



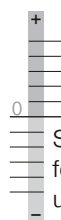
# 2.9

## 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.  
Temperature-range: - 50° C to + 50° C.  
For detailed information refer to chapter 2.11.



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



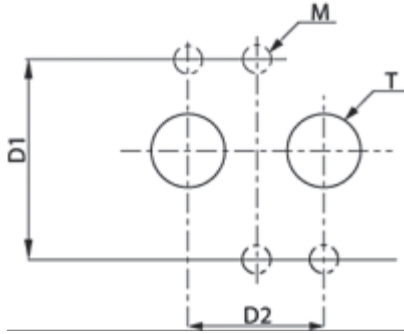
Selected models are available in stainless steel.  
For detailed information refer to chapter 2.12.

Selected models are available for explosion hazardous environment. They are ATEX-Ex certified.  
For detailed information refer to chapter 2.14.

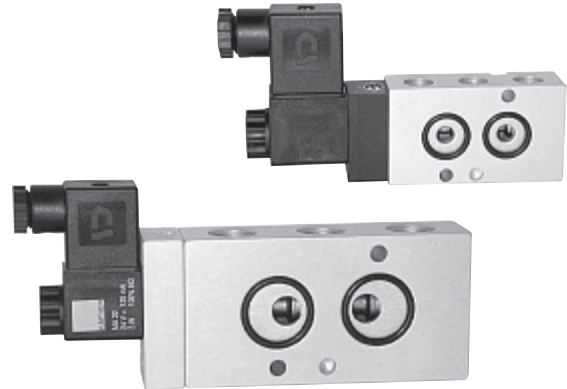


# General information: Valves with the 1/4" and 1/2" NAMUR-interface and different flow rates

The Hafner NAMUR-valves are available with the 1/4" standard in accordance to VDI / VDE 3845 also called NAMUR 1 – as well as with the 1/2" standard – also called NAMUR 2.



NAMUR-standard: Drawing of the actuator flange



Notice: Difference between 1/4" – 1/8" and 1/2" – 3/8" is port-size and position as well as the size, position and depth of the fixing screws in the actuator. On actuators NAMUR 1 (G 1/8" and G 1/4") the same NAMUR-valves can be used. The same is true on NAMUR 2 (G 3/8" and G 1/2") where also the same NAMUR-valves fit.

Type	D1 (mm)	D2 (mm)	M (mm)
1/4" (1/8")	32	24	M5
1/2" (3/8")	45	40	M6

Hafner's target to offer valves with maximum flow leads to offer 3 sizes of NAMUR-valves.



**Series 701 / 711** Orifice size 7 1.250 l/min  
NAMUR-interface 1/4"  
Port size G 1/4" or 1/4" NPT



**Series 101** Orifice size 10 2.250 l/min  
NAMUR-interface 1/4"  
Port size G 3/8"



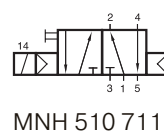
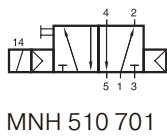
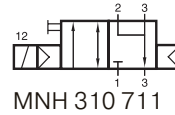
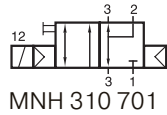
**Series 121** Orifice size 12 3.000 l/min  
NAMUR-interface 1/2"  
Port size G 1/2" or 1/2" NPT

For single solenoid valves we offer two different port-schemes. Use depends on actuator interface.

**2 port-schemes for 1/4" NAMUR-valves**

standard port-scheme

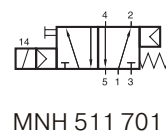
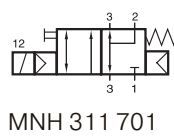
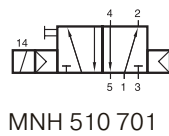
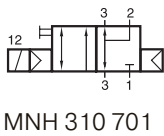
alternative port-scheme



Single solenoid and single pilot valves are available with air spring or combined (air and mechanical spring) return.

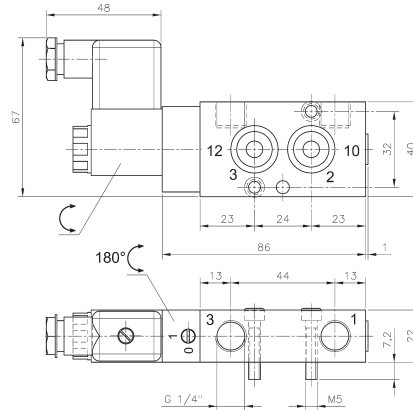
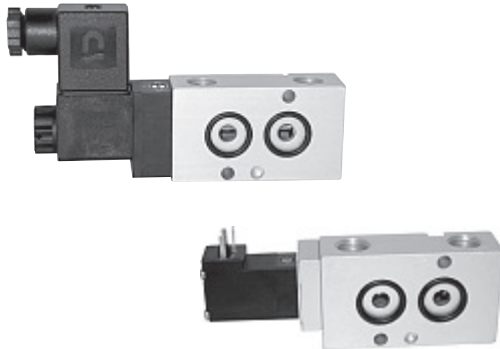
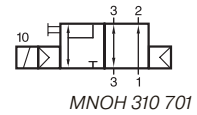
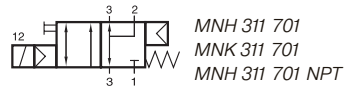
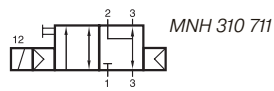
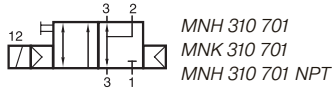
Valves with air spring return

Valves with combined spring return



Combined spring assures a **fail-safe function** in case of loss of air pressure. Also available in 1/2"-valves.

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



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

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

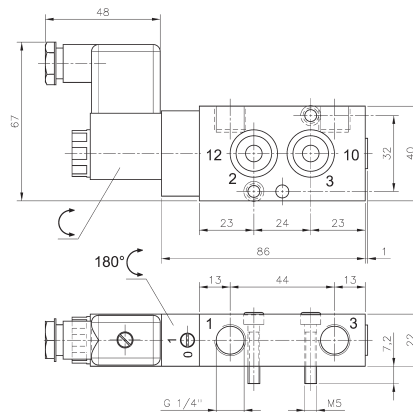
Type MNH 31\_7\_1 normally closed  
Type MNOH 31\_701 normally open  
Type MNK 31\_701 n.c. low power

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.

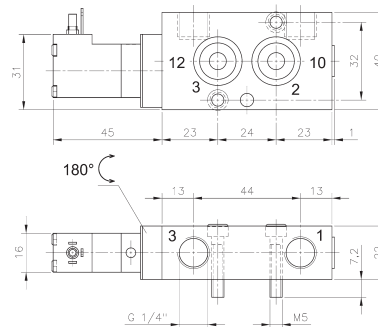
**MNH** generally with manual override to turn with solenoid operators 230V/50Hz, 110V/50Hz, 24V/50Hz, 48V=, 24V=, 12V=.

**MNK** with manual override to push with solenoid operators 230V/50Hz, 110V/50Hz, 24V/50Hz, 24V=, 12V=, 6V=

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



**MNH 310 711 ports 1 and 3 are swapped!**



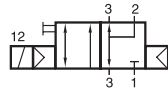
**MNK 310 701/MNK 311 701**

Type	Function	Port size	Air flow	Operating press.	Power cons.	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

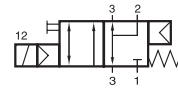




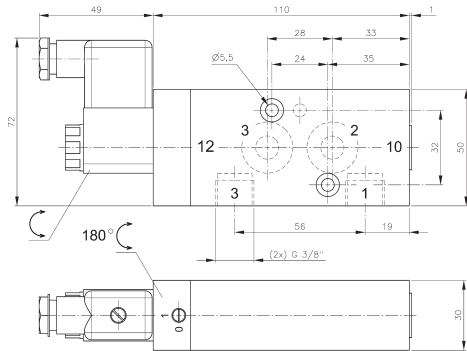
# MNH 310 101/MNH 311 101 MNH 310 121/MNH 311 121



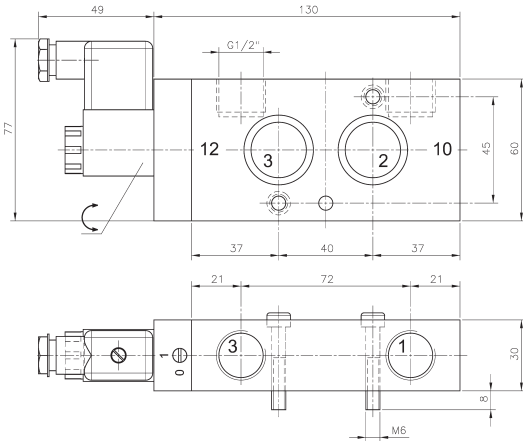
MNH 310 101  
MNH 310 121  
MNH 310 121 NPT



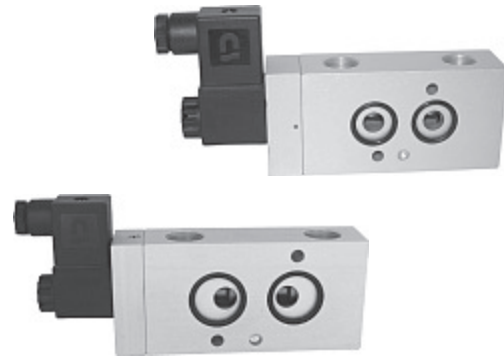
MNH 311 101  
MNH 311 121  
MNH 311 121 NPT



**MNH 310 101/MNH 311 101**



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



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:  
230V/50Hz, 110V/50Hz, 24V/50Hz, 48V=,  
24V=, 12V=.

The valves are generally equipped with manual override to turn.

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

Type	NAMUR Port size	Air flow	Operating press.	Power cons.	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