





### WORKING PRINCIPLE / PRINCIPIO DI FUNZIONAMENTO

In the below example (**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 applied to the smallest piston and thanks 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 creates a force which allows to the spool to move and therefore to connect ports **4** - **1** and **2** - **3**. Spring return grants the normal position of the spool even without inlet pressure.

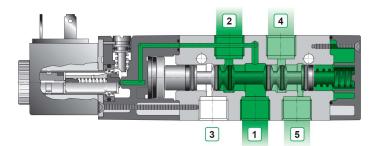
In the bistable versions, the position of the valve remains in its last switched state.

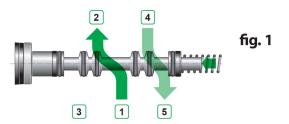
*Il principio di funzionamento del distributore 5/2 (nell'esempio l'elettrovalvola* **K52W1018-02450** con comando elettropneumatico e riposizionamento a molla) consiste nel mantenere la spola in posizione di riposo per azione sia di una molla meccanica che per effetto della pressione creata dalla fonte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

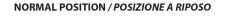
L' eccitazione del solenoide mette in comunicazione il condotto 1 con la camera dove é alloggiato il pistone di comando. Quest'ultimo contrasta l'insieme delle forze create dalla molla e dalla pressione sul lato opposto della spola, spostandola in modo tale da collegare i canali 1-4 e 2-3 (fig. 2).

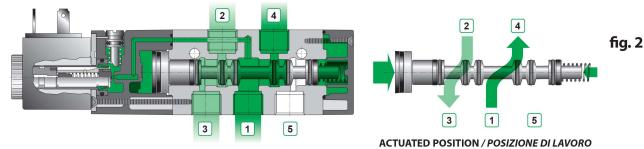
Diseccitando il solenoide si ripristina la posizione iniziale. La combinazione del sistema a molla meccanica con il riposizionamento pneumatico consente di avere sempre la spola in posizione di riposo anche dopo la caduta di pressione del sistema.

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

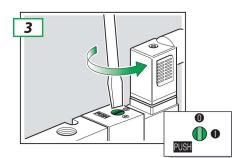






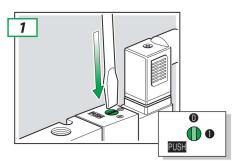


### MANUAL OVERRIDING / AZIONAMENTO COMANDO MANUALE



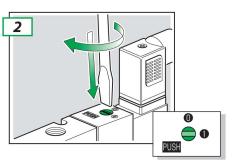
To get back to normal position push the M/O again and turn  $90^\circ$  anti-clockwise.

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



Push to actuate valve without locking. *Release the but*ton 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 actuate 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.





SERIE K

## **TECHNICAL FEATURES / CARATTERISTICHE TECNICHE**

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

Port connections	
Flow section	G1/4"=Ø8mm
Environment temperature range	<b>G1/2″</b> =∅14 mm -10 °C ÷ +50 °C
Temperature range of medium Lubrication	
Medium Reference pressure	Filtered air
Nominal air flow 3/2 and 5/2 valves (valves 5/3)	
	G1/2": 4000 (3500) NI/min

Connessioni di lavoro	G1/8, G1/4
Diametro nominale	<b>G1/8″</b> =Ø6mm
	<b>G1/4″</b> =Ø8mm
	<b>G1/2″</b> =Ø14 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 3/2 e 5/2 (valvole 5/3)	G1/8": 730 (552) NI/min
	G1/4": 1300 (1040) NI/min
	G1/2": 4000 (3500) NI/min

### PNEUMATIC VALVES FEATURES / CARATTERISTICHE VALVOLE PNEUMATICHE

		K32P1618	K32P1918	K32P2018	K52P1018	K52DP218	K52P2018	K53P2318	K53P2618	K53P2918
<b>%</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
1	Nominal max frequence (Hz) Frequenza max nominale (Hz)	30 Hz	30 Hz	33 Hz	30 Hz	30 Hz	33 Hz	10 Hz	10 Hz	10 Hz
U	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
		K32P1614	K32P1914	K32P2014	K52P1014	K52DP214	K52P2014	K53P2314	K53P2614	K53P2914
4	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
1/	Nominal max frequence (Hz) Frequenza max nominale (Hz)	30 Hz	30 Hz	33 Hz	30 Hz	30 Hz	33 Hz	10 Hz	10 Hz	10 Hz
U	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
		K32P1612	K32P1912	K32P2012	K52P1012	-	K52P2012	K53P2312	K53P2612	K53P2912
2″	Nominal pilot pressure (bar) Pressione di pilotaggio nominale (bar)	3,1 bar (9 bar)	3,1 bar (9 bar)	0,97 ba <sup>r</sup>	3,1 bar (9 bar)	-	0,97 bar	3 bar	3 bar	3 bar
1	Nominal max frequence (Hz) Frequenza max nominale (Hz)	15 Hz	15 Hz	18 Hz	15 Hz	-	18 Hz	10 Hz	10 Hz	10 Hz
U	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			

### SOLENOID VALVES FEATURES / CARATTERISTICHE ELETTROVALVOLE

SOL	SOLENOID VALVES FEATURES / CARATTERISTICHE ELETTROVALVOLE											
		K32W1S618	K32W1S918	K32W2S018	K52W1018	K52W2018	K52W10E8	K52W20E8	K53W2S918	K69W2018		
	Nominal max frequence (Hz) Frequenza max nominale (Hz)	27Hz <b>AC</b> 17Hz <b>DC</b>	27Hz <b>AC</b> 17Hz <b>DC</b>	42Hz <b>AC</b> 34Hz <b>DC</b>	27Hz <b>AC</b> 17Hz <b>DC</b>	42Hz <b>AC</b> 34Hz <b>DC</b>	27Hz <b>AC</b> 17Hz <b>DC</b>	42Hz <b>AC</b> 34Hz <b>DC</b>	12Hz <b>AC</b> 10Hz <b>DC</b>	27Hz <b>AC</b> 17Hz <b>DC</b>		
) Ø	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	-	-		
U	Pilot pressure Pressione di pilotaggio	-	-	-	-	-	3÷9 bar	3÷9 bar	-	-		

	Pressione di pilotaggio	K32W1S612			K52W1012	K52W2012		K52W20E2	K53W2S312	K53W2S612	]
U	Pilot pressure	-	-	-	-	-	3÷9 bar	3÷9 bar	-	-	
-	External pilot port Connessione di pilotaggio esterna	-	-	-	-	-	M5	M5	-	-	
<b>4</b>	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	
	Nominal max frequence (Hz) Frequenza max nominale (Hz)	27Hz <b>AC</b> 17Hz <b>DC</b>	27Hz <b>AC</b> 17Hz <b>DC</b>	42Hz <b>AC</b> 34Hz <b>DC</b>	27Hz <b>AC</b> 17Hz <b>DC</b>	42Hz <b>AC</b> 34Hz <b>DC</b>	27Hz <b>AC</b> 17Hz <b>DC</b>	42Hz <b>AC</b> 34Hz <b>DC</b>	12Hz <b>AC</b> 10Hz <b>DC</b>	27Hz <b>AC</b> 17Hz <b>DC</b>	
		K32W1S614	K32W1S914	K32W2S014	K52W1014	K52W2014	K52W10E4	K52W20E4	K53W2S914	K69W2014	
									K53W25314 K53W2S614	K00W2014 K99W2014	
									K53W2S314	K66W2014	

		K32W1S612	K32W1S912	K32W2S012	K52W1012	K52W2012	K52W10E2	K52W20E2	K53W2S312	K53W2S612	K53W2S912
	Nominal max frequence (Hz) Frequenza max nominale (Hz)	13Hz <b>AC</b> 11Hz <b>DC</b>	13Hz <b>AC</b> 11Hz <b>DC</b>	17Hz <b>AC</b> 16Hz <b>DC</b>	13Hz <b>AC</b> 11Hz <b>DC</b>	17Hz <b>AC</b> 16Hz <b>DC</b>	13Hz <b>AC</b> 11Hz <b>DC</b>	17Hz <b>AC</b> 16Hz <b>DC</b>	13Hz <b>AC</b> 8Hz <b>DC</b>	13Hz <b>AC</b> 8Hz <b>DC</b>	13Hz <b>AC</b> 8Hz <b>DC</b>
5	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	3÷9 bar
5	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. Caratteristiche elettriche elettrovalvole per solenoide vedi p. B-52 per G1/8.



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DIAGRAM / DIAGRAMMA

PILOT PRESSURE DIAGRAMMA DELLA PRESSIONE DI PILOTAGGIO

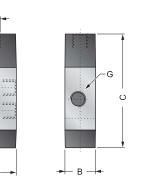
4,5

# K32P1.1.

VALVE / VALVOLA 3/2 SINGLE PNEUMATIC PILOT - INTERNAL PRESSURE RETURN AND SPRING COMANDO PNEUMATICO - RIPOSIZIONAMENTO A MOLLA PNEUMATICA E MECCANICA

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G1/8 G1/8

3,2

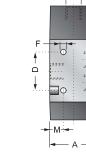
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3,2

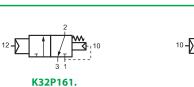


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1/8

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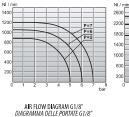


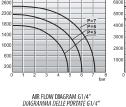
K32P191.

SIMBOLS / SIMBOLI

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**DIAGRAMS / DIAGRAMMI** 





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

VALVOLE ED ELETTROVALVOLE VALVES AND SOLENOID VALVES

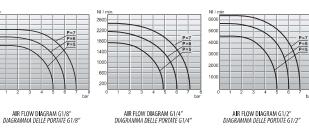
# K32P201.



SIMBOL / SIMBOLO

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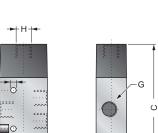
#### **DIAGRAMS / DIAGRAMMI**



#### VALVE / VALVOLA 3/2 DOUBLE PNEUMATIC PILOT / DOPPIO COMANDO PNEUMATICO

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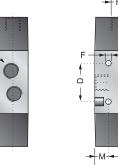
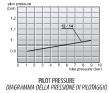
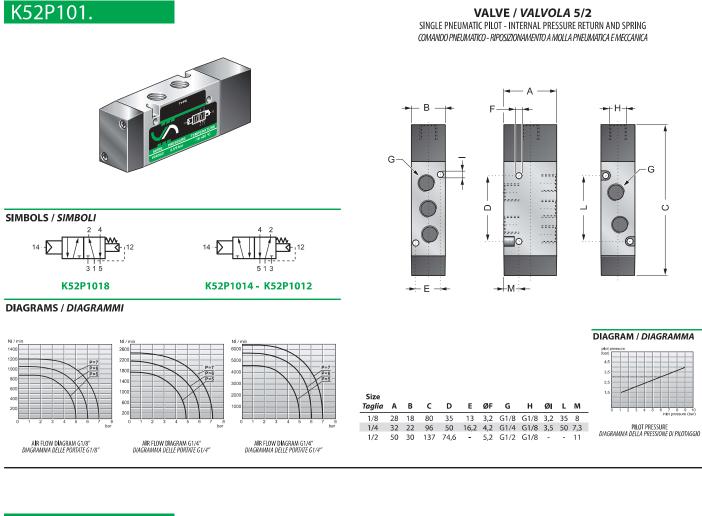


DIAGRAM / DIAGRAMMA







-12

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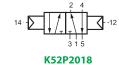
K52P2014 - K52P2012

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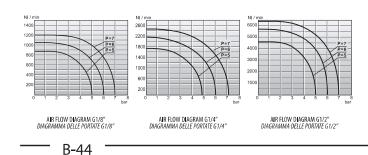


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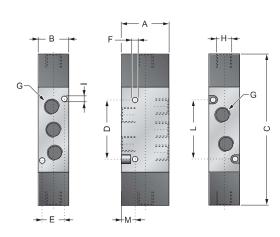
SIMBOLS / SIMBOLI



DIAGRAMS / DIAGRAMMI



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



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5,2 G1/2 G1/8

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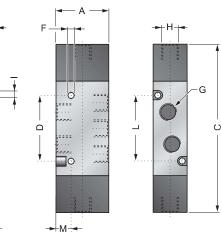
DIAGRAM / DIAGRAMMA

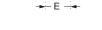
PILOT PRESSURE DIAGRAMMA DELLA PRESSIONE DI PILOTAGGIO



# K52DP21.

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





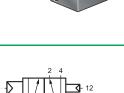
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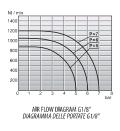
#### DIAGRAM / DIAGRAMMA

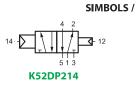


PILOT PRESSURE DIAGRAMMA DELLA PRESSIONE DI PILOTAGGIO



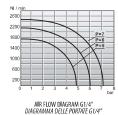






**DIAGRAMS / DIAGRAMMI** 

K53P2.



#### VALVE / VALVOLA 5/3

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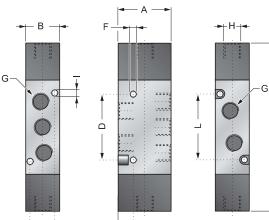
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LM

Size Taglia

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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)



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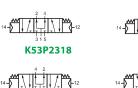
#### DIAGRAM / DIAGRAMMA

lot pressure bar)												
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3.5												
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1.5	Size											
	Taglia	Α	в	с	D	Е	ØF	G	н	ØI	L	Μ
0 1 2 3 4 5 6 7 8 9 10 intet pressure (bar)		<b>A</b> 28	<b>B</b> 18	<b>C</b> 89	<b>D</b> 35	<b>E</b> 13		<b>G</b> G1/8			L 35	
	Taglia		-	-	-	13	3,2		G1/8	3,2		8



K53P2618

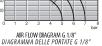
K53P2614 - K53P2612













B-45 Subject to change

- 12 / - 12

K53P2918

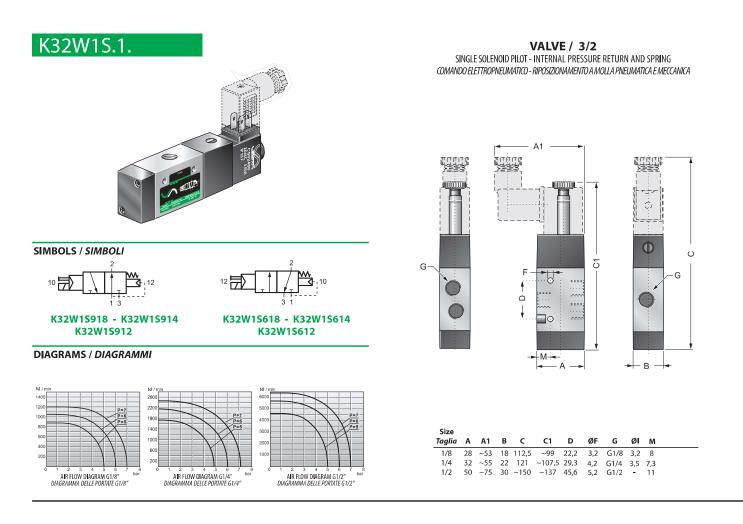
K53P2914 - K53P2912

**DIAGRAMS / DIAGRAMMI** 

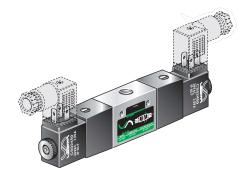
AIR FLOW DIAGRAM G 1/2" DIAGRAMMA DELLE PORTATE G 1/2"

20

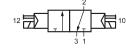




## K32W2S01

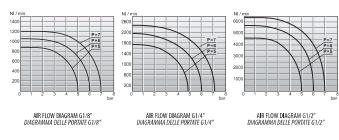


SIMBOLS / SIMBOLI

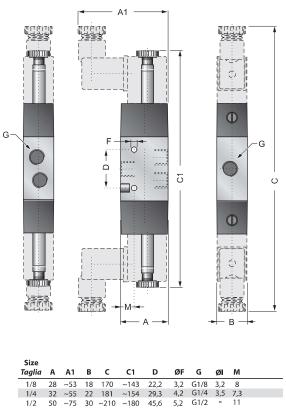


### K32W2S018 - K32W2S014 - K32W2S012

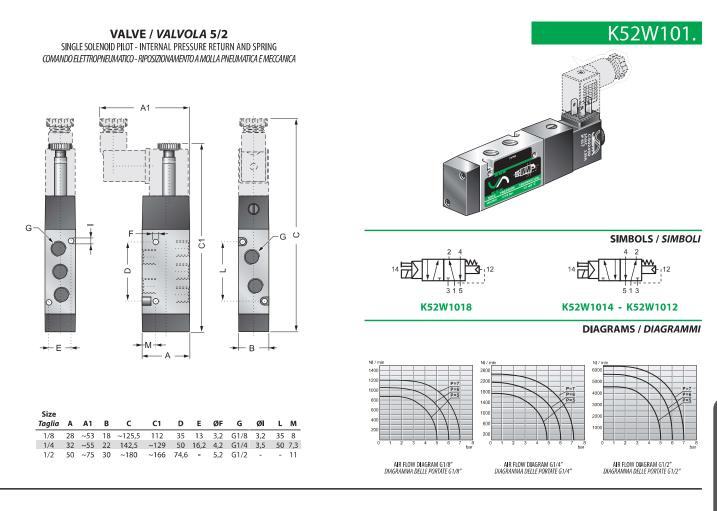
#### **DIAGRAMS / DIAGRAMMI**



VALVE / VALVOLA 3/2 DOUBLE SOLENOID PILOT / DOPPIO COMANDO ELETTROPNEUMATICO



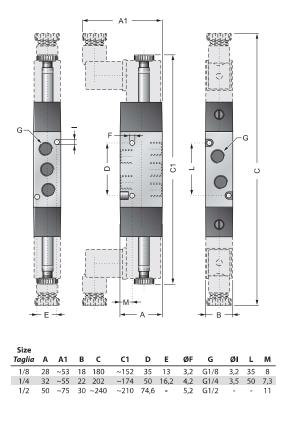


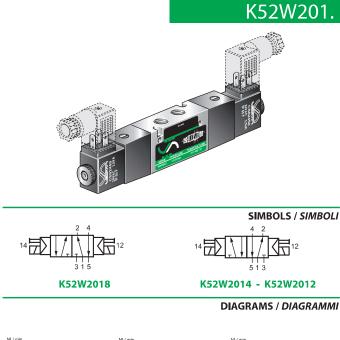


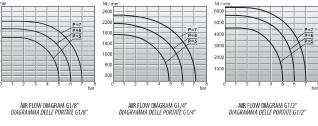
1400

120

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



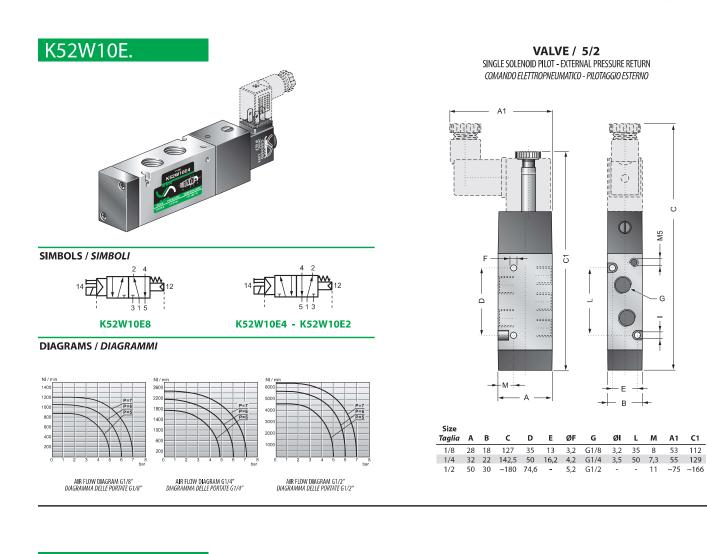




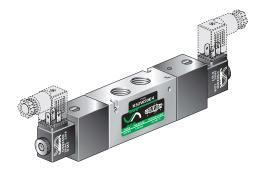




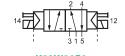
C1







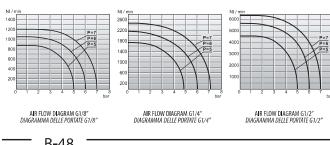
SIMBOLS / SIMBOLI



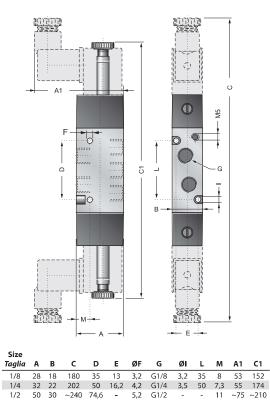
K52W20E8

14 TV 513 K52W20E4 - K52W20E2

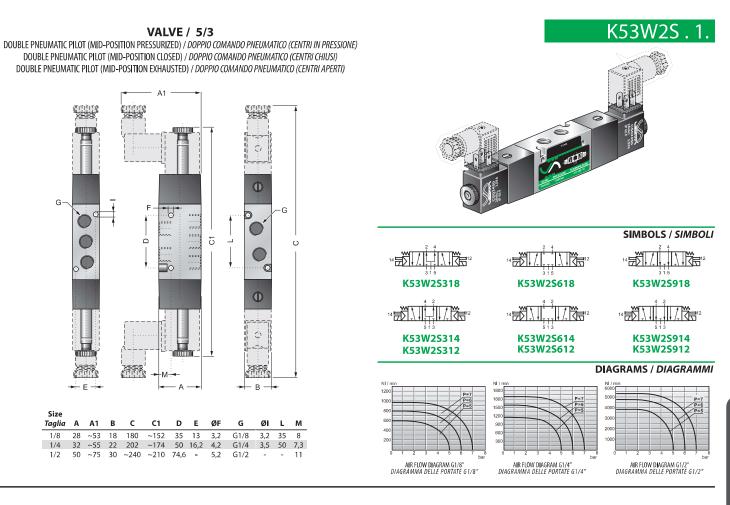
DIAGRAMS / DIAGRAMMI



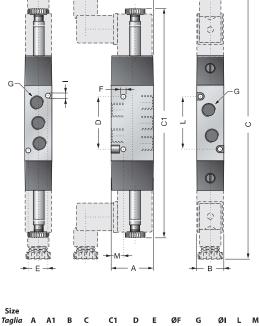








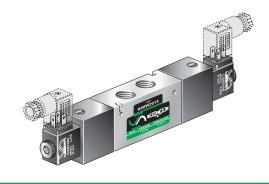
#### DOUBLE 3/2 VALVE / DOPPIA 3/2 DUBLE 3/2 N.C. SPRING RETURN VALVE DOPPIA VALVOLA 3/2 N.C. RITORNO A MOLLA MECCANICA



 28
 ~53
 18
 180
 ~152
 35
 13
 3,2
 G1/8

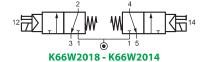
 32
 ~55
 22
 202
 ~174
 50
 16,2
 4,2
 G1/4

1/8 1/4 3,2 35 8 3,5 50 7,3

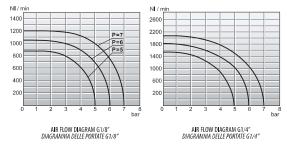


SIMBOLS / SIMBOLI

K66W201.

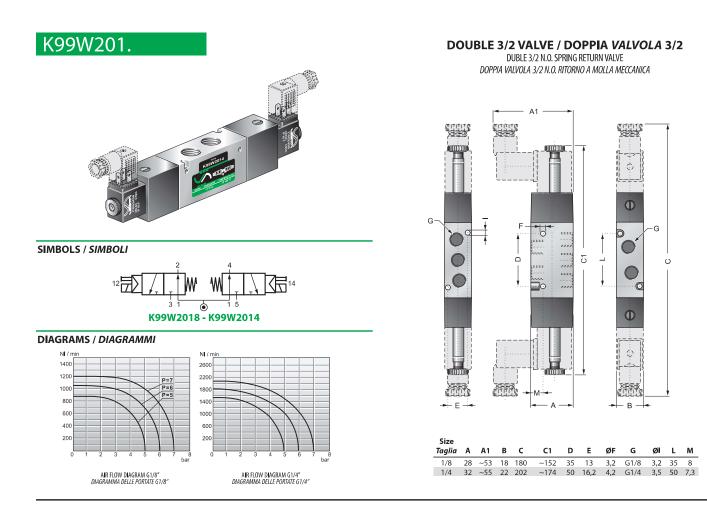


DIAGRAMS / DIAGRAMMI

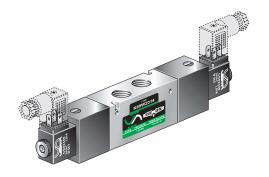


B-49 Subject to change





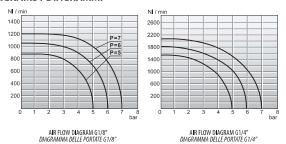
## K69W201.



SIMBOLS / SIMBOLI

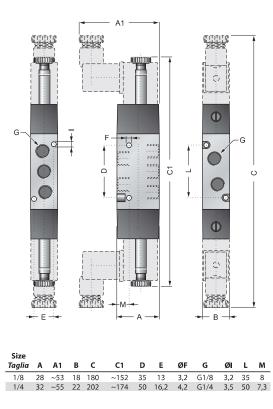


DIAGRAMS / DIAGRAMMI

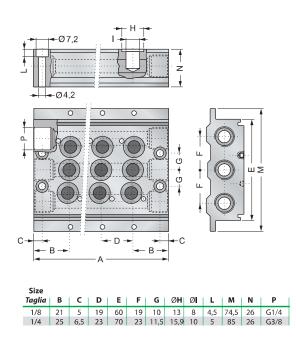


DOUBLE 3/2 VALVE / DOPPIA VALVOLA 3/2 3/2 N.C. + 3/2 N.O. VALVES SPRING RETURN

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

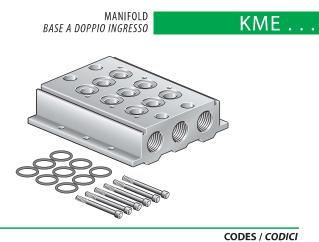






- Available upon request manifold up to 20 places.
  Valves fixing screws and seals are supplied with manifold.
  Subbase fixing screws not supplied.
  Manifold suppied assembled on demand.

- 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.

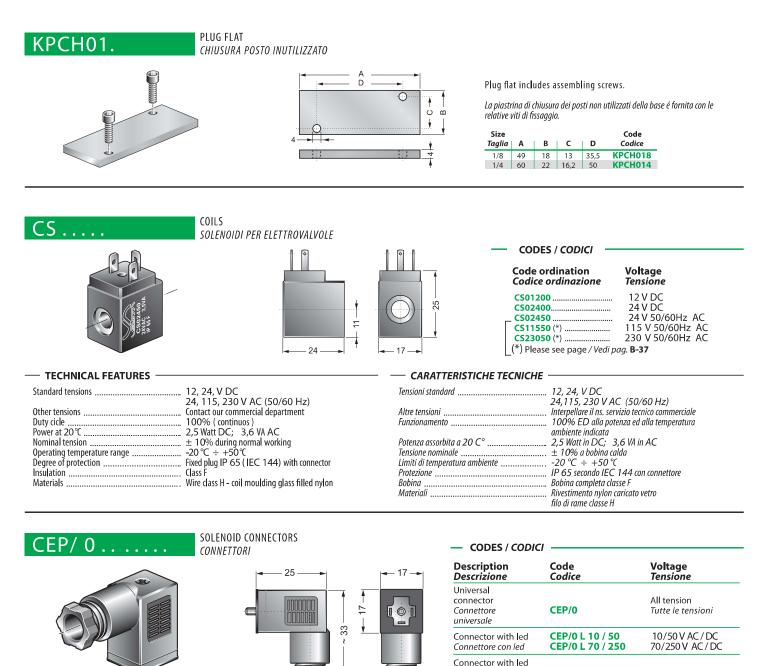


		CODES / COD
Code C <i>odice</i>	А	Place Posti
KME218	61	2
KME318	80	3
(ME418		4
(ME518	118	5
(ME618	137	6
(ME718	156	
KME818	175	8
(ME918	194	
(ME1018	213	10
(ME1218	251	
(ME1418		
(ME1618	327	
ME214		2
(ME414	119	
(ME514		
(ME714		
(ME814		
(ME1014		
(ME1214		
KME1414		
KME1614		





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



#### — TECHNICAL FEATURES

Wire connection	With screwed terminals	Connessione cavi	Con morsetti a vite
Gland thread	PG 7	Filettatura passacavo	PG 7
Number of poles	2 Poles $+$ earth	N° Poli	2 Poli + terra
Housing colour	Black, transparent in the led version.	Colori connettore	Nero, trasparente nelle versioni con led.
5			

24 V AC/DC 115 V AC/DC 230 V AC/DC

**CEP/0 LV 24** 

CEP/0 LV 110 CEP/0 LV 220

and varistor

e varistore
CARATTERISTICHE TECNICHE

Connettore con led