

# Electrically operated valves

Series MS-18, 3/2-way  
G1/8 • 56 NI/min (0.057 Cv)



MS-18-310/n-HN  
MSO-18-310/n-HN



MS-18-310-HN  
MSO-18-310-HN

## Order code

MS-18-310/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

#### Standard coil<sup>1)</sup>

**411** = 12 V DC, 4,2 W  
**412** = 24 V DC, 4,2 W  
**422** = 24 V AC, 7/4 VA  
**426** = 115 V AC, 7/4 VA  
**427** = 230 V AC, 7/4 VA  
**431** = 12 V DC, 2,2 W<sup>2)</sup>  
**432** = 24 V DC, 2,2 W<sup>2)</sup>

#### Without coil and plug socket

**500** = Power consumption 4,2 W, 7/4 VA  
**530** = Power consumption 2,2 W<sup>2)</sup>

#### Coils with M12 connector and LED

**O12** = 24 V DC, 4,8 W  
**O32** = 24 V DC, 2,5 W<sup>2)</sup>

<sup>1)</sup> Plug socket(s) not included in scope of delivery.  
See below for more versions.

## Design, function and technical data

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

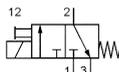
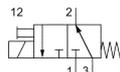
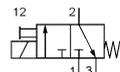
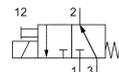
The valves can be changed to a 2/2-way function by closing the exhaust port 3.

For type MSO (Normally open) pressure supply at port 3 (M5 or 10/32 UNF at actuator 23-R-015).

On type MS-18-310/n-HN and MSO-18-310/n-HN, the letter "n" indicates the number of stations. Up to 6 stations are available.

The single valve MS-18-310 is available without a manual override. Please cancel the letters HN from the number when ordering.

Valves of this series are available in explosion proof design in accordance with 2014/34/EU (ATEX). For further details see chapter 13 of this catalogue.

Order number Please complete according to order code.	MS-18-310-HN	MSO-18-310-HN	MS-18-310/n-HN	MSO-18-310/n-HN
<b>Function</b>	 3/2-way, normally closed	 3/2-way, normally open	 3/2-way, normally closed	 3/2-way, normally open
<b>Connection</b>	G1/8 at 1 and 2, M5 (10/32 UNF) at 3			
<b>Nominal size</b>	1.4 mm			
<b>Flow rate</b>	56 NI/min (0.057 Cv)			
<b>Pressure range</b>	- 0.95 ... 10 bar (8 bar at 2.2 W) / - 14 ... 145 psi (116 psi at 2.2 W)			
<b>Response time at 6 bar</b>	on 10 ms off 12 ms			
<b>Temperature range</b>	- 10 °C ... + 70 °C (+ 14 °F ... + 158 °F)			
<b>Materials</b>	Body: Al (anodized), plastic, Seals: NBR, Inner parts: stainless steel and brass			
<b>Medium</b>	Compressed air in accordance with ISO 8573-1:2010, Class 7:2:4 – and free of aggressive additives.			
<b>Degree of protection</b>	IP 65 according to EN 60529			
<b>Weight</b>	0.150 kg (0.33 lb.)		0.150 + 0.140 • n kg (0.33 + 0.31 • n lb.)	

<sup>2)</sup> max. 8 bar (max. 116 psi) at 2.2 W and 2.5 W.

Accessories	Solenoid coils		
	<b>23-SP-011-...</b>	Standard coil	page 4.280
	<b>23-SP-012-...</b>	Coil with 2,2 W power consumption	page 4.280
	<b>23-SP-011-5-O12</b>	Coil with M12 plug connection, 4,8 W, LED and circuit protection	page 4.282
	<b>23-SP-012-5-O32</b>	Coil with M12 plug connection, 2,5 W, LED and circuit protection	page 4.282
	 <b>Explosion proof</b>	Valves with explosion proof actuator see chapter 13	
	<b>Actuators</b>		
	<b>23-R-013</b>	Standard actuator	
	<b>23-R-014</b>	Low power actuator	
	<b>23-R-015</b>	Actuator for normally open	
	<b>Plug sockets</b>		
	<b>28-ST-01</b>	Standard plug socket	page 4.283
	<b>28-ST-04-...</b>	Plug socket with LED	page 4.283
	<b>28-ST-06-...</b>	Plug socket with LED and circuit protection	page 4.283
	<b>28-ST-06-K3-...</b>	Plug socket with LED, circuit protection and cable	page 4.283

# Electrically operated valves

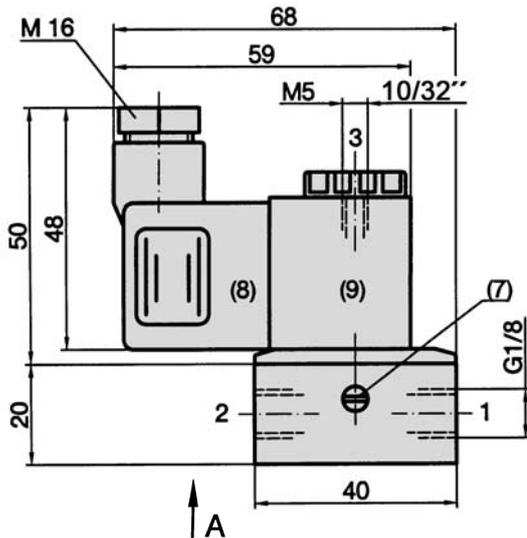
Series MS-18, 3/2-way

G1/8 • 56 NI/min (0.057 Cv)

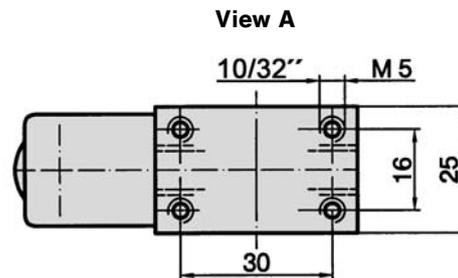


## Dimensions

### MS-18-310-HN, MSO-18-310-HN



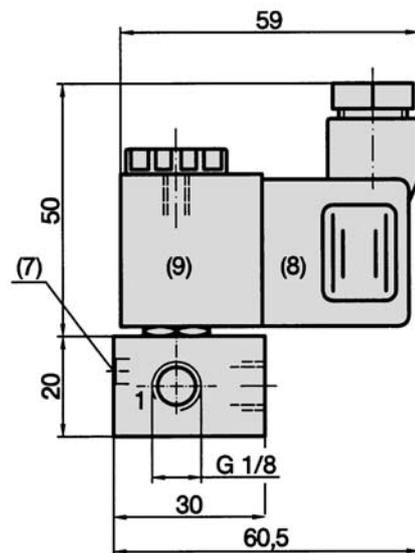
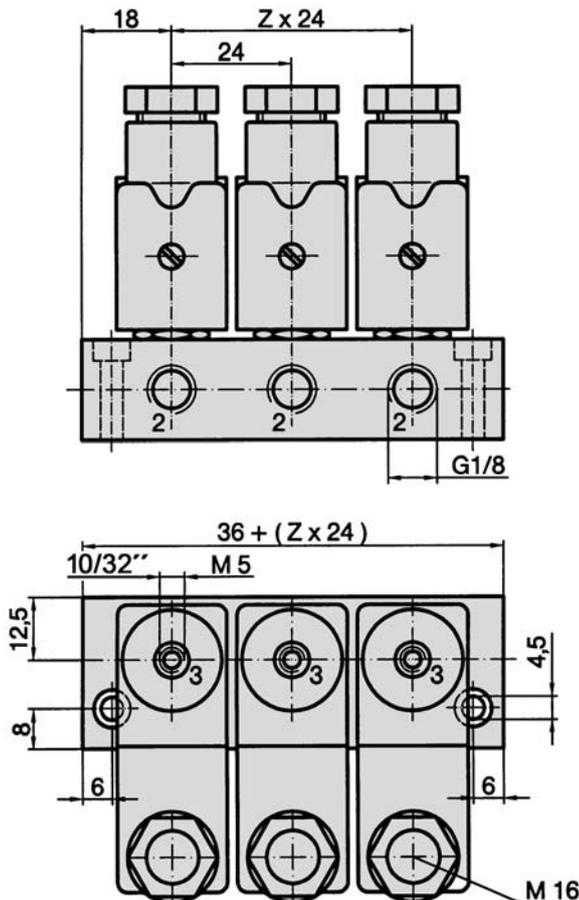
**Note:**  
Plug socket(s) not included  
in scope of delivery.



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

- (7) = manual override (detent)
- (8) = plug socket can be repositioned by 180°
- (9) = solenoid coil can be repositioned by 4 x 90°

### MS-18-310/n-HN, MSO-18-310/n-HN

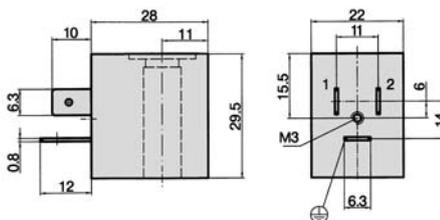


**Note:**  
Plug socket(s) not included  
in scope of delivery.

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



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

Order number	23-SP-011-411	23-SP-011-412	23-SP-011-422	23-SP-011-426	23-SP-011-427	23-SP-012-431	23-SP-012-432
Standard voltage	12 V DC	24 V DC	24 V AC	115 V AC	230 V AC	12 V DC	24 V DC
Power consumption DC	4.2 W	4.2 W				2.2 W	2.2 W
Power consumption 50 Hz			4 VA	4 VA	4 VA		
Degree of protection	IP 65 according to EN 60529 with connected plug socket						
Duty cycle	100 %						
Temperature range	- 20 °C ... + 50 °C (- 4 °F ... + 122 °F)						
Voltage tolerance	± 10 %						
Standard for series	MS-18, M-04, M-05, M-07, M-22, KM-09, KM-10, MF-05, MF-07, MN-06, KN-05, MI-01, MI-02, MI-03						

Other voltages on request.

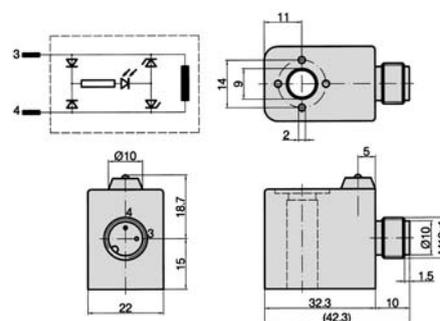
### Solenoid coils with connection pattern pursuant to DIN EN 175301-803 Shape B

(with enhanced humidity resistance)

Order number	23-SP-011-1-711	23-SP-011-1-712	23-SP-011-1-712	23-SP-011-1-722	23-SP-011-1-725	23-SP-011-1-727	23-SP-012-1-732
Standard voltage	12 V DC/24 V AC	24 V DC	48 V AC	12 V DC/24 V AC	110 V AC	230 V AC	24 V DC
Power consumption DC	4.6 W	4.8 W	-	5.5 W	-	-	2.5 W
Power consumption 50 Hz	7.1 VA	-	7.7 VA	8.9 VA	8.5 VA	7.9 VA	
Degree of protection	IP 65 according to EN 60529 with connected plug socket *1						
Duty cycle	100 %						
Temperature range	- 20 °C ... + 50 °C (- 4 °F ... + 122 °F)						
Voltage tolerance	± 10 %						
Standard for series	KMX-09, KMX-10, ICK-09, ICK-10, KN-55, KNX-55, ICKN-55						

\*1: IP67 pursuant to EN 60529 with plug socket and sealing set 20-SP-011/012-02

### Solenoid coils with M12 connection, with LED and protective circuit.



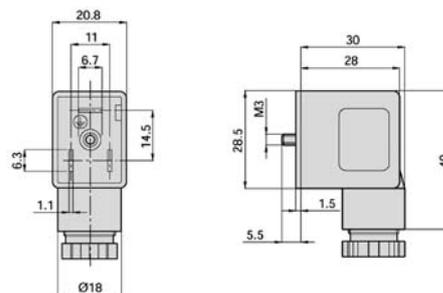
Order number	23-SP-011-5-O12	23-SP-012-5-O32
Standard voltage	24 V DC	24 V DC
Power consumption	4.8 W	2.5 W
Degree of protection	IP 65 according to EN 60529 with connected cable	
Duty cycle	100 %	
Temperature range	- 20 °C ... + 50 °C	
Voltage tolerance	± 10 %	

# Accessories for electrically operated valves

## Plug sockets for coil



**Plug sockets pursuant to DIN EN 175301-803 Shape B**  
 (2pol. + PE, 21 x 28 mm, Contact distance 11 mm)



<b>Order number</b>	28-ST-01	28-ST-04-112	28-ST-04-127	28-ST-06-112	28-ST-06-127	28-ST-06-K3-112	28-ST-06-K3-127
<b>Standard voltage</b>	all	24 V DC	230 V AC	24 V DC	230 V AC	24 V DC	230 V AC
<b>Protective circuit</b>	no	no	no	yes	yes	yes	yes
<b>Status indicator</b>	without	yes	yes	yes	yes	yes	yes
<b>Degree of protection</b>	IP 65 pursuant to EN 60529 requires a flat gasket						
<b>Connecting cable</b>	without					3 m	3m
<b>Ø Connecting cable</b>	6 – 8 mm					–	–
<b>Max. wire cross section</b>	1,5 mm <sup>2</sup>					–	–
<b>for coil</b>	23-SP-011, 23-SP-011-1						

4