

3/2-WAY QUICK EXHAUST SAFETY VALVES

SERIES MX SAFEMAX

Ports: G1/2



- According to Machinery Directive 2006/42/CE
- Easy integration with Series MX FRL units
- Solutions to reach Performance Level E

Series MX SAFEMAX solenoid valves are equipped with an integrated sensor that detects the position of the spool and enables to quickly exhaust the system in case of emergency. The sensor is in ON state (closed contact) with the valve in closing position, system exhaust. The single channel valve is classified in category 2 and can reach Performance level D. The double channel valve is classified in category 4 and can reach Performance level E.

Please note: the safety valve is not sufficient, alone, to guarantee the safety function. Its setup requires the use of a monitoring device.

The Machinery Directive (MD) 2006/42 / EC establishes the safety requirements that a machine must respect in order to protect the health of people during its use. Series MX SAFEMAX solenoid valves comply with ISO 13849-1, regarding the safe design of control systems that perform safety functions.

General Data

Construction	Modular, compact, spool-type
Ports	G1/2
Mounting	In-line, wall-mounting (by means of clamps)
Working temperature	-5 + +60 °C
Working pressure	With internal servo-pilot: 3,5 bar ÷ 10 bar With external servo-pilot: 0,5 bar ÷ 10 bar (pilot 3,5 bar ÷ 10 bar, greater or equal to working P)
Flow rate (6 bar)	Single version: 1→2 = 5600 NL/min (ΔP 1) 2→3 = 5000 NL/min (free flow) Double version: 1→2 = 4100 NL/min (ΔP 1) 2→3 = 5000 NL/min (free flow)
Medium	Filtered air in class [7:4:4] according to ISO 8573-1 In case lubricated air is used, we recommend ISOVG32 oil and to never interrupt lubrication
COIL SPECIFICATIONS	
Connection	DIN EN 175 301-803-B
Voltage	24V DC (±10%) 3,1W (ED 100%)
SENSOR SPECIFICATIONS	
Connection	With wires, M8
Voltage	10-28V DC
Operation	Magnetoresistive
Contact	N.O. PNP, ON signal with sol. valve in NC position
Max current	EX version: 200 mA 0,65 W UL version: 100 mA 3 W CE version: 200 mA 5,5 W
COMPLIANCE WITH EN ISO 13849-1 STANDARD	
Performance level reachable (PL)	Single version: category 2, PLd Double version: category 4, PLe
B10d	2.000.000 cycles

3/2-WAY QUICK EXHAUST SAFETY VALVES
SERIES MX SAFEMAX - CODING EXAMPLES

Coding Example single valve

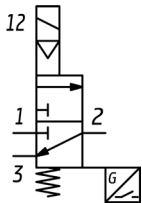
MX	2	-	1/2	-	V	16	2	0	A	B	-	KK	-	LH
MX	SERIES													
2	SIZE													
1/2	PORT 1/2 = G1/2													
V	COMPONENT V = 3/2-way valve													
16	CONSTRUCTION 16 = Internal servo-pilot 17 = External servo-pilot													
2	CHANNEL 2 = Single													
0	ACCESSORIES 0 = Without silencer 1 = With silencer													
A	SENSOR A = UL sensor, 2 mt cable B = UL sensor, 5 mt cable C = ATEX sensor, 2 mt cable D = ATEX sensor, 5 mt cable E = CE sensor M8 connector, 300 mm cable													
B	SOLENOID A = Atex B = UL C = CE Sensor and solenoid must comply with the same Standard / directive AB, BB - CA, DA - EC													
KK	MOUNTING = Without mounting accessories HH = Side quick clamps and flanges JJ = Side wall clamps and flanges KK = Side wall brackets and flanges													
LH	FLOW DIRECTION = From left to right (standard) LH = From right to left													

AIR TREATMENT

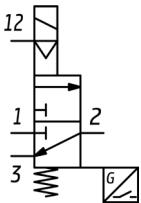
9

Symbols for single version

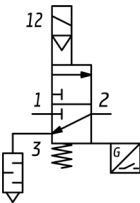
SF01



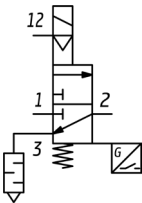
SF02



SF03

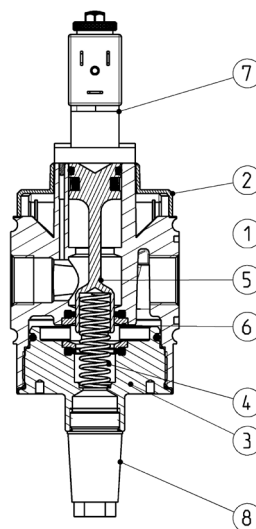


SF04



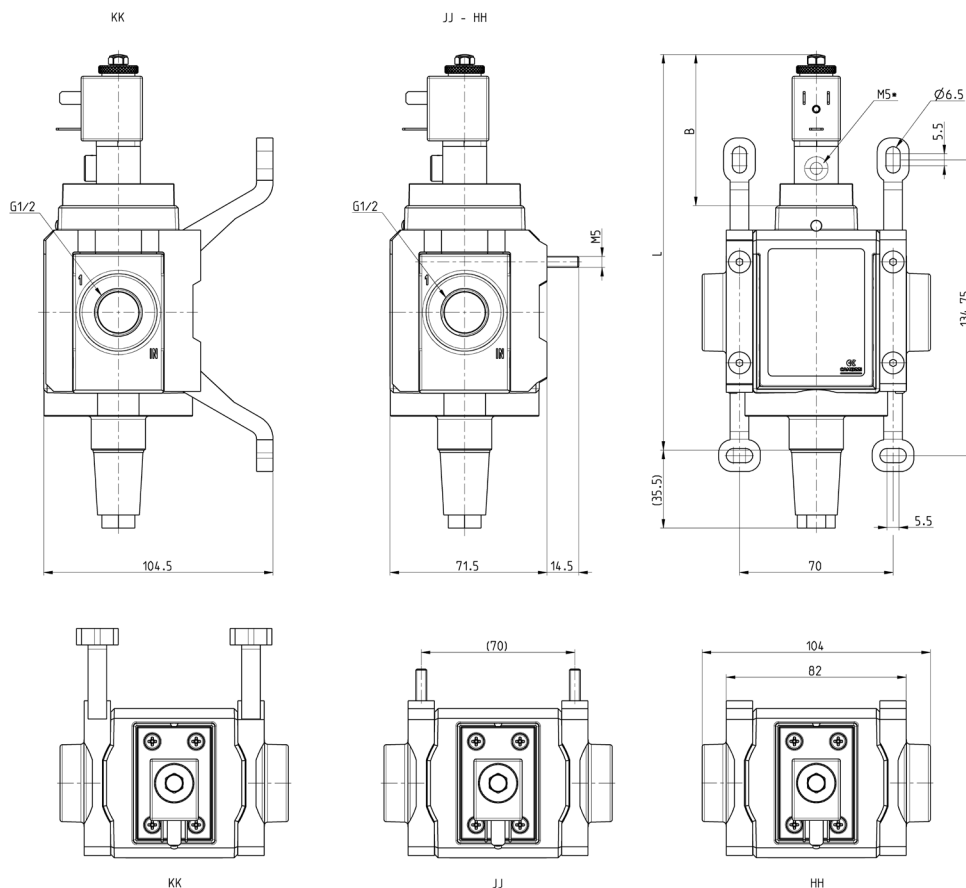
Series MX SAFEMAX single valve - materials

PARTS	MATERIALS
1 = Body	Aluminium
2 = Covering	Pom
3 = Cover	Aluminium
4 = Spring	Stainless steel
5 = Spool	Stainless steel, Fkm, Ptfe, Plasto ferrite
6 = Cage element	Brass
7 = Solenoids	Copper, Brass, Stainless steel,PET
8 = Silencer	Stainless steel, Bronze
Seals	Nbr, Fkm
Sensor	Electric waste



Series MX SAFEMAX single valve - dimensions

The solenoid valve is supplied complete with sensor and coil.



* Connection available only with external pilot version.

Mod.	L [mm]	B [mm]
MX2-1/2-V162...	175	63
MX2-1/2-V172...	180,5	69

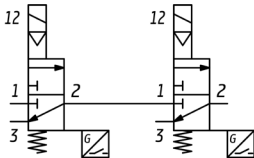
3/2-WAY QUICK EXHAUST SAFETY VALVES
SERIES MX SAFEMAX - CODING EXAMPLES

Coding Example double valve

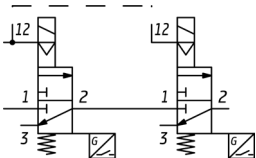
MX	2	-	1/2	-	V	16	4	0	A	B	-	KK	-	LH
MX	SERIES													
2	SIZE													
1/2	PORT 1/2 = G1/2													
V	COMPONENT V = 3/2-way valve													
16	CONSTRUCTION 16 = Internal servo-pilot 17 = External servo-pilot													
4	CHANNEL 4 = Double													
0	ACCESSORIES 0 = Without silencer 1 = With silencer													
A	SENSOR A = UL sensor, 2 mt cable B = UL sensor, 5 mt cable C = ATEX sensor, 2 mt cable D = ATEX sensor, 5 mt cable E = CE sensor M8 connector, 300 mm cable													
B	VERSION A = Atex B = UL C = CE Sensor and version must comply with the same Standard / directive AB, BB - CA, DA - EC													
KK	MOUNTING = Without mounting accessories Z = Central wall clamp Y = Central wall bracket HH = Side quick clamps and flanges JJ = Side wall clamps and flanges KK = Side wall brackets and flanges													
LH	FLOW DIRECTION = From left to right (standard) LH = From right to left													

Symbols for double version

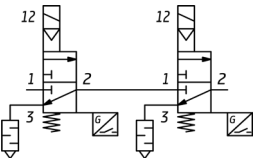
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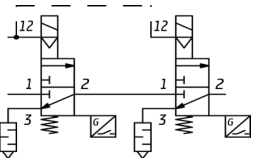
SF06



SF07

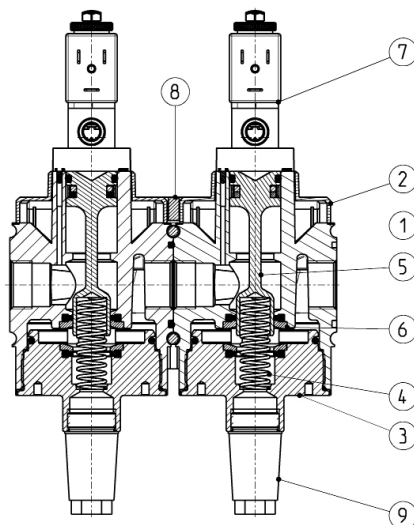


SF08



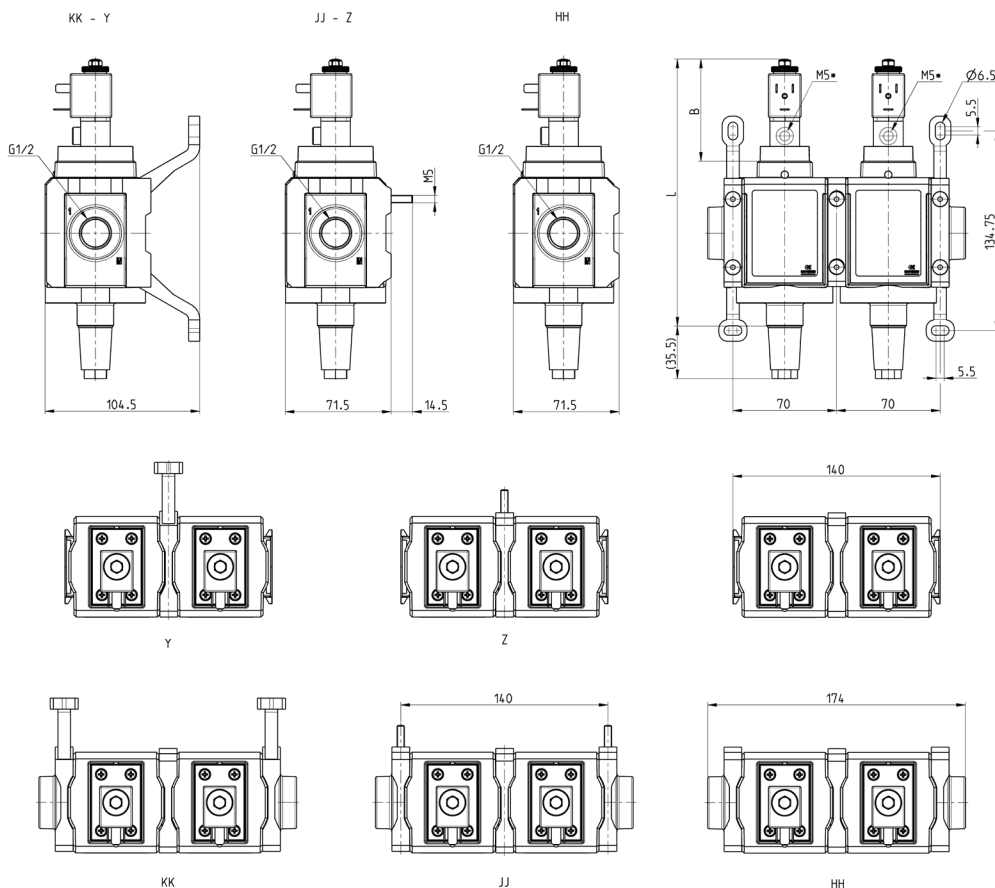
Series MX SAFEMAX double valve - materials

PARTS	MATERIALS
1 = Body	Aluminium
2 = Covering	Pom
3 = Cover	Aluminium
4 = Spring	Stainless steel
5 = Spool	Stainless steel, Fkm, Ptfe, Plastoferite
6 = Cage element	Brass
7 = Solenoids	Copper, Brass, Stainless steel, PET
8 = Silencer	Stainless steel, Bronze
9 = Quick clamp	PA66
= O-Ring and seals	Nbr, Fkm
= Sensor	Electric waste



Series MX SAFEMAX double valve - dimensions

The solenoid valve is supplied complete with sensors and coils.



* Connection available only with external pilot version.

Mod.	L [mm]	B [mm]
MX2-1/2-V164...	175	63
MX2-1/2-V174...	180,5	69