

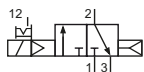
## Technical details

<b>Connection</b>	G1/2
<b>Nominal size</b>	14 mm
<b>Temperature range</b>	-10°C ... +70°C
<b>Medium</b>	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.
<b>Materials</b>	Body: Al (anodized), seals: NBR, inner parts: Al, steel and plastic
<b>Protection</b>	IP 65 according to EN 60529
	Valves in accordance with 2014/34/EU (ATEX) available. (Chapter 13)

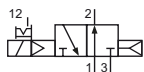


Electrically operated spool valve. The manual override is detent and is operated by screwdriver.

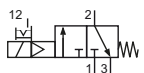
## 3/2-way valves



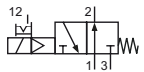
M-22-310-HN-xxx  
3/2-way, single solenoid, air spring return, NC



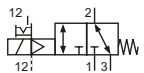
MO-22-310-HN-xxx  
3/2-way, single solenoid, air spring return, NO



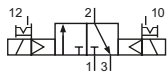
M-22-311-HN-xxx  
3/2-way, single solenoid, mechanical spring return, NC



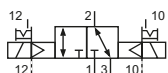
MO-22-311-HN-xxx  
3/2-way, single solenoid, mechanical spring return, NO



ME-22-311-HN-xxx  
3/2-way, single solenoid, external pilot pressure, mechanical spring return

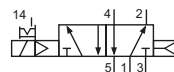


M-22-320-HN-xxx  
3/2-way, double solenoid

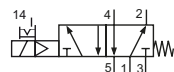


ME-22-320-HN-xxx  
3/2-way, double solenoid, external pilot pressure

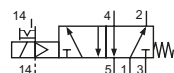
## 5/2- and 5/3-way valves



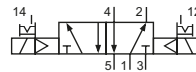
M-22-510-HN-xxx  
5/2-way, single solenoid, air spring return



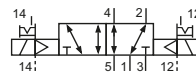
M-22-511-HN-xxx  
5/2-way, single solenoid, mechanical spring return



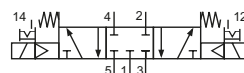
ME-22-511-HN-xxx  
5/2-way, single solenoid, external pilot pressure, mechanical spring return



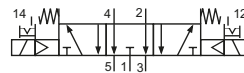
M-22-520-HN-xxx  
5/2-way, double solenoid



ME-22-520-HN-xxx  
5/2-way, double solenoid, external pilot pressure



M-22-530-HN-xxx  
5/3-way, center position closed



M-22-533-HN-xxx  
5/3-way, center position exhausted

Please complete: xxx = electrical option

## Electrical options

Nominal voltage	Power consumption	Specifics	Plug connection*1	-xxx
12 V DC	4.2 W		Form B industrial norm	-411
12 V DC	2.2 W	max. 8 bar	Form B industrial norm	-431
24 V DC	4.2 W		Form B industrial norm	-412
24 V DC	4.8 W		M 12	-012
24 V DC	2.2 W	max. 8 bar	Form B industrial norm	-432
24 V DC	2.5 W	max. 8 bar	M 12	-032
24 V AC	7/4 VA		Form B industrial norm	-422
115 V AC	7/4 VA		Form B industrial norm	-426
230 V AC	7/4 VA		Form B industrial norm	-427

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

## Series M-22

### Technical data

Model-no.:	M-22-310	MO-22-310	M-22-311	MO-22-311	ME-22-311	M-22-320	ME-22-320
Operating pressure* (bar)	1 ... 10	1 ... 10	2 ... 10	2 ... 10	0 ... 10	1 ... 10	0 ... 10
Pilot pressure* (bar)	1 ... 10	1 ... 10	2 ... 10	2 ... 10	2 ... 10	1 ... 10	1 ... 10
Flow rate (Nl/min)	3300	3300	3300	3300	3300	3300	3300
Response time (ms) at 6 bar	on: 30 off: 58	on: 30 off: 58	on: 28 off: 68	on: 28 off: 68	on: 28 off: 68	on: 20 off: 20	on: 20 off: 20
Weight (kg)	0.910	0.910	0.965	0.965	0.965	0.984	0.984

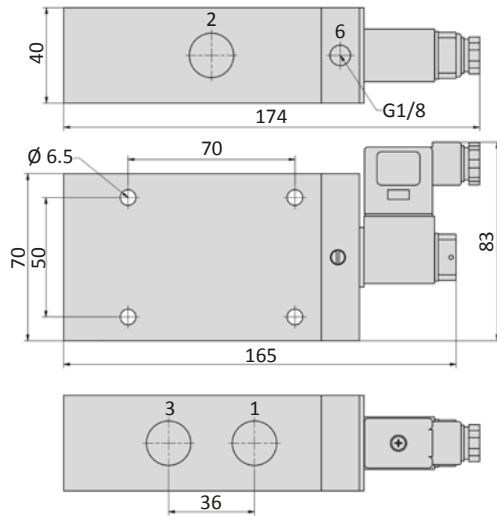
Model-no.:	M-22-510	M-22-511	ME-22-511	M-22-520	ME-22-520	M-22-530	M-22-533
Operating pressure* (bar)	1 ... 10	2 ... 10	0 ... 10	1 ... 10	0 ... 10	3 ... 10	3 ... 10
Pilot pressure* (bar)	1 ... 10	2 ... 10	2 ... 10	1 ... 10	1 ... 10	3 ... 10	3 ... 10
Flow rate (Nl/min)	3300	3300	3300	3300	3300	3300	3300
Response time (ms) at 6 bar	on: 30 off: 59	on: 20 off: 80	on: 20 off: 80	on: 22 off: 22	on: 22 off: 22	on: 30 off: 50	on: 30 off: 50
Weight (kg)	1.150	1.180	1.160	1.260	1.260	1.250	1.250

\* max. 8 bar at 2.2 W and 2.5 W

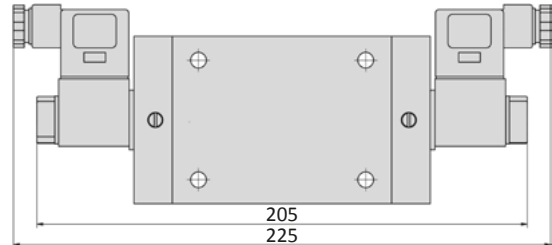
### Accessories



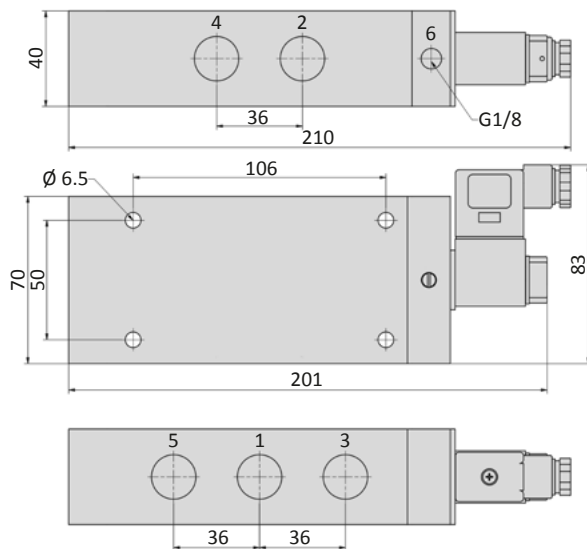
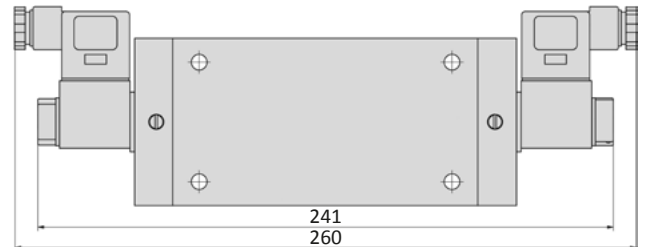
Plug sockets: page 4-38

**Dimensions**
**M-22-31x-HN, MO-22-31x-HN\*, ME-22-31x-HN**


\*For the NO version MO-22 the ports 1 and 3 are inverted.

**M-22-320-HN, ME-22-320-HN**


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**M-22-51x-HN, ME-22-511-HN**

**M-22-520-HN, ME-22-520-HN, M-22-53x-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°.