

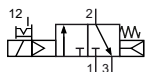
Technical details

Connection	86-MV-3-18: G1/8 86-MV-3-14: G1/4
Temperature range	+5°C ... +50°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), plastic, seals: NBR, inner parts: Al, steel and plastic
Protection	IP 65 according to EN 60529

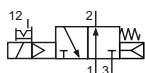
Electrically operated spool valve. The manual override is detent/ non-detent. It is operated manually or by screwdriver.



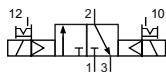
3/2-way-valves



86-MV-3-18-311-xxx
86-MV-3-14-311-xxx
3/2-way, single solenoid, mechanical
spring return and air spring return,
NC



86-MV-3-18-311-O-xxx
86-MV-3-14-311-O-xxx
3/2-way, single solenoid, mechanical
spring return and air spring return,
NO



86-MV-3-18-320-xxx
86-MV-3-14-320-xxx
3/2-way, double solenoid

Please complete: xxx = electrical option

Electrical options

Nominal voltage	Power consumption	Specifics	Plug connection*1	-xxx Manual override on same side of ports 2 and 4
24 V DC	3 W		Form B industrial norm	-M42
220 V AC	3.5 VA		Form B industrial norm	-M57

*1 Plug socket with integrated LED are part of delivery

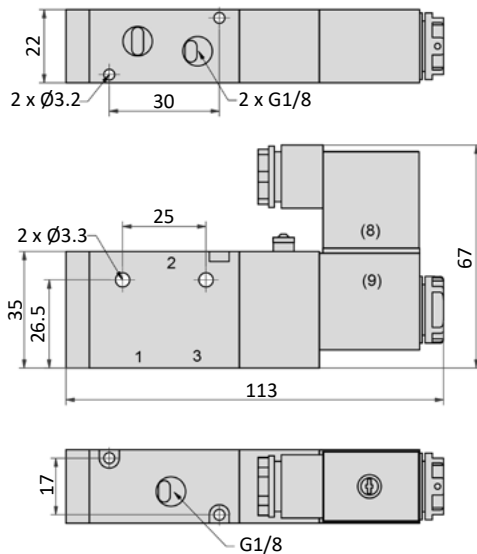
Technical data

Model-no.:	86-MV-3-18-311	86-MV-3-18-311-O	86-MV-3-18-320	86-MV-3-14-311	86-MV-3-14-311-O	86-MV-3-14-320
Operating pressure (bar)	1.5...8	1.5...8	1.5...8	1.5...8	1.5...8	1.5...8
Nominal Size (mm)	4	4	4	4.5	4.5	4.5
Flow rate (NI/min)	760	760	760	870	870	870
Resonse time (ms) at 6 bar	20	20	20	20	20	20
Weight (kg)	0.201	0.201	0.290	0.197	0.197	0.286

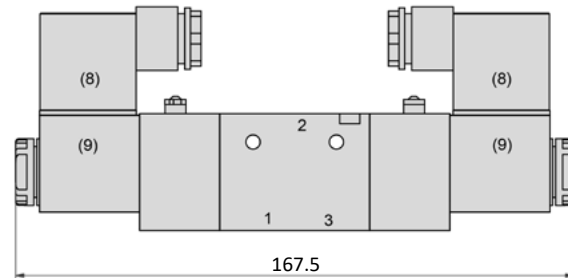
Series 86-MV-3

Dimensions

86-MV-3-18-311



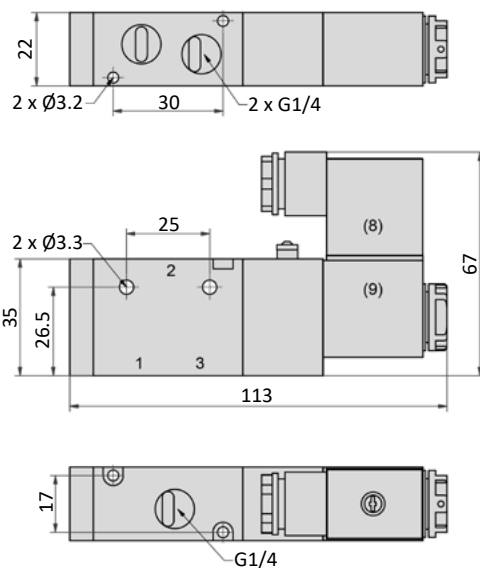
86-MV-3-18-320



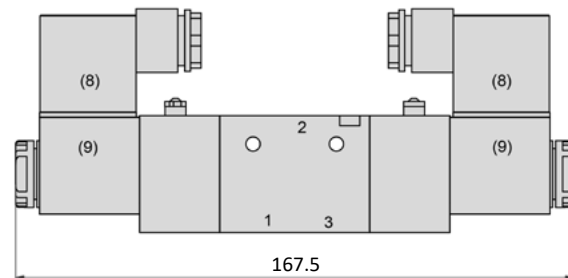
- 1 = pressure inlet
- 2 = outlets
- 3 = exhausts

Plug socket can be repositioned by 180°.
Solenoid coil can be repositioned by 4 x 90°.

86-MV-3-14-311



86-MV-3-14-320



- 1 = pressure inlet
- 2 = outlets
- 3 = exhausts

Plug socket can be repositioned by 180°.
Solenoid coil can be repositioned by 4 x 90°.

Accessories



Plug sockets: see page 04

Voltage code

Series 86-MV-3 and 86-MV-5

- HN * - * * *				
Manual override	Coil and plug options	Coil type	Voltage type Position of the manual override Position of the connector lugs	Voltage
HN detent and non-detent	1 with coil and plug	according to valve	0 without indication Manual override at 1/3/5	0 without
	4 with coil, without plug	according to valve	1 DC Manual override at 1/3/5 Connector lugs at 1/3/5	1 12 V
	5 without coil	no	2 AC Manual override at 1/3/5 Connector lugs at 1/3/5	2 24 V
	7 with coil, with enhanced humidity resistance, without plug	according to valve	3 Manual override at 1/3/5 Connector lugs at 1/3/5	3 42 V
	8 with coil, with enhanced humidity resistance, with plug	according to valve	4 AC Manual override at 1/3/5 Connector lugs at 1/3/5	4 48 V
	H with coil shape B according to DIN EN 175301-803, with plug	23-SP-011-G	5 DC Manual override at 1/3/5 Connector lugs at 1/3/5	5 110 V
	I with coil shape B according to DIN EN 175301-803, without plug	23-SP-011-G	6 Manual override at 1/3/5 Connector lugs at 1/3/5	6 115 V
	J with coil shape A according to DIN EN 175301-803, without plug (if not standard)	23-SP-016	7 DC Manual override at 1/3/5 Connector lugs at 1/3/5	7 230 V
	K with coil shape A according to DIN EN 175301-803, with plug (if not standard)	23-SP-016	AC Manual override at 2/4 Connector lugs at 2/4	
	L with coil, with plug with LED and protective circuit	according to valve	5 AC Manual override at 2/4 Connector lugs at 2/4	
	M with coil, with plug with LED, without protective circuit	according to valve	7 without indication Manual override at 2/4	
	N with coil with M12 connection	according to valve	DC Manual override at 2/4 Connector lugs at 2/4	
	O with coil with M12 connection with LED and protective circuit	according to valve	AC Manual override at 1/3/5 Connector lugs at 2/4	
	Q with coil with with cable	according to valve	DC Manual override at 2/4 Connector lugs at 1/3/5	
	R with cable up to 1 m length	according to valve	AC Manual override at 2/4 Connector lugs at 1/3/5	
	T with pilot valve with M8 connector	according to valve		

Not all options are suitable for all valve series

Plug sockets

Form B industrial norm

Overall width	22 mm
Contact distance	11 mm
Contacts	2P + E
Protection	IP 65 according to EN 60529 requires a flat gasket
For use with series	86-MV-5-28, 86-MV-5-14, 86-MV-5-24, 86-MV-5-38, 86-MV-5-12, 86-MV-3, 86-MN-4, 86-MS-3V



Model-no.:	86-ST-04-112	28-ST-04-127
Voltage (AC/DC)	24 V DC	220 V AC
Status indicator	yes	yes
Protective circuit	no	no
Connecting cable	without	without
Wire cross section	max. 1.5 mm ²	max. 1.5 mm ²
Ø Connecting cable	6 - 8 mm	6 - 8 mm

Overall width	22 mm
Contact distance	11 mm
Contacts	2P + E
Protection	IP 65 according to EN 60529 requires a flat gasket
For use with series	M-04, M-05, M-07, M-22, KM-09, KM-10, MS-18, KN-05, MN-06, MI-01, MI-02, MI-03

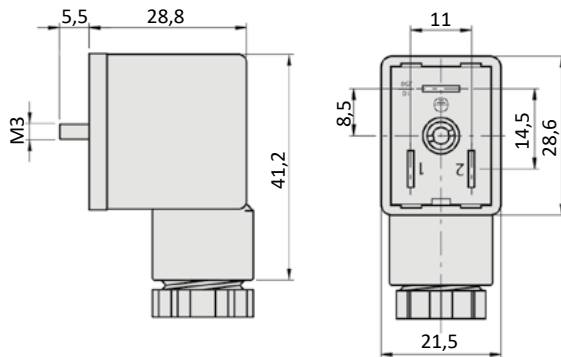


Model-no.:	28-ST-01	28-ST-04-112	28-ST-04-127	28-ST-06-112	28-ST-06-127	28-ST-06-K3-112*	28-ST-06-K3-127*
Voltage (AC/DC)	0 - 250 V	10 - 50 V	70 - 250 V	24 V	230 V	24 V	230 V
Status indicator	no	yes	yes	yes	yes	yes	yes
Protective circuit	no	no	no	yes (varistor)	yes (varistor)	yes (varistor)	yes (varistor)
Connecting cable	without	without	without	without	without	3 m	3 m
Wire cross section	max. 1.5 mm ²	max. 1.5 mm ²	max. 1.5 mm ²	max. 1.5 mm ²	max. 1.5 mm ²	3 x 0.75 mm ²	3 x 0.75 mm ²
Ø Connecting cable	6 - 8 mm	6 - 8 mm	6 - 8 mm	6 - 8 mm	6 - 8 mm		

* These plug sockets are fitted with integrated flat gaskets.

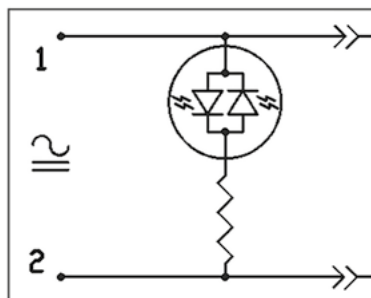
Dimensions

Form B industrial norm

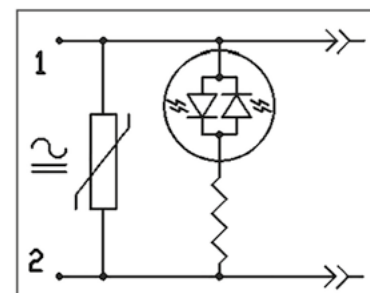


Electrically circuits

Status indicator (LED)



Status indicator (LED) and protective circuit (varistor)



Solenoid coils



Form B industrial norm

Overall width	22 mm
Contact distance	11 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	86-MV-5-28, 86-MV-5-14, 86-MV-5-24, 86-MV-5-38, 86-MV-5-12, 86-MV-3, 86-MN-4

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



Model-no.:	86-SP-011-412	86-SP-011-427
Voltage	24 V DC	220 V AC
Power consumption DC	3 W	-
Power consumption AC	-	3.5 VA

Overall width	22 mm
Contact distance	11 mm
Contacts	2P + E
Protection	IP 65 according to EN 60529 with connected plug socket
Duty cycle	100 %
Voltage tolerance	± 10 %
For use with series	M-04, M-05, M-07, M-22, KM-09, KM-10, MS-18, KN-05, MN-06, MI-01, MI-02, MI-03



Model-no.:	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
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 AC	-	-	5 VA	5 VA	5 VA	-	-
Temperature range*	-40°C...+50°C	-40°C...+50°C	-40°C...+50°C	-40°C...+50°C	-40°C...+50°C	-40°C...+50°C	-40°C...+50°C

Model-no.:	23-SP-011-1-711	23-SP-011-1-712	23-SP-011-1-725	23-SP-011-1-727	23-SP-012-1-732
Voltage	12 V DC	24 V DC	110/115 V AC	230 V AC	24 V DC
Power consumption DC	4.2 W	4.2 W	-	-	3 W
Power consumption AC	-	-	6.0 VA/ 7.6 VA	7.9 VA	-
Temperature range*	-40°C...+80°C	-40°C...+80°C	-20°C...+50°C	-20°C...+50°C	-40°C...+80°C
Specifics	enhanced humidity resistance				

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

M12 connection

Overall width	22 mm
Contact distance	-
Contacts	2P
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	

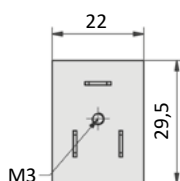
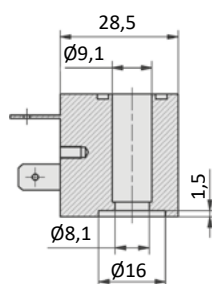


* The max. applicable operating temperature, depends on the temperature specification of the used valve.

Model-no.:	23-SP-011-5-O12	23-SP-012-5-O32
Voltage	24 V DC	24 V DC
Power consumption DC	4.8 W	2.5 W
Power consumption AC	-	-
Specifics	Mounting on manifold not allowed. With integrated LED and protective circuit.	Min. mounting distance for manifold mounting is 20 mm. With integrated LED and protective circuit.
electrical connection		

Dimensions

Form B industrial norm



M12 connection

