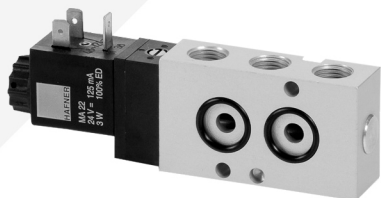
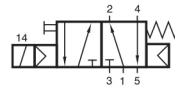
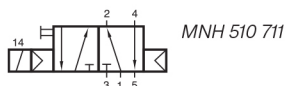


NAMUR VALVE

ACCESSORIES AND DEVICES

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



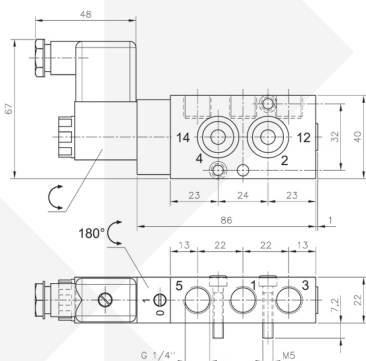
5/2-way solenoid valve, actuated by permanent signal. Interface according to 1/4" NAMUR-standard.

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

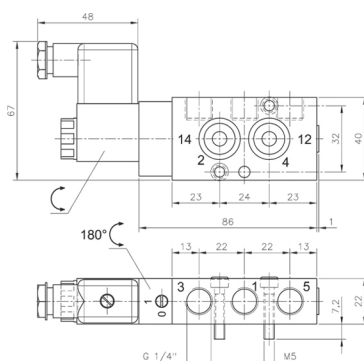
MNH generally with manual override to turn with solenoid operators 230V/50Hz, 110V/50Hz, 24V/50Hz, 48V=, 24V=, 12V=.

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

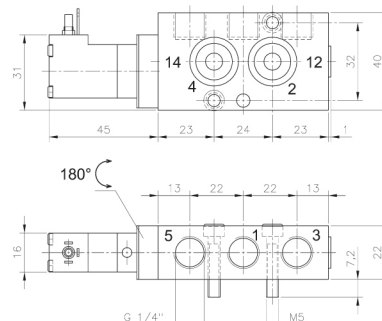
Delivery includes 1 pin, 2 screws, 2 O-rings.



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



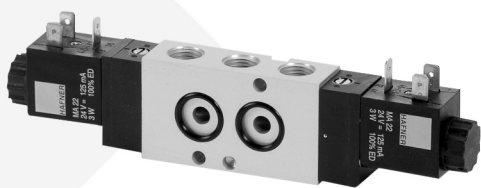
MNH 510 711/MNH 511 711
ports 2,4,3,5 are swapped!



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



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

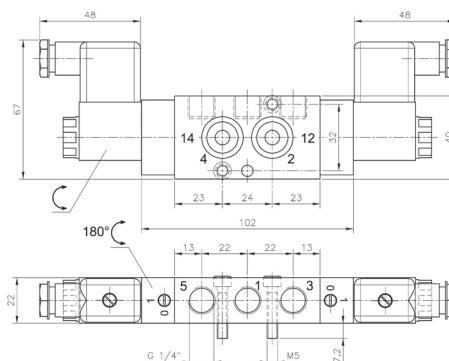
MNK with manual override to push with solenoid operators 230V/50Hz, 110V/50Hz, 24V/50Hz, 24V=, 12V=, 6V=.

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

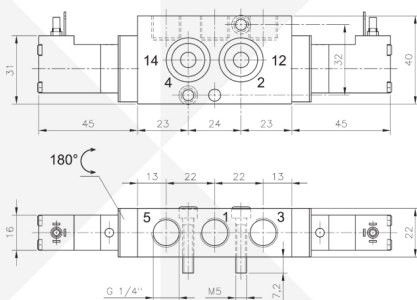


MNH 520 701
MNH 520 101
MNH 520 121
MNK 520 701
MNH 520 701 NPT
MNH 520 121 NPT

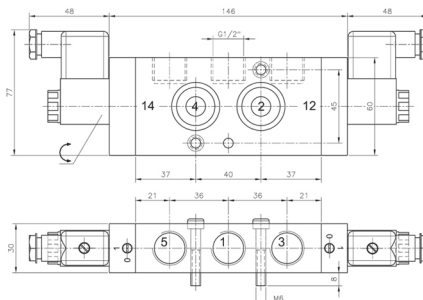
5/2-way solenoid valve actuated by impulse. Position is kept until next electrical signal even when not attached to electrical source. Interface according to NAMUR-standard.



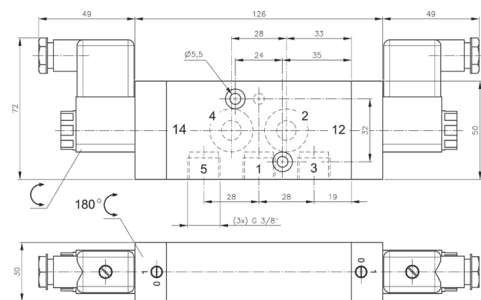
MNH 520 701/MNH 520 701 NPT



MNK 520 701



MNH 520 121/MNH 520 121 NPT



MNH 520 101

Type	NAMUR Port size	Air flow	Operating press.	Power cons.	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 1,0 - 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 1,0 - 10 bar	3 W = / 5 VA ~	0,87 kg

Solenoid valves for explosion hazardous environment

General information – overview

Our customers have the choice between numerous solenoid systems of different ignition protection types. Those can be combined with valves made from aluminum or stainless steel designed for different temperature classes.

Valve	Temp.-range	Ignition protection type		
		Ex na (non-sparking)	Ex ia (intrinsically safe)	Ex m (encapsulation)
Aluminum	-10°C ... + 50°C	✓	✓	✓
Stainless steel	-10°C ... + 50°C	✓	✓	✓
Aluminum	-40°C ... + 50°C ❄️	n.a.	✓	n.a.
Stainless steel	-40°C ... + 50°C ❄️	n.a.	✓	n.a.
Zone		2, 22	1, 21, 2, 22	1, 21, 2, 22
IEC-Ex rated			✓	✓
Reference:		2.14.3.4.3	2.14.3.3.5	2.14.3.2.4
Valve	Temp.-range	Ignition protection class		
		Ex e mb (encapsulation with junction box)	Ex dm (encapsulation with junction box)	Ex d (flameproof with junction box)
Aluminum	-10°C ... + 50°C	✓	✓	✓
Stainless steel	-10°C ... + 50°C	✓	✓	✓
Aluminum	-40°C ... + 50°C ❄️	✓	✓	✓
Stainless steel	-40°C ... + 50°C ❄️	✓	✓	✓
Zone		1, 21, 2, 22	1, 21, 2, 22	1, 21, 2, 22
IEC-Ex rated		✓		✓
Reference:		2.14.3.5.4	2.14.3.7.5	2.14.3.6.5

MA 22 EEx m II T4

When this solenoid system is used in combination with „ATEX certified“ mechanical components conforming EN 13463-1:2001 and PrEN 13463-5:2000, the entire valve can be used in explosive hazardous environment zone 1, 2, 21 and 22.

ATEX approved encapsulated coils for gas and dust explosion-hazardous environment.

System is also IEC-Ex approved.

The standard cable length is 3 meter, others on request.

Voltage tolerance: -10...+10 %

Relative duty cycle: 100 %

Temperature range: -20°...+50° C

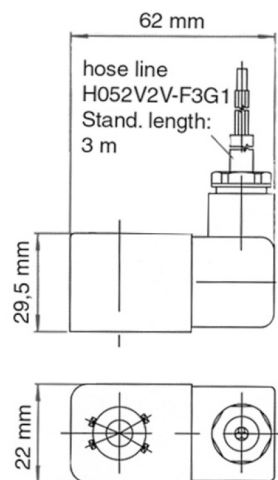
Insulation class of insulating materials according to DIN VDE 0580: F

Protection with mounted plug-in connector according to IEC 529: IP 65

Moulding material: Thermoplasticpolyester

Marking on coil: II 2G Ex mb IIC T4 Gb
II 2D Ex mb tb IIIC T130°C Db

The ATEX approval is only valid as long as the associated components are used.



MA 22 EEx m II T4

Type	Operating press.	Power consumption	Temperature class
MA 22 EEx M II T4 24=	max. 10 bar	5,0 Watt	T4 (135° C)
MA 22 EEx M II T4 110~	max. 10 bar	4,5 VA	T4 (135° C)
MA 22 EEx M II T4 230~	max. 10 bar	5,1 VA	T4 (135° C)

MA 22 EEx nA T5 24DC MA 30 EEx nA T6 24DC

When this solenoid system is used in combination with “ATEX certified” mechanical components conforming EN 13463-1:2001 and PrEN 13463-5:2000, the entire valve can be used in explosive hazardous environment zone 2 and 22.

ATEX approved non-sparking coil for gas and dust explosion-hazardous environment.

Coil:

Voltage tolerance: 24 V DC +/- 10 %

Relative duty cycle: 100 %

Temperature range: -15°... +50° C

Insulation class of insulating materials according to DIN VDE 0580: F

Protection with connector according to EN 60529: IP 65

Moulding material: Termoplasticpolyester

Marking on coil:

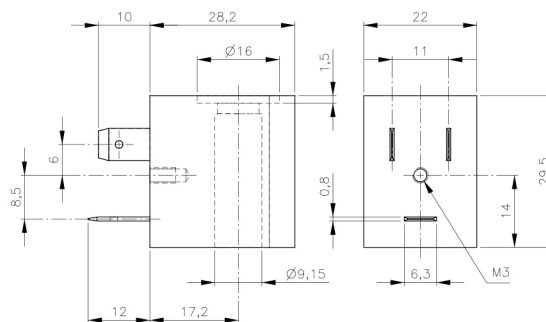
T5: II 3G Ex nA IIC T5 Gc
II 3D Ex tc IIIC 95°C Dc

T6: II 3G Ex nA IIC T6 Gc
II 3D Ex tc IIIC 80°C Dc

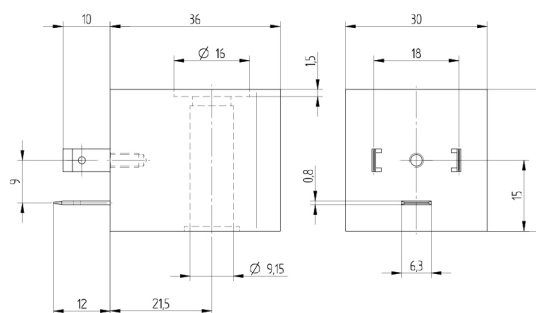
Delivery content without ATEX approved connector.

30 mm wide ATEX connector available, type ST 30 Ex nA.
22 mm wide ATEX connector available, type ST 22 Ex.
Please refer to page 2.14.5.1.

The ATEX approval is only valid as long as the associated components are used.



MA 22 EEx nA T5 24DC



MA 30 EEx nA T6 24DC

Type	Operating press.	Power cons.	Temp. class	Connection
MA 22 EEx nA T5 24DC	max. 10 bar	3,0 Watt	T5 (100° C)	Industry form B (DW 436 50)
MA 30 EEx nA T6 24DC	max. 10 bar	2,0 Watt	T6 (85° C)	Form A (ISO 4400)

Other voltages are available on request.

ST 22 Ex/ST 30 Ex ia/ST 30 Ex nA



Connectors as accessories for explosion-proof coils.

Type ST 22 Ex

Connector to be used in combination with MA 22 Ex nA. Connector is classified for zone 2 and 22 cat. IIG/D. Includes flat seal.

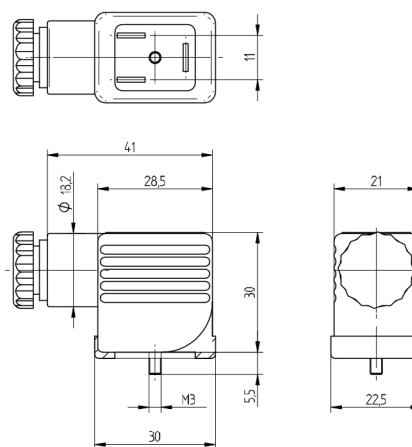
Type ST 30 Ex ia

Connector which is to be used in combination with the coil type MA 30 Ex ia tD II CT6 24DC. Connector has no separate ATEX certification. Connector is classified for zone 21, cat. IID. Can also be used in combination with intrinsically safe coils in zone 1 (cat. IIG). Includes flat silicon seal.

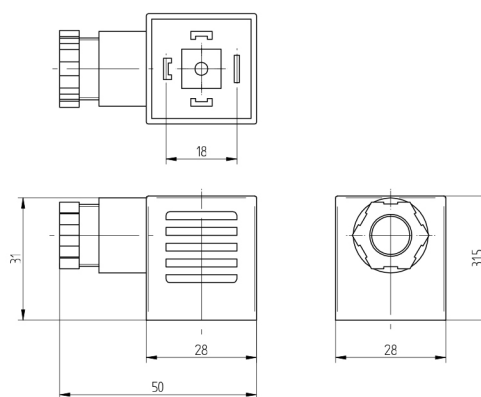
Type ST 30 Ex nA

Connector to be used in combination with MA 30 Ex nA. Connector is classified for zone 2 and 22, cat. IIIG and IIID. Includes profiled NBR seal.

Other connectors are available on request.



ST 22 Ex



ST 30 Ex ia / ST 30 Ex nA

Type	Form	LED	VAR	Operat. voltage	Max. current	Cable diameter
ST 22 Ex	Industrial	no	no	0 - 250 V	10 A	6 - 8 mm
ST 30 Ex ia	A, ISO 4400	no	no	0 - 250 V	10 A	6 - 8 mm
ST 30 Ex nA	A, ISO 4400	no	no	0 - 250 V	10 A	4 - 8 mm



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Note: We are engineering partner as a total system solution provider, VALBIA manufactures a range of components to ensure cost effective and reliable about quarter-turn actuators. As a comprehensive solution provider, We have great quality control procedures. The calculate various system designs and can work together perfectly. Finally we are fully committed to maintaining environment quality together.

VALBIA S.R.L., ITALY & **HAFNER-PNEUMATIK KRÄMER KG.**, GERMANY

Note: Only excellence allows to compete in the international market. The challenge can be faced thanks to the passion and the energy of the researchers, who plan and manufacture avant-garde quality and technology, a team which is perfectly integrated for providing total, customer satisfaction; we are ready!

To ensure the quality and technical standards at the highest level, the manufacturer reserves the right to alter the specifications without notice. This documentation supersedes and replaces all previous editions. / Hafner-Pneumatik is the manufacturer of a complete range of high-quality pneumatic control valves made in Europe.

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