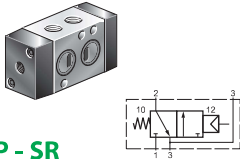


# INDEX / INDICE

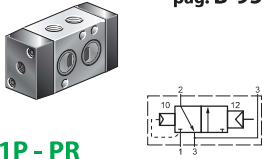
(\* ATEX versions see / Versioni ATEX vedi P. B-113

## VALVES AND SOLENOID VALVES SERIES NAMUR 3/2 / VALVOLE ED ELETTOTALVOLE SERIE NAMUR 3/2

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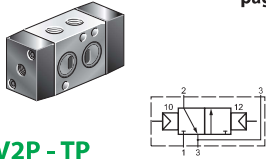


**(\* NM32V1P - SR**  
SINGLE PNEUMATIC PILOT - SPRING RETURN  
COMANDO PNEUMATICO - MOLLA MECCANICA



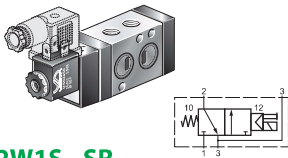
**NM32V1P - PR**  
SINGLE PNEUMATIC PILOT - INTERNAL PRESSURE RETURN  
COMANDO PNEUMATICO - MOLLA PNEUMATICA

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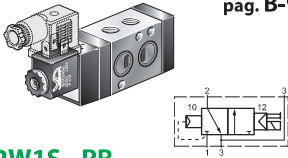


**(\* NM32V2P - TP**  
DOUBLE PNEUMATIC PILOT  
DOPPIO COMANDO PNEUMATICO

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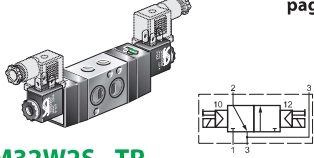


**(\* NM32W1S - SR - .....**  
SOLENOID VALVE - SPRING RETURN  
COMANDO ELETTROPNEUMATICO - MOLLA MECCANICA



**NM32W1S - PR - .....**  
SOLENOID VALVE - INTERNAL PRESSURE RETURN  
COMANDO ELETTROPNEUMATICO - MOLLA PNEUMATICA

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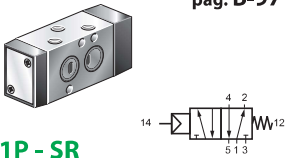


**(\* NM32W2S - TP - .....**  
DOUBLE SOLENOID VALVE  
DOPPIO COMANDO ELETTROPNEUMATICO

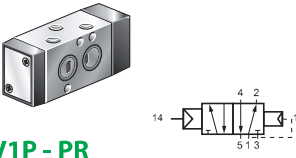
(\* ATEX versions see / Versioni ATEX vedi P. B-113

## VALVES AND SOLENOID VALVES SERIES NAMUR 5/2 / VALVOLE ED ELETTOTALVOLE SERIE NAMUR 5/2

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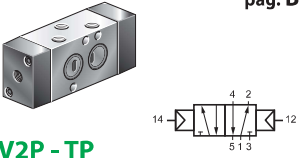


**(\* NM52V1P - SR**  
SINGLE PNEUMATIC PILOT - SPRING RETURN  
COMANDO PNEUMATICO - MOLLA MECCANICA



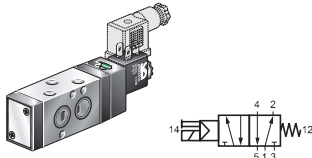
**NM52V1P - PR**  
SINGLE PNEUMATIC PILOT - INTERNAL PRESSURE RETURN  
COMANDO PNEUMATICO - MOLLA PNEUMATICA

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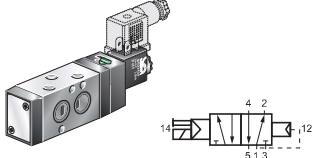


**(\* NM52V2P - TP**  
DOUBLE PNEUMATIC PILOT  
DOPPIO COMANDO PNEUMATICO

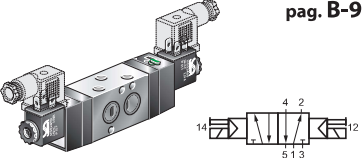
pag. B-99



**(\* NM52W1S - SR - .....**  
SOLENOID VALVE - SPRING RETURN  
COMANDO ELETTROPNEUMATICO - MOLLA MECCANICA



**NM52W1S - PR - .....**  
SOLENOID VALVE - INTERNAL PRESSURE RETURN  
COMANDO ELETTROPNEUMATICO - MOLLA PNEUMATICA



**(\* NM52W2S - TP - .....**  
DOUBLE SOLENOID VALVE  
DOPPIO COMANDO ELETTROPNEUMATICO



## BUILDING FEATURES / CARATTERISTICHE COSTRUTTIVE

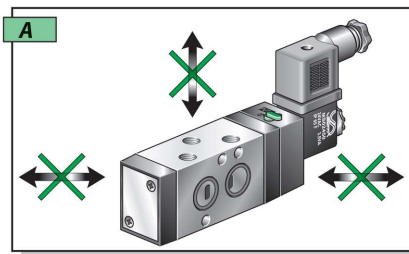
VESTA "NAMUR" valves are available in the 3/2 and 5/2 versions, with different forms of actuation (i.e. solenoid / pilot etc).

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.

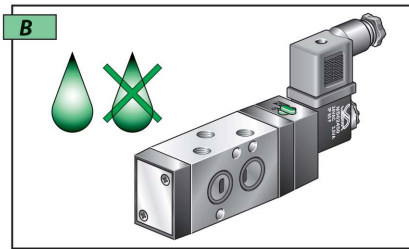
Le valvole ed elettrovalvole VESTA della serie **NAMUR** funzionano secondo il principio del distributore a cassetto bilanciato (vedi fig. **1 e 2**).

La serie, realizzata nelle funzioni 3/2 e 5/2, viene fornita con più sistemi di azionamento e riposizionamento.

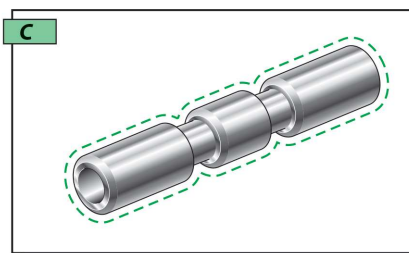
Le caratteristiche fondamentali sono: grande portata d'aria, ermeticità di funzionamento verso l'ambiente di lavoro nei modelli bistabili e in quelli con ritorno a molla pneumatica (**A**), alta velocità di scambio, possibilità di funzionamento continuo privo di lubrificazione (**B**) ottenuto con l'impiego 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.*



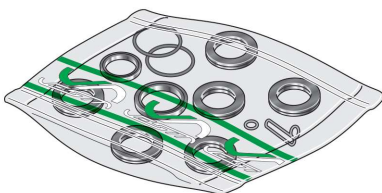
Possibility of operating continuously without lubrication.  
*Possibilità di funzionamento continuo privo di lubrificazione.*



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**

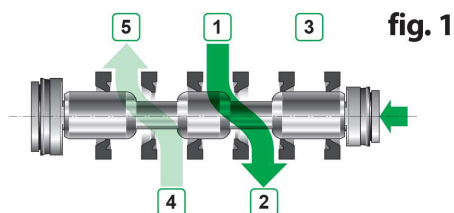
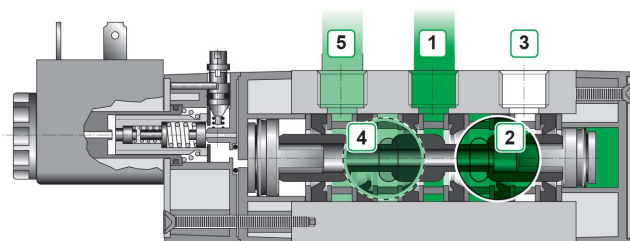
In the example here below, when the valve **NM52W1S-PR-02450** (see the draw) stands in the normal position, ports **4-5** and **1-2** are connected and the position is kept thanks to the pressure assured to the smallest piston (right side of the valve).

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.

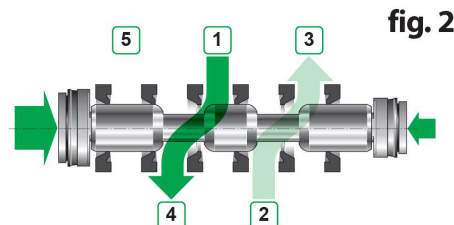
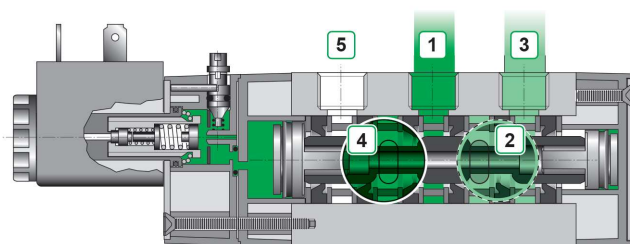
*Il principio di funzionamento dei distributori 3/2 e 5/2 (nell'esempio l'elettrovalvola **NM52W1S-PR-02450** con comando elettropneumatico e riposizionamento a molla pneumatica) consiste nel mantenere costantemente in pressione il pistone di riposizionamento (fig. 1), utilizzando la fonte d'aria compressa 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 formatisi nell'ultimo azionamento.*

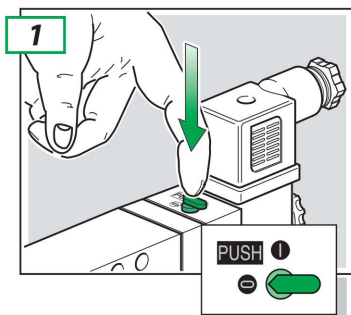


**NORMAL POSITION / POSIZIONE A RIPOSO**

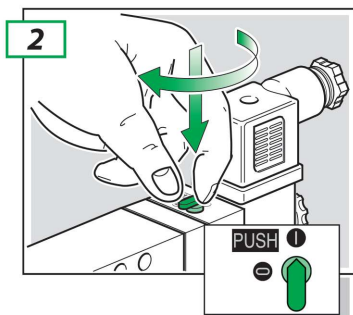


**ACTUATED POSITION / POSIZIONE DI LAVORO**

**MANUAL OVERRIDING / AZIONAMENTO COMANDO MANUALE**



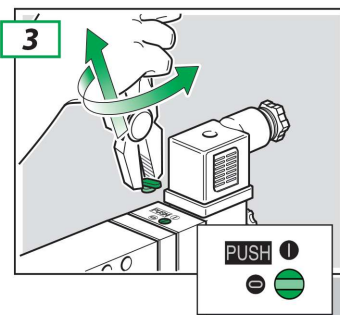
Push to actuated valve without locking. **Relise the button to get back to normal position.**



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.**

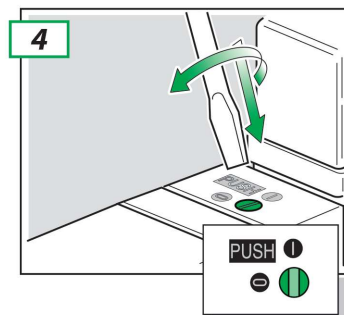
*Per azionare la valvola, durante la fase di collaudo con pressione in linea senza collegamento elettrico, premere la leva del comando manuale. **Rilasciare per ripristinare la condizione di riposo.***

*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.***



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.*



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 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
	<b>Operating pressure range</b> .....	<b>2,5 ÷ 10 bar</b>

<b>NM32V1P-PR</b> <b>NM52V1P-PR</b>	Nominal max frequency .....	20 Hz
	<b>Operating pressure range</b> .....	<b>2,5 ÷ 10 bar</b>

<b>NM32V2P-TP</b> <b>NM52V2P-TP</b>	Nominal max frequency .....	30 Hz
	<b>Operating pressure range</b> .....	<b>1,5 ÷ 10 bar</b>

### SOLENOID VALVES FEATURES NM

	AC	DC
<b>NM32W1S-SR</b> <b>NM52W1S-SR</b>	Nominal max frequency .....	11 Hz 11 Hz
	Response time - swich ON .....	19 ms 21 ms
	Response time - swich OFF .....	35 ms 46 ms
	<b>Operating pressure range</b> .....	<b>2,5 ÷ 10 bar</b>

	AC	DC
<b>NM32W1S-PR</b> <b>NM52W1S-PR</b>	Nominal max frequency .....	16 Hz 13 Hz
	Response time - swich ON .....	18 ms 21 ms
	Response time - swich OFF .....	33 ms 44 ms
	<b>Operating pressure range</b> .....	<b>2,5 ÷ 10 bar</b>

<b>NM32W2S-TP</b> <b>NM52W2S-TP</b>	Nominal max frequency .....	27 Hz 21 Hz
	Response time - swich ON .....	11 ms 14 ms
	Response time - swich OFF .....	11 ms 14 ms
	<b>Operating pressure range</b> .....	<b>1,5 ÷ 10 bar</b>

**For electrical features solenoid pilot NAMUR serie pp. B-36 ÷ 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
	<b>Pressione di esercizio</b> .....	<b>2,5 ÷ 10 bar</b>

<b>NM32V1P-PR</b> <b>NM52V1P-PR</b>	Frequenza max nominale .....	20 Hz
	<b>Pressione di esercizio</b> .....	<b>2,5 ÷ 10 bar</b>

<b>NM32V2P-TP</b> <b>NM52V2P-TP</b>	Frequenza max nominale .....	30 Hz
	<b>Pressione di esercizio</b> .....	<b>1,5 ÷ 10 bar</b>

### 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
	<b>Pressione di esercizio</b> .....	<b>2,5 ÷ 10 bar</b>

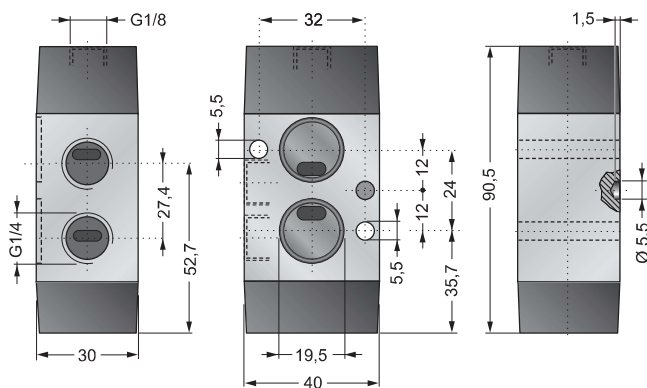
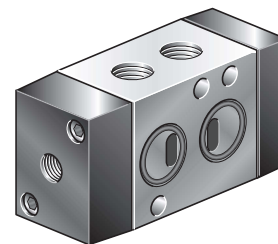
	AC	DC
<b>NM32W1S-PR</b> <b>NM52W1S-PR</b>	Frequenza max nominale .....	16 Hz 13 Hz
	Tempo medio di risposta in eccitazione .....	18 ms 21 ms
	Tempo medio di risposta in diseccitazione .....	33 ms 44 ms
	<b>Pressione di esercizio</b> .....	<b>2,5 ÷ 10 bar</b>

<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
	<b>Pressione di esercizio</b> .....	<b>1,5 ÷ 10 bar</b>

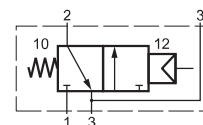
**Caratteristiche elettriche bobina per elettrovalvole serie NAMUR vedi pp. B-36 ÷ B-37.**

NM32V1P - SR

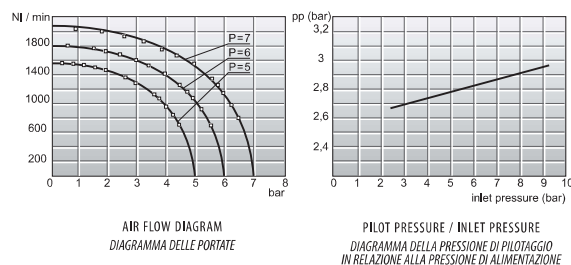
**VALVE / VALVOLA 3/2**  
 SINGLE PNEUMATIC PILOT - SPRING RETURN  
 COMANDO PNEUMATICO - RIPOSIZIONAMENTO A MOLLA MECCANICA



**SIMBOL / SIMBOLO**



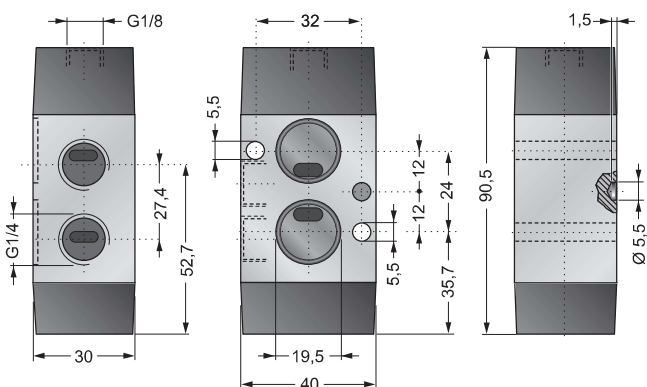
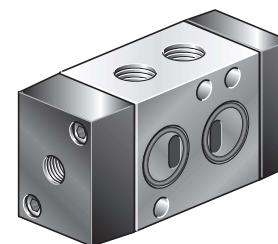
**DIAGRAMS / DIAGRAMMI**



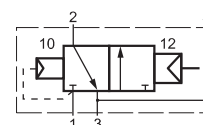
VALVOLE ED ELETTROVALVOLE VALVES AND SOLENOID VALVES

NM32V1P - PR

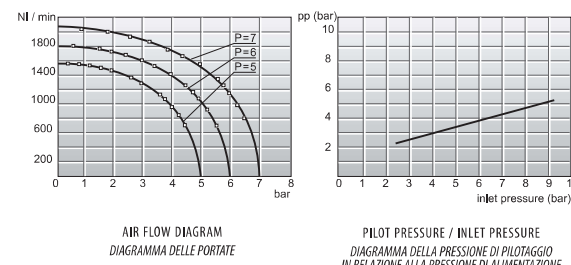
**VALVE / VALVOLA 3/2**  
 SINGLE PNEUMATIC PILOT - INTERNAL PRESSURE RETURN  
 COMANDO PNEUMATICO - RIPOSIZIONAMENTO A MOLLA PNEUMATICA



**SIMBOL / SIMBOLO**

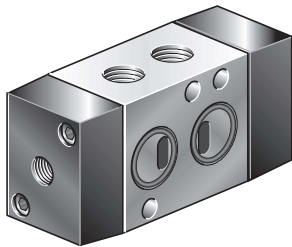


**DIAGRAMS / DIAGRAMMI**

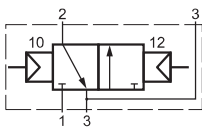




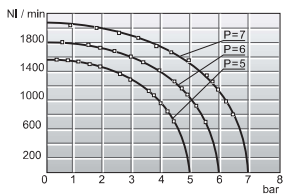
## NM32V2P - TP



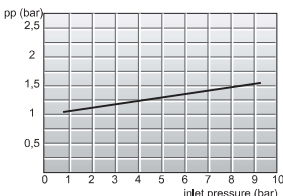
### SIMBOL / SIMBOLO



### DIAGRAMS / DIAGRAMMI

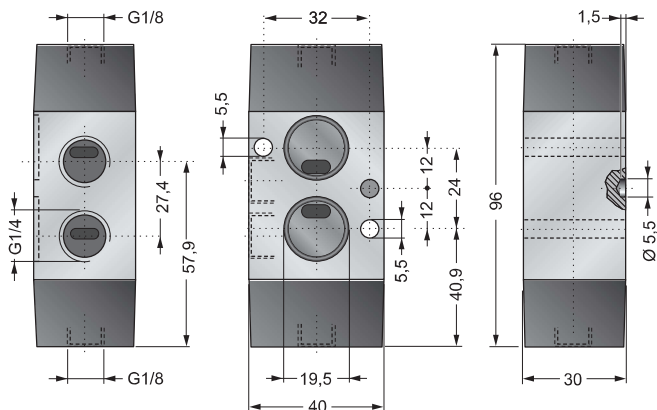


AIR FLOW DIAGRAM  
DIAGRAMMA DELLE PORTATE

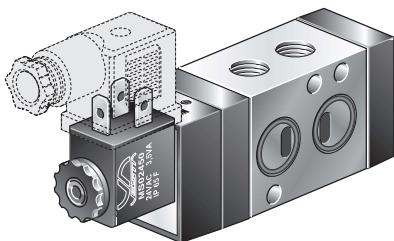


PILOT PRESSURE / INLET PRESSURE  
DIAGRAMMA DELLA PRESSIONE DI PILOTAGGIO  
IN RELAZIONE ALLA PRESSIONE DI ALIMENTAZIONE

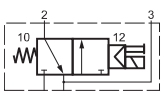
## VALVE / VALVOLA 3/2 DOUBLE PNEUMATIC PILOT DOPPIO COMANDO PNEUMATICO



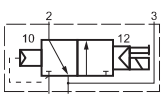
## NM32W1S - .R - .....



### SIMBOLS / SIMBOLI

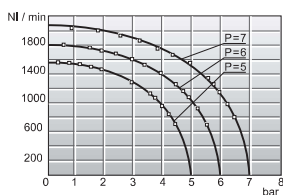


NM32W1S-SR-.....



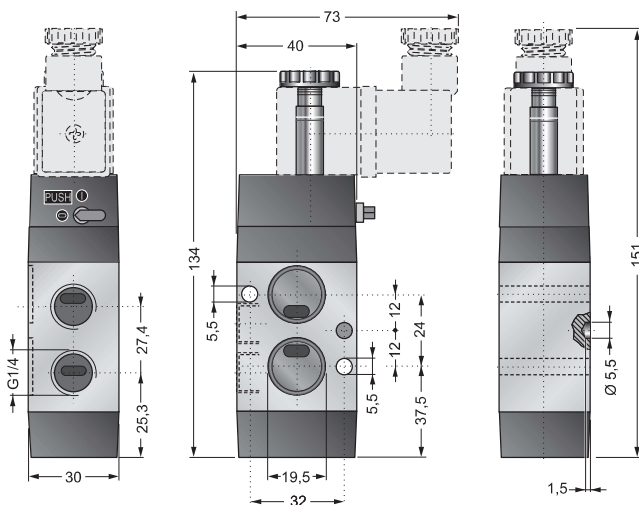
NM32W1S-PR-.....

### DIAGRAM / DIAGRAMMA



AIR FLOW DIAGRAM  
DIAGRAMMA DELLE PORTATE

## VALVE / VALVOLA 3/2 SOLENOID VALVE COMANDO ELETTROPNEUMATICO



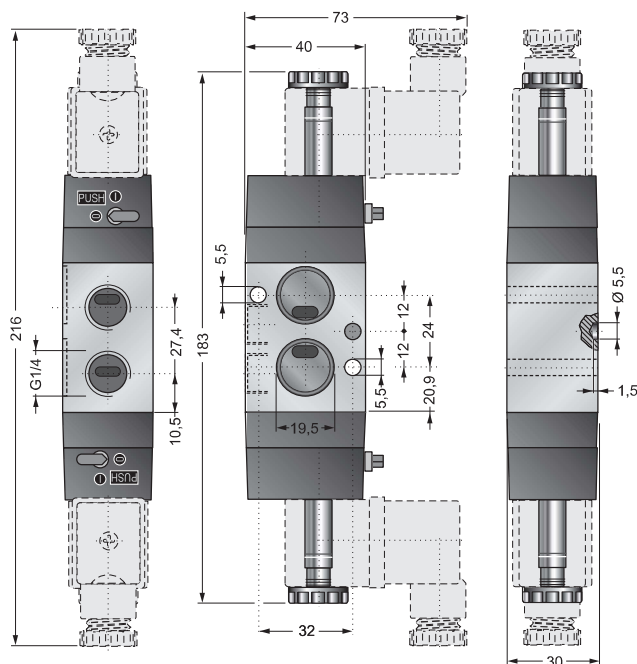
### CODES / CODICI

Ordination code  
Codice ordinazione

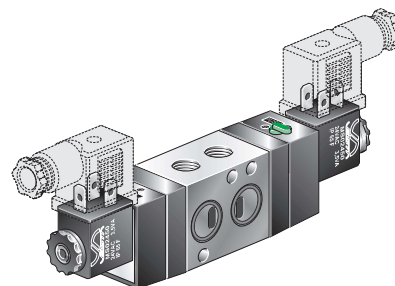
NM32W1S - .R-00000 .....	No coil / Senza solenoide
NM32W1S - .R-01200 .....	12 V DC
NM32W1S - .R-02400 .....	24 V DC
NM32W1S - .R-02450 .....	24 V 50/60Hz AC
NM32W1S - .R-11550 .....	115 V 50/60Hz AC
NM32W1S - .R-22050 .....	220 V 50/60Hz AC

Voltage  
Tensione

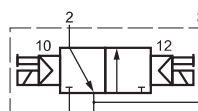
**VALVE / VALVOLA 3/2**  
DOUBLE SOLENOID VALVE  
DOPPIO COMANDO ELETTROPNEUMATICO



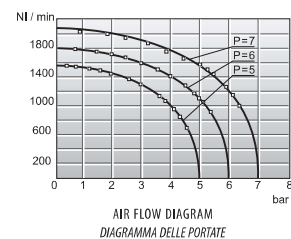
**NM32W2S - TP - ....**



**SIMBOL / SIMBOLO**



**DIAGRAM / DIAGRAMMA**



**CODES / CODICI**

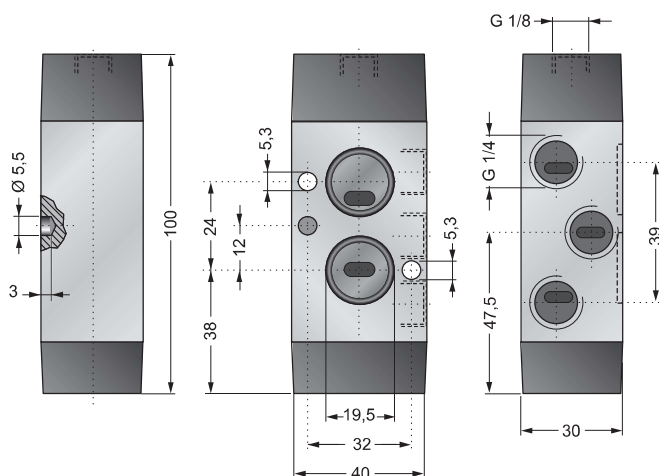
**Ordination code  
Codice ordinazione**

- NM32W2S - TP - 00000 .....
- NM32W2S - TP - 01200 .....
- NM32W2S - TP - 02400 .....
- NM32W2S - TP - 02450 .....
- NM32W2S - TP - 11550 .....
- NM32W2S - TP - 22050 .....

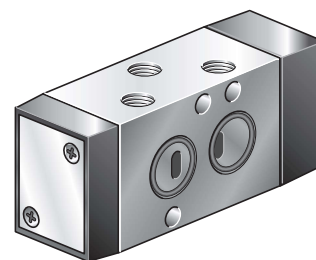
**Voltage  
Tensione**

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

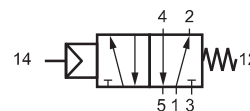
**VALVE / VALVOLA 5/2**  
SINGLE PNEUMATIC PILOT - SPRING RETURN  
COMANDO PNEUMATICO - RIPOSIZIONAMENTO A MOLLA MECCANICA



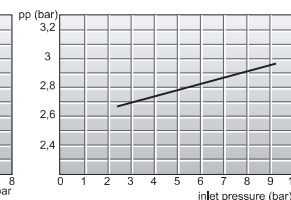
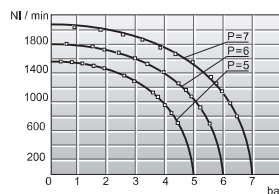
**NM52V1P - SR**



**SIMBOL / SIMBOLO**

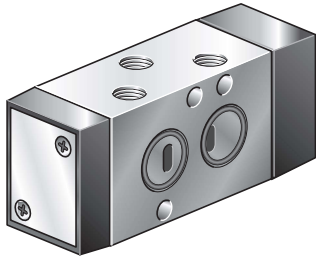


**DIAGRAMS / DIAGRAMMI**



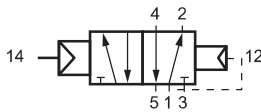


## NM52V1P - PR

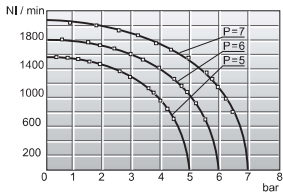


**VALVE / VALVOLA 5/2**  
 SINGLE PNEUMATIC PILOT - INTERNAL PRESSURE RETURN  
 COMANDO PNEUMATICO - RIPOSIZIONAMENTO A MOLLA PNEUMATICA

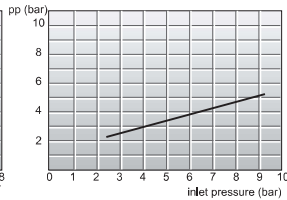
### SIMBOL / SIMBOLO



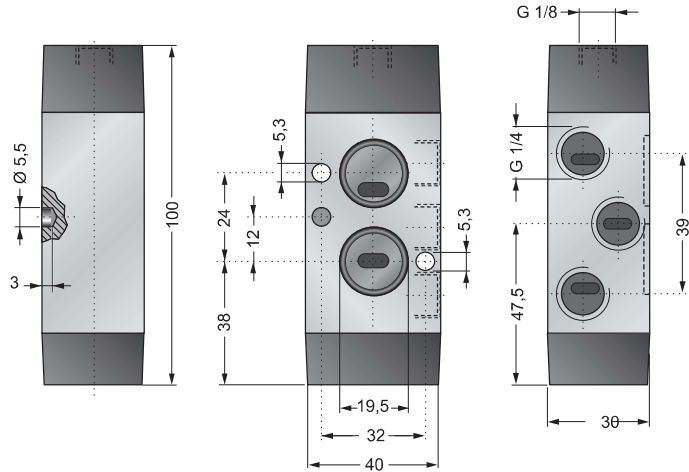
### DIAGRAMS / DIAGRAMMI



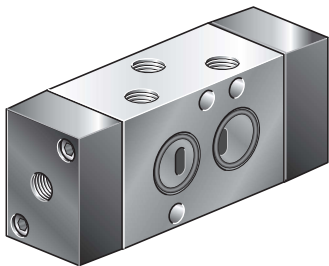
AIR FLOW DIAGRAM  
 DIAGRAMMA DELLE PORTATE



PILOT PRESSURE / INLET PRESSURE  
 DIAGRAMMA DELLA PRESSIONE DI PILOTAGGIO  
 IN RELAZIONE ALLA PRESSIONE DI ALIMENTAZIONE

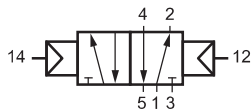


## NM52V2P - TP

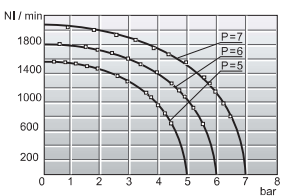


**VALVE / VALVOLA 5/2**  
 DOUBLE PNEUMATIC PILOT  
 DOPPIO COMANDO PNEUMATICO

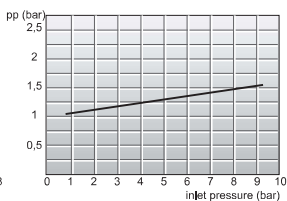
### SIMBOL / SIMBOLO



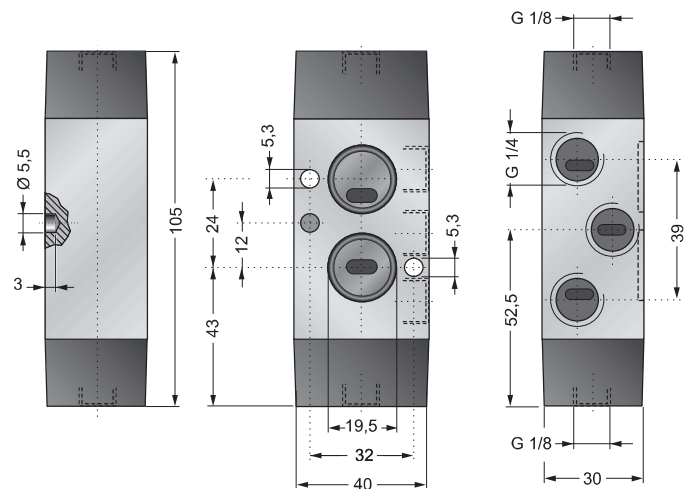
### DIAGRAMS / DIAGRAMMI



AIR FLOW DIAGRAM  
 DIAGRAMMA DELLE PORTATE



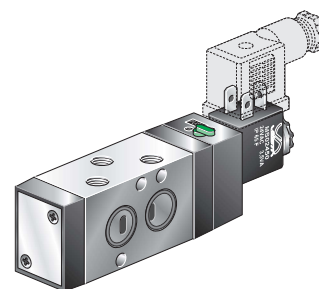
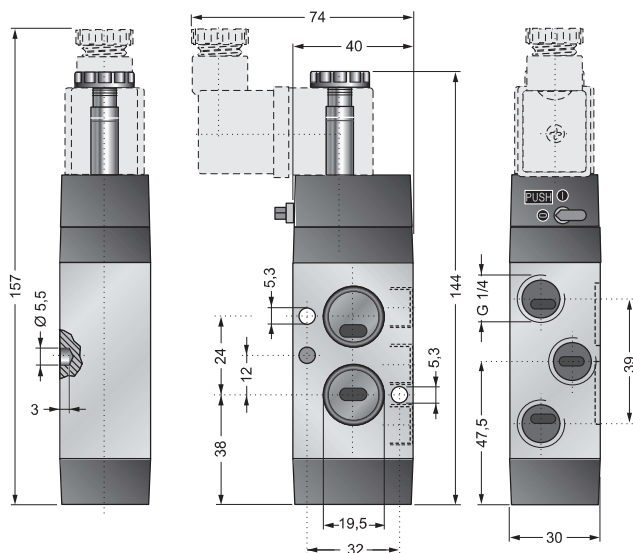
PILOT PRESSURE / INLET PRESSURE  
 DIAGRAMMA DELLA PRESSIONE DI PILOTAGGIO  
 IN RELAZIONE ALLA PRESSIONE DI ALIMENTAZIONE





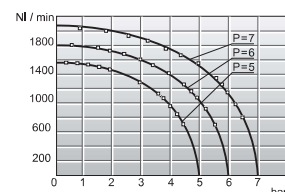
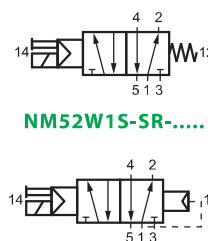
**VALVE / VALVOLA 5/2**  
**SOLENOID VALVE - SPRING RETURN**  
 COMANDO ELETTROPNEUMATICO - RIPOSIZIONAMENTO A MOLLA MECCANICA

**NM52W1S - .R -.....**



**SIMBOLS / SIMBOLI**

**DIAGRAM / DIAGRAMMA**



**NM52W1S-PR-.....**

AIR FLOW DIAGRAM  
 DIAGRAMMA DELLE PORTATE

**CODES / CODICI**

**Ordination code**

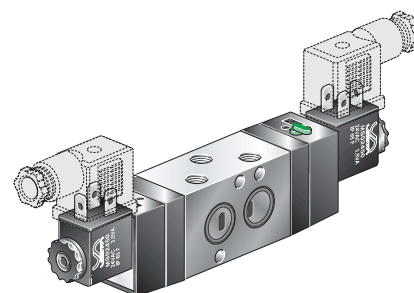
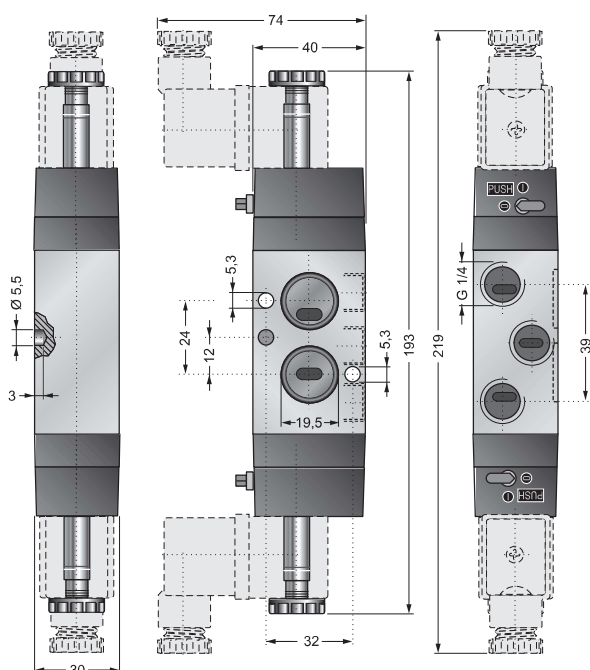
**Voltage**

- NM52W1S - .R -00000 .....
- NM52W1S - .R -01200 .....
- NM52W1S - .R -02400 .....
- NM52W1S - .R -02450 .....
- NM52W1S - .R -11550 .....
- NM52W1S - .R -22050 .....

- No coil / Senza solenoide
- 12 V DC
- 24 V DC
- 24 V 50/60Hz AC
- 115 V 50/60Hz AC
- 220 V 50/60Hz AC

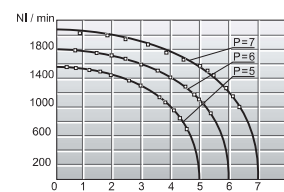
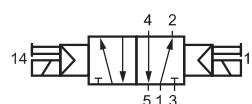
**VALVE / 5/2**  
**DOUBLE SOLENOID VALVE**  
 DOPPIO COMANDO ELETTROPNEUMATICO

**NM52W2S TP -.....**



**SIMBOL / SIMBOLO**

**DIAGRAM / DIAGRAMMA**



AIR FLOW DIAGRAM  
 DIAGRAMMA DELLE PORTATE

**CODES / CODICI**

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

**Voltage**  
**Tensione**

- NM52W2S - TP -00000 .....
- NM52W2S - TP -01200 .....
- NM52W2S - TP -02400 .....
- NM52W2S - TP -02450 .....
- NM52W2S - TP -11550 .....
- NM52W2S - TP -22050 .....

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