

Distributeurs pneumatiques ATEX pour ambiances explosibles EEx m - Corps aluminium - Plage de température standard



Material: Aluminum, anodized
 Zone: 1, 2, 21, 22
 Temperature range: -10°C ... +50°C
 Ignition protection type: Ex m (encapsulation)
 Temperature class: T4

Marking on valve

A low temperature version for -20°C ... +50°C is also available on request. Please note that the system is restricted by the minimum ambient temperature for the coil of -20°C.

The following solenoid valves are available:

Type	Function	Port size	Installation
MH 210 501 Ex m	2/2-way, single sol.	G 1/8"	in-line
MH 210 701 Ex m	2/2-way, single sol.	G 1/4"	in-line
MH 311 012 Ex m	3/2-way direct acting	M5	in-line
MH 311 015 Ex m	3/2-way direct acting	G 1/8"	in-line
MH 311 013 Ex m	3/2-way direct acting	G 1/8"	banjo screw
MH 311 017 Ex m	3/2-way direct acting	G 1/4"	banjo screw
MH 312 Ex m	3/2-way direct acting	M5	manifold
MH 315 Ex m	3/2-way direct acting	G 1/8"	manifold
MH 310 501 Ex m	3/2-way, single sol.	G 1/8"	in-line
MOH 310 501 Ex m	3/2-way, n.o. single sol.	G 1/8"	in-line
MH 310 701 Ex m	3/2-way, single sol.	G 1/4"	in-line
MOH 310 701 Ex m	3/2-way, n.o. single sol.	G 1/4"	in-line
MH 310 801 Ex m	3/2-way, single sol.	G 1/4"	in-line
MOH 310 801 Ex m	3/2-way, n.o. single sol.	G 1/4"	in-line
MH 310 101 Ex m	3/2-way, single sol.	G 3/8"	in-line
MOH 310 101 Ex m	3/2-way, n.o. single sol.	G 3/8"	in-line
MH 310 121 Ex m	3/2-way, single sol.	G 1/2" - 1/2" NPT	in-line
MOH 310 121 Ex m	3/2-way, n.o. single sol.	G 1/2" - 1/2" NPT	in-line
MH 310 501 G Ex m	3/2-way, single sol.	G 1/8"	dual use*
MOH 310 501 G Ex m	3/2-way, n.o. single sol.	G 1/8"	dual use*
MH 310 701 G Ex m	3/2-way, single sol.	G 1/4" - 1/4" NPT	dual use*
MOH 310 701 G Ex m	3/2-way, n.o. single sol.	G 1/4" - 1/4" NPT	dual use*
MH 310 101 G Ex m	3/2-way, single sol.	G 3/8"	dual use*
MOH 310 101 G Ex m	3/2-way, n.o. single sol.	G 3/8"	dual use*
MH 310 121 G Ex m	3/2-way, single sol.	G 1/2"	dual use*
MOH 310 121 G Ex m	3/2-way, n.o. single sol.	G 1/2"	dual use*
MH 320 501 Ex m	3/2-way, double sol.	G 1/8"	in-line
MH 320 701 Ex m	3/2-way, double sol.	G 1/4"	in-line
MH 320 801 Ex m	3/2-way, double sol.	G 1/4"	in-line
MH 320 101 Ex m	3/2-way, double sol.	G 3/8"	in-line
MH 320 121 Ex m	3/2-way, double sol.	G 1/2"	in-line
MH 320 501 G Ex m	3/2-way, double sol.	G 1/8"	dual use*
MH 320 701 G Ex m	3/2-way, double sol.	G 1/4"	dual use*
MH 320 101 G Ex m	3/2-way, double sol.	G 3/8"	dual use*
MH 320 121 G Ex m	3/2-way, double sol.	G 1/2"	dual use*
MH 510 501 Ex m	5/2-way, single sol.	G 1/8"	in-line
MH 510 701 Ex m	5/2-way, single sol.	G 1/4"	in-line
MH 510 801 Ex m	5/2-way, single sol.	G 1/4"	in-line
MH 510 101 Ex m	5/2-way, single sol.	G 3/8"	in-line
MH 510 121 Ex m	5/2-way, single sol.	G 1/2" - 1/2" NPT	in-line
MH 510 501 G Ex m	5/2-way, single sol.	G 1/8"	dual use*
MH 510 701 G Ex m	5/2-way, single sol.	G 1/4" - 1/4" NPT	dual use*
MH 510 101 G Ex m	5/2-way, single sol.	G 3/8"	dual use*
MH 510 121 G Ex m	5/2-way, single sol.	G 1/2"	dual use*

Type	Function	Port size	Installation
MH 510 504 Ex m	5/2-way, single sol.	5 mm orifice	manifold**
MH 510 704 Ex m	5/2-way, single sol.	7 mm orifice	manifold**
MH 520 501 Ex m	5/2-way, double sol.	G 1/8"	in-line
MH 520 701 Ex m	5/2-way, double sol.	G 1/4"	in-line
MH 520 801 Ex m	5/2-way, double sol.	G 1/4"	in-line
MH 520 101 Ex m	5/2-way, double sol.	G 3/8"	in-line
MH 520 121 Ex m	5/2-way, double sol.	G 1/2" - 1/2" NPT	in-line
MH 520 501 G Ex m	5/2-way, double sol.	G 1/8"	dual use*
MH 520 701 G Ex m	5/2-way, double sol.	G 1/4" - 1/4" NPT	dual use*
MH 520 101 G Ex m	5/2-way, double sol.	G 3/8"	dual use*
MH 520 121 G Ex m	5/2-way, double sol.	G 1/2"	dual use*
MH 520 504 Ex m	5/2-way, double sol.	5 mm orifice	manifold**
MH 520 704 Ex m	5/2-way, double sol.	7 mm orifice	manifold**
MH 53_ 501 Ex m	5/3-way, diff. versions	G 1/8"	in-line
MH 53_ 701 Ex m	5/3-way, diff. versions	G 1/4"	in-line
MH 53_ 801 Ex m	5/3-way, diff. versions	G 1/4"	in-line
MH 53_ 101 Ex m	5/3-way, diff. versions	G 3/8"	in-line
MH 53_ 121 Ex m	5/3-way, diff. versions	G 1/2" - 1/2" NPT	in-line
MH 53_ 501 G Ex m	5/3-way, diff. versions	G 1/8"	dual use*
MH 53_ 701 G Ex m	5/3-way, diff. versions	G 1/4" - 1/4" NPT	dual use*
MH 53_ 101 G Ex m	5/3-way, diff. versions	G 3/8"	dual use*
MH 53_ 121 G Ex m	5/3-way, diff. versions	G 1/2"	dual use*
MH 53_ 504 Ex m	5/3-way, diff. versions	5 mm orifice	manifold**
MH 53_ 704 Ex m	5/3-way, diff. versions	7 mm orifice	manifold**

Valves with interface according to NAMUR-standard

MNH 350 701 Ex m	3/2-way & 5/2-way	G 1/4" - 1/4" NPT	1/4" NAMUR
MNH 310 701 Ex m	3/2-way, single sol.	G 1/4" - 1/4" NPT	1/4" NAMUR
MNH 310 711 Ex m	3/2-way, single sol.	G 1/4"	1/4" NAMUR
MNH 310 121 Ex m	3/2-way, single sol.	G 1/2" - 1/2" NPT	1/2" NAMUR
MNH 510 701 Ex m	5/2-way, single sol.	G 1/4" - 1/4" NPT	1/4" NAMUR
MNH 510 711 Ex m	5/2-way, single sol.	G 1/4"	1/4" NAMUR
MNH 510 121 Ex m	5/2-way, single sol.	G 1/2" - 1/2" NPT	1/2" NAMUR
MNH 520 701 Ex m	5/2-way, double sol.	G 1/4" - 1/4" NPT	1/4" NAMUR
MNH 520 121 Ex m	5/2-way, double sol.	G 1/2" - 1/2" NPT	1/2" NAMUR
MNH 53_ 701 Ex m	5/3-way, diff. versions	G 1/4" - 1/4" NPT	1/4" NAMUR
MNH 53_ 121 Ex m	5/3-way, diff. versions	G 1/2" - 1/2" NPT	1/2" NAMUR

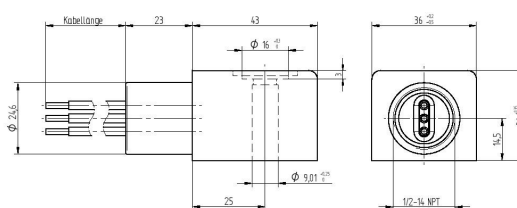
* dual use valves can either be used in-line or on a manifold plate.
 ** all ports in plate

Delivery contains valve with the appropriate operator system, coil, manual and declaration of conformity.

MA 36 EEx m II T4 CSA FM

CSA / FM approved encapsulated coils for gas and dust explosion-hazardous environment with 60 cm flying leads.

Voltage:	Delivery on request: 12VDC, 24VDC, 110VAC, 220VAC, 240VAC
Voltage tolerance:	- 10...+ 10%
Relative duty cycle:	100 %
Temperature range:	-20°C ... +60°C
Protection according to EN 60529:	IP 65
Material solenoid coil:	Thermoplasticpolyester
Coil rating according to DIN VDE 0580:	Class H
Conduit:	1/2" NPT



MA 36 EEx m II T4 CSA FM

As the coil is 36 mm wide, a spacer plate called "ZPN 8" has to be used, in case of combination with our NAMUR-valve series 700. If used with NAMUR-valve series 121 a spacer plate called "ZPN 6-5" has to be used. You can find both plates on page 2. 10. 16.

CSA/FM approval is only valid as long as the associated components are used.

Please note:
The coil is not approved according to ATEX.

Hazardous Locations:

Ex m II T4 and Division 1

Specifications in accordance to CSA certificate:
Class I, Division 1, Groups A, B, C and D; Class II, Groups E, F and G; Class III
Class I, Division 2, Groups A, B, C, D.

Specifications in accordance to FM certificate:
Explosion-proof Class I, Division 1, Groups A, B, C, D, T4, Ta = 60 °C
encapsulation/explosion-proof Class I, Zone 1, AEx m II T4, Ta = 60 °C
dust-ignition-proof for Class II/III, Division 1, Groups E, F and G, T4, Ta = 60 °C
Nonincendive Class I, Division 2, Groups A, B, C, D, T4, Ta = 60 °C
Suitable for Class II, III, Division 2, Groups E, F, G, T4, Ta = 60 °C

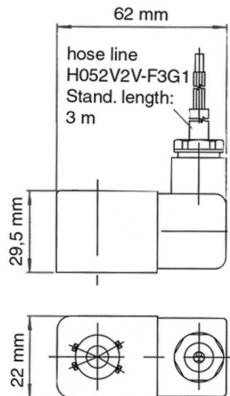
The current standards can be found in the certificates.

Type	Voltage	Operating press.	Power cons.	Temperature class
MA 36 EEx M II T4 CSA FM 12DC	12 V=	max. 10 bar	4,5 Watt	T4 (135° C)
MA 36 EEx M II T4 CSA FM 24DC	24 V=	max. 10 bar	4,6 Watt	T4 (135° C)
MA 36 EEx M II T4 CSA FM 110AC	110 V~	max. 10 bar	6,8 VA	T4 (135° C)
MA 36 EEx M II T4 CSA FM 220AC	220 V~	max. 10 bar	7,7 VA	T4 (135° C)
MA 36 EEx M II T4 CSA FM 240AC	240 V~	max. 10 bar	7,7 VA	T4 (135° C)

**Bobines EEx m - Spécifications - Largeur 22 mm - Avec câble de 3 m de longueur
(autres longueurs sur demande)**

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.



MA 22 EEx m II T4



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.

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