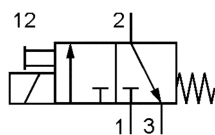


Electrically operated valves

Series MS-20, 3/2-way

M5 (10/32 UNF) • 38 NI/min (0.039 Cv)

airtec



MS-20-310/n-HN



MS-20-310-HN

Order code

MS-20-310/n-HN-412

Series and function

Number of stations

blank = 1 station
2 = 2 stations
3 = 3 stations
4 = 4 stations
5 = 5 stations
6 = 6 stations

Coil options*

411 = 12 V DC without plug socket (coil 23-M-20)

412 = 24 V DC without plug socket (coil 23-M-20)

Design, function and technical data

Directly operated poppet valve with spring return. Actuated by a permanent electrical signal.

The valves can be changed to a 2/2-way function by closing the exhaust port 3.

On type MS-20-310/n-HN, the letter "n" indicates the number of stations. Up to 6 stations are available.

The single valve MS-20-310-HN is available without a manual override. Please cancel the letters HN from the code when ordering.

The standard coil and socket (see page 4.061) are not included.

Please specify required control voltage when ordering.

Accessories see page 4.061.

Order number Please complete according to order code.	MS-20-310-HN	MS-20-310/n-HN
Connection	M5 (10/32 UNF)	G1/8 at 1, M5 (10/32 UNF) at 2 and 3
Nominal size	1.2 mm	
Flow rate	38 NI/min (0.039 Cv)	
Pressure range	- 0.95 ... 8 bar (- 14 ... 116 psi)	
Response time at 6 bar	on 8 ms off 8 ms	
Temperature range	- 10 °C ... + 70 °C	
Materials	Body: Al (anodized), plastic, Seals: NBR, Inner parts: stainless steel and brass	
Medium	Compressed air in accordance with ISO 8573-1:2010, Class 7:2:4 – and free of aggressive additives.	
Degree of protection	IP 65 according to EN 60529	
Weight	0.064 kg (0.141 lb.)	0.01 + n • 0.066 kg (0.022 + n • 0.145 lb.)

*Valves with other voltages on request.

Electrically operated valves

Series MS-20, 3/2-way

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airtec

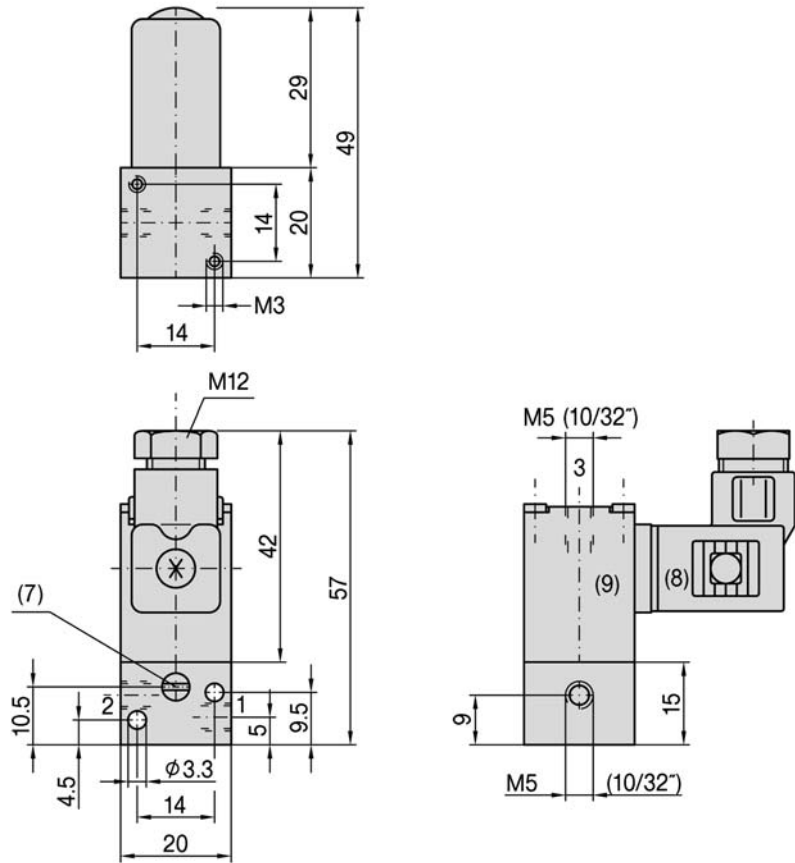
Dimensions

MS-20-310-HN

Note:

Plug socket(s) not included in scope of delivery.

- 1 = pressure inlet
- 2 = outlet
- 3 = exhaust
- (7) = manual override (detent)
- (8) = plug socket can be repositioned by 180°
- (9) = solenoid coil can be repositioned by 4 x 90°

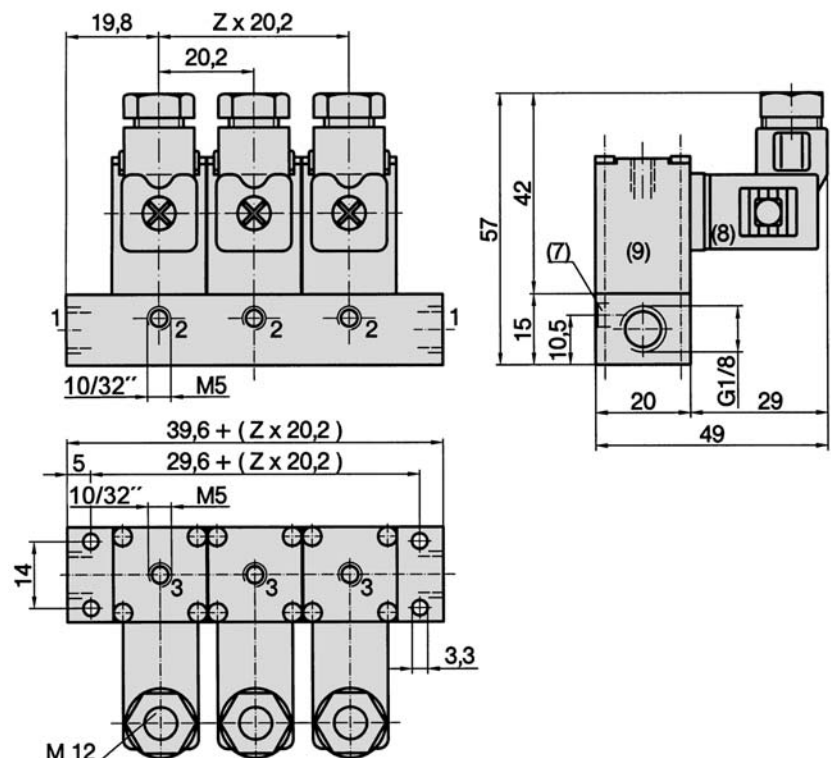


MS-20-310/n-HN

Note:

Plug socket(s) not included in scope of delivery.

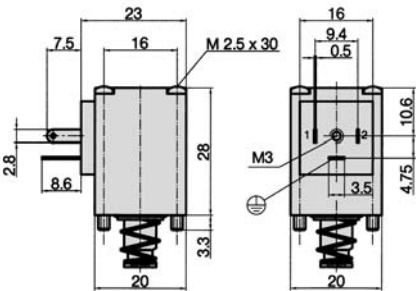
- 1 = pressure inlet
- 2 = outlet
- 3 = exhaust
- Z = n - 1
- (7) = manual override (detent)
- (8) = plug socket can be repositioned by 180°
- (9) = solenoid coil can be repositioned by 180°



Accessories for electrically operated valves

Solenoid coils and plug sockets

Solenoid coils with connection pattern pursuant to DIN EN 175301-803 Shape C



Order number	23-M-20-411	23-M-20-412
Standard voltage	12 V DC	24 V DC
Power consumption	2 W	2 W
Degree of protection	IP 65 according to EN 60529 with connected plug socket	
Duty cycle	100 %	
Temperature range	– 20 °C ... + 50 °C	
Voltage tolerance	± 10 %	
Standard for series	MS-20, MF-04	

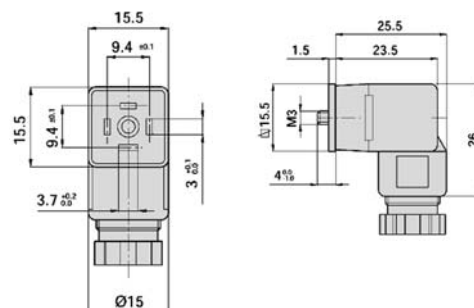
Accessories for electrically operated valves

Plug sockets for coil



Plug sockets pursuant to DIN EN 175301-803 Shape C

(2pol. + PE, 15,5 x 15,5 mm, Contact distance 9,4 mm)

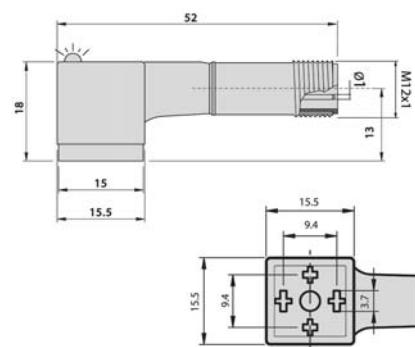
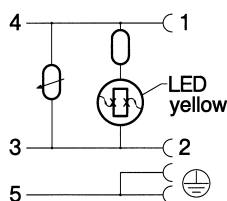


Order number	28-ST-02-01	28-ST-09-112	28-ST-09-127	28-ST-10-112	28-ST-10-127	28-ST-10-K3-112	28-ST-10-K3-127
Standard voltage	all	24 V DC	230 V AC	24 V DC	230 V AC	24 V DC	230 V AC
Protective circuit	no	no	no	yes	yes	yes	yes
Status indicator	without	yes	yes	yes	yes	yes	yes
Degree of protection	IP 65 pursuant to EN 60529 requires a flat gasket						
Connecting cable	without					3 m	3m
max. Ø Connecting cable	6,5 mm					—	—
Max. wire cross section	0,75 mm ²					—	—
for coil	23-M-20						

Plug sockets with integrated adaptor for M8/M12

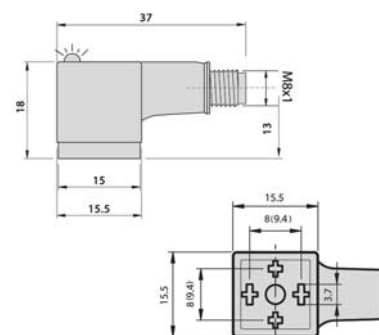
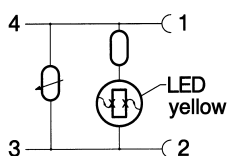
(2pol. + PE, 15,2 x 15,8 mm, Contact distance 8 bzw. 9,4 mm)

Plug socket 28-ST-02-2-07



2 = not connected 4 = +24 Volt (+)
3 = 0 Volt (-) 5 = ⚡

Plug socket 28-ST-02-1-05 and 28-ST-02-2-05



2 = +24 Volt (+)
3 = 0 Volt (-)
4 = not connected

Order number	28-ST-02-1-05	28-ST-02-2-05	28-ST-02-2-07
Standard voltage	24 V DC		
Protective circuit	yes		
Status indicator	yes		
Degree of protection	IP 65 pursuant to EN 60529 requires a flat gasket		
Contact distance	8 mm	9,4 mm	9,4 mm
for plug sockets	M8	M8	M12
for coil	23-M-09-19	23-M-20	