

# 2.10

## NAMUR-Valves

NAMUR 1/4" also called "NAMUR 1" in accordance to VDI/VDE 3845. NAMUR 1/2" also called "NAMUR 2".



Selected models are available for low temperature application.  
For detailed information refer to chapter 2.12.



Selected models can be equipped for high temperature environments up to 80 °C, DC only!

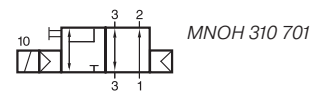
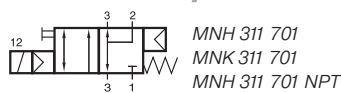
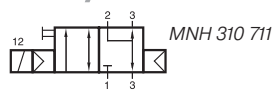
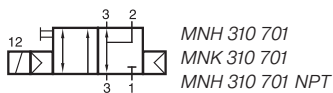


Selected models are available in stainless steel.  
For detailed information refer to chapter 2.13.

Selected models are available for explosion hazardous environment.  
For detailed information refer to chapter 2.15.



# MNH 310 701/MNH 310 711/MNH 311 701 MNOH 310 701/MNK 310 701/MNK 311 701



3/2-way solenoid valve, actuated by permanent signal.  
Interface according to 1/4" NAMUR-standard, with exhaust air recirculation ("purge").

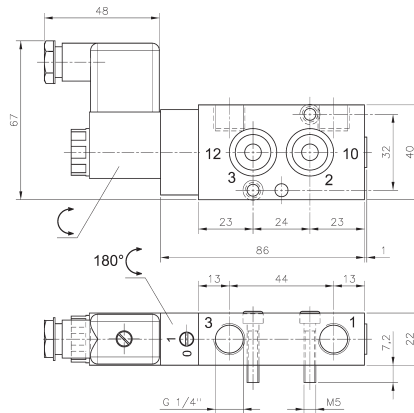
- Type MNH 31\_7\_1 normally closed
- Type MNOH 31\_701 normally open
- Type MNK 31\_701 n.c. low power

MNH 310 701, MNH 310 711, MNOH 310 701 and MNK 310 701 with pneumatic spring return, MNH 311 701 and MNK 311 701 with combined spring assuring a fail-safe function.

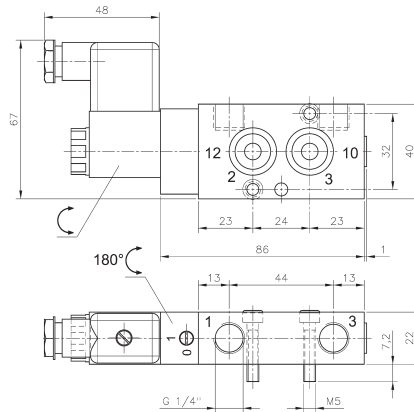
**MNH** generally with manual override to turn with solenoid operators 230V/50Hz, 110V/50Hz, 24V/50Hz, 48V=, 24V=, 12V=.

**MNK** with manual override to push with solenoid operators 24V=, 12V=, 6V=.

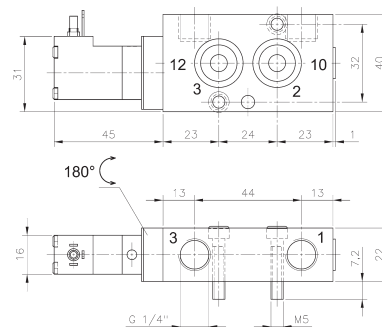
Delivery includes 1 pin, 2 screws and 2 O-rings.



**MNH 310 701/MNH 311 701/MNOH 310 701  
MNH 310 701 NPT/MNH 311 701 NPT**



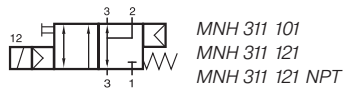
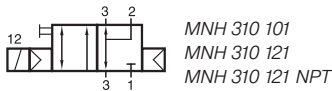
**MNH 310 711 ports 2 and 3 are swapped!**



**MNK 310 701/MNK 311 701**

Type	Function	Port size	Air flow	Operating press.	Power consumption	Weight	
MNH 310 701	n.c.	G 1/4"	1250 l/min	2 - 10 bar	3 W = / 5 VA ~	0,26 kg	
MNOH 310 701	n.o.	G 1/4"	1250 l/min	2 - 10 bar	3 W = / 5 VA ~	0,26 kg	
MNH 310 711	n.c.	G 1/4"	1250 l/min	2 - 10 bar	3 W = / 5 VA ~	0,26 kg	
MNH 311 701	n.c.	G 1/4"	1250 l/min	2,5 - 10 bar	3 W = / 5 VA ~	0,26 kg	
MNK 310 701	n.c.	G 1/4"	1250 l/min	2 - 10 bar	1,8 W = / 3 VA ~	0,21 kg	
MNK 311 701	n.c.	G 1/4"	1250 l/min	2,5 - 10 bar	1,8 W = / 3 VA ~	0,21 kg	
MNH 310 701 NPT	n.c.	1/4" NPT	1250 l/min	2 - 10 bar	3 W = / 5 VA ~	0,26 kg	
MNH 311 701 NPT	n.c.	1/4" NPT	1250 l/min	2,5 - 10 bar	3 W = / 5 VA ~	0,26 kg	

# MNH 310 101/MNH 311 101 MNH 310 121/MNH 311 121



3/2-way solenoid valve, actuated by permanent signal.  
Interface according to NAMUR-standard, with exhaust air recirculation ("purge").

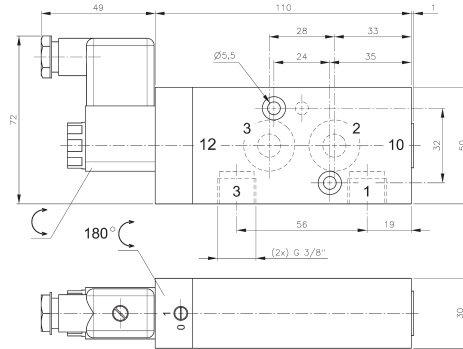
Type 101 according to 1/4" NAMUR-standard  
Type 121 according to 1/2" NAMUR-standard

MNH 310 101, MNH 310 121 with pneumatic spring return,  
MNH 311 101 and MNH 311 121 with combined spring assuring a fail-safe function.

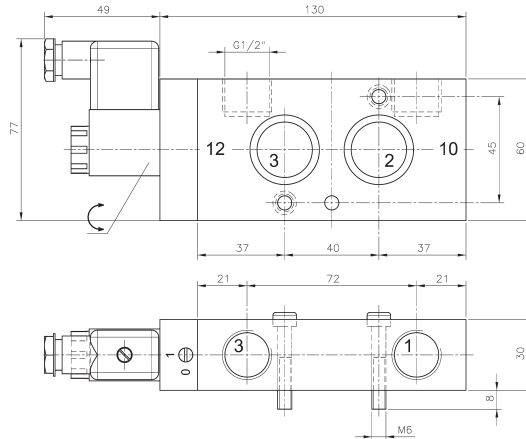
Available with solenoid operators:  
24V=, 12V=, 6V=.

The valves are generally equipped with manual override to turn.




Delivery includes 1 pin, 2 screws, 2 O-rings.



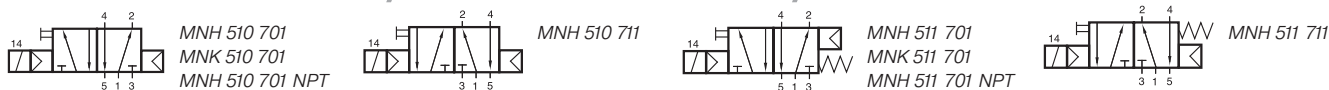
**MNH 310 101/MNH 311 101**



**MNH 310 121/MNH 311 121  
MNH 310 121 NPT/MNH 311 121 NPT**

Type	NAMUR	Port size	Air flow	Operating press.	Power consumption	Weight
MNH 310 101	1/4"	G 3/8"	2250 l/min	1,5 - 10 bar	3 W = / 5 VA ~	0,55 kg
MNH 311 101	1/4"	G 3/8"	2250 l/min	2,5 - 10 bar	3 W = / 5 VA ~	0,55 kg
MNH 310 121	1/2"	G 1/2"	3000 l/min	1,0 - 10 bar	3 W = / 5 VA ~	0,70 kg 
MNH 311 121	1/2"	G 1/2"	3000 l/min	2,5 - 10 bar	3 W = / 5 VA ~	0,70 kg 
MNH 310 121 NPT	1/2"	1/2" NPT	3000 l/min	1,0 - 10 bar	3 W = / 5 VA ~	0,70 kg 
MNH 311 121 NPT	1/2"	1/2" NPT	3000 l/min	2,5 - 10 bar	3 W = / 5 VA ~	0,70 kg

# MNH 510 701/MNH 510 711/MNH 511 701 MNH 511 711/MNK 510 701/MNK 511 701



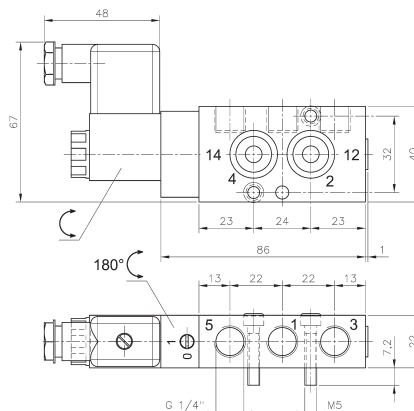
5/2-way solenoid valve, actuated by permanent signal.  
Interface according to 1/4" NAMUR-standard.

MNH 510 701, MNH 510 711 and MNK 510 701 with pneumatic spring return, MNH 511 701, MNH 511 711 and MNK 511 701 with combined spring.

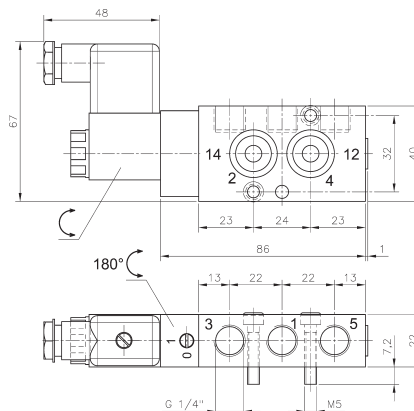
**MNH** generally with manual override to turn with solenoid operators 230V/50Hz, 110V/50Hz, 24V/50Hz, 48V=, 24V=, 12V=.

**MNK** with manual override to push with solenoid operators 24V=, 12V=, 6V=.

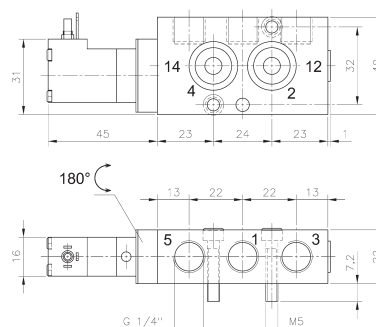
Delivery includes 1 pin, 2 screws, 2 O-rings.



**MNH 510 701/MNH 511 701  
MNH 510 701 NPT/MNH 511 701 NPT**



**MNH 510 711/MNH 511 711  
ports 2,4,3,5 are swapped!**

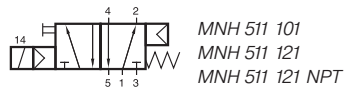
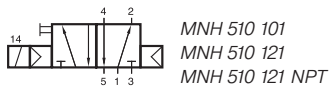


**MNK 510 701/MNK 511 701**

Type	Port size	Air flow	Operating press.	Power consumption	Weight
MNH 510 701	G 1/4"	1250 l/min	2 - 10 bar	3 W = / 5 VA ~	0,26 kg
MNH 510 711	G 1/4"	1250 l/min	2 - 10 bar	3 W = / 5 VA ~	0,26 kg
MNH 511 701	G 1/4"	1250 l/min	2,5 - 10 bar	3 W = / 5 VA ~	0,26 kg
MNH 511 711	G 1/4"	1250 l/min	2,5 - 10 bar	3 W = / 5 VA ~	0,26 kg
MNK 510 701	G 1/4"	1250 l/min	2 - 10 bar	1,8 W = / 3 VA ~	0,21 kg
MNK 511 701	G 1/4"	1250 l/min	2,5 - 10 bar	1,8 W = / 3 VA ~	0,21 kg
MNH 510 701 NPT	1/4" NPT	1250 l/min	2 - 10 bar	3 W = / 5 VA ~	0,26 kg
MNH 511 701 NPT	1/4" NPT	1250 l/min	2,5 - 10 bar	3 W = / 5 VA ~	0,26 kg



# MNH 510 101/MNH 511 101 MNH 510 121/MNH 511 121



5/2-way solenoid valve, actuated by permanent signal.  
Interface according to NAMUR-standard.

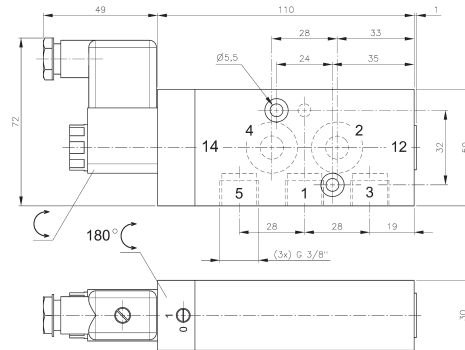
Type 101 according to 1/4" NAMUR-standard  
Type 121 according to 1/2" NAMUR-standard

MNH 510 101, MNH 510 121 with pneumatic spring return,  
MNH 511 101 and MNH 511 121 with combined spring.

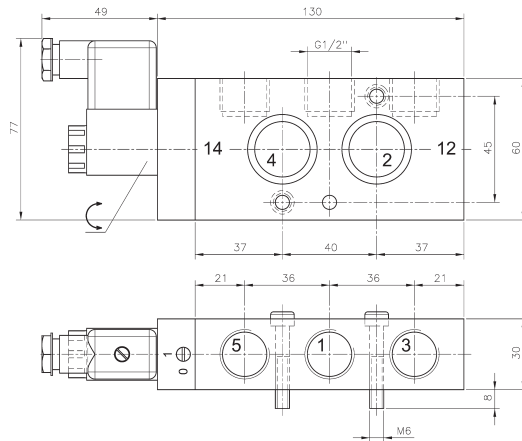
Available with solenoid operators:  
24V=, 12V=, 6V=.

The valves are generally equipped with manual override to turn.




Delivery includes 1 pin, 2 screws, 2 O-rings.



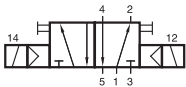
**MNH 510 101/MNH 511 101**



**MNH 510 121/MNH 511 121  
MNH 510 121 NPT/MNH 511 121 NPT**

Type	NAMUR	Port size	Air flow	Operating press.	Power cons.	Weight
MNH 510 101	1/4"	G 3/8"	2250 l/min	1,5 - 10 bar	3 W = / 5 VA ~	0,55 kg
MNH 511 101	1/4"	G 3/8"	2250 l/min	2,5 - 10 bar	3 W = / 5 VA ~	0,55 kg
MNH 510 121	1/2"	G 1/2"	3000 l/min	1,0 - 10 bar	3 W = / 5 VA ~	0,70 kg 
MNH 511 121	1/2"	G 1/2"	3000 l/min	2,5 - 10 bar	3 W = / 5 VA ~	0,70 kg 
MNH 510 121 NPT	1/2"	1/2" NPT	3000 l/min	1,0 - 10 bar	3 W = / 5 VA ~	0,70 kg 
MNH 511 121 NPT	1/2"	1/2" NPT	3000 l/min	2,5 - 10 bar	3 W = / 5 VA ~	0,70 kg

# MNH 520 701/MNH 520 101/MNH 520 121 MNK 520 701



- MNH 520 701
- MNH 520 101
- MNH 520 121
- MNK 520 701
- MNH 520 701 NPT
- MNH 520 121 NPT

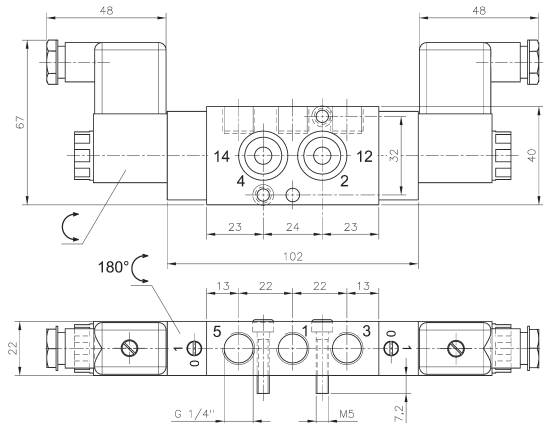


5/2-way solenoid valve actuated by impulse. Position is kept until next electrical signal even when not attached to electrical source. Interface according to NAMUR-standard.

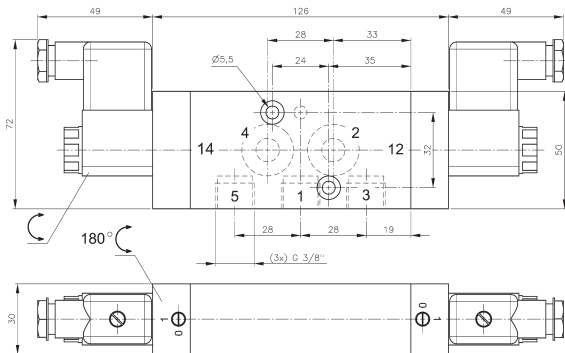
**MNH** generally with manual override to turn with solenoid operators 230V/50Hz, 110V/50Hz, 24V/50Hz, 48V=, 24V=, 12V=.

**MNK** with manual override to push with solenoid operators 24V=, 12V=, 6V=.

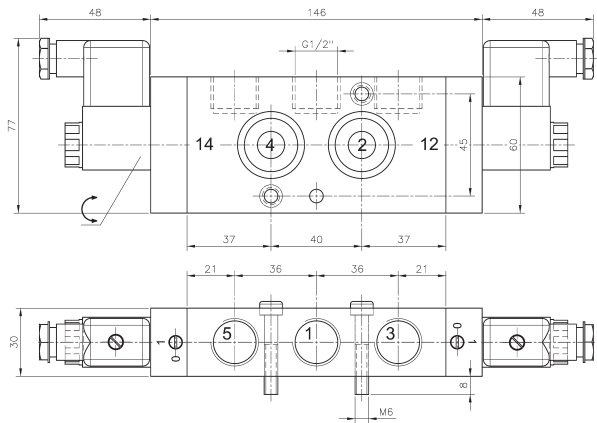
Delivery includes 1 pin, 2 screws, 2 O-rings.



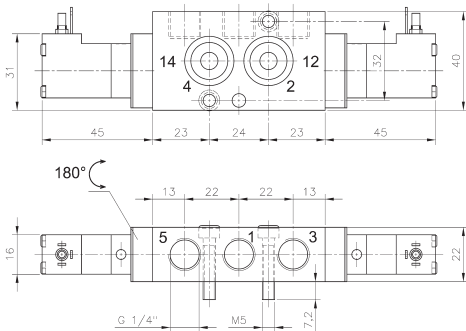
**MNH 520 701/MNH 520 701 NPT**



**MNH 520 101**



**MNH 520 121/MNH 520 121 NPT**

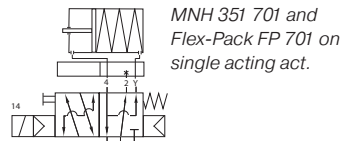
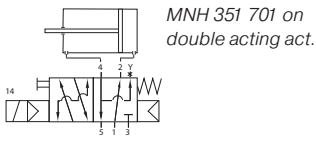
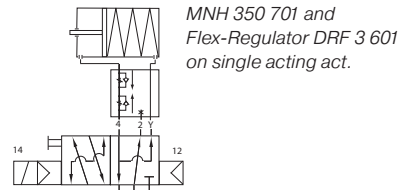
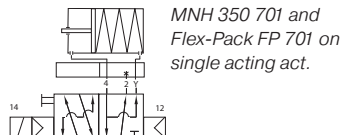
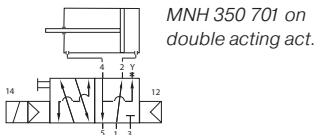


**MNK 520 701**

Type	NAMUR	Port size	Air flow	Operating press.	Power consumption	Weight
MNH 520 701	1/4"	G 1/4"	1250 l/min	2 - 10 bar	3 W = / 5 VA ~	0,35 kg
MNH 520 101	1/4"	G 3/8"	2250 l/min	1,5 - 10 bar	3 W = / 5 VA ~	0,84 kg
MNH 520 121	1/2"	G 1/2"	3000 l/min	1 - 10 bar	3 W = / 5 VA ~	0,87 kg
MNK 520 701	1/4"	G 1/4"	1250 l/min	2 - 10 bar	1,8 W = / 3 VA ~	0,31 kg
MNH 520 701 NPT	1/4"	1/4" NPT	1250 l/min	1,5 - 10 bar	3 W = / 5 VA ~	0,35 kg
MNH 520 121 NPT	1/2"	1/2" NPT	3000 l/min	1 - 10 bar	3 W = / 5 VA ~	0,87 kg



# NAMUR-Flex



5/2-way solenoid valve, actuated by permanent signal. Interface according to 1/4" NAMUR-standard. Adding the „Flex-Pack“, converts the valve into a 3/2-way NAMUR-valve with exhaust-air recirculation (“purge”).

MNH 350 701 with pneumatic spring return, MNH 351 701 with combined spring.

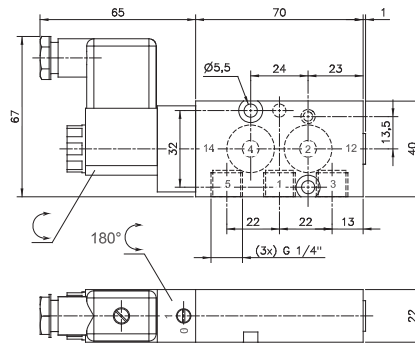
Valves are available with solenoid operators: 230V/50Hz, 110V/50Hz, 24V/50Hz, 48V=, 24V=, 12V=

Valves are generally equipped with manual override.

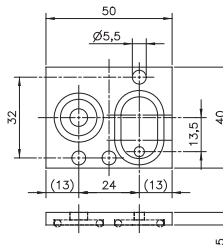
Delivery of valve includes 1 pin, 2 screws, 2 O-rings.

Instead of the Flex-Pack the „Flex-regulator“ Type DRF 601 converts the function of the valve and offers the possibility to control opening- and closing-speed of a spring-return actuator independently.

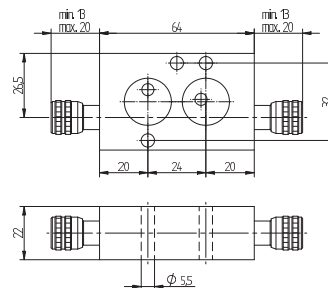
Delivery of FP 701 and DRF 3 601 includes longer screws and seals. DRF 3 601 also includes a plug to close port 3 of the valve.



**MNH 350 701/MNH 351 701**  
**MNH 350 701 NPT/MNH 351 701 NPT**



**FP 701 A**



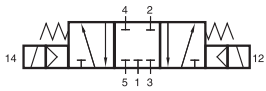
**DRF 3 601**

Type	Material	Orifice 4	Orifice 2-3	Weight
FP 701 A	alu	7 mm	4 mm	0,016 kg
DRF 3 601	alu + brass	0,5 - 6 mm	4 mm	0,18 kg

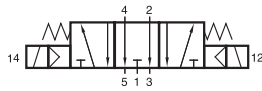
Type	Port size	Air flow	Operating press.	Power consumption	Weight
MNH 350 701	G 1/4"	1250 l/min	2 - 10 bar	3 W = / 5 VA ~	0,26 kg
MNH 351 701	G 1/4"	1250 l/min	2,5 - 10 bar	3 W = / 5 VA ~	0,26 kg
MNH 350 701 NPT	1/4" NPT	1250 l/min	2 - 10 bar	3 W = / 5 VA ~	0,26 kg
MNH 351 701 NPT	1/4" NPT	1250 l/min	2,5 - 10 bar	3 W = / 5 VA ~	0,26 kg



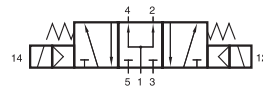
# MNH 531 701/MNH 532 701/MNH 533 701 MNH 531 101/MNH 531 121/MNK 531 701



MNH 531 701  
MNH 531 101  
MNH 531 121  
MNK 531 701  
MNH 531 701 NPT  
MNH 531 121 NPT



MNH 532 701



MNH 533 701



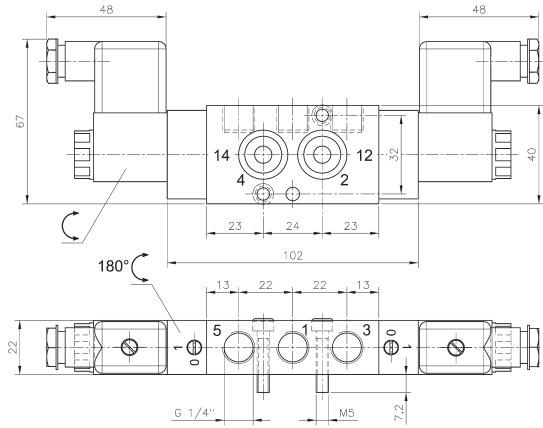
5/3-way solenoid valve with spring return to middle position.  
Interface according to NAMUR-standard.

- Type 531 centre closed
- Type 532 centre exhausted
- Type 533 centre pressurised

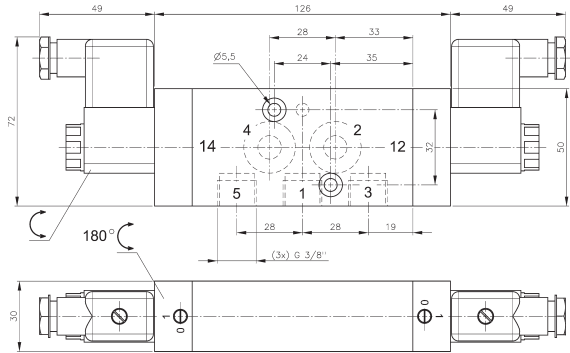
**MNH** generally with manual override to turn with solenoid operators 230V/50Hz, 110V/50Hz, 24V/50Hz, 48V=, 24V=, 12V=.

**MNK** with manual override to push with solenoid operators 24V=, 12V=, 6V=.

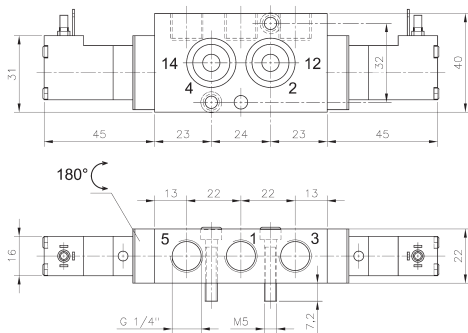
Delivery includes 1 pin, 2 screws and 2 O-rings.



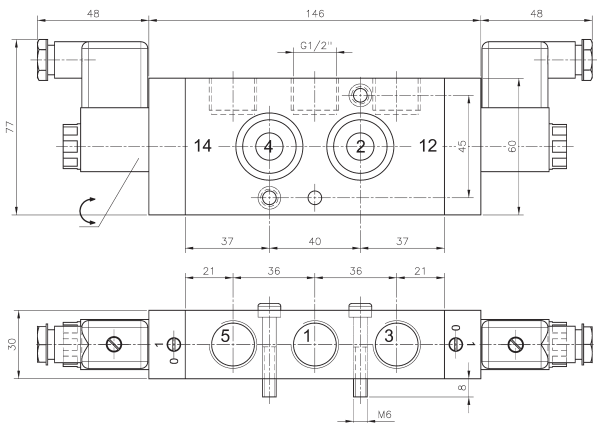
**MNH 53\_701/MNH 531 701 NPT**



**MNH 531 101**



**MNK 531 701**

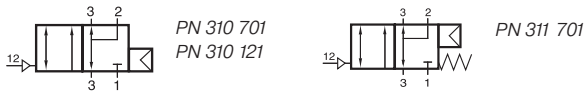


**MNH 531 121/MNH 531 121 NPT**

Type	NAMUR	Port size	Air flow	Operating press.	Power consumption	Weight
MNH 53_701	1/4"	G 1/4"	1250 l/min	3 - 10 bar	3 W = / 5 VA ~	0,36 kg
MNH 531 101	1/4"	G 3/8"	2250 l/min	3 - 10 bar	3 W = / 5 VA ~	0,84 kg
MNH 531 121	1/2"	G 1/2"	3000 l/min	1 - 10 bar	3 W = / 5 VA ~	0,87 kg
MNK 531 701	1/4"	G 1/4"	1250 l/min	3 - 10 bar	1,8 W = / 3 VA ~	0,32 kg
MNH 531 701 NPT	1/4"	1/4" NPT	1250 l/min	3 - 10 bar	3 W = / 5 VA ~	0,36 kg
MNH 531 121 NPT	1/2"	1/2" NPT	3000 l/min	1 - 10 bar	3 W = / 5 VA ~	0,87 kg



# PN 310 701/PN 311 701/PN 310 121



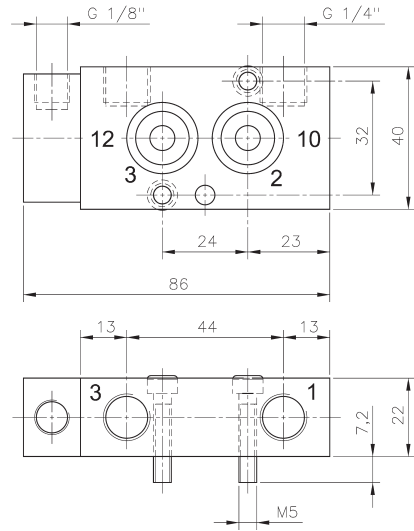
Pneumatically actuated 3/2-way spool valve. Interface according to NAMUR-standard with exhaust recirculation („purge“).

PN 310 701 and PN 310 121 with pneumatic spring. For valves with pure pneumatic spring operating and actuation pressure should be at the same level.  
 PN 311 701 with combined mechanical and pneumatic spring return.

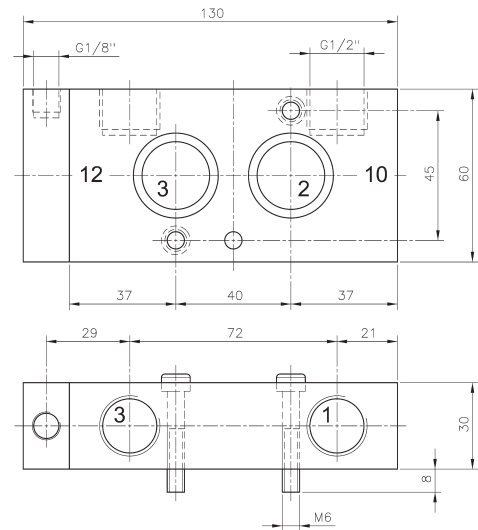
- Port sizes type 701: 1 and 3: G 1/4"
- 12: G 1/8"
  
- Port sizes type 121: 1 and 3: G 1/2"
- 12: G 1/8"

Delivery includes 1 pin, 2 screws, 2 O-rings.

*NPT ported valves are available on request.*



**PN 310 701/PN 311 701**

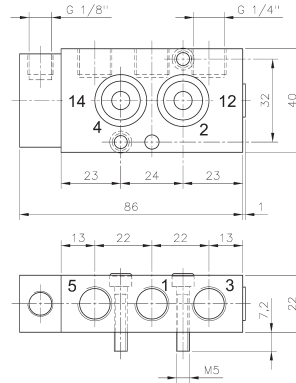
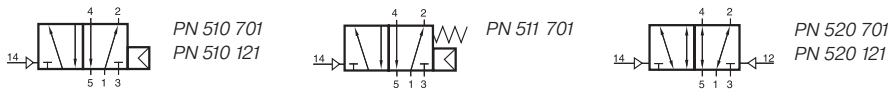


**PN 310 121**

Type	NAMUR	Port size	Air flow	Operating press.	Actuation press.	Weight
PN 310 701	1/4"	G 1/4" - G 1/8"	1250 l/min	2 - 10 bar	the same	0,20 kg
PN 311 701	1/4"	G 1/4" - G 1/8"	1250 l/min	3 - 10 bar	3 - 10 bar	0,20 kg
PN 310 121	1/2"	G 1/2" - G 1/8"	3000 l/min	1 - 10 bar	the same	0,62 kg



# PN 510 701/PN 511 701/PN 510 121 PN 520 701/PN 520 121



**PN 510 701/PN 511 701**

Pneumatically actuated 5/2-way spool valve. Interface according to NAMUR-standard.

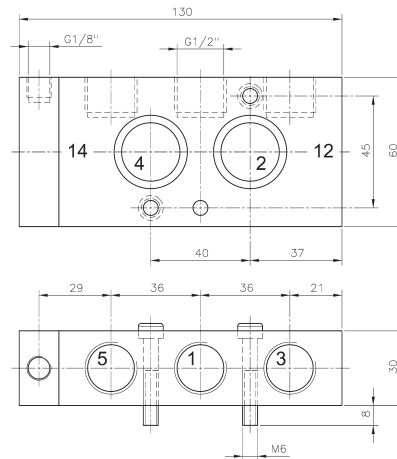
PN 510 701 and PN 510 121 with pneumatic spring. For valves with pure pneumatic spring operating and actuation pressure should be at the same level. PN 511 701 with combined mechanical and pneumatic spring return. PN 520 with double pilot.

Port sizes type 701: 1, 3 and 5: G 1/4"  
12 and 14: G 1/8"

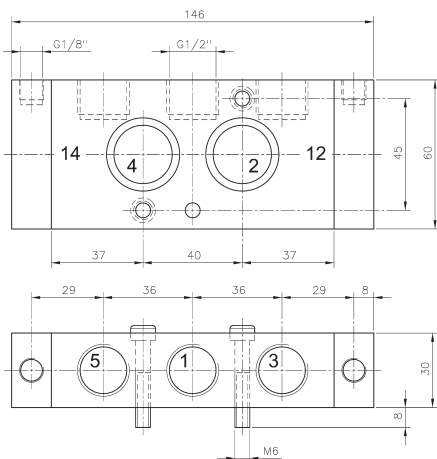
Port sizes type 121: 1, 3 and 5: G 1/2"  
12 and 14: G 1/8"

Delivery includes 1 pin, 2 screws, 2 O-rings.

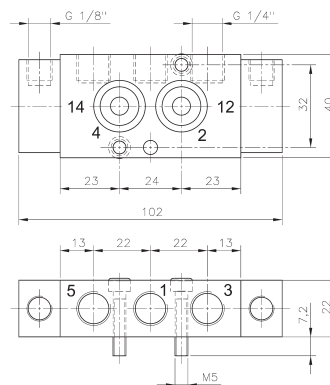
*NPT ported valves are available on request.*



**PN 510 121**



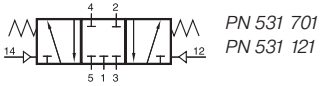
**PN 520 121**



**PN 520 701**

Type	NAMUR	Port size	Air flow	Operating press.	Actuating press.	Weight	
PN 510 701	1/4"	G 1/4" - G 1/8"	1250 l/min	2 - 10 bar	the same	0,19 kg	Ex 316
PN 511 701	1/4"	G 1/4" - G 1/8"	1250 l/min	3 - 10 bar	3 - 10 bar	0,19 kg	316
PN 510 121	1/2"	G 1/2" - G 1/8"	3000 l/min	1 - 10 bar	the same	0,60 kg	Ex
PN 520 701	1/4"	G 1/4" - G 1/8"	1250 l/min	1 - 10 bar	2 - 10 bar	0,22 kg	Ex 316
PN 520 121	1/2"	G 1/2" - G 1/8"	3000 l/min	1 - 10 bar	1 - 10 bar	0,67 kg	Ex

# PN 531 701/PN 531 121



Pneumatically actuated 5/3-way spool valve with spring return to middle position, centre closed. Interface according to NAMUR-standard.

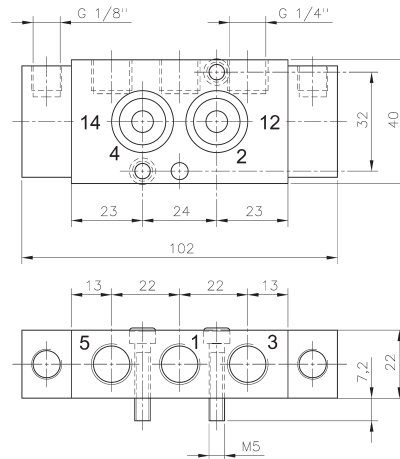
Port sizes type 701: 1, 3 and 5: G 1/4"  
12 and 14: G 1/8"

Port sizes type 121: 1, 3 and 5: G 1/2"  
12 and 14: G 1/8"

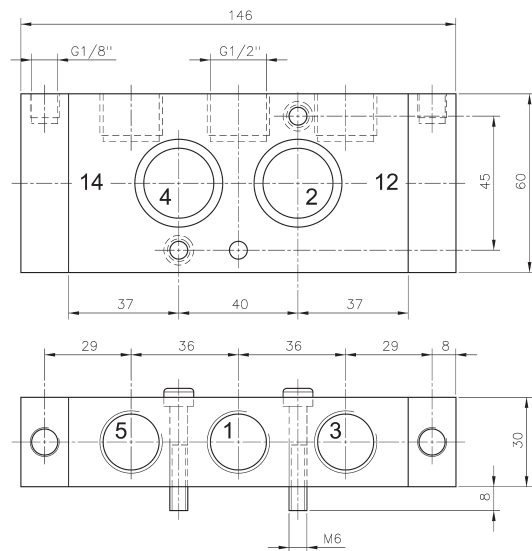
Other 5/3-way versions (centre exhausted or pressurised) are available on request.

Delivery includes 1 pin, 2 screws, 2 O-rings.

*NPT ported valves are available on request.*



**PN 531 701**

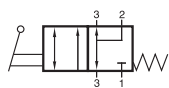


**PN 531 121**

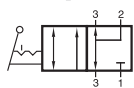
Type	NAMUR	Port size	Air flow	Operating press.	Actuation press.	Weight
PN 531 701	1/4"	G 1/4" - G 1/8"	1250 l/min	1 - 10 bar	3 - 10 bar	0,22 kg
PN 531 121	1/2"	G 1/2" - G 1/8"	3000 l/min	1 - 10 bar	3 - 10 bar	0,67 kg



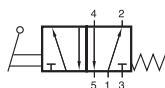
# HVN 311 701/HVRN 320 701 HVN 511 701/HVRN 520 701



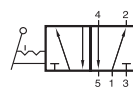
HVN 311 701



HVRN 320 701



HVN 511 701



HVRN 520 701



Lever actuated spool valves with interface according to 1/4" NAMUR- standard.

4 versions are offered:

HVN 311 701 3/2-way, normally closed with spring return

HVRN 320 701 3/2-way, indexed

HVN 511 701 5/2-way with spring return

HVRN 520 701 5/2-way indexed

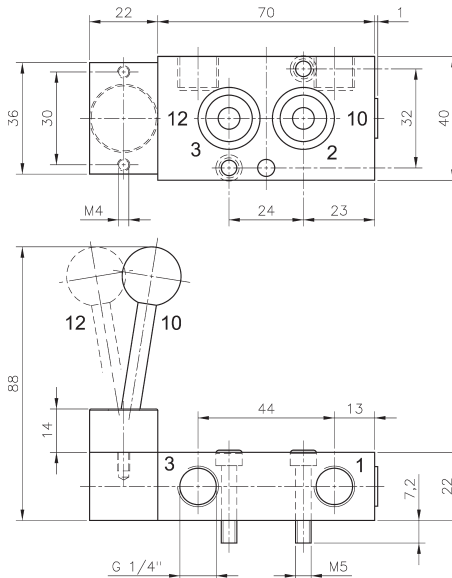
3/2-way valves offer exhaust air recirculation („purge“).

The lever is sealed by using a metal ball.

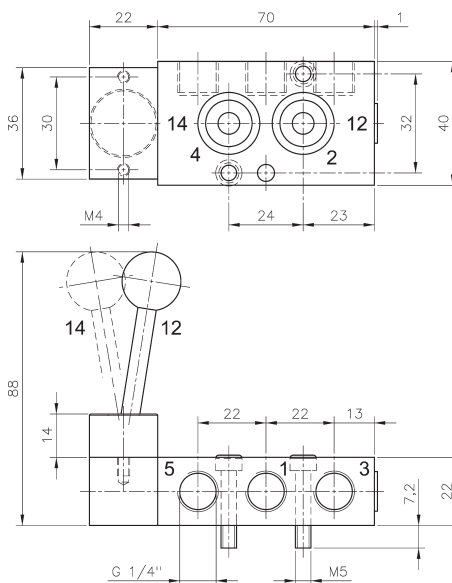
Exhaust can be throttled.

Delivery includes 1 pin, 2 screws, 2 O-rings.

*NPT ported versions and 5/3-way valves are available on request.*



**HVN 311 701/HVRN 320 701**



**HVN 511 701/HVRN 520 701**

Type	Function	Port size	Air flow	Operating press.	Actuating force	Weight
HVN 311 701	3/2-way spring	G 1/4"	1250 l/min	1 - 10 bar	20 N	0,24 kg
HVRN 320 701	3/2-way indexed	G 1/4"	1250 l/min	1 - 10 bar	20 N	0,24 kg
HVN 511 701	5/2-way spring	G 1/4"	1250 l/min	1 - 10 bar	20 N	0,24 kg
HVRN 520 701	5/2-way indexed	G 1/4"	1250 l/min	1 - 10 bar	20 N	0,24 kg