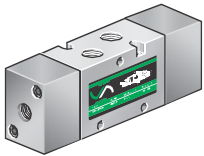


## XV ... 14

PNEUMATIC VALVES  
VALVOLE PNEUMATICHE

## XV ... 12

PNEUMATIC VALVES  
VALVOLE PNEUMATICHE



G1/2 - G1/4; 3/2 - 5/2 - 5/3



II 2GD c T4 T 160 °C

CODES G1/4 / CODICI G1/4:

<b>XV32V1P6M4</b> .....	Pag. B-24
<b>XV32V1P9M4</b> .....	Pag. B-24
<b>XV32V2P014</b> .....	Pag. B-25
<b>XV52V1PM14</b> .....	Pag. B-25
<b>XV52V2P014</b> .....	Pag. B-26
<b>XV53V2P614</b> .....	Pag. B-26
<b>XV53V2P914</b> .....	Pag. B-26

VALVES G1/2 / CODICI G1/2:

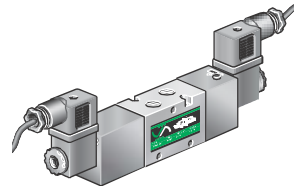
<b>XV32V1P6M2</b> .....	Pag. B-24
<b>XV32V1P9M2</b> .....	Pag. B-24
<b>XV32V2P012</b> .....	Pag. B-25
<b>XV52V1PM12</b> .....	Pag. B-25
<b>XV52V2P012</b> .....	Pag. B-26
<b>XV53V2P612</b> .....	Pag. B-26
<b>XV53V2P912</b> .....	Pag. B-26

## XE ... 14

SOLENOID VALVES  
ELETTROVALVOLE

## XE ... 12

SOLENOID VALVES  
ELETTROVALVOLE



G1/2 - G1/4; 3/2 - 5/2 - 5/3



II 2GD c T4 T 160 °C

CODES G1/4 / CODICI G1/4:

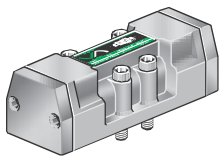
<b>XE32W1S6M4</b> .....	Pag. B-27
<b>XE32W1S9M4</b> .....	Pag. B-27
<b>XE32W2S014</b> .....	Pag. B-28
<b>XE52W1SM14</b> .....	Pag. B-28
<b>XE52W2S014</b> .....	Pag. B-29
<b>XE53W2S614</b> .....	Pag. B-29
<b>XE53W2S914</b> .....	Pag. B-29

VALVES G1/2 / CODICI G1/2:

<b>XE32W1S6M2</b> .....	Pag. B-27
<b>XE32W1S9M2</b> .....	Pag. B-27
<b>XE32W2S012</b> .....	Pag. B-28
<b>XE52W1SM12</b> .....	Pag. B-28
<b>XE52W2S012</b> .....	Pag. B-29
<b>XE53W2S612</b> .....	Pag. B-29
<b>XE53W2S912</b> .....	Pag. B-29

## XSVP ...

PNEUMATIC VALVES  
VALVOLE PNEUMATICHE



ISO 1; 5/2



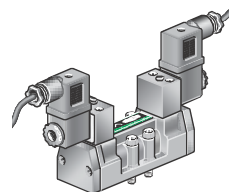
II 2GD c T4 T 155 °C

CODES / CODICI:

<b>XSVP4521M0</b> .....	Pag. B-74
<b>XSVP452200</b> .....	Pag. B-74

## XSVE ...

SOLENOID VALVES  
ELETTROVALVOLE



ISO 1; 5/2



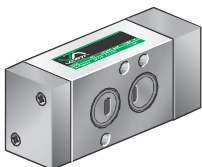
II 2GD c T4 T 155 °C

CODES / CODICI:

<b>XSVE6521M0</b> .....	Pag. B-76
<b>XSVE652200</b> .....	Pag. B-77

## XNM ... P

NAMUR VALVES SERIES  
VALVOLE SERIE NAMUR



NAMUR; 3/2 - 5/2



II 2GD c T4 T 160 °C

CODES / CODICI:

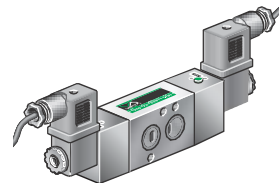
<b>XNM32V1P-SR</b> .....	Pag. B-95
<b>XNM32V2P-TP</b> .....	Pag. B-96

CODES / CODICI:

<b>XNM52V1P-SR</b> .....	Pag. B-97
<b>XNM52V2P-TP</b> .....	Pag. B-98

## XNM ... S

NAMUR VALVES SERIES  
VALVOLE SERIE NAMUR



NAMUR; 3/2 - 5/2



II 2GD c T4 T 160 °C

CODES / CODICI:

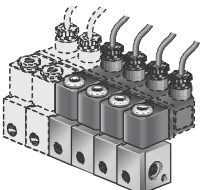
<b>XNM32W1S-SR</b> .....	Pag. B-96
<b>XNM32W2S-TP</b> .....	Pag. B-97

CODES / CODICI:

<b>XNM52W1S-SR</b> .....	Pag. B-99
<b>XNM52W2S-TP</b> .....	Pag. B-99

## XBE ... NC

DIRECT ACTING SOLENOID VALVE 3/2 NC  
ELETTROVALVOLA A COMANDO DIRETTO 3/2 NC



3/2 - 2/2



II 2GD c T4 T 160 °C

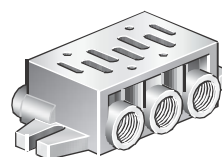
CODES / CODICI:

<b>XBE 1-2</b> .....	Pag. B-34
<b>XBE 1-5</b> .....	Pag. B-34

CODES / CODICI:

<b>XBE 1M-2</b> .....	Pag. B-35
<b>XBE 1M-5</b> .....	Pag. B-35

## ATEX Manifold / Basi ATEX



II 2GD c T4 T 160 °C

CODES / CODICI:

<b>XBS1</b> .....	Pag. B-79
<b>XBTC1</b> .....	Pag. B-79
<b>XBMM1</b> .....	Pag. B-79
<b>XBTI1</b> .....	Pag. B-79

CODES / CODICI:

<b>XME . 14</b> .....	Pag. B-30
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**ATEX VALVES RANGE  
GAMMA VALVOLE ATEX**

SERIE **ATEX**

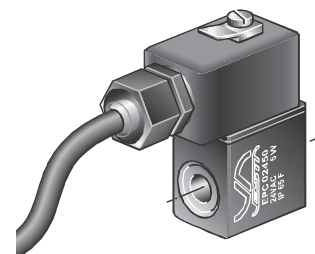
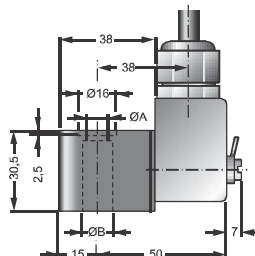
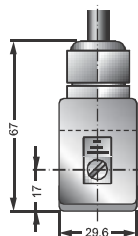
CE 0722 Ex II 2GD EEX mb T5 T100°C IP66

EXPLOSION PROOF COILS  
SOLENOIDE ANTIDEFLAGRANTE

**EPC .....**

**CODES / CODICI**

Code ordination Codice ordinazione	Voltage Tensione
<b>EPC02400</b> .....	24 V DC
<b>EPC02450</b> .....	24 V 50/60Hz AC
<b>EPC04850</b> .....	48 V 50/60Hz AC
<b>EPC11050</b> .....	110 V 50/60Hz AC
<b>EPC22050</b> .....	220 V 50/60Hz AC



**TECHNICAL FEATURES**

Standard voltage .....	24 V DC 24, 48, 110, 220 V AC (50/60 Hz)
Power .....	2,5 Watt in DC; 3 VA in AC
Voltage .....	± 10%
Ambient temperature range .....	-20 °C ÷ +50 °C
Electrical connection .....	By triple cable, 3m length
Solenoids <b>EPC</b> series follow  II 2GD EEX mb T5 T100°C IP66, according to standard <b>ATEX 94/9/CE</b> :	
EEx .....	Component following the EN 50015 ...EN50028 standards
m .....	Resin Incapsulated
II .....	For surface application
T5 .....	Maximum working temperature (see technical features).

Coils series EPC are supplied with solenoid connector and cable.

**CARATTERISTICHE TECNICHE**

Tensioni standard .....	24 V DC 24, 48, 110, 220 V AC (50/60 Hz)
Potenza assorbita .....	2,5 Watt in DC; 3 VA in AC
Tensione nominale .....	± 10% a bobina calda
Limiti di temperatura ambiente .....	-20 °C ÷ +50 °C
Connessione elettrica .....	Cavo tripolare, lunghezza 3m
Il solenoide serie <b>EPC</b> risponde alle specifiche  II 2GD EEX mb T5 T100°C IP66 in accordo con la normativa <b>ATEX 94/9/CE</b> :	
EEx .....	Simbolo per apparecchiatura protetta secondo le norme EN 50015 ...EN50028
m .....	Incapsulamento in resina
II .....	Per applicazioni in superficie
T5 .....	Max temperatura ambiente (vedi caratteristiche tecniche).

Le bobine serie EPC sono fornite complete di connettore e cavo.