

high flow rate
compact design
low weight
pressure balanced
bidirectional flow
maintenance-free
high durability

FMX® valves are characterized by high flow rate with compact design and low weight. The externally controlled 2/2-way valve can be controlled via a 3/2-way pilot valve as well as a valve cluster. The pneumatic cylinder has three “T” grooves that can be used to add on accessories such as mounting brackets and limit switches. The FMX® valve series offers a manifold option as well; The inlet A-port on the 2/2-way valve is designed to be quickly and easily installed into the manifold strip.

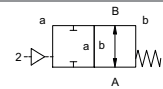
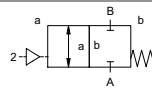


technical data

2/2-way valve

externally controlled

| type | FMX-2 | FMX-3 | FMX-4 | FMX-5 |
|-------------------------|----------------------|---------------|--------------------|---------------|
| orifice mm | 10 | 15 | 20 | 25 |
| port connection threads | G 3/8 G 1/2 | G 1/2 G 3/4 | G 3/4 G 1 | G 1 G 1 1/4 |
| Kv value m³/h | 3,7 4,3 | 8,5 10,5 | 15,4 17,0 | 23,7 24,6 |
| weight kg | 0,6 | 1 | 1,5 | 2,2 |
| flow direction | A ⇌ B B ⇌ A | | | |
| pressure range | 0-16 bar 0-16 bar | | | |
| function | NC - normally closed | | NO - normally open | |

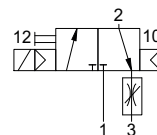


| | | | | |
|----------------------------|---|-----|-----|-----|
| design | pressure balanced, with spring return | | | |
| body materials | 1.4301 stainless steel (valve manifold aluminium) | | | |
| seal materials | FKM / PTFE | | | |
| vacuum leak rate | $< 10^{-4} \text{ mbar} \cdot \text{l} \cdot \text{s}^{-1}$ | | | |
| media | gaseous - liquid | | | |
| media temperature | -20 to +120 °C (valve manifold -10 to +120 °C, consider seal materials) | | | |
| ambient temperature | -20 to +80 °C (valve manifold -10 to +80 °C) | | | |
| switching cycles 1/min | 660 | 550 | 410 | 380 |
| switching time opening ms | 30 | 30 | 35 | 35 |
| switching time closing ms | 35 | 40 | 60 | 70 |
| control | pneumatic actuation, 3/2-way pilot valve optional | | | |
| actuator connection | G 1/8 | | | |
| actuation pressure | NC 3-8 bar NO 4-8 bar | | | |
| air consumption cm³/stroke | 2 | 4 | 8 | 11 |

accessories

pilot valve

3/2-way pilot valve
flow rate 280 l/min
pressure range 2-10 bar G 1/8
temperature range -10 to +50 °C



coil / illuminated plug

Form B 24V DC - 4,8W | 110V AC - 8,4W | 230V AC - 7,9W
M12x1 Desina 24V DC - 4,8W
M12x1 VDMA 24V DC - 4,8W
protection IP65
energized duty rating 100%

mounting

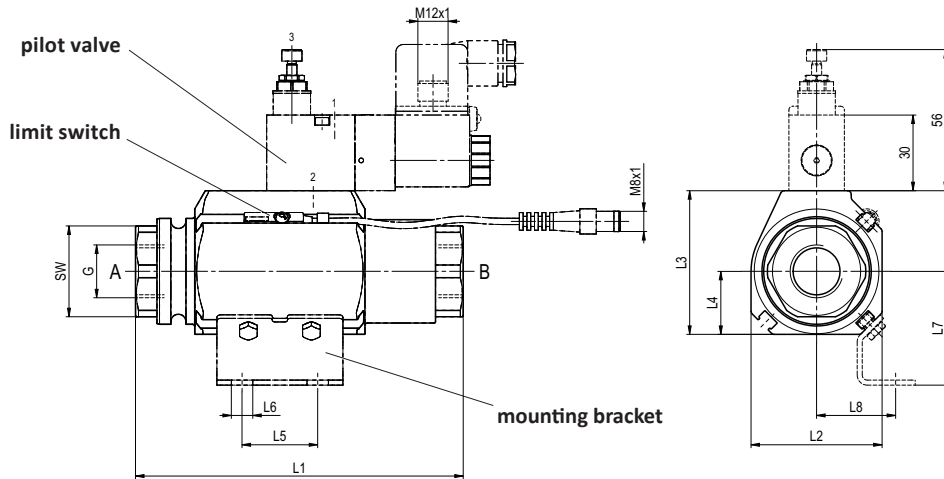
mounting brackets

limit switches

magnetic, lead cable 5 / 10 meters optional

dimensions

| type | FMX-2 | FMX-3 | FMX-4 | FMX-5 |
|----------|-----------|-----------|---------|-----------|
| thread G | 3/8 1/2 | 1/2 3/4 | 3/4 1 | 1 1 1/4 |
| SW mm | 27 | 36 | 41 | 50 |
| L1 mm | 110 | 130 | 150 | 160 |
| L2 mm | 42,5 | 52 | 60 | 66 |
| L3 mm | 48 | 57 | 64 | 71 |
| L4 mm | 20 | 25 | 28 | 33 |
| L5 mm | 25 | 30 | 30 | 30 |
| L6 mm | 6,5 | 8,5 | 8,5 | 8,5 |
| L7 mm | 33 | 45 | 47 | 51 |
| L8 mm | 24 | 31,5 | 33,5 | 37 |



valve manifold

| type | FMX-2 | FMX-3 | FMX-4 | FMX-5 |
|----------|-----------------------|-----------------------|-----------------------|-----------------------|
| slots | 2 3 4 5 | 2 3 4 5 | 2 3 4 5 | 2 3 4 5 |
| thread G | 1 | 1 1/4 | 1 1/2 | 2 |
| L9 mm | 123 170 217 264 | 139 195 251 307 | 150 215 280 345 | 170 245 320 395 |
| L10 mm | 38 | 41,5 | 42,5 | 47,5 |
| L11 mm | 47 | 56 | 65 | 75 |
| L12 mm | 152 | 187 | 213 | 236 |
| L13 mm | 53 | 59,5 | 71 | 75,5 |
| L14 mm | 50 | 55 | 70 | 75 |
| L15 mm | 30 | 30 | 33 | 38 |
| L16 mm | 21 | 28 | 33 | 38 |
| L17 mm | 8 | 8 | 10 | 11 |
| ∅d | 6,6 (M6) | 6,6 (M6) | 9 (M8) | 11 (M10) |

