

ATEX-approved valves – Ex d – standard temperature range – aluminum



Material: Aluminum, anodized
 Zone: 1, 2, 21, 22
 Temperature range: -10°C ... +50°C
 Ignition protection type: Ex d – flameproof
 Temperature class: T6 (solenoid)

Marking on valve

CE Ex II 2 G Ex h IIC T6 Gb
 -10°C ≤ Ta ≤ +50°C
 CE Ex II 2 D Ex h IIIC T80°C
 Db -10°C ≤ Ta ≤ +50°C

The following solenoid valves are available:

Type	Function	Port size	Installation	Further inform. on valve
MH 311 017 24DC Ex d M	3/2-way, direct acting	G 1/8"	banjo screw G 1/4"	2.15.4.1
MH 311 018 24DC Ex d m	3/2-way, direct acting	G 1/4"	in-line	2.15.4.1
MC 210 501 Ex	2/2-way, single sol.	G 1/8"	in-line	2.5.1.1.9
MC 210 701 Ex	2/2-way, single sol.	G 1/4"	in-line	2.5.1.1.9
MC 310 501 G Ex	3/2-way, single sol.	G 1/8"	in-line	2.5.1.1.10
MOC 310 501 G Ex	3/2-way, n.o. single sol.	G 1/8"	in-line	2.5.1.1.10
MC 310 701 G Ex	3/2-way, single sol.	G 1/4" - 1/4" NPT	in-line	2.5.1.1.10
MOC 310 701 G Ex	3/2-way, n.o. single sol.	G 1/4" - 1/4" NPT	in-line	2.5.1.1.10
MC 310 121 Ex	3/2-way, single sol.	G 1/2" - 1/2" NPT	in-line	2.5.1.1.11
MOC 310 121 Ex	3/2-way, n.o. single sol.	G 1/2" - 1/2" NPT	in-line	2.5.1.1.11
MC 510 501 G Ex	5/2-way, single sol.	G 1/8"	in-line	2.5.2.1.2
MC 510 701 G Ex	5/2-way, single sol.	G 1/4" - 1/4" NPT	in-line	2.5.2.1.2
MC 510 121 Ex	5/2-way, single sol.	G 1/2" - 1/2" NPT	in-line	2.5.2.1.3
MC 520 501 G Ex	5/2-way, double sol.	G 1/8"	in-line	2.5.2.1.5
MC 520 701 G Ex	5/2-way, double sol.	G 1/4" - 1/4" NPT	in-line	2.5.2.1.5
MC 520 121 Ex	5/2-way, double sol.	G 1/2" - 1/2" NPT	in-line	2.5.2.1.6
MC 53_ 501 G Ex	5/3-way, different versions	G 1/8"	in-line	2.5.3.1.2
MC 53_ 701 G Ex	5/3-way, different versions	G 1/4" - 1/4" NPT	in-line	2.5.3.1.2
MC 53_ 121 Ex	5/3-way, different versions	G 1/2" - 1/2" NPT	in-line	2.5.3.1.3

Valves with interface according to NAMUR-standard

MNC 350 701 Ex	3/2-way & 5/2-way	G 1/4" - 1/4" NPT	1/4" NAMUR	2.10.1.3
MNC 310 701 Ex	3/2-way, single sol.	G 1/4" - 1/4" NPT	1/4" NAMUR	2.10.1.1.1
MNC 311 701 Ex	3/2-way, comb. spring	G 1/4" - 1/4" NPT	1/4" NAMUR	2.10.1.1.1
MNC 310 711 Ex	3/2-way, single sol.	G 1/4"	1/4" NAMUR	2.10.1.1.1
MNC 310 121 Ex	3/2-way, single sol.	G 1/2" - 1/2" NPT	1/2" NAMUR	2.10.1.1.2
MNC 311 121 Ex	3/2-way, comb. spring	G 1/2" - 1/2" NPT	1/2" NAMUR	2.10.1.1.2
MNC 510 701 Ex	5/2-way, single sol.	G 1/4" - 1/4" NPT	1/4" NAMUR	2.10.1.2.1
MNC 511 701 Ex	5/2-way, comb. Spring	G 1/4" - 1/4" NPT	1/4" NAMUR	2.10.1.2.1
MNC 510 711 Ex	5/2-way, single sol.	G 1/4"	1/4" NAMUR	2.10.1.2.1
MNC 510 121 Ex	5/2-way, single sol.	G 1/2" - 1/2" NPT	1/2" NAMUR	2.10.1.2.2
MNC 511 121 Ex	5/2-way, comb. spring	G 1/2" - 1/2" NPT	1/2" NAMUR	2.10.1.2.2
MNC 520 701 Ex	5/2-way, double sol.	G 1/4" - 1/4" NPT	1/4" NAMUR	2.10.1.2.3
MNC 520 121 Ex	5/2-way, double sol.	G 1/2" - 1/2" NPT	1/2" NAMUR	2.10.1.2.3
MNC 53_ 701 Ex	5/3-way, different versions	G 1/4" - 1/4" NPT	1/4" NAMUR	2.10.1.4
MNC 53_ 121 Ex	5/3-way, centre closed	G 1/2" - 1/2" NPT	1/2" NAMUR	2.10.1.4

Interface between valve body and solenoid system according to CNOMO, therefore the types are called MC.

Base plate assembly due to solenoid coil is not possible.

Flameproof solenoids are displayed on page 2.15.6.7.5.

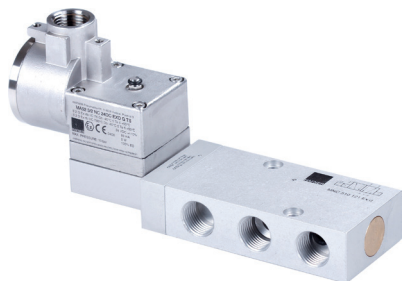
Example drawings including the solenoid are displayed on page 2.15.6.7.6.

Please note: If the valve is ordered fully assembled with the Ex d coil from page 2.15.6.7.5, the type number of the valve changes from MC to MH, MOC to MOH and MNC to MNH.

For example: MH 310 701 G 24DC Ex d

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

ATEX-approved valves – Ex d – low temperature range – aluminum



Material: Aluminum, anodized
 Zone: 1, 2, 21, 22
 Temperature range: -50°C ... +50°C ❄️
 Solenoid coil limited to -40°C
 Ignition protection type: Ex d – flameproof
 Temperature class: T6 (solenoid)

Marking on valve **CE** **Ex** II 2 G Ex h IIC T6 Gb
 -50°C ≤ Ta ≤ +50°C
CE **Ex** II 2 D Ex h IIIC T80°C
 Db -50°C ≤ Ta ≤ +50°C

The following **solenoid valves** are available:

Type	Function	Port size	Installation	Further inform. on valve
MC 310 701 GTT Ex	3/2-way, single sol.	G 1/4" - 1/4" NPT	in-line	2.12.7.1.2
MOC 310 701 GTT Ex	3/2-way, n.o. single sol.	G 1/4" - 1/4" NPT	in-line	2.12.7.1.2
MC 510 701 GTT Ex	5/2-way, single sol.	G 1/4" - 1/4" NPT	in-line	2.12.7.2.1
MC 520 701 GTT Ex	5/2-way, double sol.	G 1/4" - 1/4" NPT	in-line	2.12.7.2.2
MC 53_ 701 GTT Ex	5/3-way, different versions	G 1/4" - 1/4" NPT	in-line	2.12.7.2.2

Valves with interface according to NAMUR-standard

MNC 310 701 TT Ex	3/2-way, single sol.	G 1/4" - 1/4" NPT	1/4" NAMUR	2.12.8.1
MNC 311 701 TT Ex	3/2-way, comb. spring	G 1/4" - 1/4" NPT	1/4" NAMUR	2.12.8.1
MNC 510 701 TT Ex	5/2-way, single sol.	G 1/4" - 1/4" NPT	1/4" NAMUR	2.12.8.2.1
MNC 511 701 TT Ex	5/2-way, comb. Spring	G 1/4" - 1/4" NPT	1/4" NAMUR	2.12.8.2.1
MNC 510 711 TT Ex	5/2-way, single sol.	G 1/4" - 1/4" NPT	1/4" NAMUR	2.12.8.2.1
MNC 520 701 TT Ex	5/2-way, double sol.	G 1/4" - 1/4" NPT	1/4" NAMUR	2.12.8.2.2
MNC 531 701 TT Ex	5/3-way, centre closed	G 1/4" - 1/4" NPT	1/4" NAMUR	2.12.8.2.2

Interface between valve body and solenoid system according to CNOMO, therefore the types are called MC.

Base plate assembly due to solenoid coil is not possible.

Flameproof solenoids are displayed on page 2.15.6.7.5.

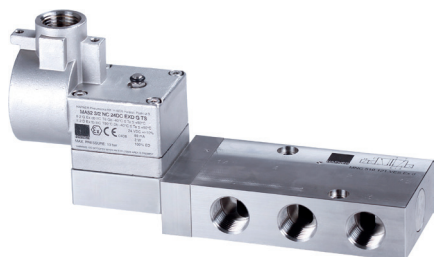
Example drawings including the solenoid are displayed on page 2.15.6.7.6


Please note: If the valve is ordered fully assembled with the Ex d coil from page 2.15.6.7.5, the type number of the valve changes from MC to MH, MOC to MOH and MNC to MNH.

For example: MH 310 701 G 24DC Ex d





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

ATEX-approved valves – Ex d – standard temperature range – stainless steel



Material: Stainless steel, 316L 
 Zone: 1, 2, 21, 22
 Temperature range: -10°C ... +50°C
 Ignition protection type: Ex d – flameproof
 Temperature class: T6 solenoid

Marking on valve

  II 2 G Ex h IIC T6 Gb
 -10°C ≤ Ta ≤ +50°C
  II 2 D Ex h IIIC T80°C
 Db -10°C ≤ Ta ≤ +50°C

The following solenoid valves are available:

Type	Function	Port size	Installation	Further inform. on valve
MC 310 701 VES Ex	3/2-way, single sol.	G 1/4" - 1/4" NPT	in-line	2.13.4.2
MOC 310 701 VES Ex	3/2-way, n.o. single sol.	G 1/4" - 1/4" NPT	in-line	2.13.4.2
MC 310 121 VES Ex	3/2-way, single sol.	G 1/2" - 1/2" NPT	in-line	2.13.4.3
MC 510 701 VES Ex	5/2-way, single sol.	G 1/4" - 1/4" NPT	in-line	2.13.4.4
MC 510 121 VES Ex	5/2-way, single sol.	G 1/2" - 1/2" NPT	in-line	2.13.4.4
MC 520 701 VES Ex	5/2-way, double sol.	G 1/4" - 1/4" NPT	in-line	2.13.4.5
MC 520 121 VES Ex	5/2-way, double sol.	G 1/2" - 1/2" NPT	in-line	2.13.4.5
MC 53_ 701 VES Ex	5/3-way, different versions	G 1/4" - 1/4" NPT	in-line	2.13.4.6
MC 53_ 121 VES Ex	5/3-way, different versions	G 1/2" - 1/2" NPT	in-line	2.13.4.6

Valves with interface according to NAMUR-standard

MNC 350 701 VES Ex	3/2-way & 5/2-way	G 1/4" - 1/4" NPT	1/4" NAMUR	2.13.5.4
MNC 310 701 VES Ex	3/2-way, single sol.	G 1/4" - 1/4" NPT	1/4" NAMUR	2.13.5.1
MNC 311 701 VES Ex	3/2-way, comb. spring	G 1/4" - 1/4" NPT	1/4" NAMUR	2.13.5.1
MNC 310 121 VES Ex	3/2-way, single sol.	G 1/2" - 1/2" NPT	1/2" NAMUR	2.13.5.1
MNC 510 701 VES Ex	5/2-way, single sol.	G 1/4" - 1/4" NPT	1/4" NAMUR	2.13.5.2
MNC 511 701 VES Ex	5/2-way, comb. Spring	G 1/4" - 1/4" NPT	1/4" NAMUR	2.13.5.2
MNC 510 121 VES Ex	5/2-way, single sol.	G 1/2" - 1/2" NPT	1/2" NAMUR	2.13.5.3
MNC 520 701 VES Ex	5/2-way, double sol.	G 1/4" - 1/4" NPT	1/4" NAMUR	2.13.5.2

Interface between valve body and solenoid system according to CNOMO, therefore the types are called MC.

Base plate assembly due to solenoid coil is not possible.

Flameproof solenoids are displayed on page 2.15.6.7.5.

Example drawings including the solenoid are displayed on page 2.15.6.7.6.



Please note: If the valve is ordered fully assembled with the Ex d coil from page 2.15.6.7.5, the type number of the valve changes from MC to MH, MOC to MOH and MNC to MNH.





For example: MH 310 701 G 24DC Ex d

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

ATEX-approved valves – Ex d – low temperature range – stainless steel



Material: Stainless steel, 316L 
 Zone: 1, 2, 21, 22
 Temperature range: -50°C ... +50°C 
 Solenoid coil limited to - 40°C
 Ignition protection type: Ex d – flameproof
 Temperature class: T6 (solenoid)

Marking on valve   II 2 G Ex h IIC T6 Gb
 -50°C ≤ Ta ≤ +50°C
  II 2 D Ex h IIIC T80°C
 Db -50°C ≤ Ta ≤ +50°C

The following solenoid valves are available:

Type	Function	Port size	Installation	Further inform. on valve
MC 310 701 VES TT Ex	3/2-way, single sol.	G 1/4" - 1/4" NPT	in-line	2.13.4.2
MOC 310 701 VES TT Ex	3/2-way, n.o. single sol.	G 1/4" - 1/4" NPT	in-line	2.13.4.2
MC 510 701 VES TT Ex	5/2-way, single sol.	G 1/4" - 1/4" NPT	in-line	2.13.4.4
MC 520 701 VES TT Ex	5/2-way, double sol.	G 1/4" - 1/4" NPT	in-line	2.13.4.5
MC 53_701 VES TT Ex	5/3-way, different versions	G 1/4" - 1/4" NPT	in-line	2.13.4.6

ValVES TT with interface according to NAMUR-standard

MNC 350 701 VES TT Ex	3/2-way & 5/2-way	G 1/4" - 1/4" NPT	1/4" NAMUR	2.13.5.4
MNC 310 701 VES TT Ex	3/2-way, single sol.	G 1/4" - 1/4" NPT	1/4" NAMUR	2.13.5.1
MNC 311 701 VES TT Ex	3/2-way, comb. spring	G 1/4" - 1/4" NPT	1/4" NAMUR	2.13.5.1
MNC 510 701 VES TT Ex	5/2-way, single sol.	G 1/4" - 1/4" NPT	1/4" NAMUR	2.13.5.2
MNC 511 701 VES TT Ex	5/2-way, comb. Spring	G 1/4" - 1/4" NPT	1/4" NAMUR	2.13.5.2
MNC 520 701 VES TT Ex	5/2-way, double sol.	G 1/4" - 1/4" NPT	1/4" NAMUR	2.13.5.2

Interface between valve body and solenoid system according to CNOMO, therefore the types are called MC.
 Base plate assembly due to solenoid coil is not possible.
 Flameproof solenoids are displayed on page 2.15.6.7.5.
 Example drawings including the solenoid are displayed on page 2.15.6.7.6.

Please note: If the valve is ordered fully assembled with the Ex d coil from page 2.15.6.7.5, the type number of the valve changes from MC to MH, MOC to MOH and MNC to MNH.
 For example: MH 310 701 G 24DC Ex d.
 Delivery contains valve with appropriate operator system, coil, manual and declaration of conformity.

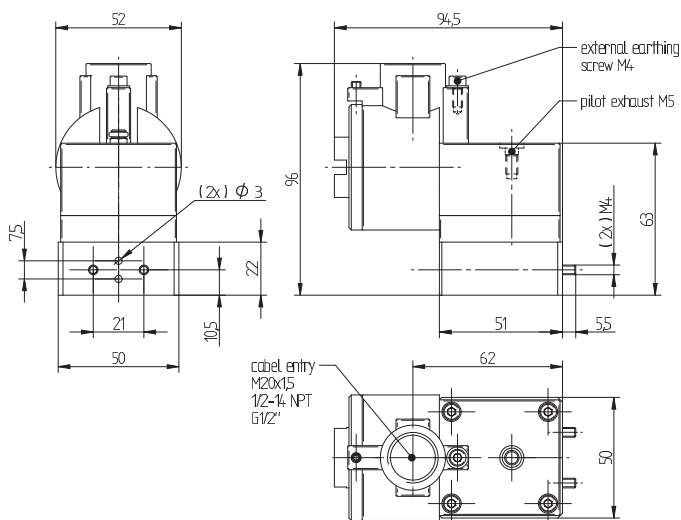
MH 52 Ex d/MH 52 VES Ex d

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 and IECEx approved flameproof coil for gas and dust explosion hazardous environment.

Voltages:	24VDC, 110VAC, 230VAC
Voltage tolerance:	- 10...+ 10 %
Relative duty cycle:	100 %
Temperature range:	-40°C...+50°C (please consider temperature range of the selected valve)
Ignition protection type:	Flameproof
Protection according to EN 60529:	IP 67
Coil rating according to DIN VDE 0580:	Class F
Wire class:	H
Ex-marking on coil:	CE Ex II 2G Ex db IIC T6 Gb II 2D Ex tb IIIC T80°C Db
Manual override:	bistable to turn, others on request



MH 52 (VES) Ex d

Delivery content without cable gland. Ex d rated cable glands can be supplied on request.

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

Type	Pilot-head	Operating press.	Power cons.	Temperature class	Weight
MH 52 24DC Ex d *	Aluminum	max. 10 bar	2.0 Watt	T6 (85° C)	1,15 kg
MH 52 VES 24DC Ex d *	Stainless steel	max. 10 bar	2.0 Watt	T6 (85° C)	1,45 kg
MH 52 110AC Ex d *	Aluminum	max. 10 bar	3.0 VA	T6 (85° C)	1,15 kg
MH 52 VES 110AC Ex d *	Stainless steel	max. 10 bar	3.0 VA	T6 (85° C)	1,45 kg
MH 52 230AC Ex d *	Aluminum	max. 10 bar	3.0 VA	T6 (85° C)	1,15 kg
MH 52 VES 230AC Ex d *	Stainless steel	max. 10 bar	3,0 VA	T6 (85° C)	1,45 kg

* Please add letter for cable gland thread: - M = M20x1.5
- N = 1/2-14 NPT