



Series MX-PRO proportional pressure regulator and proportional flow valve

Regulator and valve ports (standard and Manifold): G1/2
 Regulator: with built-in pressure gauge or G1/8 threaded ports
 Valve: without pressure gauge



Series MX-PRO electronic proportional pressure regulator is the result of combining advanced technology of Series K8P electronic proportional micro regulator, with reliability and high performance of Series MX2 modular regulators. This new regulator ensures high precision in pressure regulation, high flow rate and low consumption. Moreover, it can take the most of Series MX ease of assembly to provide particularly compact Manifolds.

- » High precision
- » Low electric consumption
- » High exhaust flow
- » Modular with Series MX
- » MANIFOLD and external servo pilot supply versions available
- » Suitable for use with oxygen

GENERAL DATA

SERIES MX-PRO PROPORTIONAL REGULATOR AND VALVE

| | PROPORTIONAL PRESSURE REGULATOR | PROPORTIONAL FLOW VALVE |
|---------------------------------|--|--|
| Construction | modular, compact, diaphragm type | modular, piston type |
| Materials | see material tables on the following pages | see material tables on the following pages |
| Ports | G1/2 | G1/2 |
| Mounting | vertical in-line, wall-mounting (by means of clamps) | vertical in-line, wall-mounting (by means of clamps) |
| Working pressure | 0°C ÷ 50°C | 0°C ÷ 50°C |
| Max inlet pressure | 11 bar (10 bar), 4 bar (3 bar), 1.5 bar (1 bar), 8 bar (7 bar) | 6 bar |
| Regulated pressure | 0.5 ÷ 10 bar, 0.15 ÷ 3 bar, 0.05 ÷ 1 bar, 0.35 ÷ 7 | - |
| Max servo-pilot pressure | 4 bar (3 bar), 11 bar (10 bar), 1.5 bar (1 bar), 8 bar (7 bar) | 4 bar (essential for the proper functioning) |
| Overpressure exhaust | with Relieving (standard) or without Relieving | NO |
| Nominal flow | see flow diagrams on the following pages | see flow diagrams on the following pages |
| Air specifications | filtered compressed air, non lubricated, class 7.4.4 according to ISO 8573.1 standard. If lubrication is necessary, please use only oils with maximum viscosity of 32 Cst and the version with external servo-pilot supply. The servo-pilot supply air quality class must be 7.4.4 according to ISO 8573.1 standard. | filtered compressed air, non lubricated, class 7.4.4 according to ISO 8573.1 standard. If lubrication is necessary, please use only oils with maximum viscosity of 32 Cst and the version with external servo-pilot supply. The servo-pilot supply air quality class must be 7.4.4 according to ISO 8573.1 standard. |
| Pressure gauge | with built-in pressure gauge (standard) with G1/8 port | without pressure gauge |
| Analogical input | 0-10 V DC Ripple ≤ 0.2%; 4 – 20 mA | 0-10 V DC Ripple ≤ 0.2%; 4 – 20 mA |
| Analogical output | 0.5 - 9.5 V DC [Feedback] | not relevant |
| Electrical supply | 24 V DC ±10% | 24 V DC ±10% |
| Electrical connection | M8 4 Pin (Male) | M8 4 Pin (Male) |
| Linearity | ≤ ± 1% FS | ±4% FS |
| Hysteresis | ±0.5% FS | ±8% FS |
| Repeatability | ±0.5% FS | ±0.35% FS |
| Sensitivity | 0.3% FS | 5% FS |
| Protection class | IP51 | IP51 |

CODING EXAMPLE

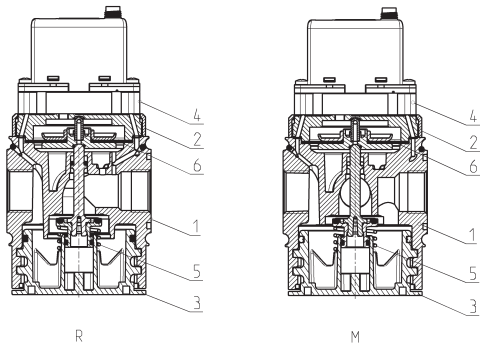
| | | | | | | | | | | | |
|-----------|----------|----------|------------|----------|----------|-----------|----------|----------|----------|----------|-----------|
| MX | 2 | - | 1/2 | - | R | CV | 2 | 0 | 4 | - | LH |
|-----------|----------|----------|------------|----------|----------|-----------|----------|----------|----------|----------|-----------|

| | |
|------------|--|
| MX | SERIES |
| 2 | SIZE: 2 = G1/2 |
| 1/2 | PORTS: 1/2 = G1/2 |
| R | FUNCTIONING: R = pressure regulator M = Manifold pressure regulator V = flow valve W = Manifold flow valve |
| CV | COMMAND: CV = electrical command 0-10 V DC (regulator only) CA = electrical command 4-20 mA (regulator only) EV = electrical command 0-10 V DC with external servo pilot supply EA = electrical command 4-20 mA with external servo pilot supply |
| 2 | REGULATOR SETTING RANGE: 1 = working pressure 0 ÷ 3 bar 2 = working pressure 0 ÷ 10 bar 3 = working pressure 0 ÷ 1 bar 4 = working pressure 0 ÷ 7 bar VALVE SETTING RANGE: 8 = low flow 9 = high flow |
| 0 | DESIGN TYPE: 0 = relieving (regulator only) 1 = without relieving |
| 4 | PRESSURE GAUGE: 0 = without pressure gauge, with threaded port for gauges 2 = with built-in pressure gauge 0-6 bar (regulator only) 4 = with built-in pressure gauge 0-12 bar (regulator only) |
| LH | FLOW DIRECTION: = from left to right (standard) LH = from right to left |
| OX1 | VERSIONS: = standard OX1 = for use with oxygen (in compliance with ASTM G93-03 Level E), FKM seals |

Further details about the assembly of a single component with fixing flanges or wall-mounting can be found in the AIR TREATMENT catalogue, section SERIES MX ASSEMBLED FRL.

Series MX-PRO proportional pressure regulator - materials

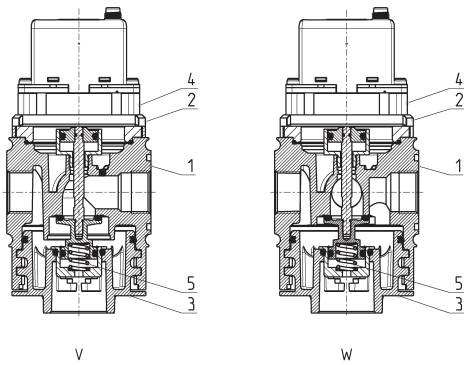
R = proportional pressure regulator
 M = Manifold proportional pressure regulator



| PARTS | MATERIALS, standard version | MATERIALS, oxygen version |
|------------------------------|-----------------------------|---------------------------|
| 1 = Body | Aluminium | Aluminium |
| 2 = Covering | Polyacetal | PBT |
| 3 = Valve holder plug | Polyacetal | PBT |
| 4 = Upper base | Aluminium | Aluminium |
| 5 = Lower spring | Stainless steel | Stainless steel |
| 6 = Diaphragm | NBR | FKM |
| Seals | NBR | FKM |

Series MX-PRO proportional flow valve - materials

V = proportional flow valve
 W = Manifold proportional flow valve



| PARTS | MATERIALS, standard version | MATERIALS, oxygen version |
|------------------------------|-----------------------------|---------------------------|
| 1 = Body | Aluminium | Aluminium |
| 2 = Covering | Polyacetal | PBT |
| 3 = Valve holder plug | Polyacetal | PBT |
| 4 = Upper base | Aluminium | Aluminium |
| 5 = Lower spring | Stainless steel | Stainless steel |
| Seals | NBR | FKM |

SERIES MX-PRO PROPORTIONAL REGULATOR AND VALVE

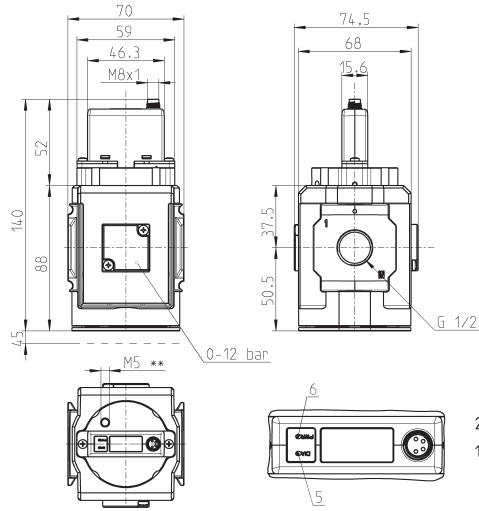
Series MX-PRO proportional pressure regulator



Male connector M8 4 poles
 Pin 1: +24 V DC (Power supply)
 Pin 2: Command analogical signal
 0-10 V DC or 4-20 mA
 Pin 3: 0 V (Ground) common also for
 the command signal
 Pin 4: Output analogical signal
 (according to the regulated
 pressure)

5 red LED
 6 green LED

DRAWING NOTE:
 ** = in the versions with external servo pilot
 supply only (MX2-1/2-REV... and MX2-1/2-REA...)



SERIES MX-PRO PROPORTIONAL REGULATOR AND VALVE

| Mod. | Electrical command | Setting range | Pressure gauge |
|--|--------------------|---------------|-----------------------------------|
| MX2-1/2-R ^{**} V1 ^{**} 0 | 0-10 V DC | 0 ÷ 3 bar | without pressure gauge |
| MX2-1/2-R ^{**} V1 ^{**} 2 | 0-10 V DC | 0 ÷ 3 bar | with built-in pressure gauge 0-6 |
| MX2-1/2-R ^{**} V1 ^{**} 4 | 0-10 V DC | 0 ÷ 3 bar | with built-in pressure gauge 0-12 |
| MX2-1/2-R ^{**} V2 ^{**} 0 | 0-10 V DC | 0 ÷ 10 bar | without pressure gauge |
| MX2-1/2-R ^{**} V2 ^{**} 2 | 0-10 V DC | 0 ÷ 10 bar | with built-in pressure gauge 0-6 |
| MX2-1/2-R ^{**} V2 ^{**} 4 | 0-10 V DC | 0 ÷ 10 bar | with built-in pressure gauge 0-12 |
| MX2-1/2-R ^{**} V3 ^{**} 0 | 0-10 V DC | 0 ÷ 1 bar | without pressure gauge |
| MX2-1/2-R ^{**} V3 ^{**} 2 | 0-10 V DC | 0 ÷ 1 bar | with built-in pressure gauge 0-6 |
| MX2-1/2-R ^{**} V3 ^{**} 4 | 0-10 V DC | 0 ÷ 1 bar | with built-in pressure gauge 0-12 |
| MX2-1/2-R ^{**} V4 ^{**} 0 | 0-10 V DC | 0 ÷ 7 bar | without pressure gauge |
| MX2-1/2-R ^{**} V4 ^{**} 2 | 0-10 V DC | 0 ÷ 7 bar | with built-in pressure gauge 0-6 |
| MX2-1/2-R ^{**} V4 ^{**} 4 | 0-10 V DC | 0 ÷ 7 bar | with built-in pressure gauge 0-12 |
| MX2-1/2-R ^{**} A1 ^{**} 0 | 4-20 mA | 0 ÷ 3 bar | without pressure gauge |
| MX2-1/2-R ^{**} A1 ^{**} 2 | 4-20 mA | 0 ÷ 3 bar | with built-in pressure gauge 0-6 |
| MX2-1/2-R ^{**} A1 ^{**} 4 | 4-20 mA | 0 ÷ 3 bar | with built-in pressure gauge 0-12 |
| MX2-1/2-R ^{**} A2 ^{**} 0 | 4-20 mA | 0 ÷ 10 bar | without pressure gauge |
| MX2-1/2-R ^{**} A2 ^{**} 2 | 4-20 mA | 0 ÷ 10 bar | with built-in pressure gauge 0-6 |
| MX2-1/2-R ^{**} A2 ^{**} 4 | 4-20 mA | 0 ÷ 10 bar | with built-in pressure gauge 0-12 |
| MX2-1/2-R ^{**} A3 ^{**} 0 | 4-20 mA | 0 ÷ 1 bar | without pressure gauge |
| MX2-1/2-R ^{**} A3 ^{**} 2 | 4-20 mA | 0 ÷ 1 bar | with built-in pressure gauge 0-6 |
| MX2-1/2-R ^{**} A3 ^{**} 4 | 4-20 mA | 0 ÷ 1 bar | with built-in pressure gauge 0-12 |
| MX2-1/2-R ^{**} A4 ^{**} 0 | 4-20 mA | 0 ÷ 7 bar | without pressure gauge |
| MX2-1/2-R ^{**} A4 ^{**} 2 | 4-20 mA | 0 ÷ 7 bar | with built-in pressure gauge 0-6 |
| MX2-1/2-R ^{**} A4 ^{**} 4 | 4-20 mA | 0 ÷ 7 bar | with built-in pressure gauge 0-12 |
| MX2-1/2-R ^{**} V1 ^{**} 0-OX1 | 0-10 V DC | 0 ÷ 3 bar | without pressure gauge |
| MX2-1/2-R ^{**} V1 ^{**} 2-OX1 | 0-10 V DC | 0 ÷ 3 bar | with built-in pressure gauge 0-6 |
| MX2-1/2-R ^{**} V1 ^{**} 4-OX1 | 0-10 V DC | 0 ÷ 3 bar | with built-in pressure gauge 0-12 |
| MX2-1/2-R ^{**} V3 ^{**} 0-OX1 | 0-10 V DC | 0 ÷ 1 bar | without pressure gauge |
| MX2-1/2-R ^{**} V3 ^{**} 2-OX1 | 0-10 V DC | 0 ÷ 1 bar | with built-in pressure gauge 0-6 |
| MX2-1/2-R ^{**} V3 ^{**} 4-OX1 | 0-10 V DC | 0 ÷ 1 bar | with built-in pressure gauge 0-12 |
| MX2-1/2-R ^{**} V4 ^{**} 0-OX1 | 0-10 V DC | 0 ÷ 7 bar | without pressure gauge |
| MX2-1/2-R ^{**} V4 ^{**} 2-OX1 | 0-10 V DC | 0 ÷ 7 bar | with built-in pressure gauge 0-6 |
| MX2-1/2-R ^{**} V4 ^{**} 4-OX1 | 0-10 V DC | 0 ÷ 7 bar | with built-in pressure gauge 0-12 |
| MX2-1/2-R ^{**} A1 ^{**} 0-OX1 | 4-20 mA | 0 ÷ 3 bar | without pressure gauge |
| MX2-1/2-R ^{**} A1 ^{**} 2-OX1 | 4-20 mA | 0 ÷ 3 bar | with built-in pressure gauge 0-6 |
| MX2-1/2-R ^{**} A1 ^{**} 4-OX1 | 4-20 mA | 0 ÷ 3 bar | with built-in pressure gauge 0-12 |
| MX2-1/2-R ^{**} A3 ^{**} 0-OX1 | 4-20 mA | 0 ÷ 1 bar | without pressure gauge |
| MX2-1/2-R ^{**} A3 ^{**} 2-OX1 | 4-20 mA | 0 ÷ 1 bar | with built-in pressure gauge 0-6 |
| MX2-1/2-R ^{**} A3 ^{**} 4-OX1 | 4-20 mA | 0 ÷ 1 bar | with built-in pressure gauge 0-12 |
| MX2-1/2-R ^{**} A4 ^{**} 0-OX1 | 4-20 mA | 0 ÷ 7 bar | without pressure gauge |
| MX2-1/2-R ^{**} A4 ^{**} 2-OX1 | 4-20 mA | 0 ÷ 7 bar | with built-in pressure gauge 0-6 |
| MX2-1/2-R ^{**} A4 ^{**} 4-OX1 | 4-20 mA | 0 ÷ 7 bar | with built-in pressure gauge 0-12 |

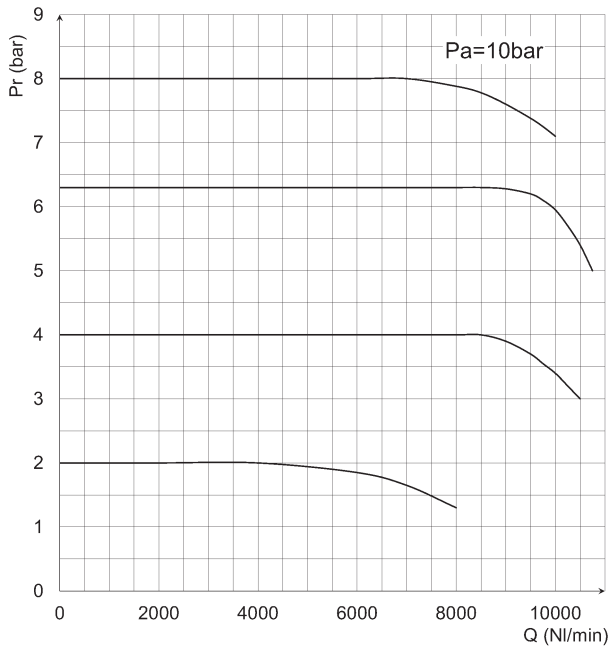
TABLE NOTES:

* = versions with or without external pilot supply

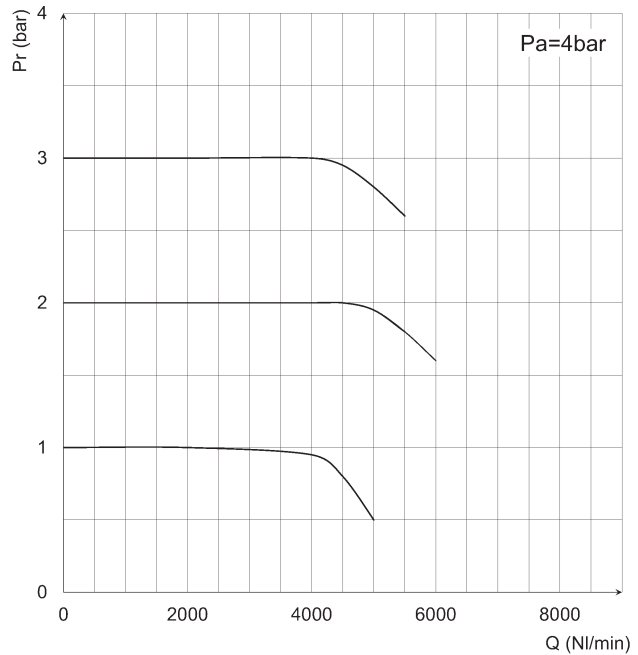
** = versions with our without relieving

LH = add LH at the end of the code for air inlet from the right to the left

PRESSURE REGULATOR FLOW DIAGRAMS - STANDARD VERSION



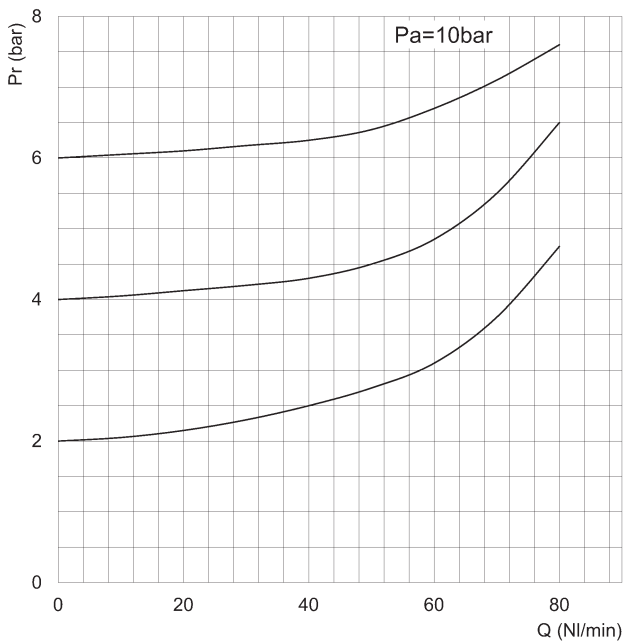
Pr = Regulated pressure
 Q = Flow
 Pa = Inlet pressure



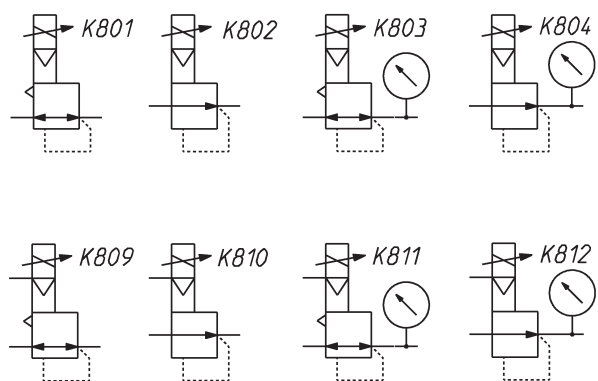
Pr = Regulated pressure
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SERIES MX-PRO PROPORTIONAL REGULATOR AND VALVE

EXHAUST FLOW DIAGRAM AND PNEUMATIC SYMBOLS



Pr = Regulated pressure
 Q = Flow
 Pa = Inlet pressure



- K801 = relieving, electrical command
- K802 = NO relieving, electrical command
- K803 = relieving, electrical command, built-in pressure gauge
- K804 = NO relieving, electrical command, built-in pressure gauge
- K809 = relieving, electrical command, ext. servo pilot supply
- K810 = NO relieving, electrical command, ext. servo pilot supply
- K811 = relieving, el. com., built-in pr. gauge, ext. servo pilot supply
- K812 = NO relieving, el. com., built-in pr. gauge, ext. servo pilot sup.

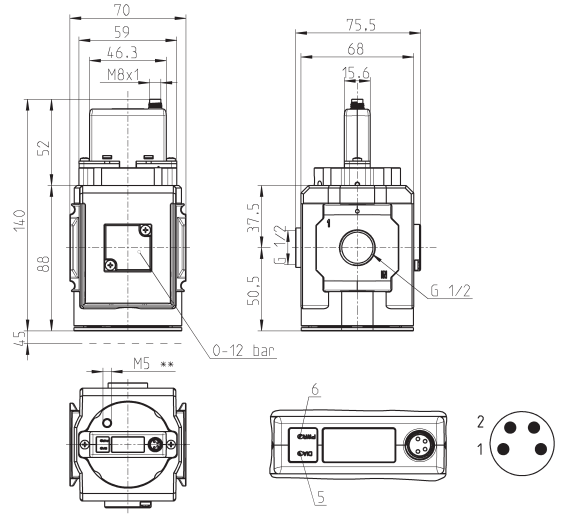
Series MX-PRO proportional pressure regulator



Male connector M8 4 poles
 Pin 1: +24 V DC (Power supply)
 Pin 2: Command analogical signal
 0-10 V DC or 4-20 mA
 Pin 3: 0 V (Ground) common also for
 the command signal
 Pin 4: Output analogical signal
 (according to the regulated
 pressure)

5 red LED
 6 green LED

DRAWING NOTE:
 ** = in the versions with external servo pilot
 supply only (MX2-1/2-REV... and MX2-1/2-REA...)



| Mod. | Electrical command | Setting range | Pressure gauge |
|---|--------------------|---------------|-----------------------------------|
| MX2-1/2-M [*] V1 ^{**} 0 | 0-10 V DC | 0 ÷ 3 bar | without pressure gauge |
| MX2-1/2-M [*] V1 ^{**} 2 | 0-10 V DC | 0 ÷ 3 bar | with built-in pressure gauge 0-6 |
| MX2-1/2-M [*] V1 ^{**} 4 | 0-10 V DC | 0 ÷ 3 bar | with built-in pressure gauge 0-12 |
| MX2-1/2-M [*] V2 ^{**} 0 | 0-10 V DC | 0 ÷ 10 bar | without pressure gauge |
| MX2-1/2-M [*] V2 ^{**} 2 | 0-10 V DC | 0 ÷ 10 bar | with built-in pressure gauge 0-6 |
| MX2-1/2-M [*] V2 ^{**} 4 | 0-10 V DC | 0 ÷ 10 bar | with built-in pressure gauge 0-12 |
| MX2-1/2-M [*] V3 ^{**} 0 | 0-10 V DC | 0 ÷ 1 bar | without pressure gauge |
| MX2-1/2-M [*] V3 ^{**} 2 | 0-10 V DC | 0 ÷ 1 bar | with built-in pressure gauge 0-6 |
| MX2-1/2-M [*] V3 ^{**} 4 | 0-10 V DC | 0 ÷ 1 bar | with built-in pressure gauge 0-12 |
| MX2-1/2-M [*] V4 ^{**} 0 | 0-10 V DC | 0 ÷ 7 bar | without pressure gauge |
| MX2-1/2-M [*] V4 ^{**} 2 | 0-10 V DC | 0 ÷ 7 bar | with built-in pressure gauge 0-6 |
| MX2-1/2-M [*] V4 ^{**} 4 | 0-10 V DC | 0 ÷ 7 bar | with built-in pressure gauge 0-12 |
| MX2-1/2-M [*] A1 ^{**} 0 | 4-20 mA | 0 ÷ 3 bar | without pressure gauge |
| MX2-1/2-M [*] A1 ^{**} 2 | 4-20 mA | 0 ÷ 3 bar | with built-in pressure gauge 0-6 |
| MX2-1/2-M [*] A1 ^{**} 4 | 4-20 mA | 0 ÷ 3 bar | with built-in pressure gauge 0-12 |
| MX2-1/2-M [*] A2 ^{**} 0 | 4-20 mA | 0 ÷ 10 bar | without pressure gauge |
| MX2-1/2-M [*] A2 ^{**} 2 | 4-20 mA | 0 ÷ 10 bar | with built-in pressure gauge 0-6 |
| MX2-1/2-M [*] A2 ^{**} 4 | 4-20 mA | 0 ÷ 10 bar | with built-in pressure gauge 0-12 |
| MX2-1/2-M [*] A3 ^{**} 0 | 4-20 mA | 0 ÷ 1 bar | without pressure gauge |
| MX2-1/2-M [*] A3 ^{**} 2 | 4-20 mA | 0 ÷ 1 bar | with built-in pressure gauge 0-6 |
| MX2-1/2-M [*] A3 ^{**} 4 | 4-20 mA | 0 ÷ 1 bar | with built-in pressure gauge 0-12 |
| MX2-1/2-M [*] A4 ^{**} 0 | 4-20 mA | 0 ÷ 7 bar | without pressure gauge |
| MX2-1/2-M [*] A4 ^{**} 2 | 4-20 mA | 0 ÷ 7 bar | with built-in pressure gauge 0-6 |
| MX2-1/2-M [*] A4 ^{**} 4 | 4-20 mA | 0 ÷ 7 bar | with built-in pressure gauge 0-12 |
| MX2-1/2-M [*] V1 ^{**} 0-OX1 | 0-10 V DC | 0 ÷ 3 bar | without pressure gauge |
| MX2-1/2-M [*] V1 ^{**} 2-OX1 | 0-10 V DC | 0 ÷ 3 bar | with built-in pressure gauge 0-6 |
| MX2-1/2-M [*] V1 ^{**} 4-OX1 | 0-10 V DC | 0 ÷ 3 bar | with built-in pressure gauge 0-12 |
| MX2-1/2-M [*] V3 ^{**} 0-OX1 | 0-10 V DC | 0 ÷ 1 bar | without pressure gauge |
| MX2-1/2-M [*] V3 ^{**} 2-OX1 | 0-10 V DC | 0 ÷ 1 bar | with built-in pressure gauge 0-6 |
| MX2-1/2-M [*] V3 ^{**} 4-OX1 | 0-10 V DC | 0 ÷ 1 bar | with built-in pressure gauge 0-12 |
| MX2-1/2-M [*] V4 ^{**} 0-OX1 | 0-10 V DC | 0 ÷ 7 bar | without pressure gauge |
| MX2-1/2-M [*] V4 ^{**} 2-OX1 | 0-10 V DC | 0 ÷ 7 bar | with built-in pressure gauge 0-6 |
| MX2-1/2-M [*] V4 ^{**} 4-OX1 | 0-10 V DC | 0 ÷ 7 bar | with built-in pressure gauge 0-12 |
| MX2-1/2-M [*] A1 ^{**} 0-OX1 | 4-20 mA | 0 ÷ 3 bar | without pressure gauge |
| MX2-1/2-M [*] A1 ^{**} 2-OX1 | 4-20 mA | 0 ÷ 3 bar | with built-in pressure gauge 0-6 |
| MX2-1/2-M [*] A1 ^{**} 4-OX1 | 4-20 mA | 0 ÷ 3 bar | with built-in pressure gauge 0-12 |
| MX2-1/2-M [*] A3 ^{**} 0-OX1 | 4-20 mA | 0 ÷ 1 bar | without pressure gauge |
| MX2-1/2-M [*] A3 ^{**} 2-OX1 | 4-20 mA | 0 ÷ 1 bar | with built-in pressure gauge 0-6 |
| MX2-1/2-M [*] A3 ^{**} 4-OX1 | 4-20 mA | 0 ÷ 1 bar | with built-in pressure gauge 0-12 |
| MX2-1/2-M [*] A4 ^{**} 0-OX1 | 4-20 mA | 0 ÷ 7 bar | without pressure gauge |
| MX2-1/2-M [*] A4 ^{**} 2-OX1 | 4-20 mA | 0 ÷ 7 bar | with built-in pressure gauge 0-6 |
| MX2-1/2-M [*] A4 ^{**} 4-OX1 | 4-20 mA | 0 ÷ 7 bar | with built-in pressure gauge 0-12 |

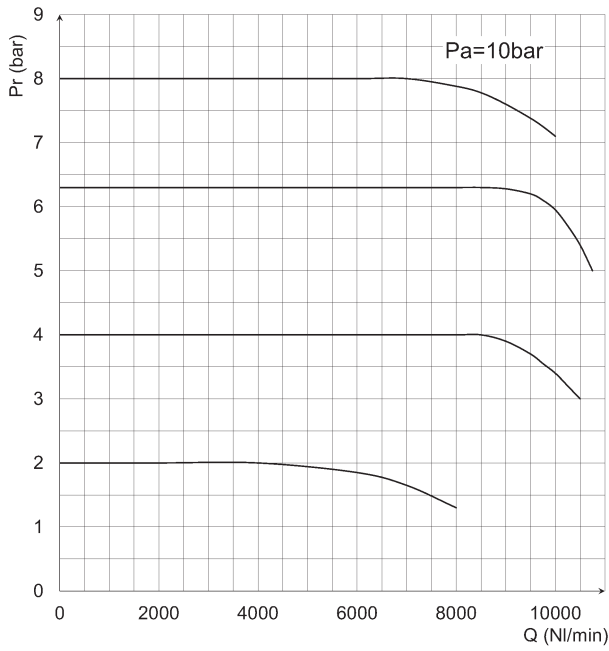
TABLE NOTES:

* = versions with or without external pilot supply

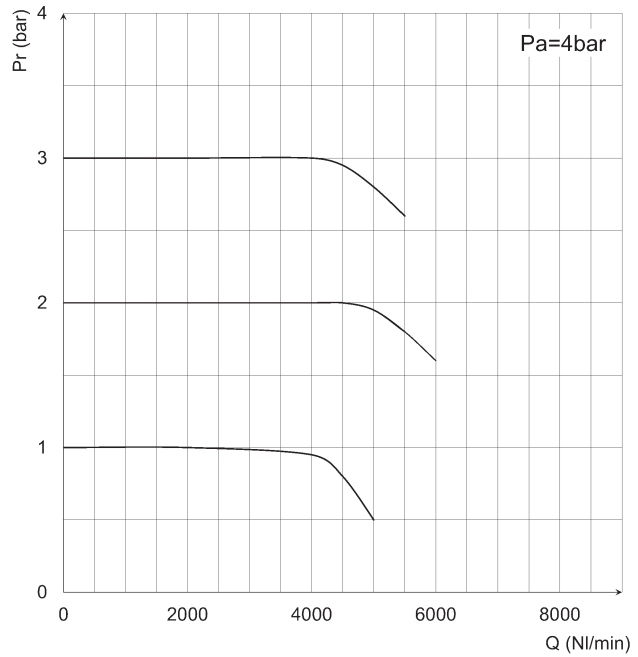
** = versions with our without relieving

LH = add LH at the end of the code for air inlet from the right to the left

PRESSURE REGULATOR FLOW DIAGRAMS - MANIFOLD VERSION



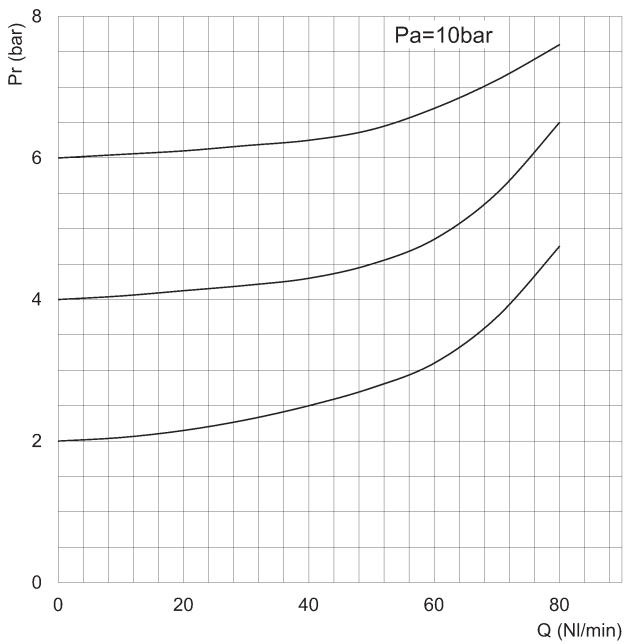
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 Q = Flow
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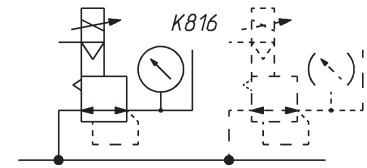
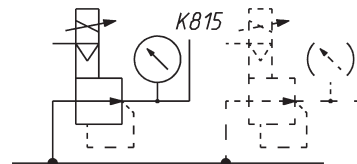
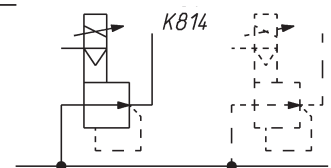
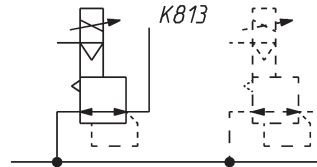
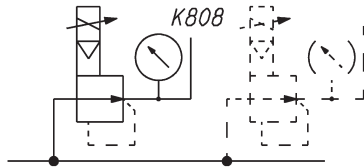
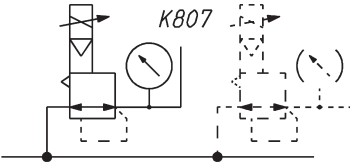
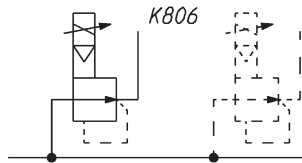
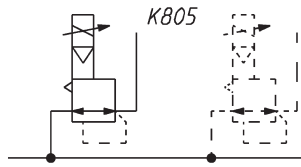
SERIES MX-PRO PROPORTIONAL REGULATOR AND VALVE

EXHAUST FLOW DIAGRAM - MANIFOLD VERSION



Pr = Regulated pressure
 Q = Flow
 Pa = Inlet pressure

PNEUMATIC SYMBOLS - MANIFOLD VERSION



- K805 = MANIFOLD reg., relieving, electrical command
- K806 = MANIFOLD reg., NO relieving, electrical command
- K807 = MANIFOLD reg., relieving, electrical command and built-in pressure gauge
- K808 = MANIFOLD reg., NO relieving, electrical command and built-in pressure gauge

- K813 = MANIFOLD reg., relieving, electrical command, and external servo pilot supply
- K814 = MANIFOLD reg., NO relieving, electrical command, and external servo pilot supply
- K815 = MANIFOLD reg., relieving, electrical command, built-in pressure gauge and external servo pilot supply
- K816 = MANIFOLD reg., NO relieving, electrical command, built-in pressure gauge and external servo pilot supply

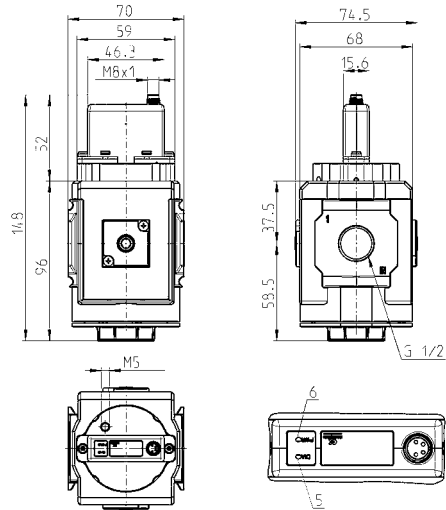
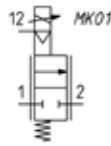
SERIES MX-PRO PROPORTIONAL REGULATOR AND VALVE

Series MX-PRO proportional flow valve



Male connector M8 4 poles
 Pin 1: +24 V DC (Power supply)
 Pin 2: Command analogical signal
 0-10 V DC or 4-20 mA
 Pin 3: 0 V (Ground) common also for
 the command signal
 Pin 4: Output analogical signal
 (according to the regulated
 pressure)

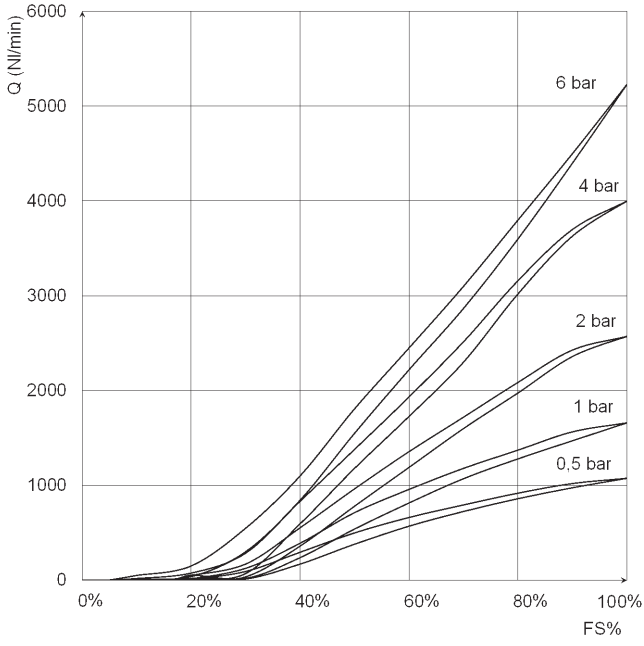
5 red LED
 6 green LED



| Mod. | Electrical command | Setting range |
|----------------------|--|---------------|
| MX2-1/2-VEV810 | 0-10 V DC, external servo pilot supply | low flow |
| MX2-1/2-VEA810 | 4-20 mA, external servo pilot supply | low flow |
| MX2-1/2-VEV910 | 0-10 V DC, external servo pilot supply | high flow |
| MX2-1/2-VEA910 | 4-20 mA, external servo pilot supply | high flow |
| MX2-1/2-VEV810-LH | 0-10 V DC, external servo pilot supply | low flow |
| MX2-1/2-VEA810-LH | 4-20 mA, external servo pilot supply | low flow |
| MX2-1/2-VEV910-LH | 0-10 V DC, external servo pilot supply | high flow |
| MX2-1/2-VEA910-LH | 4-20 mA, external servo pilot supply | high flow |
| MX2-1/2-VEV810-OX1 | 0-10 V DC, external servo pilot supply | low flow |
| MX2-1/2-VEA810-OX1 | 4-20 mA, external servo pilot supply | low flow |
| MX2-1/2-VEV910-OX1 | 0-10 V DC, external servo pilot supply | high flow |
| MX2-1/2-VEA910-OX1 | 4-20 mA, external servo pilot supply | high flow |
| MX2-1/2-VEV810-LHOX1 | 0-10 V DC, external servo pilot supply | low flow |
| MX2-1/2-VEA810-LHOX1 | 4-20 mA, external servo pilot supply | low flow |
| MX2-1/2-VEV910-LHOX1 | 0-10 V DC, external servo pilot supply | high flow |
| MX2-1/2-VEA910-LHOX1 | 4-20 mA, external servo pilot supply | high flow |

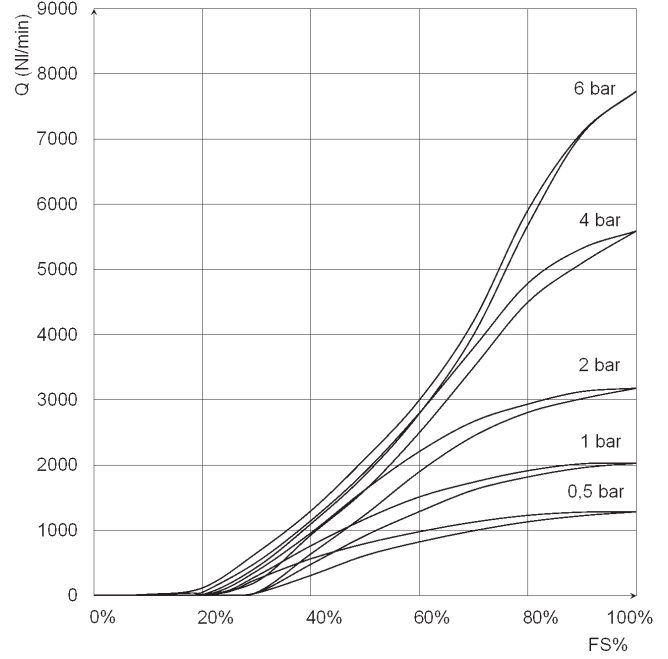
VALVE FLOW DIAGRAMS

SERIES MX-PRO PROPORTIONAL REGULATOR AND VALVE



Low flow version

Q (NL/min) = flow
FS% = full scale command signal



High flow

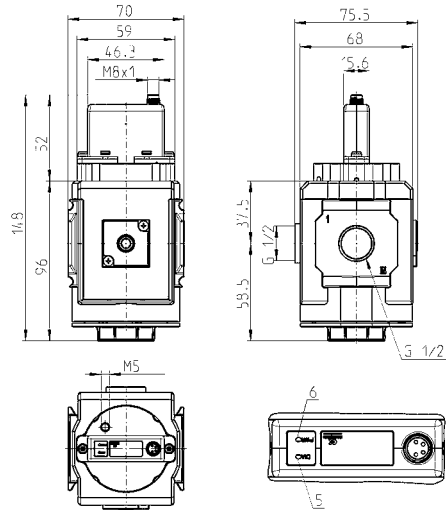
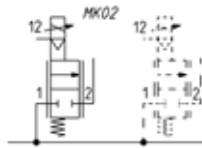
Q (NL/min) = flow
FS% = full scale command signal

Series MX-PRO Manifold proportional flow valve



Male connector M8 4 poles
 Pin 1: +24 V DC (Power supply)
 Pin 2: Command analogical signal
 0-10 V DC or 4-20 mA
 Pin 3: 0 V (Ground) common also for
 the command signal
 Pin 4: Output analogical signal
 (according to the regulated
 pressure)

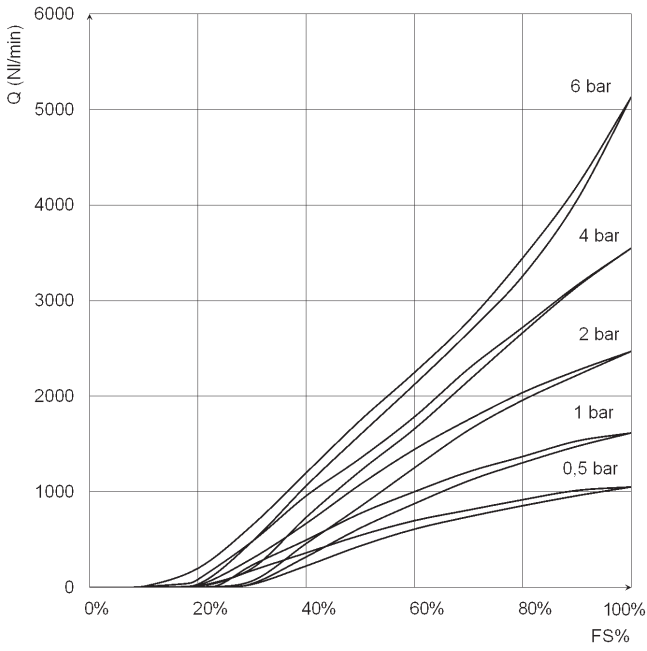
5 red LED
 6 green LED



| Mod. | Electrical command | Setting range |
|----------------------|--|---------------|
| MX2-1/2-WEV810 | 0-10 V DC, external servo pilot supply | low flow |
| MX2-1/2-WEA810 | 4-20 mA, external servo pilot supply | low flow |
| MX2-1/2-WEV910 | 0-10 V DC, external servo pilot supply | high flow |
| MX2-1/2-WEA910 | 4-20 mA, external servo pilot supply | high flow |
| MX2-1/2-WEV810-LH | 0-10 V DC, external servo pilot supply | low flow |
| MX2-1/2-WEA810-LH | 4-20 mA, external servo pilot supply | low flow |
| MX2-1/2-WEV910-LH | 0-10 V DC, external servo pilot supply | high flow |
| MX2-1/2-WEA910-LH | 4-20 mA, external servo pilot supply | high flow |
| MX2-1/2-WEV810-OX1 | 0-10 V DC, external servo pilot supply | low flow |
| MX2-1/2-WEA810-OX1 | 4-20 mA, external servo pilot supply | low flow |
| MX2-1/2-WEV910-OX1 | 0-10 V DC, external servo pilot supply | high flow |
| MX2-1/2-WEA910-OX1 | 4-20 mA, external servo pilot supply | high flow |
| MX2-1/2-WEV810-LHOX1 | 0-10 V DC, external servo pilot supply | low flow |
| MX2-1/2-WEA810-LHOX1 | 4-20 mA, external servo pilot supply | low flow |
| MX2-1/2-WEV910-LHOX1 | 0-10 V DC, external servo pilot supply | high flow |
| MX2-1/2-WEA910-LHOX1 | 4-20 mA, external servo pilot supply | high flow |

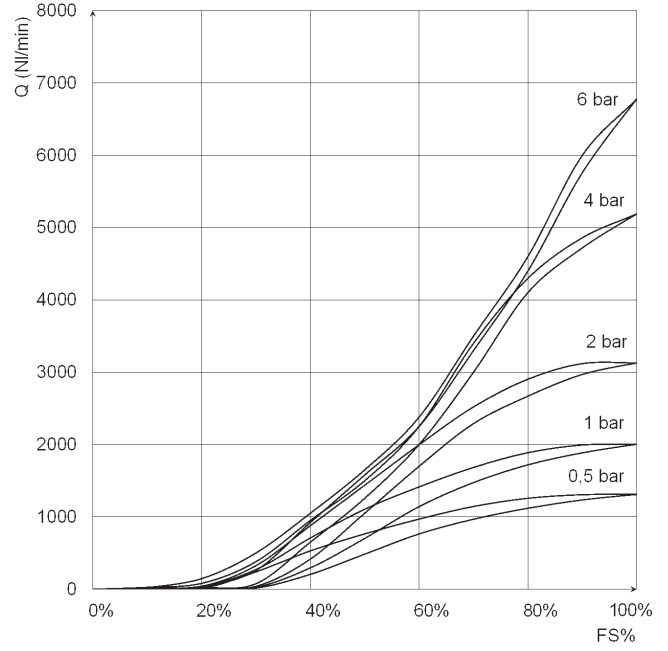
VALVE FLOW DIAGRAMS - MANIFOLD VERSION

SERIES MX-PRO PROPORTIONAL REGULATOR AND VALVE



Low flow version

Q (NL/min) = flow
FS% = full scale command signal

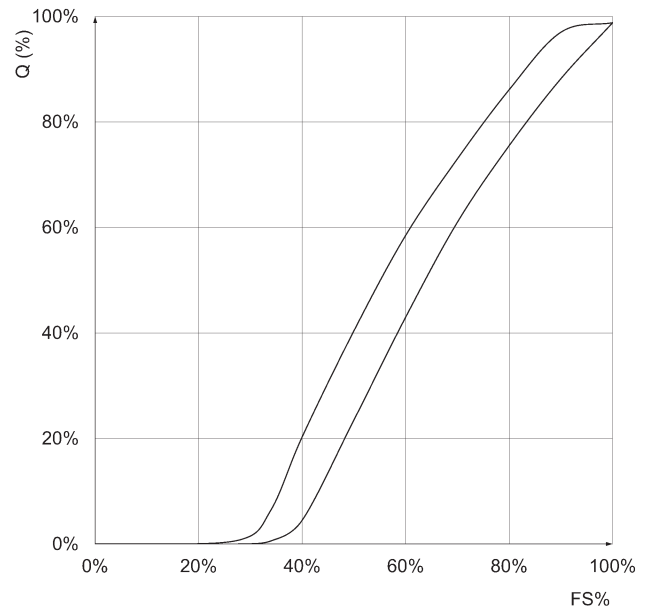


High flow version

Q (NL/min) = flow
FS% = full scale command signal

Flow characteristic curve of a proportional valve

Q% = flow
FS% = full scale command signal

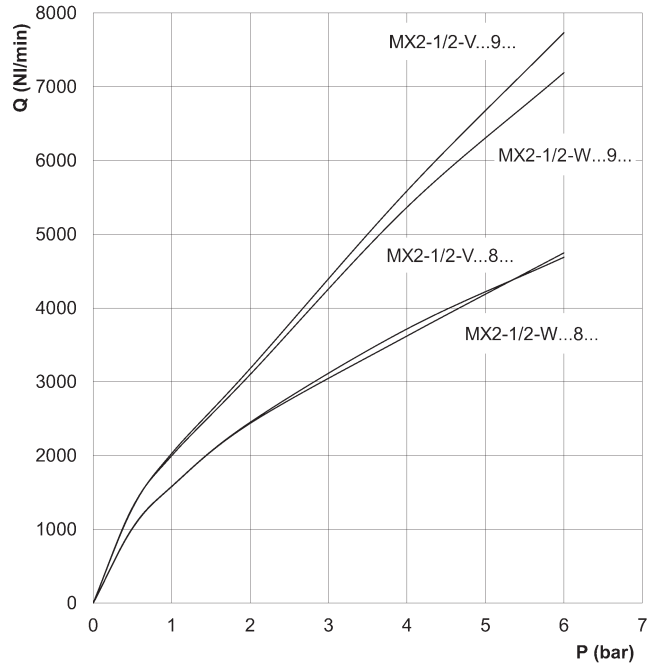


Valve maximum flow and response times

Maximum flow according to the inlet pressure

DIAGRAM LEGEND:

Q = flow (NL/min)
P = inlet pressure (bar)



| Pin | Type | Flow at steady speed [NL/min] | Command [V] | | Load response time (ms) | | | | Exhaust response time (ms) | | | |
|-------|-----------|-------------------------------|-------------|-----|-------------------------|--------|--------|-------|----------------------------|--------|-------|-------|
| | | | | | 0-10% | 0-50% | 0-90% | 0-99% | 0-10% | 0-50% | 0-90% | 0-99% |
| 2 bar | Low flow | Standard | 915 | 6 | 351 | 452.4 | 967.2 | 6240 | 171.6 | 284.7 | 487.5 | 624 |
| | | Manifold | 1000 | 6.3 | 327.6 | 421.2 | 951.6 | 6162 | 249.6 | 366.6 | 577.2 | 780 |
| | High flow | Standard | 960 | 4.7 | 331.5 | 444.6 | 1279.2 | 6942 | 245.7 | 329.16 | 526.5 | 702 |
| | | Manifold | 960 | 4.2 | 313 | 420 | 1156 | 9700 | 200 | 340 | 540 | 800 |
| 4 bar | Low flow | Standard | 952 | 5.4 | 319.8 | 436.8 | 1029.6 | 7410 | 187.2 | 304.2 | 491.4 | 624 |
| | | Manifold | 925 | 5.3 | 284.7 | 408.72 | 1474.2 | 6240 | 237.9 | 370.5 | 557.7 | 897 |
| | High flow | Standard | 970 | 4.4 | 279.24 | 429 | 1177.8 | 7878 | 225 | 351 | 526.5 | 741 |
| | | Manifold | 940 | 3.8 | 230 | 400 | 1680 | 8500 | 175 | 360 | 580 | 900 |

Set flow: about 1000 NL/min

Rapid clamp kit

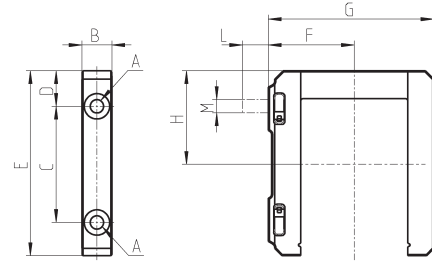


The kit MX2-X is supplied with:
1 rapid clamp, 1 O-ring OR 3125 *,
2 exagonal nuts M5, 2 screws M5x69.

The kit MX2-Z is supplied with:
1 rapid clamp, 1 O-ring OR 3125 *,
1 exagonal nut M5, 1 screw M5x69,
1 screw M5x85 for wall fixing.

* it can be ordered separately (cod. 160-39-11/19)

Materials: technopolymer clamp, NBR O-ring,
zinc-plated steel nuts and screws.



| DIMENSIONS | | | | | | | | | | | |
|------------|-----|----|----|----|------|------|------|----|----|----|----------------------------|
| Mod. | A | B | C | D | E | F | G | H | L | M | Notes |
| MX2-X | 5.2 | 12 | 46 | 14 | 73.5 | 37.5 | 70.5 | 37 | - | - | |
| MX2-Z | 5.2 | 12 | 46 | 14 | 73.5 | 37.5 | 70.5 | 37 | 14 | M5 | kit with wall fixing screw |

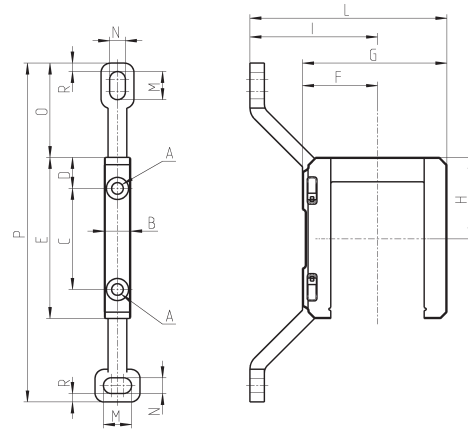
Rapid clamp kit with wall fixing brackets



The kit MX2-Y is supplied with:
1 wall rapid clamp, 1 O-ring OR 3125 **, 2 exagonal nuts, 2 screws M5x69.

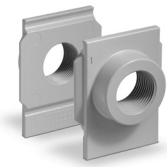
** it can be separately ordered (cod. 160-39-11/19)

Materials: technopolymer clamp, NBR O-ring,
zinc-plated steel nuts and screws.



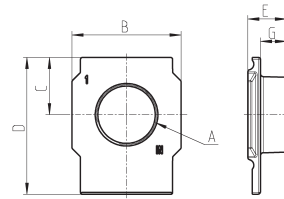
| Mod. | A | B | C | D | E | F | G | H | I | L | M | N | O | P | R |
|-------|-----|----|----|----|------|------|------|----|------|-----|----|-----|----|-----|---|
| MX2-Y | 5,2 | 12 | 46 | 14 | 73,5 | 32,5 | 70,5 | 37 | 70,5 | 103 | 12 | 6,5 | 42 | 152 | 4 |

Terminal flanges (IN/OUT)



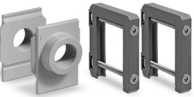
The kit is supplied with:
 - 1 flange INLET side
 - 1 flange OUTLET side

Materials: painted aluminium flanges.



| Mod. | A | B | C | D | E | G |
|------------|------|----|------|------|----|----|
| MX2-1/2-FL | G1/2 | 50 | 26,5 | 63,5 | 17 | 11 |

Rapid clamps kit + flanges



| Mod. | The kit is supplied with: |
|------------|---------------------------|
| MX2-1/2-HH | 1x MX2-1/2-FL + 2x MX2-X |
| MX2-1/2-JJ | 1x MX2-1/2-FL + 2x MX2-Z |

Rapid clamps kit with wall fixing brackets + flanges

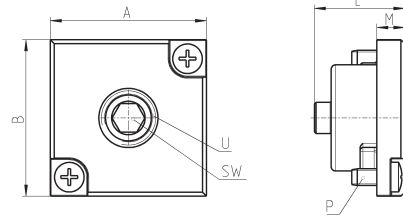


| Mod. | The kit is supplied with: |
|------------|---------------------------|
| MX2-1/2-KK | 1x MX2-1/2-FL + 2x MX2-Y |

Block for pressure gauge fixing

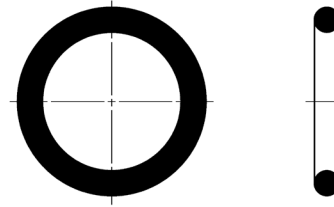


The kit is supplied with:
1 block
1 grain
2 screws
2 seals
1 seal



| DIMENSIONS | | | | | | | |
|-------------|----|----|------|---|------|-----|----|
| Mod. | A | B | L | M | P | U | SW |
| MX2-R26/1-P | 28 | 28 | 16.5 | 5 | M3X7 | 1/8 | 5 |

O-ring for assembling

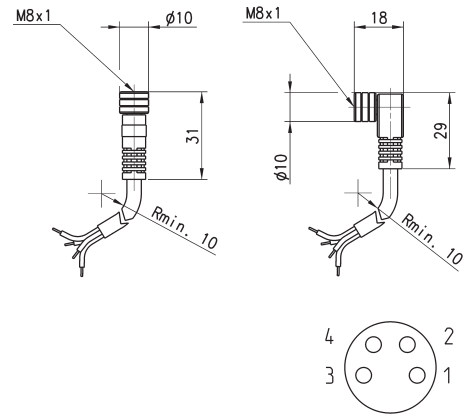


| Mod. | O-ring | For assembly |
|--------------|---------|--------------|
| 160-39-11/19 | OR 3125 | MX2 |

Circular M8 4-pole connectors, Female



With PU sheathing, non shielded cable.
Protection class: IP65



| Mod. | Type of connector | Cable length (m) |
|----------------|--------------------------|------------------|
| CS-DF04EG-E200 | straight | 2 |
| CS-DF04EG-E500 | straight | 5 |
| CS-DR04EG-E200 | right angle (90 degrees) | 2 |
| CS-DR04EG-E500 | right angle (90 degrees) | 5 |