

airtec

basic line

Valves and Cylinders



Air. Pressure. Motion.



Valves > mechanically operated valves >

Page 03



Valves > electrically operated valves >

Page 10



Cylinders > piston rod cylinders >

Page 43

Series 84-HPV

Page 04



Series 4-4HV

Page 05



Series 84-4HF

Page 06



Series 84-4HR

Page 06



Series 84-4F

Page 08



Series 84-HPV

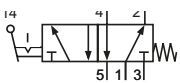
Technical details

Temperature range	0°C ... +60°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. Alternatively the pressure dew point must be at least 10°C below lowest occurring ambient temperature.
Materials	Body: Al (anodized), seals: NBR, inner parts: Al and brass



Manually operated spool valve with toggle lever and detent function.

5/2-way-Ventil



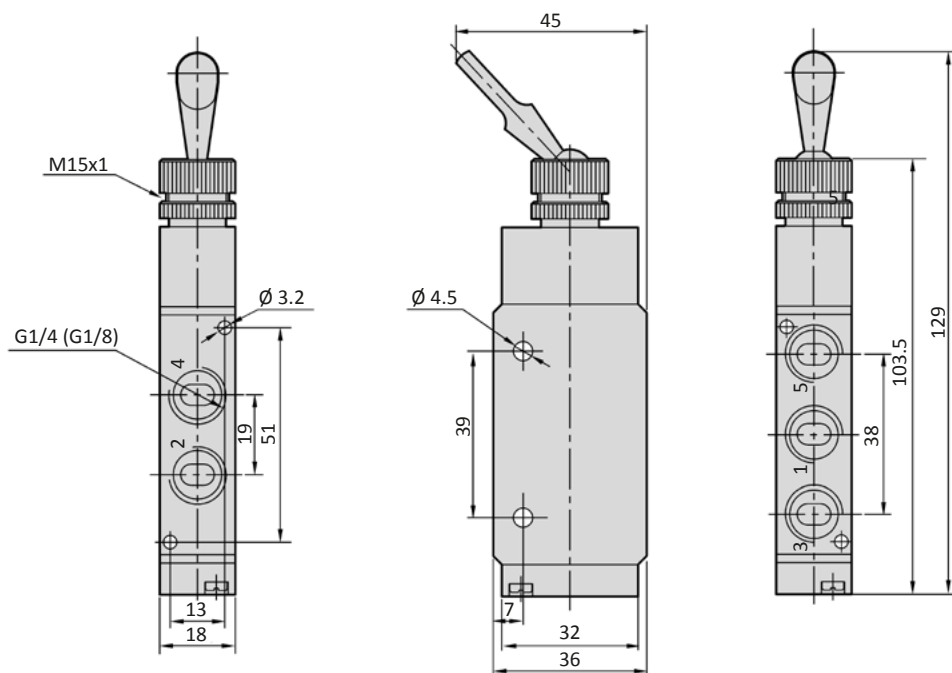
84-HPV-xx-520
5/2-way, with detent function

Please complete: xx = 18 for G1/8
xx = 14 for G1/4

Technical data

Model-no.:	84-HPV-18-520	84-HPV-14-520
Connection	G1/8	G1/4
Nominal size (mm)	4	5
Flow rate (NI/min)	750	980
Operating pressure (bar)	0 ... 8 bar	0 ... 8 bar
Weight (kg)	0.17	0.16

Dimensions



- 1 = pressure inlet
- 2,4 = outlets
- 3,5 = exhausts

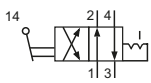
Technical details

Nominal size	5 mm
Temperature range	0°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. Alternatively the pressure dew point must be at least 10°C below lowest occurring ambient temperature.
Materials	Body: aluminium-die-cast (varnished), seals: NBR, ceramic (only 84-4HV-18), inner parts: Al, steel



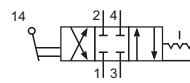
Manually operated valve with rotating lever.
Available as 4/2- and 4/3-way detent valve, center ports closed.

4/2-way-valves



84-4HV-xx-520-S
4/2-way, with detent function, with nut

4/3-way-valves



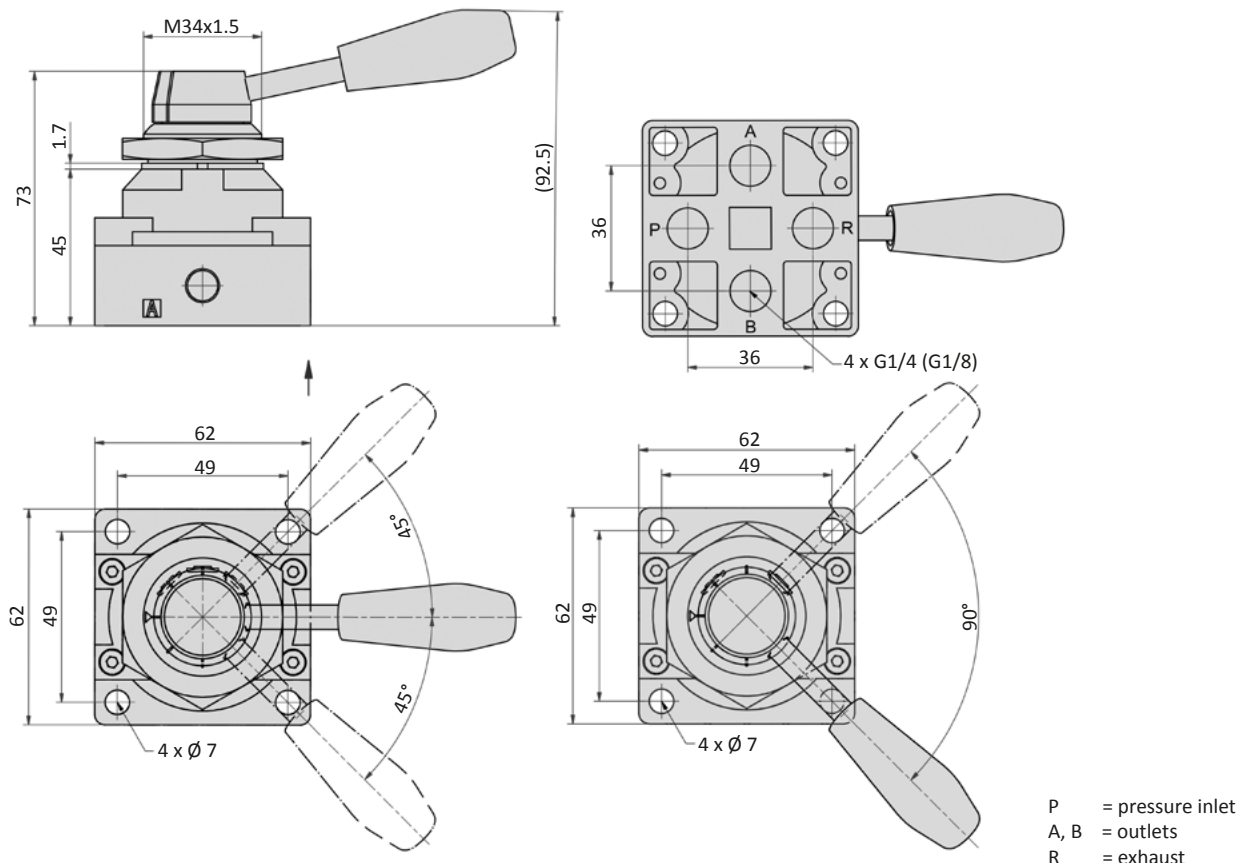
84-4HV-xx-530-S
4/3-way, center position closed, with nut

Please complete: xx = 18 for G1/8
xx = 14 for G1/4

Technical data

Model-no.:	84-4HV-18-520-S	84-4HV-14-520-S	84-4HV-18-530-S	84-4HV-14-530-S
Connection	G1/8	G1/4	G1/8	G1/4
Flow rate (NI/min)	980	980	980	980
Operating pressure (bar)	0 ... 8 bar	0 ... 8 bar	0 ... 8 bar	0 ... 8 bar
Weight (kg)	0.39	0.68	0.39	0.67

Dimensions



Series 84-4HF, 84-4HR

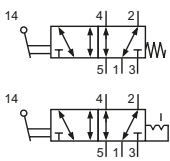
Technical details

Temperature range	0°C ... +60°C
Operating pressure	0 ... 8 bar
Medium	Filtered, oil-free and dried compressed air according to ISO 8573-1:2010, Class 7:2:4, instrument air, free of aggressive additives. Alternatively 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



Hand lever operated spool valve.

5/2-way-valves

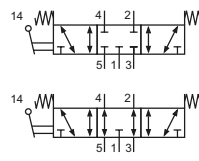


84-4HF-xx-510
5/2-way, hand lever, mechanical spring return

84-4HR-xx-520
5/2-way, two positions, hand lever, detent

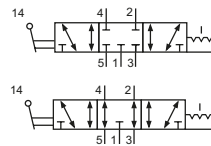
Please complete: xx = 18 for G1/8
xx = 14 for G1/4
xx = 12 for G1/2

5/2- and 5/3-way-valves



84-4HF-xx-530
5/3-way, center position closed, hand lever, spring return

84-4HF-xx-533
5/3-way, center position exhausted, hand lever, spring return



84-4HR-xx-530
5/3-way, center position closed, hand lever, detent

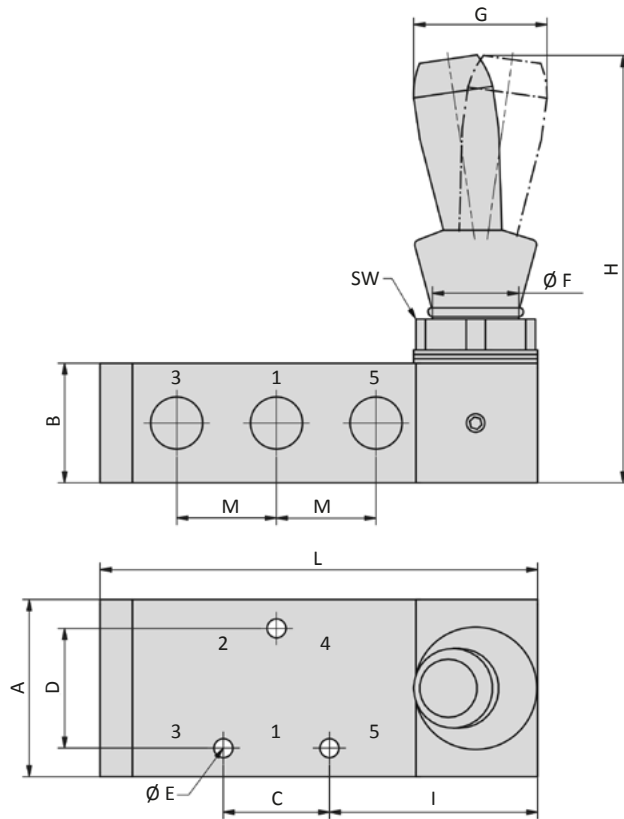
84-4HR-xx-533
5/3-way, center position exhausted, hand lever, detent

Technical data

Model-no.:	84-4HF-18-510	84-4HF-14-510	84-4HF-14-530	84-4HF-14-533
Connection	G1/8	G1/4	G1/4	G1/4
Nominal size (mm)	4.5	6	5	5
Flow rate (NI/min)	750	1350	980	980
Weight (kg)	0.168	0.252	0.310	0.310

Model-no.:	84-4HR-18-520	84-4HR-14-520	84-4HR-12-520	84-4HR-14-530	84-4HR-14-533	84-4HR-12-530
Connection	G1/8	G1/4	G1/2	G1/4	G1/4	G1/2
Nominal size (mm)	4.5	6	8	5	5	6.5
Flow rate (NI/min)	750	1350	2500	980	980	1600
Weight (kg)	0.170	0.255	0.540	0.250	0.250	0.560

Dimensions



- 1 = pressure inlet
- 2,4 = outlets
- 3,5 = exhausts

	A	B	C	D	Ø E	Ø F	G	H	I	L	M	SW
84-4HF-18-510	35	22	20	21	4.3	15	16	90	38	81.3	18	22
84-4HF-14-510	40	27	24	27	4.3	20	20	93	48	100.5	22.5	27
84-4HF-14-530	40	27	24	27	4.3	20	20	93	67	119.5	22.5	27
84-4HF-14-533	40	27	24	27	4.3	20	20	93	67	119.5	22.5	27
84-4HR-18-520	35	22	20	21	4.3	15	16	90	38	81.3	18	22
84-4HR-14-520	40	27	24	27	4.3	20	20	93	48	100.5	22.5	27
84-4HR-14-530	40	27	24	27	4.3	20	20	93	48	100.5	22.5	27
84-4HR-14-533	40	27	24	27	4.3	20	20	93	48	100.5	22.5	27
84-4HR-12-520	50	34	28	35	5.5	22	28	103.5	57	128.5	31.5	-
84-4HR-12-530	50	34	28	35	5.5	22	30	108.5	57	128.5	31.5	27

Series 84-4F

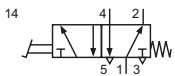
Technical details

Connection	G1/4
Nominal size (mm)	9
Temperature range	0°C ... +60°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. Alternatively 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

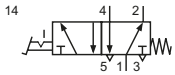


Foot pedal operated spool valve.

5/2-way-valves



84-4FF-511-14-H
5/2-way, pedal, mechanical spring return

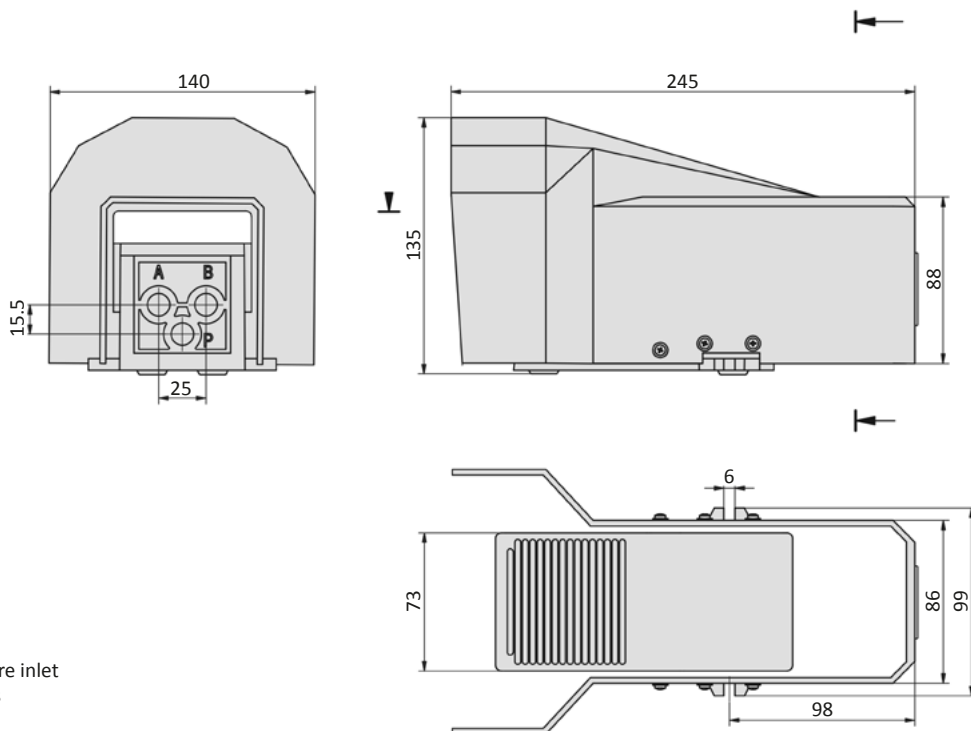


84-4FR-520-14-H
5/2-way, two positions, pedal, detent

Technical data

Model-no.:	84-4FF-511-14-H	84-4FR-520-14-H
Operating pressure (bar)	0 ... 8 bar	0 ... 8 bar
Flow rate (NI/min)	530	530
Weight (kg)	0.900	0.900

Dimensions



P = pressure inlet
A,B = outlets

Table of contents

Series 86-MVY-18

Page 12



Series 86-MV-5-38

Page 22



Series 86-MV-5-18

Page 14



Series 86-MV-5-12

Page 24



Series 86-MV-5-28

Page 16



Series 86-PRS

Page 26



Series 86-MV-5-14

Page 18



Series 86-MV-3

Page 27



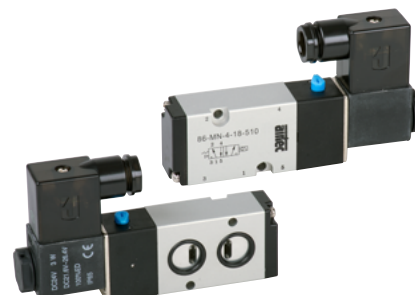
Series 86-MV-5-24

Page 20



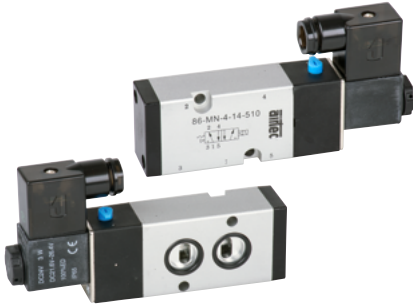
Series 86-MN-4-18

Page 29



Series 86-MN-4-14

Page 31



Series SMS-170

Page 38



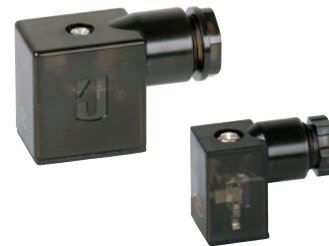
Series 86-MN-4-12

Page 33



Accessories

Page 40



Series 86-4-DR

Page 35



Accessories

Page 41



Series 86-4-AP

Page 36



Series 86-MS-3V

Page 37



Series 86-MVY-18

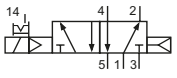
Technical details

Connection	G1/8
Temperature range	0°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. Alternatively 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 50 according to EN 60529

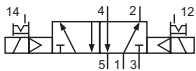


Electrically operated spool valve. The manual override is detent/ non-detent and is operated by screwdriver.

5/2-way valves

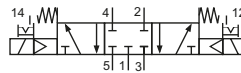


86-MVY-18-510-xxx
5/2-way, single solenoid, air spring return

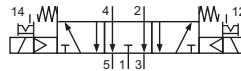


86-MVY-18-520-xxx
5/2-way, double solenoid

5/3-way valves



86-MVY-18-530-xxx
5/3-way, center position closed



86-MVY-18-533-xxx
5/3-way, center position exhausted

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	1.3 W	with integrated LED	Form L	-442

*1 Plug socket not included

Technical data

Model-no.:	86-MVY-18-510	86-MVY-18-520	86-MVY-18-530	86-MVY-18-533
Operating pressure (bar)	1.5...7	1...7	1.5...7	1.5...7
Nominal size (mm)	3.2	3.2	3	3
Flow rate (NI/min)	490	490	420	420
Response time (ms) at 6 bar	20	20	20	20
Weight (kg)	0.062	0.076	0.082	0.082

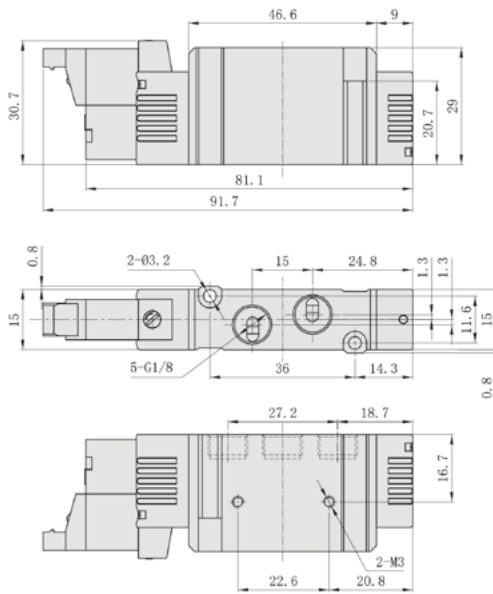
Accessories



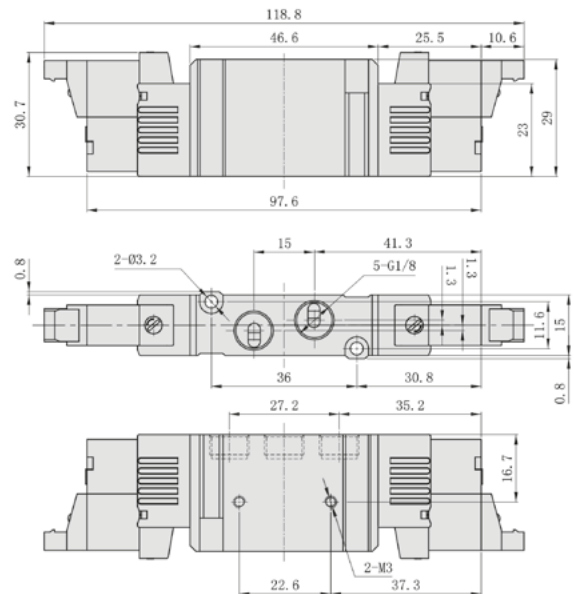
Manifolds: page 26

Dimensions

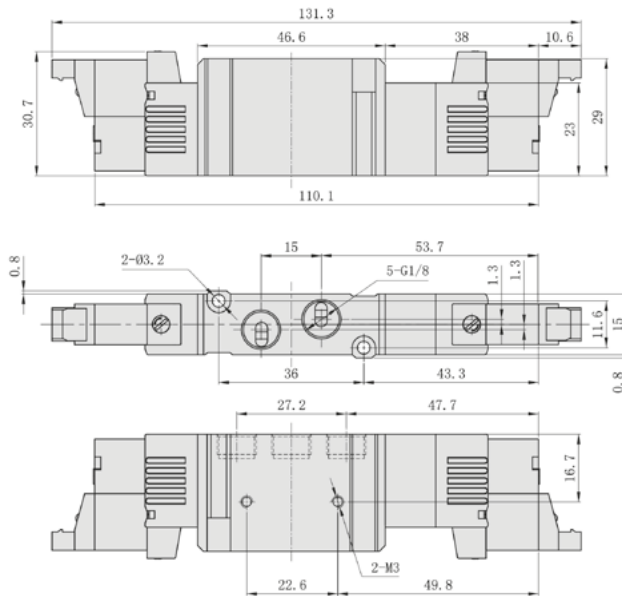
86-MVY-18-510



86-MVY-18-520



86-MVY-18-53x

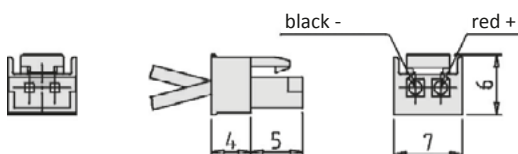


- 1 = pressure inlet
- 2,4 = outlets
- 3,5 = exhausts

Accessories

Plug sockets with cable

Model-no.:	86-ST-L-300	86-ST-L-600
cable length (mm)	300	600



Series 86-MV-5-18



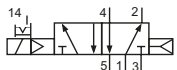
Technical details

Connection	G1/8
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. Alternatively 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

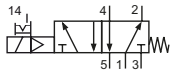


Electrically operated spool valve. The manual override is detent/ non-detent and is operated by screwdriver.

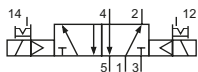
5/2-way valves



86-MV-5-18-510-xxx
5/2-way, single solenoid, air spring return

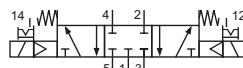


86-MV-5-18-511-xxx
5/2-way, single solenoid, mechanical spring return

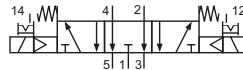


86-MV-5-18-520-xxx
5/2-way, double solenoid

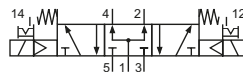
5/3-way valves



86-MV-5-18-530-xxx
5/3-way, center position closed



86-MV-5-18-533-xxx
5/3-way, center position exhausted



86-MV-5-18-534-xxx
5/3-way, center position pressurized

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	2.5 W		Form C industrial norm	-M42
220 V AC	2.5 VA		Form C industrial norm	-M57

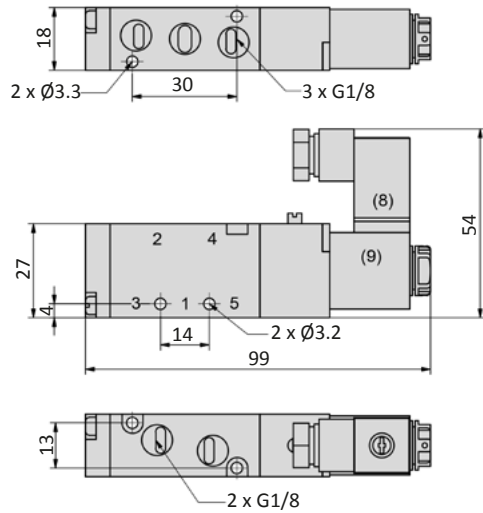
*1 Plug socket with integrated LED are part of delivery

Technical data

Model-no.:	86-MV-5-18-510	86-MV-5-18-511	86-MV-5-18-520	86-MV-5-18-530	86-MV-5-18-533	86-MV-5-18-534
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	3.5	3.5	3.5
Flow rate (NI/min)	650	650	650	480	480	480
Response time (ms) at 6 bar	20	20	20	20	20	20
Weight (kg)	0.115	0.115	0.170	0.190	0.190	0.190

Dimensions

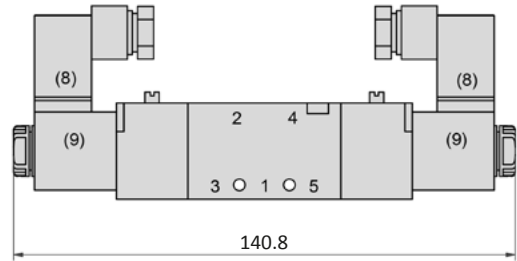
86-MV-5-18-510, 86-MV-5-18-511



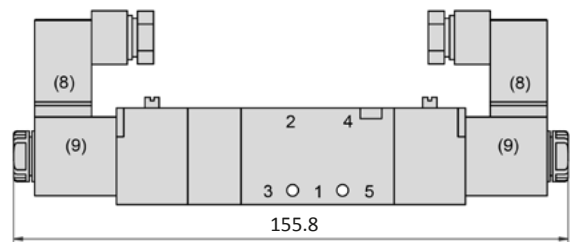
- 1 = pressure inlet
- 2,4 = outlets
- 3,5 = exhausts

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

86-MV-5-18-520



86-MV-5-18-53x



Accessories



Plug sockets: page 40



Manifolds: page 26

Series 86-MV-5-28



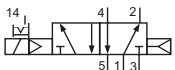
Technical details

Connection	G1/8
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. Alternatively 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

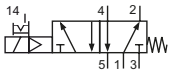


Electrically operated spool valve. The manual override is detent/ non-detent. It is operated manually or by screwdriver.

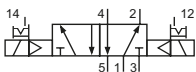
5/2-way valves



86-MV-5-28-510-xxx
5/2-way, single solenoid, air spring return

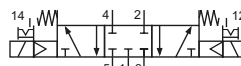


86-MV-5-28-511-xxx
5/2-way, single solenoid, mechanical spring return

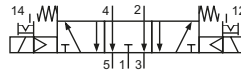


86-MV-5-28-520-xxx
5/2-way, double solenoid

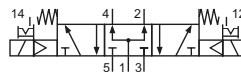
5/3-way valves



86-MV-5-28-530-xxx
5/3-way, center position closed



86-MV-5-28-533-xxx
5/3-way, center position exhausted



86-MV-5-28-534-xxx
5/3-way, center position pressurized

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

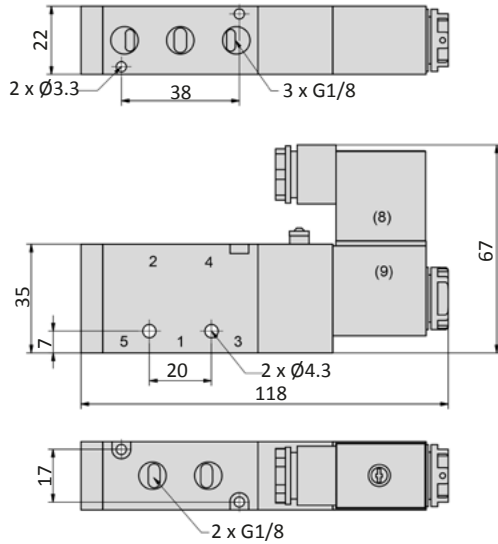
*1 Plug socket with integrated LED are part of delivery

Technical data

Model-no.:	86-MV-5-28-510	86-MV-5-28-511	86-MV-5-28-520	86-MV-5-28-530	86-MV-5-28-533	86-MV-5-28-534
Operating pressure (bar)	1.5...8	1.5...8	1.5...8	1.5...8	1.5...8	1.5...8
Nominal size (mm)	4.5	4.5	4.5	4	4	4
Flow rate (NI/min)	750	750	750	650	650	650
Response time (ms) at 6 bar	20	20	20	20	20	20
Weight (kg)	0.212	0.212	0.320	0.363	0.363	0.363

Dimensions

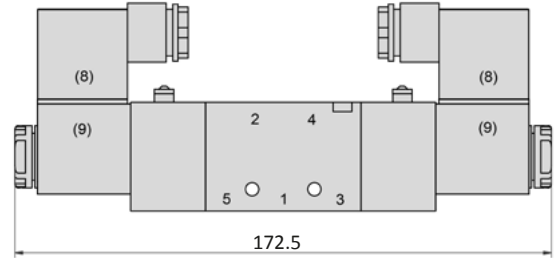
86-MV-5-28-510, 86-MV-5-28-511



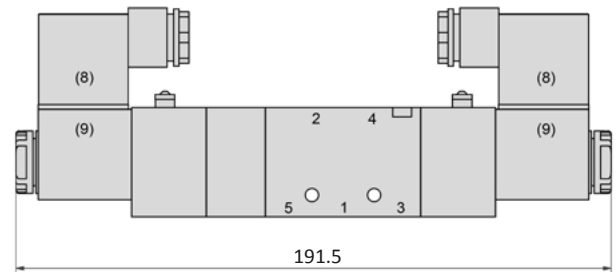
- 1 = pressure inlet
- 2,4 = outlets
- 3,5 = exhausts

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

86-MV-5-28-520



86-MV-5-28-53x



Accessories



Plug sockets: page 40



Manifolds: page 26

Series 86-MV-5-14



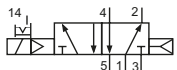
Technical details

Connection	pressure inlets G1/4, exhausts G1/8
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. Alternatively 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

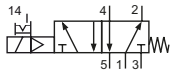


Electrically operated spool valve. The manual override is detent/ non-detent. It is operated manually or by screwdriver.

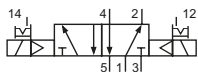
5/2-way valves



86-MV-5-14-510-xxx
5/2-way, single solenoid, air spring return

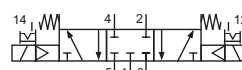


86-MV-5-14-511-xxx
5/2-way, single solenoid, mechanical spring return

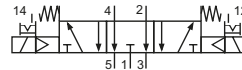


86-MV-5-14-520-xxx
5/2-way, double solenoid

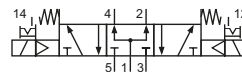
5/3-way valves



86-MV-5-14-530-xxx
5/3-way, center position closed



86-MV-5-14-533-xxx
5/3-way, center position exhausted



86-MV-5-14-534-xxx
5/3-way, center position pressurized

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

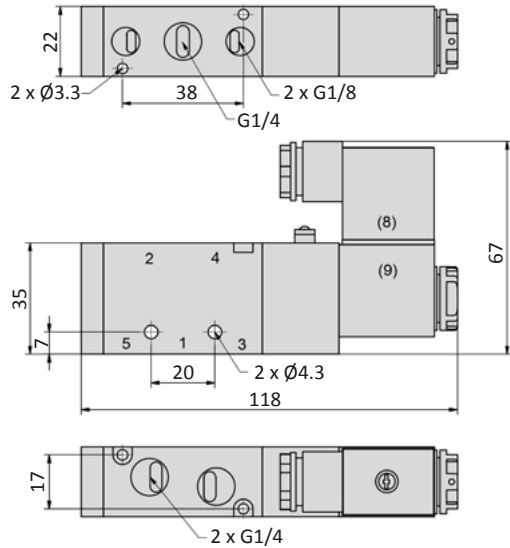
*1 Plug socket with integrated LED are part of delivery

Technical data

Model-no.:	86-MV-5-14-510	86-MV-5-14-511	86-MV-5-14-520	86-MV-5-14-530	86-MV-5-14-533	86-MV-5-14-534
Operating pressure (bar)	1.5...8	1.5...8	1.5...8	1.5...8	1.5...8	1.5...8
Nominal size (mm)	4.5	4.5	4.5	4	4	4
Flow rate (NI/min)	870	870	870	650	650	650
Response time (ms) at 6 bar	20	20	20	20	20	20
Weight (kg)	0.208	0.208	0.318	0.358	0.358	0.358

Dimensions

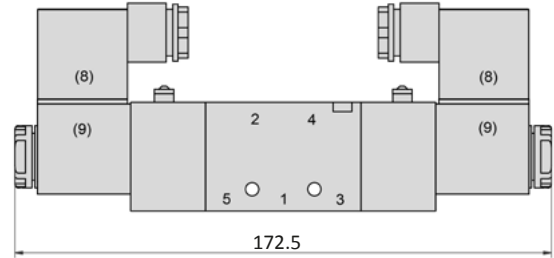
86-MV-5-14-510, 86-MV-5-14-511



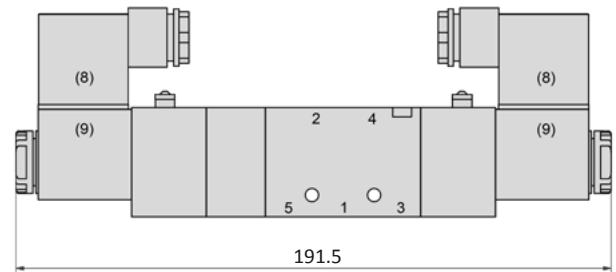
- 1 = pressure inlet
- 2,4 = outlets
- 3,5 = exhausts

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

86-MV-5-14-520



86-MV-5-14-53x



Accessories



Plug sockets: page 40



Manifolds: page 26

Series 86-MV-5-24



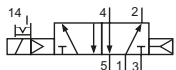
Technical details

Connection	G1/4
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. Alternatively 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

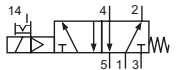


Electrically operated spool valve. The manual override is detent/ non-detent. It is operated manually or by screwdriver.

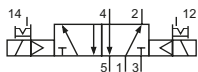
5/2-way valves



86-MV-5-24-510-xxx
5/2-way, single solenoid, air spring return

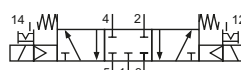


86-MV-5-24-511-xxx
5/2-way, single solenoid, mechanical spring return

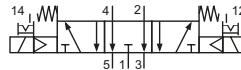


86-MV-5-24-520-xxx
5/2-way, double solenoid

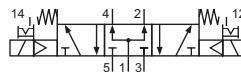
5/3-way valves



86-MV-5-24-530-xxx
5/3-way, center position closed



86-MV-5-24-533-xxx
5/3-way, center position exhausted



86-MV-5-24-534-xxx
5/3-way, center position pressurized

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

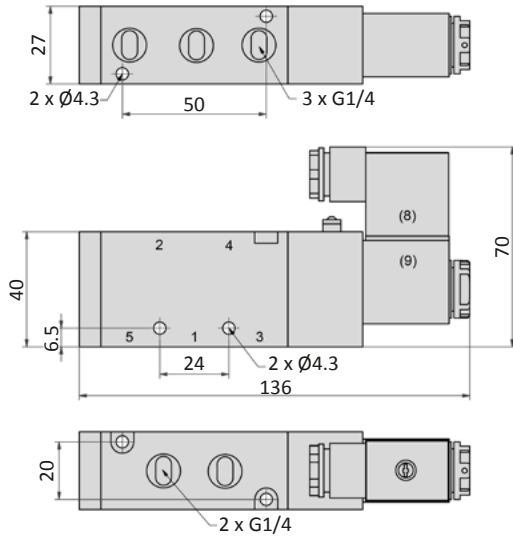
*1 Plug socket with integrated LED are part of delivery

Technical data

Model-no.:	86-MV-5-24-510	86-MV-5-24-511	86-MV-5-24-520	86-MV-5-24-530	86-MV-5-24-533	86-MV-5-24-534
Operating pressure (bar)	1.5...8	1.5...8	1.5...8	1.5...8	1.5...8	1.5...8
Nominal size (mm)	6	6	6	5	5	5
Flow rate (NI/min)	1350	1350	1350	980	980	980
Response time (ms) at 6 bar	20	20	20	20	20	20
Weight (kg)	0.290	0.290	0.400	0.460	0.460	0.460

Dimensions

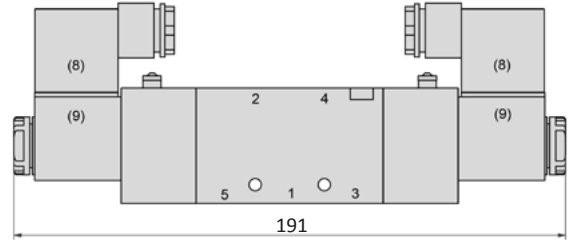
86-MV-5-24-510, 86-MV-5-24-511



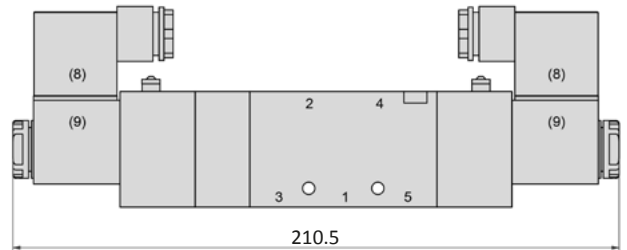
- 1 = pressure inlet
- 2,4 = outlets
- 3,5 = exhausts

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

86-MV-5-24-520



86-MV-5-24-53x



Accessories



Plug sockets: page 40



Manifolds: page 26

Series 86-MV-5-38



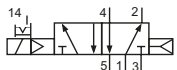
Technical details

Connection	pressure inlets G3/8, exhausts G1/4
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. Alternatively 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

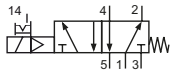


Electrically operated spool valve. The manual override is detent/ non-detent. It is operated manually or by screwdriver.

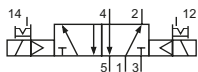
5/2-way valves



86-MV-5-38-510-xxx
5/2-way, single solenoid, air spring return

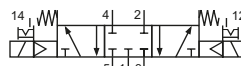


86-MV-5-38-511-xxx
5/2-way, single solenoid, mechanical spring return

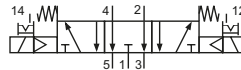


86-MV-5-38-520-xxx
5/2-way, double solenoid

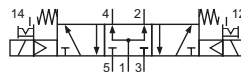
5/3-way valves



86-MV-5-38-530-xxx
5/3-way, center position closed



86-MV-5-38-533-xxx
5/3-way, center position exhausted



86-MV-5-38-534-xxx
5/3-way, center position pressurized

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

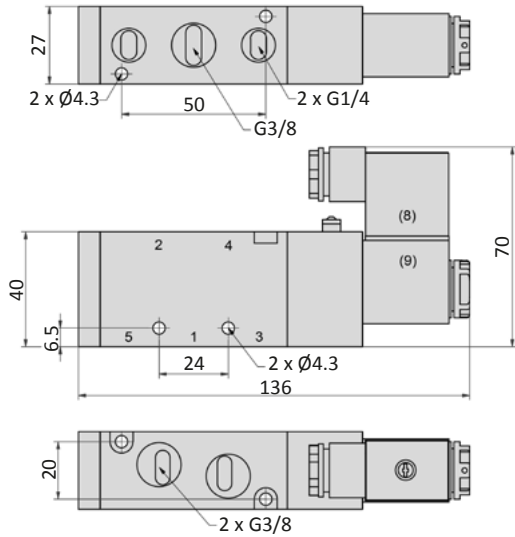
*1 Plug socket with integrated LED are part of delivery

Technical data

Model-no.:	86-MV-5-38-510	86-MV-5-38-511	86-MV-5-38-520	86-MV-5-38-530	86-MV-5-38-533	86-MV-5-38-534
Operating pressure (bar)	1.5...8	1.5...8	1.5...8	1.5...8	1.5...8	1.5...8
Nominal size (mm)	6	6	6	5	5	5
Flow rate (NI/min)	1600	1600	1600	980	980	980
Response time (ms) at 6 bar	20	20	20	20	20	20
Weight (kg)	0.285	0.285	0.395	0.454	0.454	0.454

Dimensions

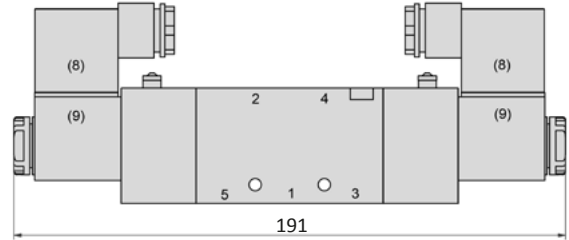
86-MV-5-38-510, 86-MV-5-38-511



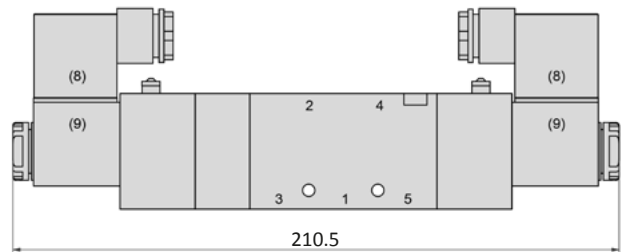
- 1 = pressure inlet
- 2,4 = outlets
- 3,5 = exhausts

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

86-MV-5-38-520



86-MV-5-38-53x



Accessories



Plug sockets: page 40



Manifolds: page 26

Series 86-MV-5-12



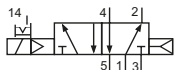
Technical details

Connection	G1/2
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. Alternatively 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

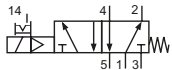


Electrically operated spool valve. The manual override is detent/ non-detent. It is operated manually or by screwdriver.

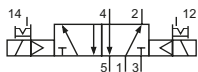
5/2-way valves



86-MV-5-12-510-xxx
5/2-way, single solenoid, air spring return

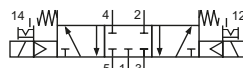


86-MV-5-12-511-xxx
5/2-way, single solenoid, mechanical spring return

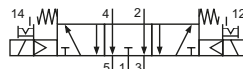


86-MV-5-12-520-xxx
5/2-way, double solenoid

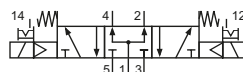
5/3-way valves



86-MV-5-12-530-xxx
5/3-way, center position closed



86-MV-5-12-533-xxx
5/3-way, center position exhausted



86-MV-5-12-534-xxx
5/3-way, center position pressurized

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

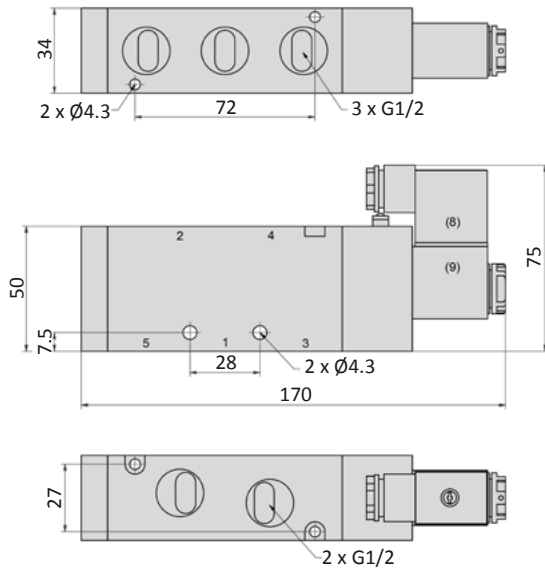
*1 Plug socket with integrated LED are part of delivery

Technical data

Model-no.:	86-MV-5-12-510	86-MV-5-12-511	86-MV-5-12-520	86-MV-5-12-530	86-MV-5-12-533	86-MV-5-12-534
Operating pressure (bar)	1.5...8	1.5...8	1.5...8	1.5...8	1.5...8	1.5...8
Nominal size (mm)	8	8	8	6.5	6.5	6.5
Flow rate (NI/min)	2500	2500	2500	1600	1600	1600
Response time (ms) at 6 bar	20	20	20	20	20	20
Weight (kg)	0.506	0.506	0.626	0.714	0.714	0.714

Dimensions

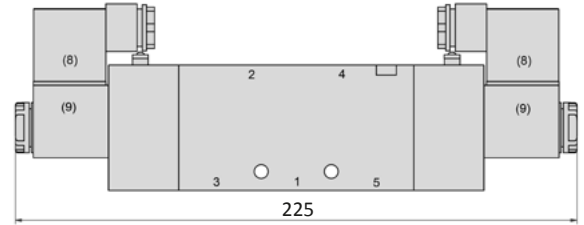
86-MV-5-12-510, 86-MV-5-12-511



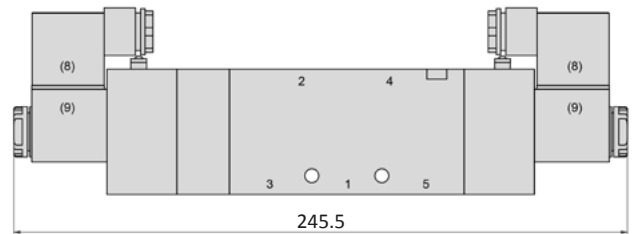
- 1 = pressure inlet
- 2,4 = outlets
- 3,5 = exhausts

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

86-MV-5-12-520



86-MV-5-12-53x



Accessories



Plug sockets: page 40

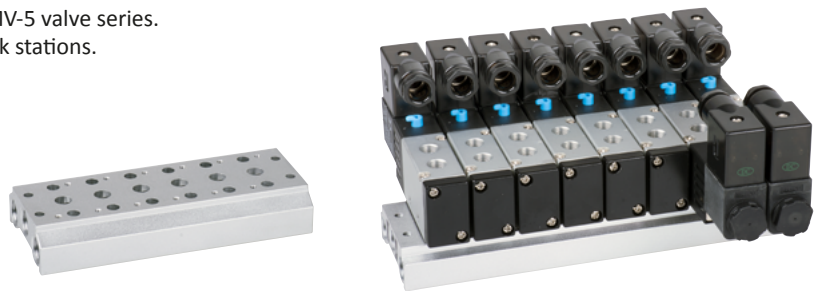


Manifolds: page 26

Series 86-PRS

General information

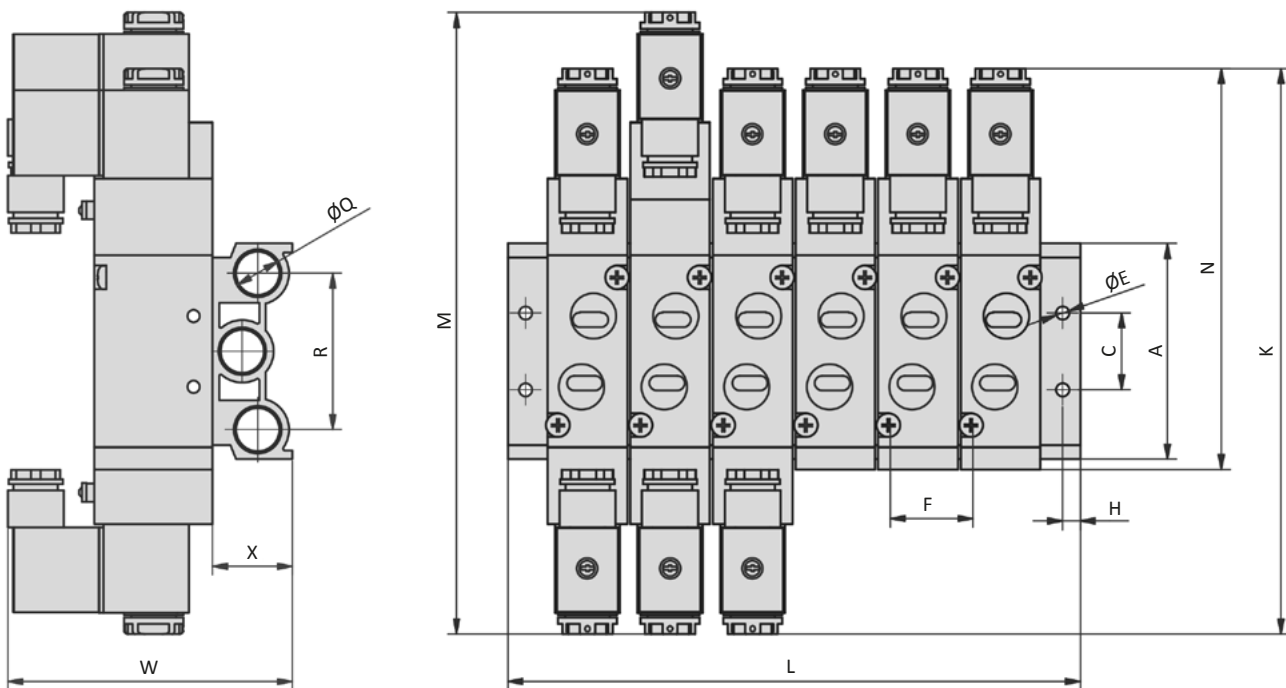
The 86-PRS manifolds are suitable for the 86-MV-5 valve series.
Blind plates 86-PRS-xxx-V are available for blank stations.
All mounting screws and o-rings are included.



Order code

Series		Number of stations	
MVY for series 86-MVY-18		02...20	
100 for series 86-MV-5-18		Size Standard	
200 for series 86-MV-5-28, 86-MV-5-14		MVY	04, 06, 08, 10, 12
300 for series 86-MV-5-24, 86-MV-5-38		100	02, 04, 06, 08, 10, 12, 14, 16
400 for series 86-MV-5-12		200	02, 04, 05, 06, 08, 10, 12, 14, 16
		300	02, 04, 06
		400	02, 04

Dimensions



Model-no.:	A	C	Ø E	F	H	K	L	M	N	Q	R	W	X
86-PRS-MVY-xx	60	20	4.2	16	5	119	(xx-1)*16 + 34	132	92	G1/4	41	57	26.5
86-PRS-100-xx	58	20	4.2	19	5	140	(xx-1)*19 + 38	155	98	G1/4	40	77	22
86-PRS-200-xx	59	21	4.3	23	6	170	(xx-1)*23 + 46	189	116	G1/4	43	90	22
86-PRS-300-xx	75	26	4.5	28	6	189	(xx-1)*28 + 54	208	134	G3/8	53	98	27
86-PRS-400-xx	98	32	5.5	35	7	222	(xx-1)*35 + 63	243	168	G1/2	68	112	36

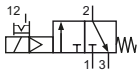
xx = number of stations

Technical details

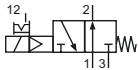
Connection	86-MV-3-18: G1/8 86-MV-3-14: G1/4
Temperature range	+5°C ... +50°C
Medium	Filtered, oil-free and dried compressed air according to ISO 8573-1:2010, Class 7:2:4, instrument air, free of aggressive additives. Alternatively the pressure dew point must be at least 10°C below lowest occurring ambient temperature.
Materials	Body: Al (anodized), plastic, seals: NBR, inner parts: Al, steel and plastic
Protection	IP 65 according to EN 60529



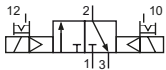
Electrically operated spool valve. The manual override is detent/ non-detent. It is operated manually or by screwdriver.

3/2-way valves


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



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



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 port 2
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

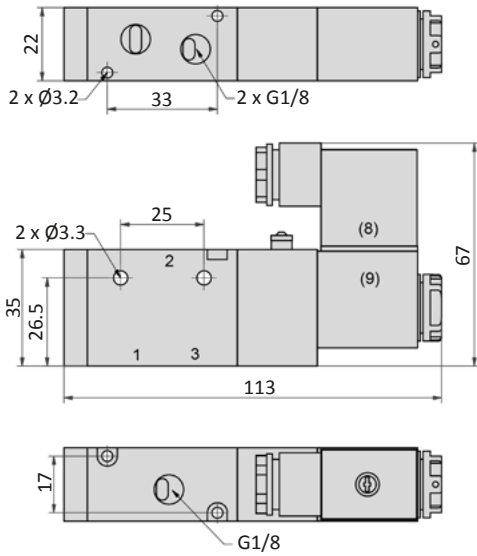
Technical data

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
Response 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

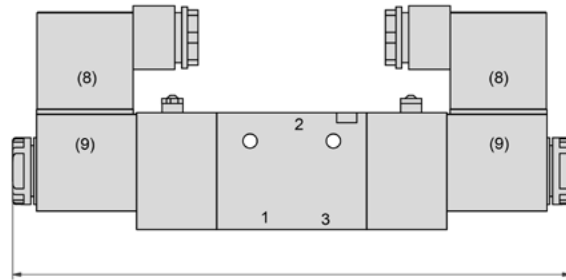
86-MV-3-18-311



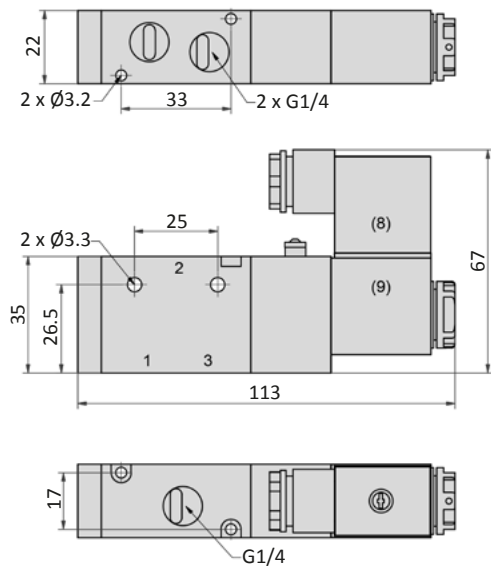
- 1 = pressure inlet
- 2 = outlet
- 3 = exhaust

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

86-MV-3-18-320



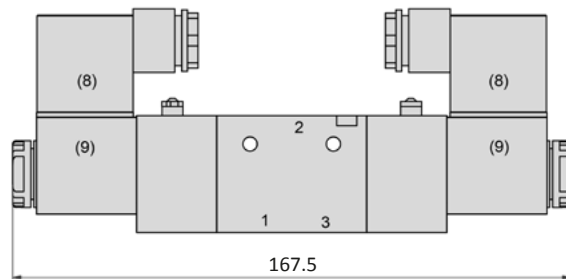
86-MV-3-14-311



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

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

86-MV-3-14-320

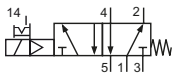


Technical details

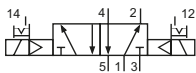
Connection	G1/8, flange
Temperature range	+5°C ... +50°C
Medium	Filtered, oil-free and dried compressed air according to ISO 8573-1:2010, Class 7:2:4, instrument air, free of aggressive additives. Alternatively the pressure dew point must be at least 10°C below lowest occurring ambient temperature.
Materials	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.

5/2-way valves


86-MN-4-18-510-xxx
5/2-way, single solenoid, mechanical spring return and air spring return



86-MN-4-18-520-xxx
5/2-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

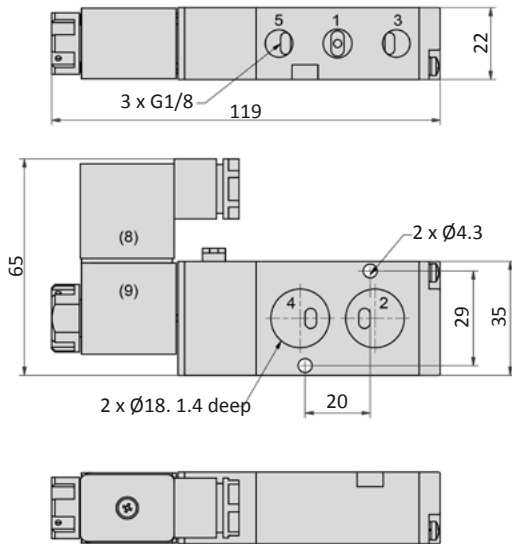
Technical data

Model-no.:	86-MN-4-18-510	86-MN-4-18-520
Operating pressure (bar)	1.5...8	1.5...8
Nominal size (mm)	4	4
Flow rate (l/min)	750	750
Response time (ms) at 6 bar	20	20
Weight (kg)	0.220	0.334

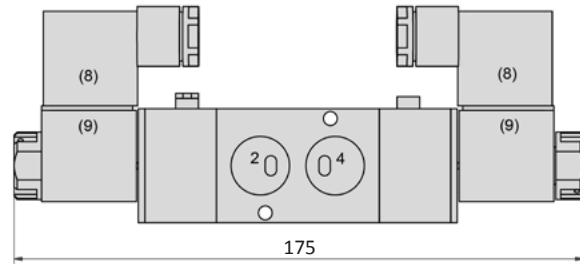
Series 86-MN-4-18

Dimensions

86-MN-4-18-510



86-MN-4-18-520



- 1 = pressure inlet
- 2.4 = outlets
- 3.5 = exhausts

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

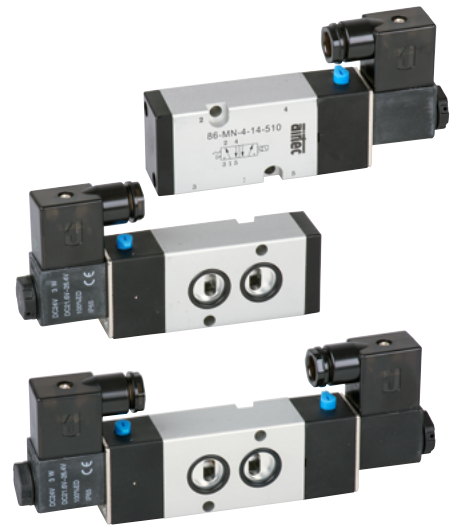
Accessories



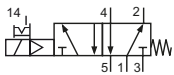
Plug sockets: page 40

Technical details

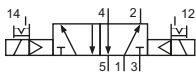
Connection	G1/4, Namur
Temperature range	+5°C ... +50°C
Medium	Filtered, oil-free and dried compressed air according to ISO 8573-1:2010, Class 7:2:4, instrument air, free of aggressive additives. Alternatively the pressure dew point must be at least 10°C below lowest occurring ambient temperature.
Materials	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.

5/2-way valves


86-MN-4-14-510-xxx
 5/2-way, single solenoid, mechanical spring return and air spring return



86-MN-4-14-520-xxx
 5/2-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

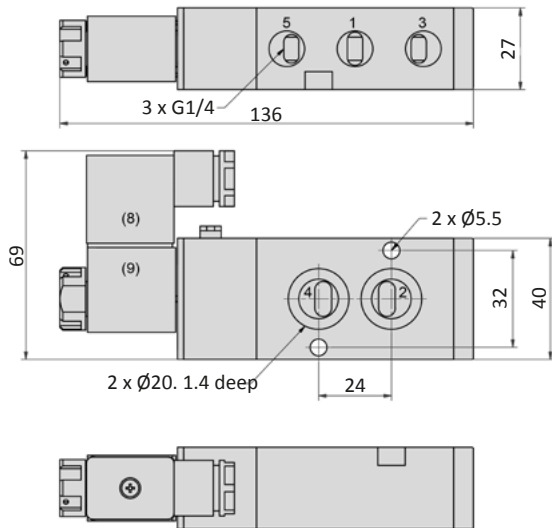
Model-no.:	86-MN-4-14-510	86-MN-4-14-520
Operating pressure (bar)	1.5...8	1.5...8
Nominal size (mm)	6	6
Flow rate (NI/min)	1300	1300
Response time (ms) at 6 bar	20	20
Weight (kg)	0.306	0.430

Series 86-MN-4-14

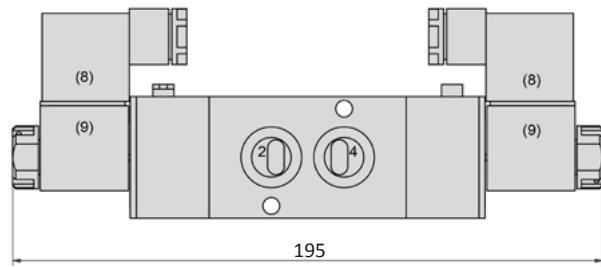
NAMUR

Dimensions

86-MN-4-14-510



86-MN-4-14-520



- 1 = pressure inlet
- 2,4 = outlets
- 3,5 = exhausts

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

Accessories



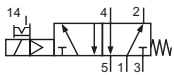
Plug sockets: page 40

Technical details

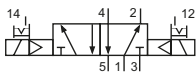
Connection	G1/2, flange
Temperature range	+5°C ... +50°C
Medium	Filtered, oil-free and dried compressed air according to ISO 8573-1:2010, Class 7:2:4, instrument air, free of aggressive additives. Alternatively the pressure dew point must be at least 10°C below lowest occurring ambient temperature.
Materials	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.

5/2-way valves


86-MN-4-12-510-xxx
5/2-way, single solenoid, mechanical spring return and air spring return



86-MN-4-12-520-xxx
5/2-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

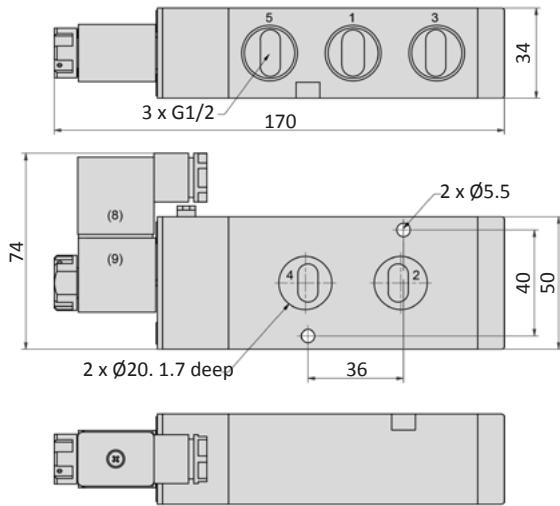
Technical data

Model-no.:	86-MN-4-12-510	86-MN-4-12-520
Operating pressure (bar)	1.5...8	1.5...8
Nominal size (mm)	8	8
Flow rate (NI/min)	2500	2500
Response time (ms) at 6 bar	20	20
Weight (kg)	0.537	0.658

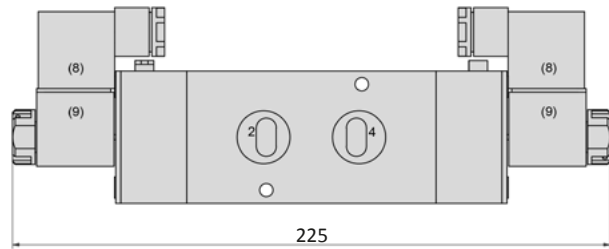
Series 86-MN-4-12

Dimensions

86-MN-4-12-510



86-MN-4-12-520



- 1 = pressure inlet
- 2,4 = outlets
- 3,5 = exhausts

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

Accessories



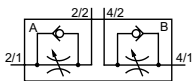
Plug sockets: page 40

86-4-DR-NAMUR, Speed regulation plate
Technical details

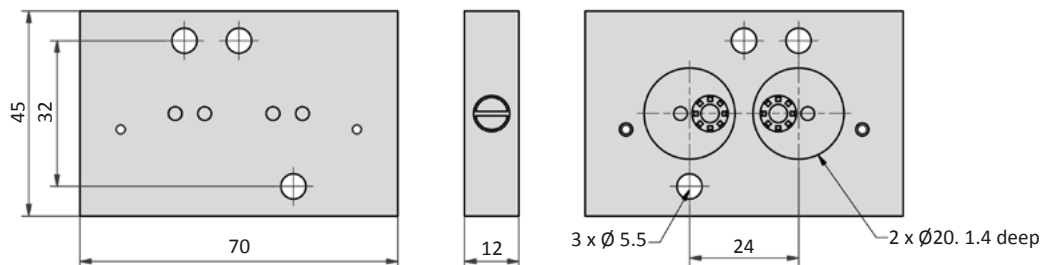
Connection	Namur
Nominal size	4 mm
Pressure range (bar)	1.5...8
Temperature range	+5°C ... +50°C
Medium	Filtered, oil-free and dried compressed air according to ISO 8573-1:2010, Class 7:2:4, instrument air, free of aggressive additives. Alternatively the pressure dew point must be at least 10°C below lowest occurring ambient temperature.
Materials	Body: Al (anodized), plastic, seals: NBR, inner parts: Al, steel and plastic
Weight	0.103 kg



Speed regulation plate for double acting actuators. The speed regulation plate can also be used for single acting actuators by using the converting plate 86-4-AP-NAMUR. Adjustable by screw driver.

5/2- und 5/3-Wege


86-4-DR-NAMUR
 for 5/2-way- and 5/3-way valves,
 adjustable by screw driver

Dimensions


Series 86-4-AP NAMUR

86-4-AP-NAMUR, Converting plate

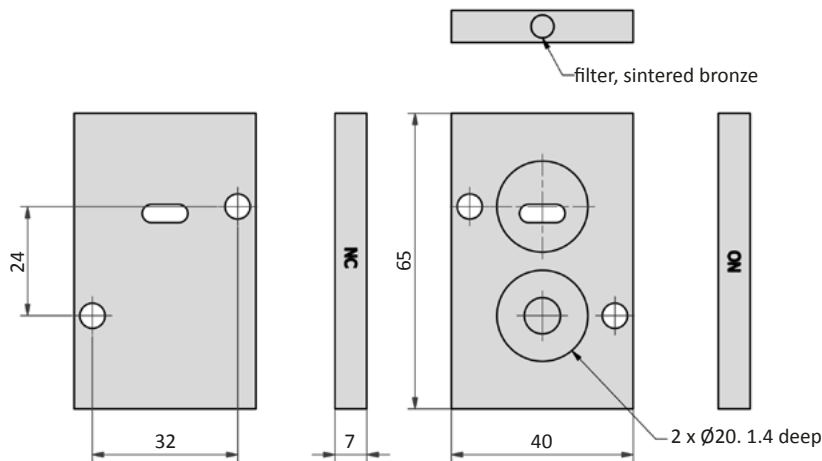
Technical details

Connection	Namur
Nominal size	4 mm
Pressure range (bar)	0...8
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. Alternatively the pressure dew point must be at least 10°C below lowest occurring ambient temperature.
Materials	Body: Al (anodized), seals: NBR
Weight	0,043 kg



Converting plate suitable to obtain a 3/2-way function at a 5/2-way NAMUR valve.
Additional feature: Turning the plate by 180° you can change a NC to a NO function or vice versa.

Dimensions

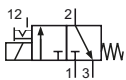


Technical details

Connection	G1/8
Temperature range	-10°C ... +60°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. Alternatively the pressure dew point must be at least 10°C below lowest occurring ambient temperature.
Materials	Body: Al (painted), 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 screw driver.

3/2-way valves


86-MS-3V-yy-xxx
 3/2-Wege, single solenoid, mechanical spring return, NC

Please complete: xxx = electrical option
 yy = number of stations (01 ... 20)

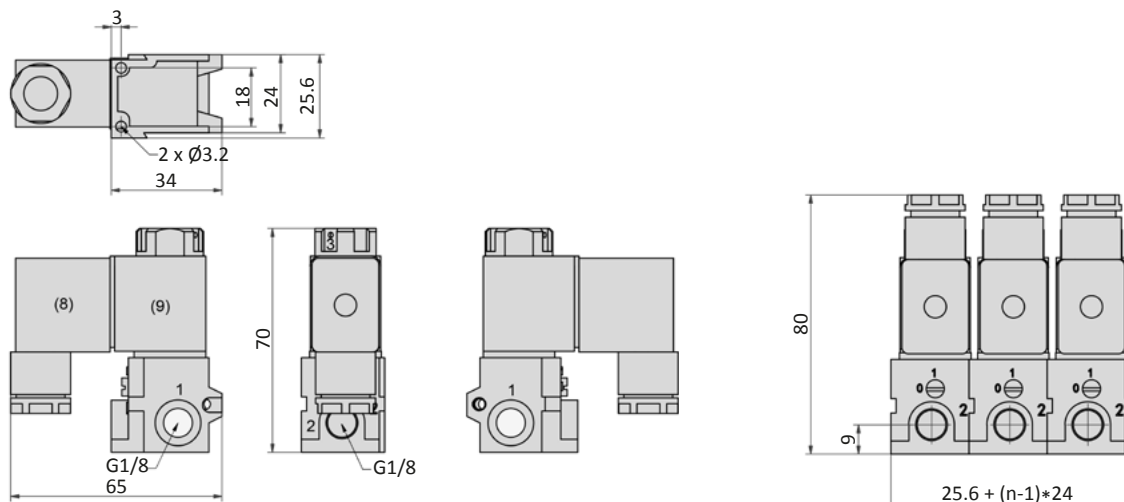
Electrical options

Nominal voltage	Power consumption	Specifics	Plug connection* ¹	-XXX Manual override on same side of port 2
24 V DC	4.8 W		Form B industrial norm	-M42
220 V AC	5.5 VA		Form B industrial norm	-M57

*¹ Plug socket with integrated LED are part of delivery

Technical data

Model-no.:	86-MS-3V-yy
Operating pressure (bar)	0...8
Nominal size (mm)	1
Flow rate (NI/min)	50
Response time (ms) at 6 bar	20
Weight (kg)	0.176 * yy, (yy = number of stations (01 ... 20))

Dimensions


Series SMS-170

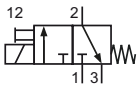
Technical details

Temperature range	-20°C ... +80°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. Alternatively the pressure dew point must be at least 10°C below lowest occurring ambient temperature.
Materials	Body: Al (anodized), seals: HNBR, FKM, inner parts: Al, brass and steel
Protection	IP 65 according to EN 60529



Electrically operated high speed poppet valve.
The manual override is non detent.

3/2-way valves



SMS-170-18-xxx
SMS-170-14-xxx
3/2-way, single solenoid, mechanical
spring return, NC

Please complete: xxx = electrical option

Electrical options

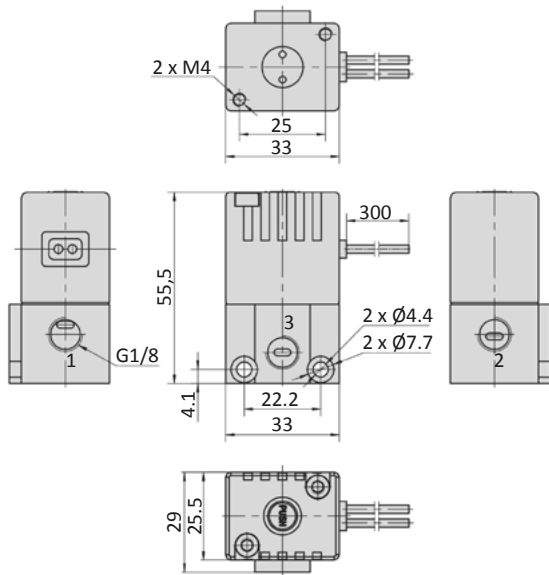
Nominal voltage	Power consumption	Voltage tolerance	Connection	-xxx
12 V DC	4.5 W	± 10 %	cable, 0.3 m length	-Q11
24 V DC	4.5 W	± 10 %	cable, 0.3 m length	-Q12

Technical data

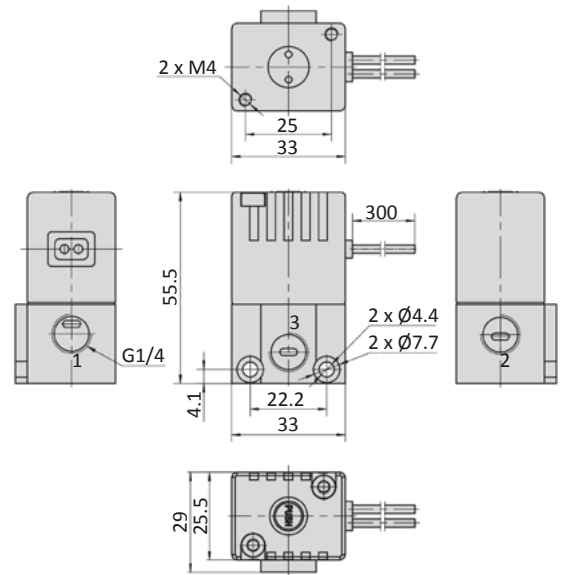
Model-no.:	SMS-170-18-Qxx	SMS-170-14-Qxx
Operating pressure (bar)	0 ... 10	0 ... 10
Flow rate (NI/min)	180	180
Response time (ms) at 6 bar	12	12
max. switching frequency (Hz)	40	40
Connection	G1/8	G1/4
Weight (kg)	0.156	0.150

Dimensions

SMS-170-18-Qxx



SMS-170-14-Qxx



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

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.:	28-ST-01	86-ST-04-112	28-ST-04-127
Voltage (AC/DC)	0 - 250 V	24 V DC	220 V AC
Status indicator	no	yes	yes
Protective circuit	no	no	no
Connecting cable	without	without	without
Wire cross section	max. 1.5 mm ²	max. 1.5 mm ²	max. 1.5 mm ²
Ø Connecting cable	6 - 8 mm	6 - 8 mm	6 - 8 mm

Form C industrial norm

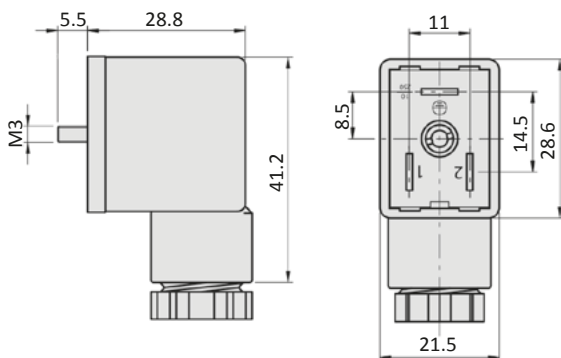
Overall width	15 mm
Contact distance	9.4 mm
Contacts	2P + E
Protection	IP 65 according to EN 60529 requires a flat gasket
For use with series	86-MV-5-18



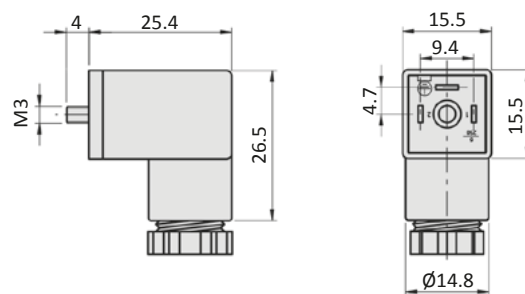
Model-no.:	28-ST-02-01	86-ST-09-112	86-ST-09-127
Voltage (AC/DC)	0 - 250 V	24 V DC	220 V AC
Status indicator	no	yes	yes
Protective circuit	no	no	no
Connecting cable	without	without	without
Wire cross section	max. 0.75 mm ²	max. 0.75 mm ²	max. 0.75 mm ²
Ø Connecting cable	4 - 6 mm	4 - 6 mm	4 - 6 mm

Dimensions

Form B industrial norm



Form C industrial norm



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

Form C industrial norm

Overall width	15 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	86-MV-5-18

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



Model-no.:	86-SP-021-412	86-SP-021-427
Voltage	24 V DC	220 V AC
Power consumption DC	2.5 W	-
Power consumption AC	-	2.5 VA

Series 88-XSI Page 44

Mounting accessories Page 47



Series 88-CQ2 Page 53



Proximity sensors and accessories Page 57



Series 88-XSI

ISO 15552, double acting

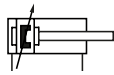
Technical details

Operating pressure	1 ... 10 bar
Temperature range	-20°C ... +70°C
Max. stroke	2800 mm
Medium	50 ... 800 mm/s
Materials	Filtered, oil-free and dried compressed air according to ISO 8573-1:2010, Class 7:2:4, instrument air, free of aggressive additives. Alternatively the pressure dew point must be at least 10°C below lowest occurring ambient temperature. Cylinder tube: Al (anodized) End caps: Al-die-cast (painted) Piston rod: steel hard chrome plated Seals: PU, NBR

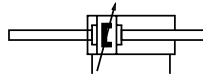


Double acting Al-profile cylinder with integrated sensor grooves, adjustable cushions and magnetic piston for proximity sensors. The sensors can be installed directly into the sensor grooves of the Al-profile. Standard stroke lengths in table below, additional lengths on request.

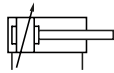
Versions



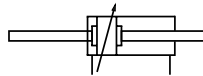
050
double acting, adjustable cushioning, with magnetic piston



450
double acting, double end piston rod, adjustable cushioning, with magnetic piston

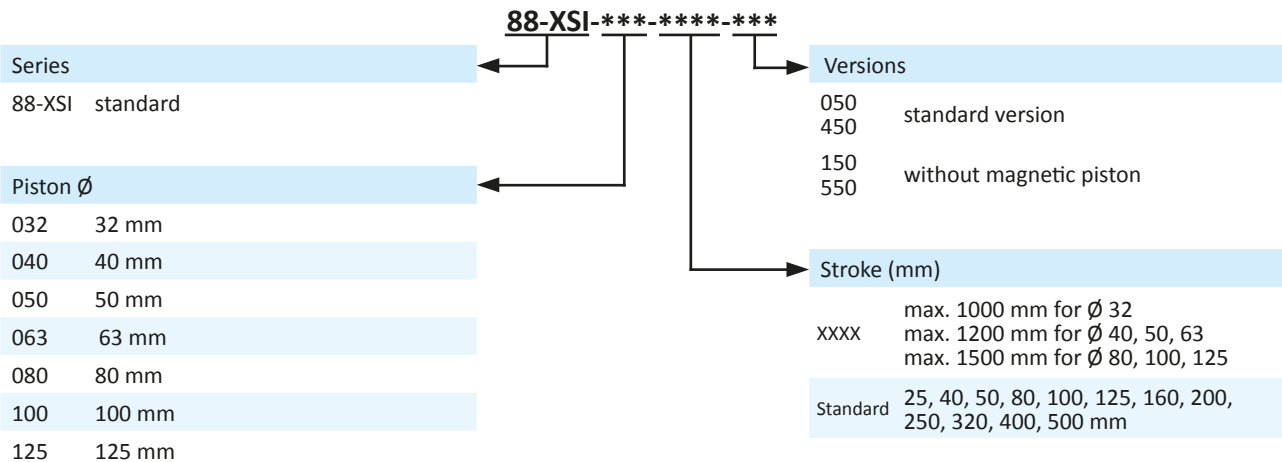


150
double acting, adjustable cushioning



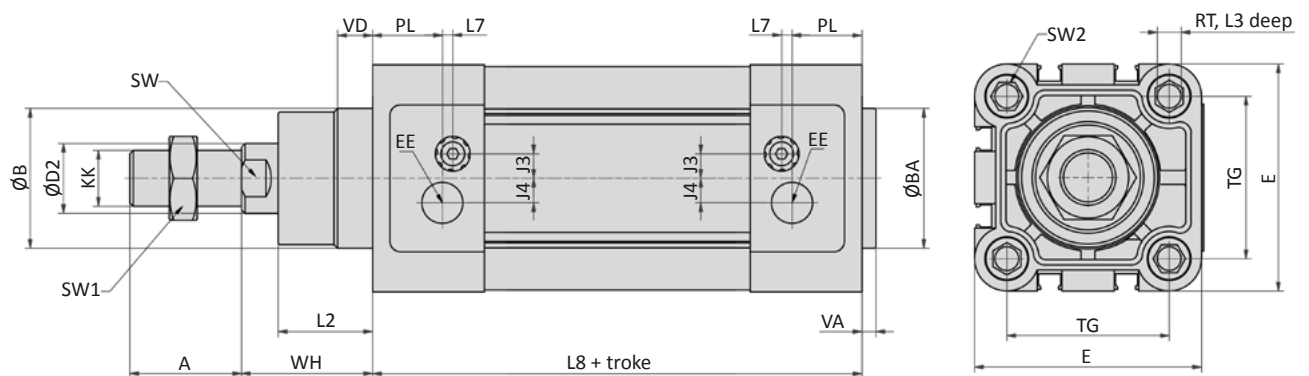
550
double acting, double end piston rod, adjustable cushioning

Order code



Technical data

Model-no.:	88-XSI-032-...	88-XSI-040-...	88-XSI-050-...	88-XSI-063-...	88-XSI-080-...	88-XSI-100-...	88-XSI-125-...
Piston \varnothing (mm)	32	40	50	63	80	100	125
Force at 6 bar (N)	Extension	434	678	1060	1682	2713	6623
	Retraction	373	570	890	1513	2448	6189
Connection	G1/8	G1/4	G1/4	G3/8	G3/8	G1/2	G1/2
Piston rod thread	M10 x 1.25	M12 x 1.25	M16 x 1.5	M16 x 1.5	M20 x 1.5	M20 x 1.5	M27 x 2
Cushioning length (mm)	20	20	20	20	26	26	26

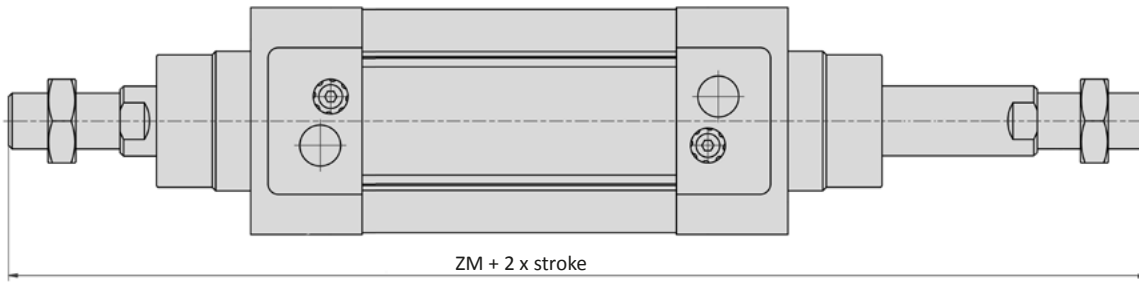
Dimensions series 88-XSI


Piston \varnothing	A	$\varnothing B$	$\varnothing BA$	$\varnothing D2$	E	EE	J3	J4	KK	L2	L3
32	22	30	30	12	45	G1/8	6.5	5	M10 x 1.25	16	12
40	24	35	35	16	52	G1/4	7	7	M12 x 1.25	20	12
50	32	40	40	20	65	G1/4	9	7	M16 x 1.5	27	12
63	32	45	45	20	76	G3/8	9	8	M16 x 1.5	26	12
80	40	45	45	25	94	G3/8	12	10	M20 x 1.5	35	15
100	40	55	55	25	112	G1/2	14	10	M20 x 1.5	40	15
125	54	60	60	32	134	G1/2	14	10	M27 x 2	46	20

Piston \varnothing	L7	L8	PL	RT	SW	SW1	SW2	TG	VA	VD	WH
32	3	94	15	M6	10	17	6	32.5	4	10	27
40	3	105	17.5	M6	13	19	6	38	4	10	30
50	3	106	20	M8	17	24	8	46.5	4	10	37.5
63	5	122	22	M8	17	24	8	56.5	4	10	36
80	5	127	23	M10	22	30	6	72	5	10	48
100	5	137	26	M10	22	30	6	89	6	10	52
125	5	160	29	M12	27	41	8	110	7	10	63

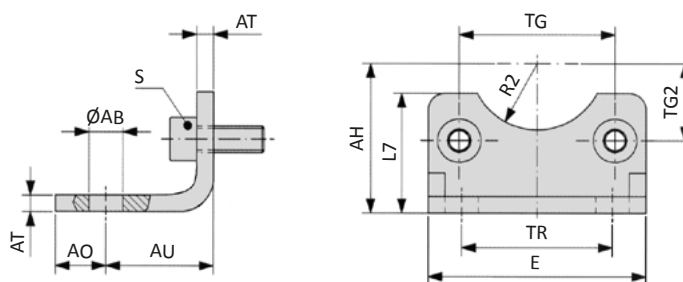
Series 88-XSI
ISO 1552, double acting

Dimensions series 88-XSI (addition at double end piston rod)



Piston Ø (mm)	32	40	50	63	80	100	125
ZM	146	165	180	195	220	240	290

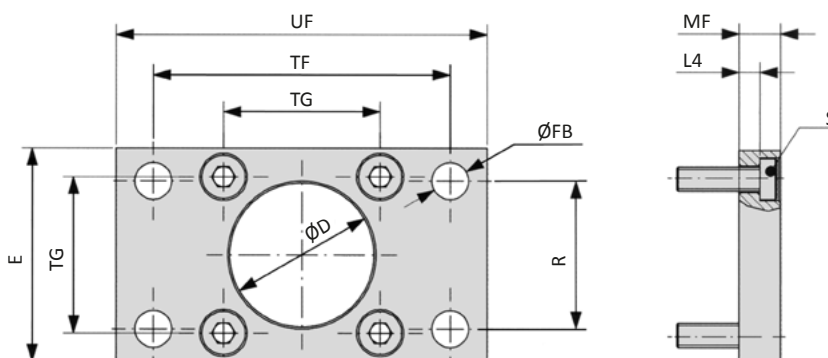
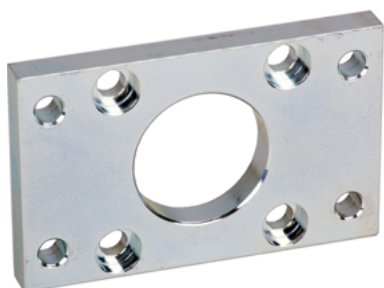
XLB-xxx-01 Foot mount



Model-no.:	Ø AB	AH	AO	AU	AT	E	L7	R2	S	TG	TG2	TR
XLB-032-01	7	32	11	24	4	45	30	15	M6 x 16	32.5	16.25	32
XLB-040-01	10	36	8	28	4	52	30	17.5	M6 x 16	38	19	36
XLB-050-01	10	45	15	32	5	65	36	20	M8 x 20	46.5	23.25	45
XLB-063-01	10	50	13	32	5	75	35	22.5	M8 x 20	56.5	28.25	50
XLB-080-01	12	63	14	41	6	95	47	22.5	M10 x 20	72	36	63
XLB-100-01	14.5	71	16	41	6	115	53	27.5	M10 x 20	89	44.5	75
XLB-125-01	16.5	90	25	45	8	140	70	30	M12 x 25	110*	55	90
<i>tolerances and adjustments</i>	H14	JS16		± 0.2				H15		± 0.2 *± 0.3		JS14

Material: steel, zinc plated; 2 x 2 screws in accordance with EN ISO 4762 are included.

XLB-xxx-02 Flange mount



Model-no.:	Ø D	E	Ø FB	L4	MF	R	S	TF	TG	UF
XLB-032-02	30	45	7	5	10	32	M6 x 20	64	32.5	80
XLB-040-02	35	52	9	5	10	36	M6 x 20	72	38	90
XLB-050-02	40	65	9	6.5	12	45	M8 x 20	90	46.5	110
XLB-063-02	45	75	9	6.5	12	50	M8 x 20	100	56.5	120
XLB-080-02	45	95	12	9	16	63	M10 x 25	126	72	150
XLB-100-02	55	115	14	9	16	75	M10 x 25	150	89	170
XLB-125-02	60	140	16	10.5	20	90	M12 x 25	180	110*	205
<i>tolerances and adjustments</i>	H11		H13	- 0.5	JS14	JS14		JS14	± 0.2 *± 0.3	

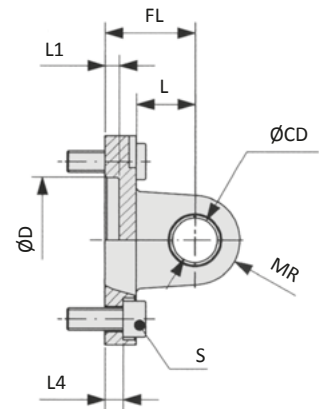
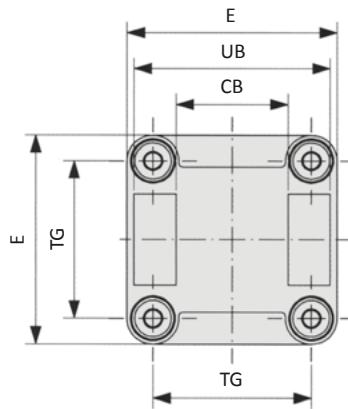
Material: steel, zinc plated; 4 screws in accordance with DIN 7984 are included.

Series 88-XSI Mounting accessories

XLB-xxx-04 Clevis mount with bushing



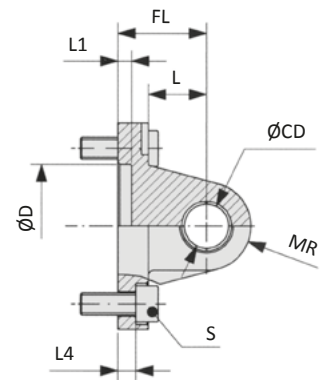
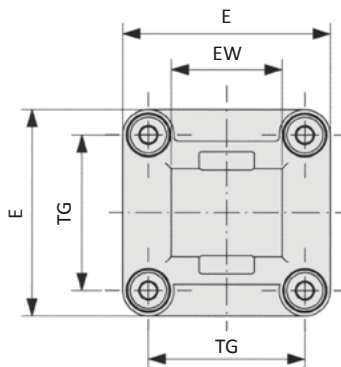
Inclusive clevis pin
order no: XLB-xxx-48



Model-no.:	CB	Ø CD	Ø D	E	FL	L	L1	L4	MR	S	TG	UB
XLB-032-04	26	10	30	45	22	13	5	5.5	10	M6 x 20	32.5	45
XLB-040-04	28	12	35	52	25	16	5	5.5	12	M6 x 20	38	52
XLB-050-04	32	12	40	65	27	16	5	6.5	12	M8 x 20	46.5	60
XLB-063-04	40	16	45	75	32	21	5	6.5	16	M8 x 20	56.5	70
XLB-080-04	50	16	45	95	36	22	5	10	16	M10 x 25	72	90
XLB-100-04	60	20	55	115	41	27	5	10	20	M10 x 25	89	110
XLB-125-04	70	25	60	140	50	30	7	10	25	M12 x 25	110*	130
<i>tolerances and adjustments</i>	H14	H9	H11		± 0.2			± 0.5			± 0.2 *± 0.3	h13

Materials: Al, bushing steel and PTFE; 4 screws in accordance with EN ISO 4762 are included.

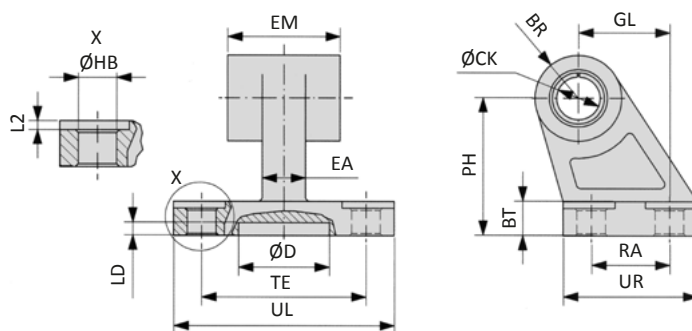
XLB-xxx-05 Swivel mount



Model-no.:	Ø CD	Ø D	E	EW	FL	L	L1	L4	MR	S	TG
XLB-032-05	10	30	45	26	22	13	5	5.5	10	M6 x 20	32.5
XLB-040-05	12	35	52	28	25	16	5	5.5	12	M6 x 20	38
XLB-050-05	12	40	65	32	27	16	5	6.5	12	M8 x 20	46.5
XLB-063-05	16	45	75	40	32	21	5	6.5	16	M8 x 20	56.5
XLB-080-05	16	45	95	50	36	22	5	10	16	M10 x 25	72
XLB-100-05	20	55	115	60	41	27	5	10	20	M10 x 25	89
XLB-125-05	25	60	140	70	50	30	7	10	25	M12 x 25	110*
<i>tolerances and adjustments</i>	H9	H11			± 0.2			± 0.5			± 0.2 *± 0.3

Materials: Al, bushing steel and PTFE; 4 screws in accordance with EN ISO 4762 are included.

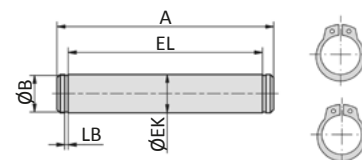
XLB-xxx-06 Swivel mount 90°



Model-no.:	BR	BT	ØCK	Ø D	EA	EM	GL	ØHB	L2	LD	PH	RA	TE	UL	UR
XLB-032-06	10	8	10	21	10	26	21	6.6	1.6	3	32	18	38	51	31
XLB-040-06	11	10	12	21	15	28	24	6.6	1.6	3	36	22	41	54	35
XLB-050-06	13	12	12	21	16	32	33	9	1.6	3	45	30	50	65	45
XLB-063-06	15	14	16	21	16	40	37	9	1.6	3	50	35	52	67	50
XLB-080-06	15	14	16	21	20	50	47	11	2.5	3	63	40	66	86	60
XLB-100-06	19	17	20	11	20	60	55	11	2.5	3	71	50	76	96	70
XLB-125-06	22.5	20	25	21	30	70	70	14	3.2	3	90	60	94	124	90
<i>tolerances and adjustments</i>			H9				JS14	H13			JS15	JS14	JS14		

Materials: Al, bushing steel and PTFE

XLB-xxx-08 Clevis pin



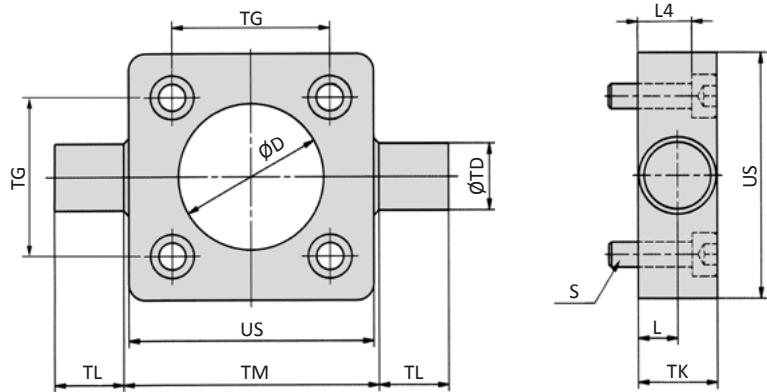
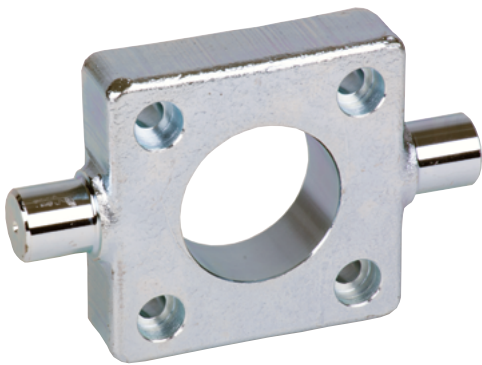
Model-no.:	A	Ø B	Ø EK	EL	LB
XLB-032-08	53	9.6	10	46	1.1
XLB-040-08	60	11.5	12	53	1.1
XLB-050-08	68	11.5	12	61	1.1
XLB-063-08	78	15.2	16	71	1.1
XLB-080-08	98	15.2	16	91	1.1
XLB-100-08	118	19	20	111	1.3
XLB-125-08	139	23.9	25	132*	1.3
<i>tolerances and adjustments</i>			e8	+ 2 *+ 3	

Material: steel, zinc plated; 2 snap rings are included.

Series 88-XSI

Mounting accessories

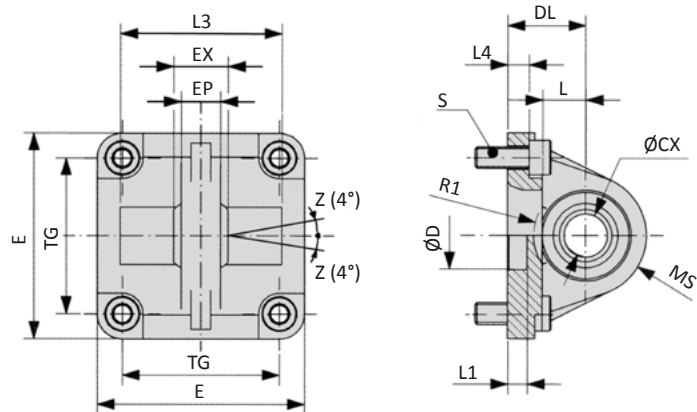
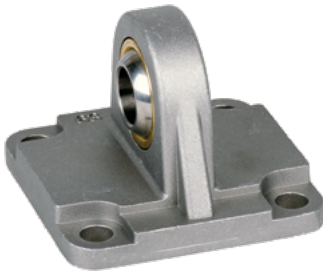
XLB-xxx-11 Trunnion mount



Model-no.:	Ø D	L	L4	S	Ø TD	TG	TK	TL	TM	US
XLB-032-11	30	6.5	8	M6 x 20	12	32.5	14	12	50	46
XLB-040-11	35	9	13	M6 x 25	16	38	19	16	63	59
XLB-050-11	40	9	11	M8 x 25	16	46.5	19	16	75	69
XLB-063-11	45	11.5	16	M8 x 30	20	56.5	24	20	90	84
XLB-080-11	45	11.5	14	M10 x 30	20	72	24	20	110	102
XLB-100-11	55	14	19	M10 x 35	25	89	29	25	132	125
XLB-125-11	60	15	18	M12 x 35	25	110	30	25	160	150
<i>tolerances and adjustments</i>	H 11	+ 0.2			e9	± 0.2		h14	h14	

Material: steel, zinc plated; 4 screws in accordance with EN ISO 4762 are included.

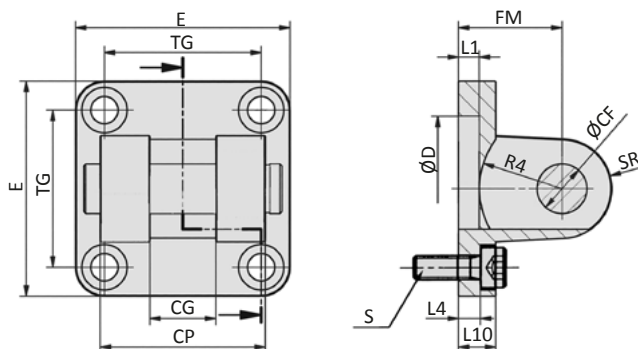
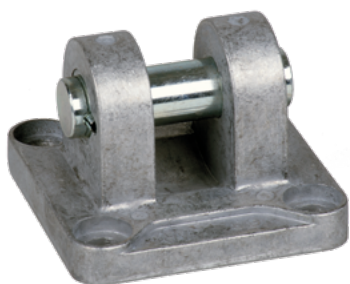
XLB-xxx-12 Swivel mount with spherical bearing



Model-no.:	Ø CX	Ø D	DL	E	EP	EX	L	L1	L3	L4	MS	R1	S	TG
XLB-032-12	10	30	22	45	10.5	14	12	7	-	5.5	16	-	M6 x 20	32.5
XLB-040-12	12	35	25	52	12	16	15	7	-	5.5	18	-	M6 x 20	38
XLB-050-12	16	40	27	65	15	21	15	7	51	6.5	21	19	M8 x 20	46.5
XLB-063-12	16	45	32	75	15	21	20	7	-	6.5	23	-	M8 x 20	56.5
XLB-080-12	20	45	36	95	18	25	20	9	74	10	28	24	M10 x 25	72
XLB-100-12	20	55	41	115	18	25	25	9	-	10	30	-	M10 x 25	89
XLB-125-12	30	60	50	140	25	37	30	9	-	10	40	-	M12 x 25	110*
<i>tolerances and adjustments</i>	H7	H11	± 0.2			± 0.1				± 0.5				± 0.2 *± 0.3

Materials: Al, bearing steel, bronze bushing; 4 screws in accordance with EN ISO 4762 are included.

XLB-xxx-14 Clevis mount small with pin



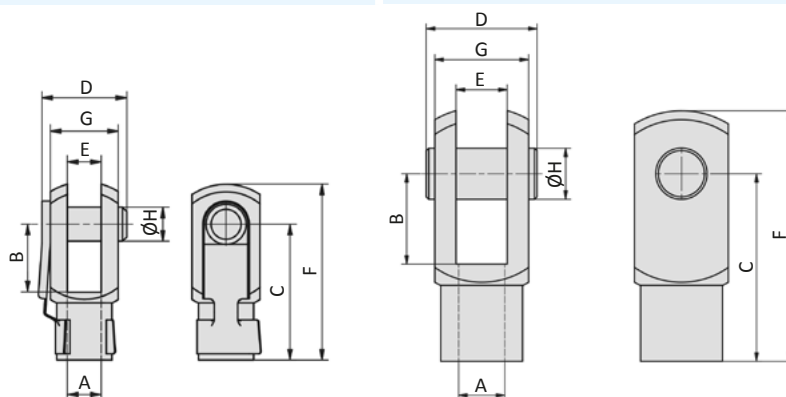
Model-no.:	Ø CF	CG	CP	Ø D	E	FM	L1	L4	L10	R4	S	SR	TG
XLB-032-14	10	14	34	30	45	22	5	5.5	9	17	M6 x 20	10	32.5
XLB-040-14	12	16	40	35	52	25	5	5.5	9	20	M6 x 20	12	38
XLB-050-14	16	21	45	40	65	27	5	6.5	11	22	M8 x 20	14	46.5
XLB-063-14	16	21	51	45	75	32	5	6.5	11	25	M8 x 20	18	56.5
XLB-080-14	20	25	65	45	95	36	5	10	14	30	M10 x 25	20	72
XLB-100-14	20	25	75	55	115	41	5	10	14	32	M10 x 25	22	89
XLB-125-14	30	37	97	60	140	50	7	10	20	42	M12 x 25	25	110*
<i>tolerances and adjustments</i>	F7	D10	d12	H11		± 0.2		± 0.5					± 0.2 *± 0.3

Materials: Al, bushing steel and PTFE, clevis pin steel, zinc plated; 4 screws in accordance with EN ISO 4762 are included.

RD-xx, FD-xxx Rod clevis

Spring loaded pin (RD-25, FD-40...80)

Clevis pin with snap rings (FD-125)

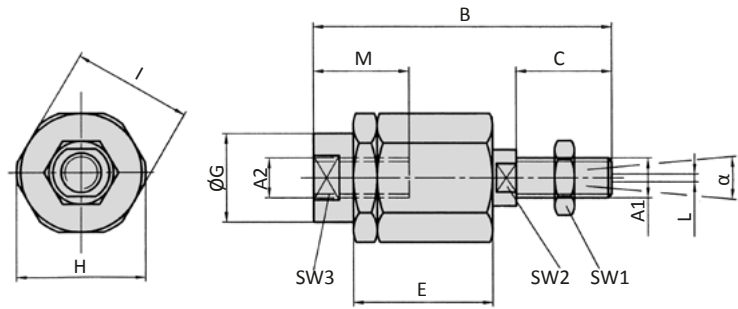


Model-no.:	for cylinder	A	B	C	D	E	F	G	Ø H
RD-25	XL-032	M10 x 1.25	20	40	26	10	52	20	10
FD-40	XL-040	M12 x 1.25	24	48	32	12	62	24	12
FD-63	XL-050, XL-063	M16 x 1.5	32	64	40	16	83	32	16
FD-80	XL-080, XL-100	M20 x 1.5	40	80	50	20	105	40	20
FD-125	XL-125	M27 x 2	54	110	65	30	148	55	30

Material: steel, zinc plated

Series 88-XSI Mounting accessories

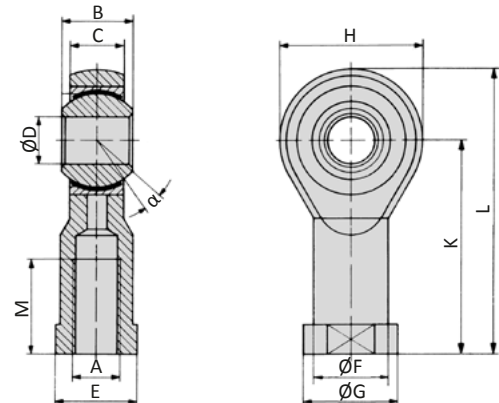
FK-xxx Flexible coupling



Model-no.:	for cylinder	A1, A2	B	C	D	E	Ø G	H	I	L	M	SW1	SW2	SW3	α
FK-32	XL-032	M10 x 1.25	71.5	20	7.5	35	22	32	30	2	22	17	12	19	8°
FK-40	XL-040	M12 x 1.25	71.5	20	7.5	35	22	32	30	2	22	19	12	19	8°
FK-63	XL-050, XL-063	M16 x 1.5	104	32	10	53	32	45	41	2	30	24	20	27	6°
FK-80	XL-080, XL-100	M20 x 1.5	119	40	10	53	32	45	41	2	37	30	20	27	6°
FK-125	XL-125	M27 x 2	147	54	10	60	57	70	65	2	48	41	24	54	8°

Material: steel, zinc plated

RO-xx, FO-xxx Rod eye



Model-no.:	for cylinder	A	B	C	Ø D	E	Ø F	Ø G	H	K	L	M	α
RO-25	XL-032	M10 x 1.25	14	10.5	10	17	15	19	28	43	57	20	13°
FO-40	XL-040	M12 x 1.25	16	12	12	19	17.5	22	32	50	66	22	13°
FO-63	XL-050, XL-063	M16 x 1.5	21	15	16	22	22	27	42	64	85	28	15°
FO-80	XL-080, XL-100	M20 x 1.5	25	18	20	30	27.5	34	50	77	102	33	14°
FO-125	XL-125	M27 x 2	37	25	30	41	40	50	70	110	145	51	17°

Materials: steel, zinc plated, bearing steel, bronze bushing

Proximity sensors



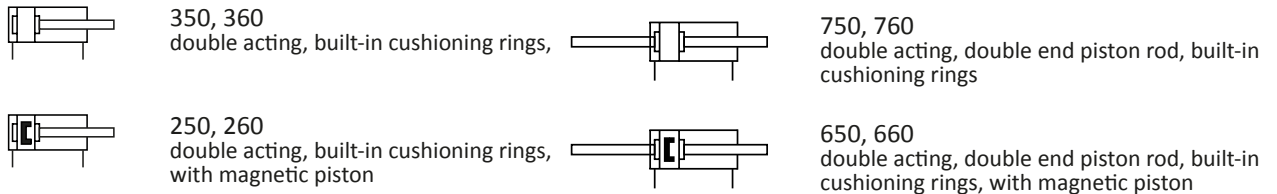
Technical details

Operating pressure	1 ... 10 bar
Temperature range	-20°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. Alternatively the pressure dew point must be at least 10°C below lowest occurring ambient temperature.
Materials	Cylinder tube: Al (anodized) End caps: Al (anodized) Piston rod: steel hard chrome plated Seals: PU, NBR

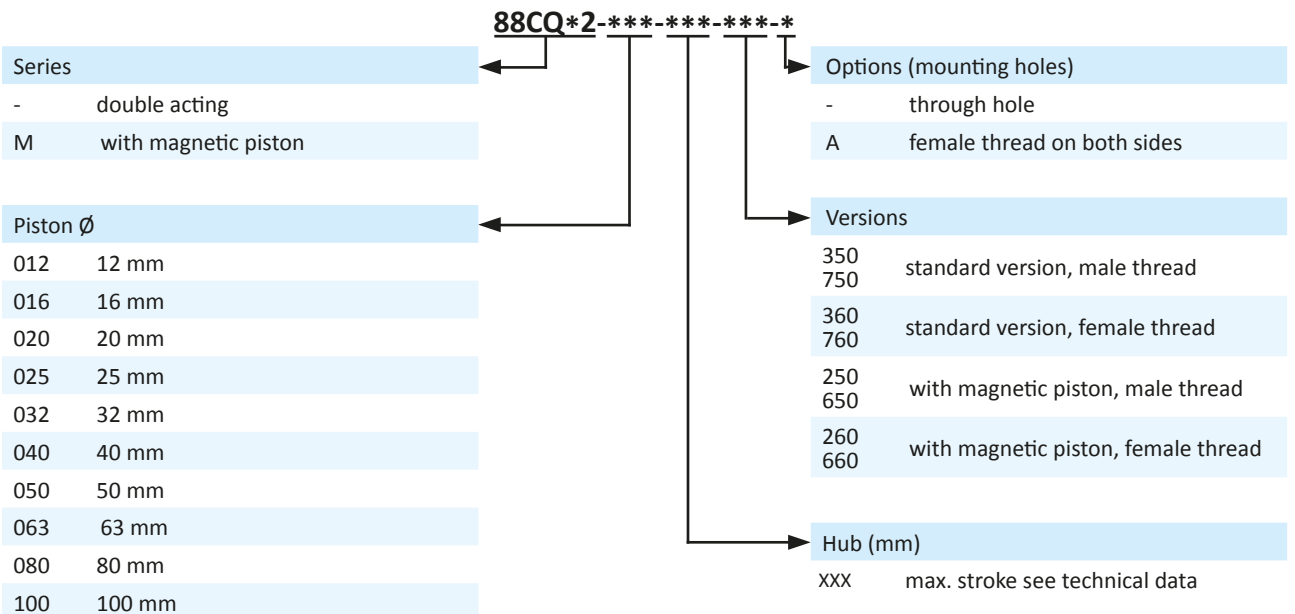


Double acting pneumatic cylinder with magnetic piston for proximity sensors and built-in cushioning rings.

Versions



Order code



Not all combinations are possible and available.

Series 88-CQ2

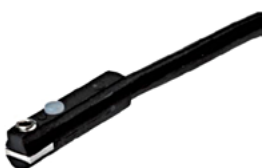
double acting

Technical data

Model-no.:	88-CQ2-012-...	88-CQ2-016-...	88-CQ2-020-...	88-CQ2-025-...	88-CQ2-032-...
Piston Ø (mm)	12	16	20	25	32
Force at 6 bar (N)	Extension	81	81	170	265
	Retraction	109	109	127	223
Connection	M5	M5	M5	M5	G1/8
Speed	30 - 500 mm/s	30 - 500 mm/s	30 - 500 mm/s	30 - 500 mm/s	30 - 500 mm/s
Stroke (mm)	5 - 30	5 - 30	5 - 50	5 - 50	5 - 100
Piston rod thread	male	M5	M6	M8	M10 x 1.25
	female	M3	M4	M5	M6

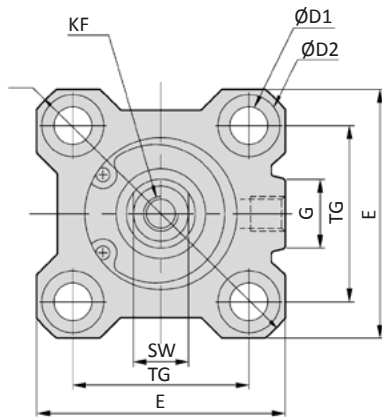
Model-no.:	88-CQ2-040-...	88-CQ2-050-...	88-CQ2-063-...	88-CQ2-080-...	88-CQ2-100-...
Piston Ø (mm)	40	50	63	80	100
Force at 6 bar (N)	Extension	678	1060	1682	2713
	Retraction	617	951	1574	2543
Connection	G1/8	G1/4	G1/4	G3/8	G3/8
Speed	30 - 350 mm/s	30 - 350 mm/s	30 - 250 mm/s	30 - 250 mm/s	30 - 250 mm/s
Stroke (mm)	5 - 100	5 - 100	5 - 100	5 - 100	5 - 100
Piston rod thread	male	M14 x 1.5	M18 x 1.5	M18 x 1.5	M22 x 1.5
	female	M8	M10	M10	M16

Proximity sensors

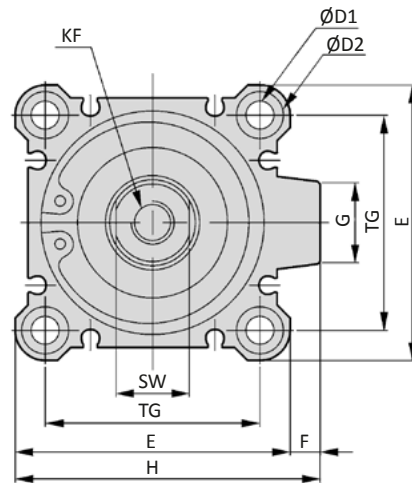


Dimensions series 88-CQ2

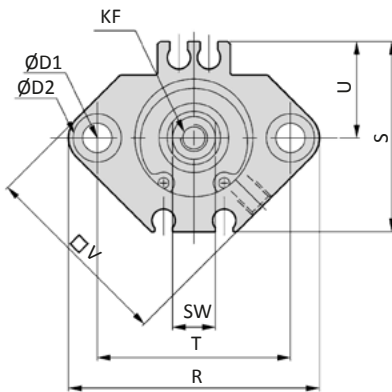
88-CQ2, \varnothing 12 - 25



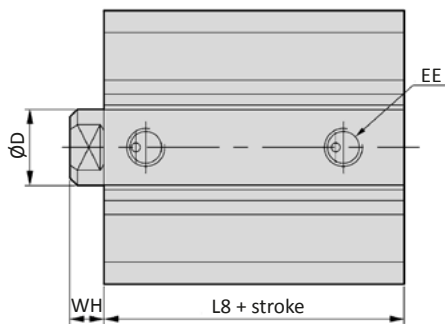
88-CQ2, 88-CQM2, \varnothing 32 - 100



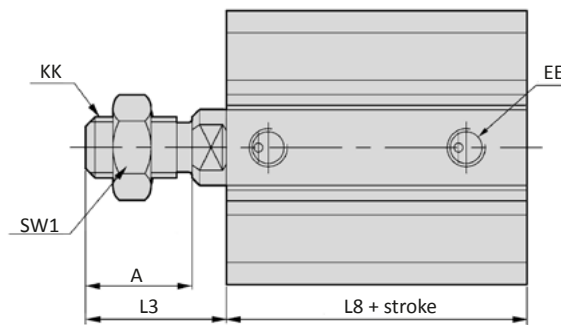
88-CQM2, \varnothing 12 - 25



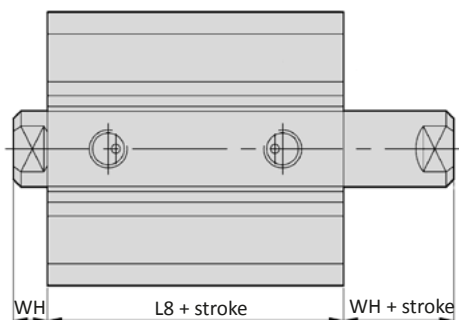
Versions 260, 360



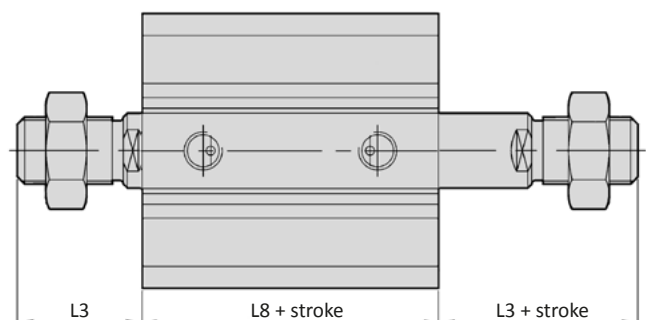
Versions 250, 350



Versions 660, 760



Versions 650, 750



Series 88-CQ2

double acting

Dimensions series 88-CQ2

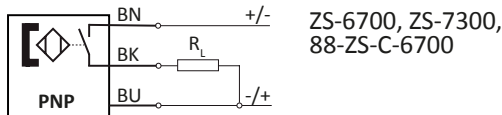
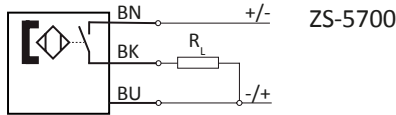
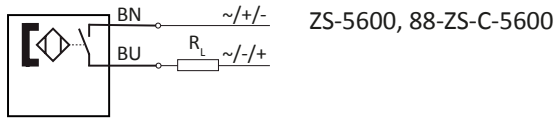
Piston Ø	A	Ø D	Ø D1	Ø D2	Ø D2 (Option A)	E	EE	F	G
12	10.5	6	3.5	6.5 x 3	M4 x 7	25	M5	-	-
16	12	8	3.5	6.5 x 3	M4 x 7	29	M5	-	10
20	14	10	5.5	9 x 7	M6 x 10	36	M5	-	10
25	17.5	12	5.5	9 x 7	M6 x 10	40	M5	-	10
32	23.5	16	5.5	9 x 7	M6 x 10	45	G1/8	4.5	14
40	23.5	16	5.5	9 x 7	M6 x 10	52	G1/8	5	15
50	28.5	20	6.6	11 x 8	M8 x 14	64	G1/4	7	19
63	28.5	20	9	14 x 10.5	M10 x 18	77	G1/4	7	19
80	35.5	25	11	17.5 x 13.5	M12 x 22	98	G3/8	6	25
100	35.5	32	11	17.5 x 13.5	M12 x 22	117	G3/8	6.5	25

Piston Ø	H	KF	KK	L3	SW	SW1	TG	WH
12	-	M3	M5	14	5	8	15.5	3.5
16	-	M4	M6	15.5	6	10	20	3.5
20	-	M5	M8	18.5	8	13	25.5	4.5
25	-	M6	M10x1.25	22.5	10	17	28	5
32	49.5	M8	M14x1.5	28.5	14	22	34	7
40	57	M8	M14x1.5	28.5	14	22	40	7
50	71	M10	M18x1.5	33.5	17	27	50	8
63	84	M10	M18x1.5	33.5	17	27	60	8
80	104	M16	M22x1.5	43.5	22	32	77	10
100	123.5	M20	M26x1.5	43.5	27	41	94	12

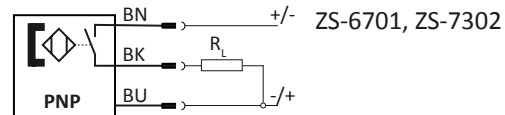
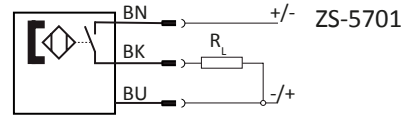
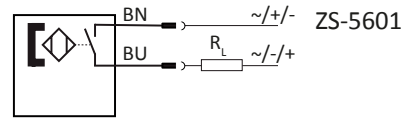
Piston Ø	Stroke (mm)	88-CQ2		88-CQM2					
		L8	L8	R	S	T	U	V	
12	5 - 30	17	28	33	27.5	22	14	25	
16	5 - 30	18.5	30.5	37	29.5	28	15	29	
20	5 - 50	19.5	31.5	47	35.5	36	18	36	
25	5 - 50	22.5	32.5	52	40.5	40	21	40	
32	5 - 49	23	33	-	-	-	-	-	
	50 - 100	33	33	-	-	-	-	-	
40	5 - 49	29.5	39.5	-	-	-	-	-	
	50 - 100	39.5	39.5	-	-	-	-	-	
50	5 - 49	30.5	40.5	-	-	-	-	-	
	50 - 100	40.5	40.5	-	-	-	-	-	
63	5 - 49	36	46	-	-	-	-	-	
	50 - 100	46	46	-	-	-	-	-	
80	5 - 49	43.5	53.5	-	-	-	-	-	
	50 - 100	53.5	53.5	-	-	-	-	-	
100	5 - 49	53	63	-	-	-	-	-	
	50 - 100	63	63	-	-	-	-	-	

Series ZS and 88-ZS-C Proximity sensors

Proximity sensors with cable



Proximity sensors with plug



Technical data

Model-no.:	ZS-5600	ZS-5601	ZS-5700	ZS-5701
Design	2-pole Reed sensor	2-pole Reed sensor	3-pole Reed sensor	3-pole Reed sensor
Contact function	NO	NO	NO	NO
Rated operational voltage	5 ... 240 V AC / DC	5 ... 60 V AC / DC	5 ... 30 V DC	5 ... 30 V DC
Rated operational current I_E	3 ... 100 mA	3 ... 100 mA	\leq 500 mA	\leq 500 mA
Max. voltage drop at I_E	\leq 2.5	\leq 2.5	\leq 0.1	\leq 0.1
Breaking capacity	10 W	10 W	10 W	10 W
Cable length	3 m	0.3 m with M8 connection	5 m	0.3 m with M8 connection
Temperature range	-10 ... +70°C	-10 ... +70°C	-10 ... +70°C	-10 ... +70°C
Protection	IP 67	IP 67	IP 67	IP 67
Switching status indication	LED red	LED red	LED yellow	LED yellow
Model-no.:	ZS-6700	ZS-6701	88-ZS-C-5600	88-ZS-C-6700
Mounting	T-Nut	T-Nut	C-Nut	C-Nut
Design	3-pole inductive	3-pole inductive	2-pole Reed sensor	3-pole inductive
Contact function	NO	NO	NO	NO
Output	PNP	PNP	PNP	PNP
Rated operational voltage	5 ... 30 V DC	5 ... 30 V DC	10 ... 28 V DC	5 ... 30 V DC
Rated operational current I_E	\leq 200 mA	\leq 200 mA	\leq 50 mA	\leq 200 mA
Max. voltage drop at I_E	\leq 1.0	\leq 1.0	\leq 2.5	\leq 1.0
Breaking capacity	6 W	6 W	1, W	6 W
Cable length	3 m	0.3 m with M8 connection	3 m	3 m
Temperature range	-10 ... +70°C	-10 ... +70°C	-20 ... +60°C	-10 ... +70°C
Protection	IP 67	IP 67	IP 67	IP 67
Switching status indication	LED green	LED green	LED	LED

Series ZS and 88-ZS-C

Proximity sensors

Cable with bushing for proximity sensors

Model-no.:	KA-30	KA-50	KA-51	KA-100	KA-101
Connection	M8, snap-in	M8, snap-in	M8, snap-in	M8, snap-in	M8, snap-in
Version	straight	straight	elbow 90°	straight	elbow 90°
Cable length	3 m	5 m	5 m	10 m	10 m

Mounting

The sensors are mounted at the groove of the cylinder profile. It is fixed by turning the fixing screw at the sensor clockwise.

AIRTEC Pneumatic GmbH
Westerbachstraße 7
61476 Kronberg
Germany

Phone: +49 6173 95 62 0
Fax: +49 6173 95 62 49

info@airtec.de
airtec.de