

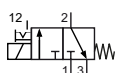
Technical details

Connection	M5
Nominal size	1.2 mm
Temperature range	-10°C ... +70°C
Medium	Filtered, oil-free and dried compressed air according to ISO 8573-1:2010, Class 7:2:4, instrument air, free of aggressive additives. Differing the pressure dew point must be at least 10°C below lowest occurring ambient temperature.
Materials	Body: Al (anodized), seals: NBR, inner parts: Al, steel and plastic
Protection	IP 65 according to EN 60529

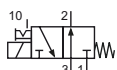


Electrically operated poppet valve. The manual override is detent and is operated by screwdriver.

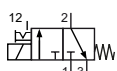
3/2-way-valves



MS-20-310-HN-xxx
3/2-way, single solenoid, mechanical spring return, NC



MSO-20-310-HN-xxx
3/2-way, single solenoid, mechanical spring return, NO



MS-20-310/n-HN-xxx
3/2-way, single solenoid, mechanical spring return, NC

Please complete: xxx = electrical option
 n = number of stations (2 to 6)

Electrical options

Nominal voltage	Power consumption	Specifics	Plug connection* ¹	-xxx
12 V DC	2 W		Form C industrial norm	-411
24 V DC	2 W		Form C industrial norm	-412

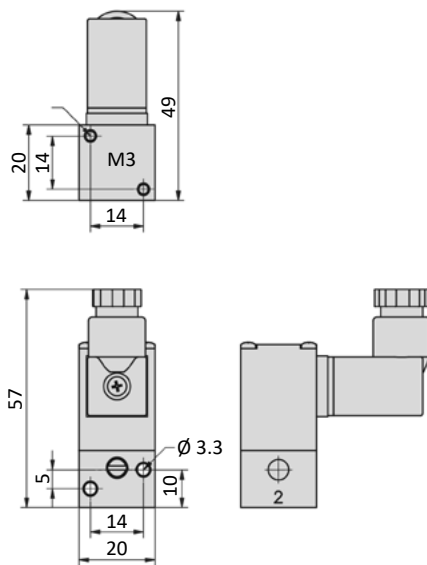
*¹ Plug socket not included, suitable plug sockets see page 04.

Technical data

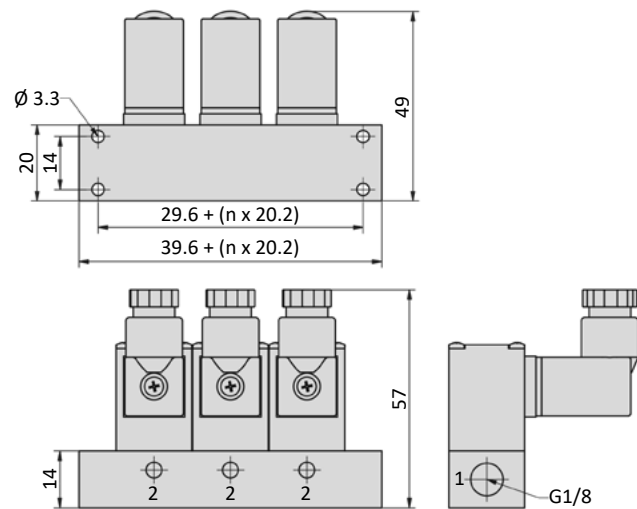
Model-no.:	MS-20-310	MSO-20-310	MS-20-310/n
Pressure range (bar)	-0.95 ... 8	-0.95 ... 8	-0.95 ... 8
Pilot pressure (bar)	-	-	-
Flow rate (NI/min)	38	38	38
Response time (ms) at 6 bar	on: 8 off: 8	on: 8 off: 8	on: 8 off: 8
Weight (kg)	0.064	0.064	0.01 + 0.066 x n

Dimensions

MS-20-310-HN, MSO-20-310-HN



MS-20-310/n-HN



n = number of stations (2 to 6)

- 1 = pressure inlet (outlet by MSO)
- 2 = outlet
- 3 = exhaust (pressure inlet by MSO)

Plug socket (not included in scope of delivery) can be repositioned by 180°.
Solenoid coil can be repositioned by 4 x 90°.

Accessories



Plug sockets: see page 04

Voltage code

Series MS-20

- HN * - * * *				
Manual override	Coil and plug options		Coil type	Voltage type Position of the manual override Position of the connector lugs
- without	1	with coil and plug	23-M-20	DC Manual override lateral Connector lugs on side of manual override
HN detend	4	with coil, without plug	23-M-20	DC Manual override lateral Connector lugs opposite to manual override
				1 12 V 2 24 V

Plug sockets

Form C industrial norm

Overall width	15 mm
Contact distance	9.4 mm
Contacts	2P + E
Protection	IP 65 according to EN 60529 requires a flat gasket
For use with series	M-20, MC-20, MD-20, MS-20



Model-no.:	28-ST-02-01	28-ST-09-112	28-ST-09-127	28-ST-10-112	28-ST-10-127	28-ST-10-K3-112 *
Voltage (AC/DC)	0 - 250 V	10 - 50 V	70 - 250 V	24 V	230 V	24 V
Status indicator	no	yes	yes	yes	yes	yes
Protective circuit	no	no	no	yes (varistor)	yes (varistor)	yes (varistor)
Connecting cable	without	without	without	without	without	3 m
Wire cross section	max. 0.75 mm ²	max. 0.75 mm ²	max. 0.75 mm ²	max. 0.75 mm ²	max. 0.75 mm ²	3 x 0.5 mm ²
Ø Connecting cable	4 - 6 mm	4 - 6 mm	4 - 6 mm	4 - 6 mm	4 - 6 mm	

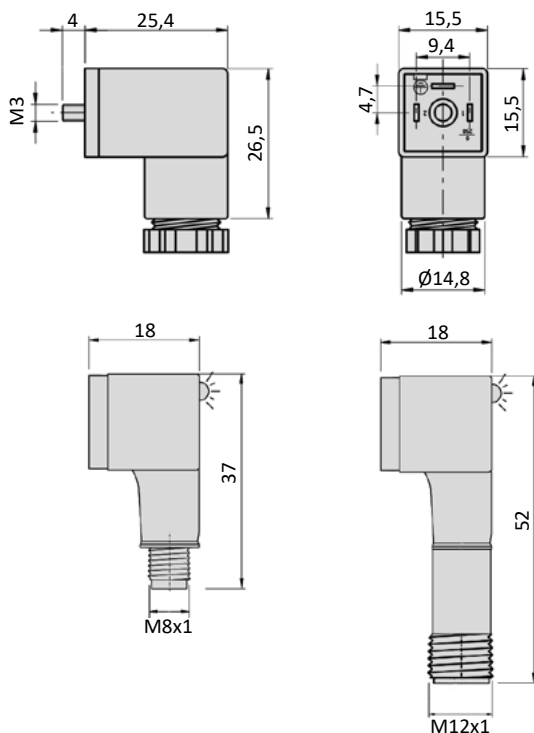
Model-no.:	28-ST-02-2-05	28-ST-02-2-07
Voltage (AC/DC)	24 V	24 V
Status indicator	yes	yes
Protective circuit	yes (varistor)	yes (varistor)
Connection	M8	M12



* These plug sockets are fitted with integrated flat gaskets.

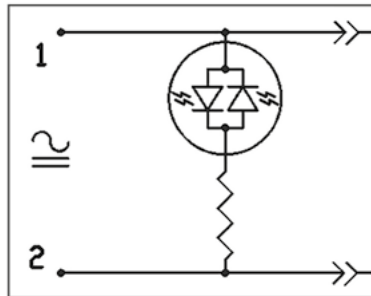
Dimensions

Form C industrial norm

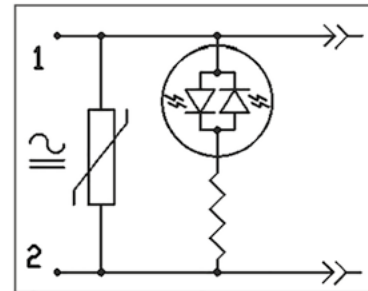


Electrically circuits

Status indicator (LED)



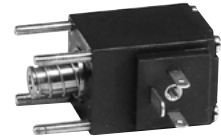
Status indicator (LED) and protective circuit (varistor)



Solenoid coils

Form C industrial norm

Overall width	20 mm
Contact distance	9,4 mm
Contacts	2P + E
Protection	IP 65 according to EN 60529 with connected plug socket
Duty cycle	100 %
Temperature range*	-20°C...+50°C
Voltage tolerance	± 10 %
For use with series	M-20, MS-20, MC-20, MD-20



* The max. applicable operating temperature, depends on the temperature specification of the used valve.

Model-no.:	23-M-20-411	23-M-20-412
Voltage	12 V DC	24 V DC
Power consumption DC	2 W	2 W
Power consumption AC	-	-

Dimensions

Form C industrial norm

