

Technical details

Connection	G1/8
Nominal size	6 mm
Temperature range	-10°C ... +70°C
Medium	Filtered, oil-free and dried compressed air according to ISO 8573-1:2010, Class 7:2:4, instrument air, free of aggressive additives. 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
	Valves in accordance with 2014/34/EU (ATEX) available. (Chapter 13)



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

3/2-way valves

	M-05-310-HN-xxx 3/2-way, single solenoid, air spring return, NC
	MO-05-310-HN-xxx 3/2-way, single solenoid, air spring return, NO
	M-05-311-HN-xxx 3/2-way, single solenoid, mechanical spring return, NC
	MO-05-311-HN-xxx 3/2-way, single solenoid, mechanical spring return, NO
	ME-05-311-HN-xxx 3/2-way, single solenoid, external pilot pressure, mechanical spring return
	M-05-320-HN-xxx 3/2-way, double solenoid
	ME-05-320-HN-xxx 3/2-way, double solenoid, external pilot pressure

5/2- and 5/3-way valves

	M-05-510-HN-xxx 5/2-way, single solenoid, air spring return
	M-05-511-HN-xxx 5/2-way, single solenoid, mechanical spring return
	ME-05-511-HN-xxx 5/2-way, single solenoid, external pilot pressure, mechanical spring return
	M-05-520-HN-xxx 5/2-way, double solenoid
	ME-05-520-HN-xxx 5/2-way, double solenoid, external pilot pressure
	M-05-530-HN-xxx 5/3-way, center position closed
	M-05-533-HN-xxx 5/3-way, center position exhausted
	M-05-534-HN-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 or 2 and 4	1, 3 or 1, 3 and 5
12 V DC	4.2 W		Form B industrial norm	-441	-411
12 V DC	2.2 W	max. 8 bar	Form B industrial norm	-461	-431
24 V DC	4.2 W		Form B industrial norm	-442	-412
24 V DC	4.8 W		M 12	-O42	-O12
24 V DC	2.2 W	max. 8 bar	Form B industrial norm	-462	-432
24 V DC	2.5 W	max. 8 bar	M 12	-O62	-O32
24 V AC	7/4 VA		Form B industrial norm	-452	-422
115 V AC	7/4 VA		Form B industrial norm	-456	-426
230 V AC	7/4 VA		Form B industrial norm	-457	-427

*1 Plug socket not included, suitable plug sockets see page 4-38.

Series M-05

Technical data

Model-no.:	M-05-310	MO-05-310	M-05-311	MO-05-311	ME-05-311	M-05-320	ME-05-320
Operating pressure* (bar)	2 ... 10	2 ... 10	3 ... 10	3 ... 10	0 ... 10	2 ... 10	0 ... 10
Pilot pressure* (bar)	2 ... 10	2 ... 10	3 ... 10	3 ... 10	3 ... 10	2 ... 10	2 ... 10
Flow rate (Nl/min)	750	750	750	750	750	750	750
Response time (ms) at 6 bar	on: 13 off: 16	on: 13 off: 16	on: 13 off: 16	on: 13 off: 16	on: 13 off: 18	on: 12 off: 12	on: 12 off: 12
Weight (kg)	0.255	0.255	0.260	0.260	0.308	0.400	0.426

Model-no.:	M-05-510	M-05-511	ME-05-511	M-05-520	ME-05-520	M-05-530	M-05-533	M-05-534
Operating pressure* (bar)	2 ... 10	3 ... 10	0 ... 10	2 ... 10	0 ... 10	3 ... 8	3 ... 8	3 ... 8
Pilot pressure* (bar)	2 ... 10	3 ... 10	3 ... 10	2 ... 10	2 ... 10	3 ... 8	3 ... 8	3 ... 8
Flow rate (Nl/min)	750	750	750	750	750	650	650	650
Response time (ms) at 6 bar	on: 13 off: 16	on: 13 off: 18	on: 15 off: 19	on: 12 off: 12	on: 12 off: 12	on: 13 off: 18	on: 13 off: 18	on: 13 off: 18
Weight (kg)	0.295	0.300	0.360	0.440	0.470	0.440	0.440	0.440

* max. 8 bar at 2.2 W and 2.5 W

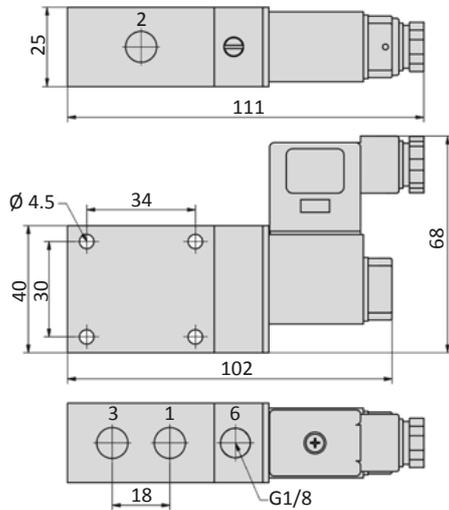
Accessories



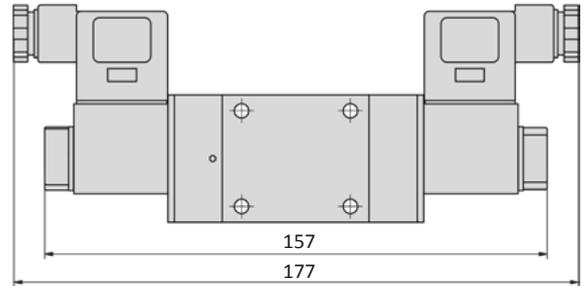
Plug sockets: page 4-38



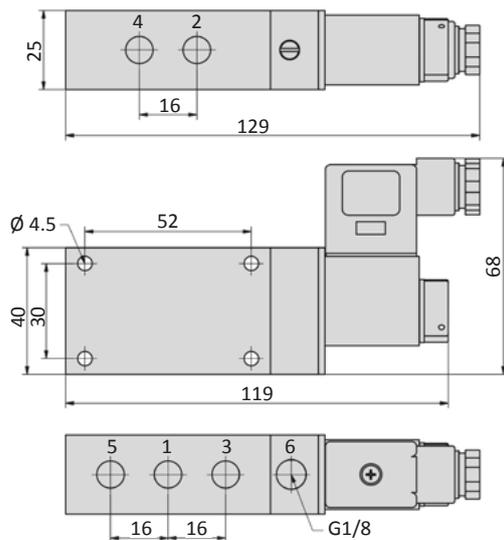
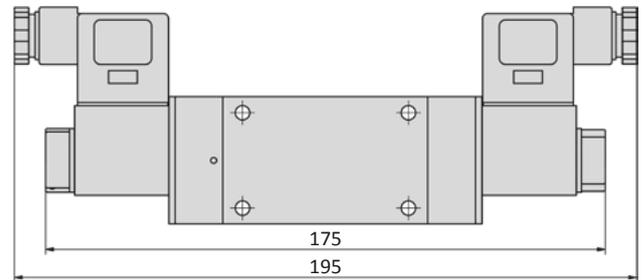
Manifolds: page 4-10

Dimensions
M-05-31x-HN, MO-05-31x-HN*, ME-05-31x-HN


*For the NO version MO-05 the ports 1 and 3 are inverted.

M-05-320-HN, ME-05-320-HN


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M-05-51x-HN, ME-05-511-HN

M-05-520-HN, ME-05-520-HN, M-05-53x-HN


- 1 = pressure inlet
- 2,4 = outlets
- 3,5 = exhausts
- 6 = external pilot pressure supply (only at ME-valves)

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

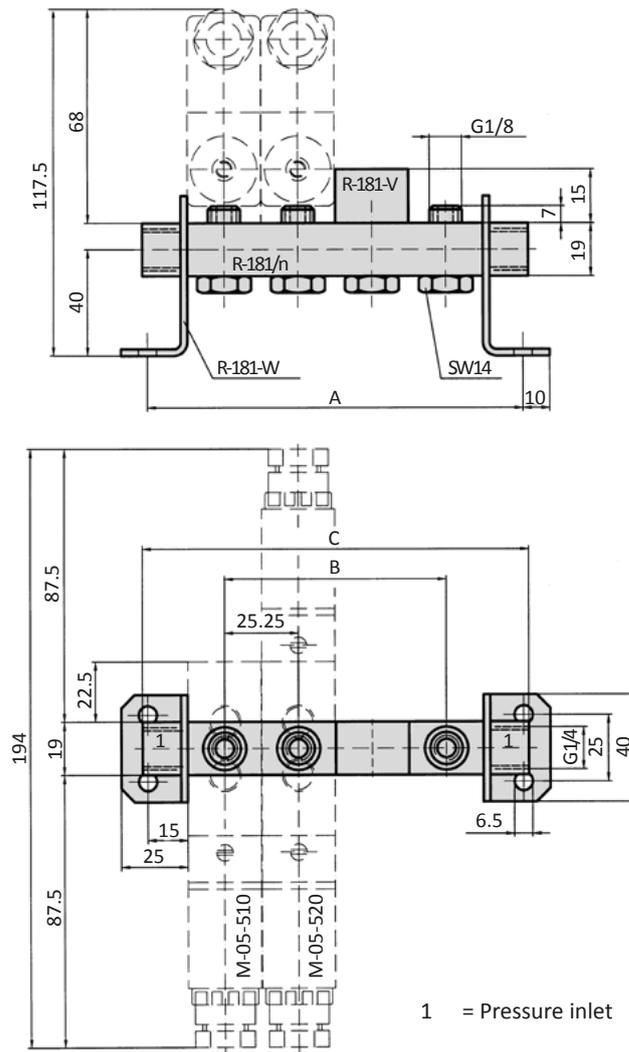
Series M-05

General information

The R-181/n manifold is suitable for the M-05 valve series. As well available are blind plates R-181-V for blank stations and mounting brackets R-181-W (pair). Hollow bolts and gaskets are included. The manifold is as well suitable for the pneumatically operated valve series P-05.



Dimensions



Model-no.:	A	B	C	Weight (kg)
R-181/2	80.5	25.25	85	0.084
R-181/3	105.75	50.5	110	0.113
R-181/4	131	75.75	135	0.144
R-181/5	156.25	101	160	0.174
R-181/6	181.5	126.25	185	0.215
R-181/8	232	176.75	235	0.266
R-181/10	282.5	227.25	285	0.326
R-181/12	333	277.75	335	0.385