

Series MX-PRO proportional pressure regulator and proportional flow valve

New versions

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

saterials see material tables on the following pages forts G1/2 founting vertical in-line, wall-mounting (by means of clamps) forts G1/2 founting vertical in-line, wall-mounting (by means of clamps) vertical in-line, wall-mounting (by above the second of charps) vertical in-line, wall-mounting (by above the second of charps) vertical in-line, wall-mounting (by above the second of charps) vertical in-line, wall-mounting (by above the second of charps) vertical in-line, wall-mounting (by above the second of charps) vertical in-line, wall-mounting (by above the second of cha			
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corts G1/2 G1/2 Nounting vertical in-line, wall-mounting (by means of clamps) vertical in-line, wall-mounting (by means of clamps) Vooking pressure 0°C + 50°C 0°C + 50°C Ask inlet pressure 11 bar (10 bar), 4 bar (3 bar), 1.5 bar (1 bar), 8 bar (7 bar) 6 bar tegulated pressure 0.5 ÷ 10 bar, 0.15 ÷ 8 bar, 0.05 ÷ 1 bar, 0.35 ÷ 7 - dax servo-pilot pressure 4 bar (3 bar), 1.1 bar (10 bar), 1.5 bar (1 bar), 8 bar (7 bar) 4 bar (essential for the proper functioning) Noninal flow see flow diagrams on the following pages see flow diagrams on the following pages sir 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 25 cts 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. filt be servo-pilot supply air quality class must be 7.4.4 according to ISO 8573.1 standard. the servo-pilot supply air quality class must be 7.4.4 according to ISO 8573.1 standard. dressure gauge with bull-in pressure gauge (standard) with of 1.8 port with out pressure gauge with out pressure gauge tensure gauge 0-10 VDC Ripple s 0.2%; 4 - 20 mA 4 - 20 mA 4 - 20 mA tensure gauge<	Construction	modular, compact, diaphragm type	modular, piston type
Norking pressure 0°C + 50°C 0°C + 50°C Alax inter 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, 0.55 + 10 bar, 0.55 + 10 bar, 0.15 + 3 bar, 0.15 bar (1 bar), 8 bar (7 bar) 4 bar (essential for the proper functioning) Alax 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) Alax servo-pilot pressure 8 bars with Relieving (standard) or without Relieving NO Rominal flow see flow diagrams on the following pages see flow diagrams on the following pages Alax flubrication is necessary, please use only oils with maximum viscosity of \$2 Cst and the version with external servo-pilot supply. The servo-pilot supply air quality class must be 7.4.4 according to 150 8573.1 standard. Alax flubrication is necessary, please use only oils with maximum viscosity of \$2 Cst and the version with external servo-pilot supply. The servo-pilot supply air quality class must be 7.4.4 according to 150 8573.1 standard. According to 150	Materials	see material tables on the following pages	see material tables on the following pages
Working pressure 0°C ÷ 50°C 0°C ÷ 50°C Aax inlet pressure 11 bar (10 bar), 4 bar (3 bar), 1.5 bar (1 bar), 8 bar (7 bar) 6 bar tegulated pressure 0.5 ÷ 10 bar, 0.15 ÷ 3 bar, 0.05 ÷ 1 bar, 0.35 ÷ 7 - dax 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) verpressure exhaust with Relieving (standard) or without Relieving NO forminal flow see flow diagrams on the following pages see flow diagrams on the following pages sir specifications filtered compressed air, non lubricated, class 7.4.4 according to ISO 8573.1 standard. filtered compressed air, non lubricated, class 7.4.4 according to ISO 8573.1 standard. filtered compressed air, non lubricated, class 7.4.4 according to ISO 8573.1 standard. filtubrication is necessary, please use only oils with maximum viscosity of \$2 Cst and the version with external servo-pilot supply. filtubrication is necessary, please use only oils with maximum viscosity of \$2 Cst and the version with external servo-pilot supply. filtubrication is necessary, please use only oils with maximum viscosity of \$2 Cst and the version with external servo-pilot supply. filtubrication is necessary, please use only oils with maximum viscosity of \$2 Cst and the version with external servo-pilot supply. filtubrication is necessary, please use only oils with maximum viscosity of \$2 Cst and the version with the external servo-pilot supply. fi	Ports	G1/2	G1/2
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) Noverpessure exhaust with Relieving (standard) or without Relieving NO Jominal flow see flow diagrams on the following pages see flow diagrams on the following pages Lir specifications filtered compressed air, non lubricated, class 7.4.4 according to 150 8573.1 standard. If lubrication is necessary, please use only oils with maximum viscosity of 32 cst and the version 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 150 8573.1 standard. The servo-pilot supply air quality class must be 7.4.4 according to 150 8573.1 standard. Pressure gauge with built-in pressure gauge (standard) with G1/8 port with out pressure gauge without pressure gauge Inalogical input 0-10 VDC Ripple ≤ 0.2%; 4-20 mA 0-10 VDC Ripple ≤ 0.2%; 4-20 mA 4-20 mA Inalogical output 0.5 -9.5 VDC [Feedback] not relevant Idectrical supply 24 VD ±10% 24 VD ±10% Idectrical connection M8 4 Pin (Male)	Mounting	vertical in-line, wall-mounting (by means of clamps)	vertical in-line, wall-mounting (by means of clamps)
tegulated pressure $0.5 \div 10 \mathrm{bar}, 0.15 \div 3 \mathrm{bar}, 0.05 \div 1 \mathrm{bar}, 0.35 \div 7$ Ax servo-pilot pressure $4 \mathrm{bar} (3 \mathrm{bar}), 11 \mathrm{bar} (10 \mathrm{bar}), 1.5 \mathrm{bar} (1 \mathrm{bar}), 8 \mathrm{bar} (7 \mathrm{bar})$ As servo-pilot pressure $4 \mathrm{bar} (3 \mathrm{bar}), 11 \mathrm{bar} (10 \mathrm{bar}), 1.5 \mathrm{bar} (1 \mathrm{bar}), 8 \mathrm{bar} (7 \mathrm{bar})$ As servo-pilot pressure $4 \mathrm{bar} (3 \mathrm{bar}), 11 \mathrm{bar} (10 \mathrm{bar}), 1.5 \mathrm{bar} (10 \mathrm{bar}), 8 \mathrm{bar} (7 \mathrm{bar})$ As servo-pilot pressure exhaust with Relieving (standard) or without Relieving $8 \mathrm{bar} (7 \mathrm{bar})$ As a servo-pilot supply $8 \mathrm{bar} (3 \mathrm{bar}), 11 \mathrm{bar} (10 \mathrm{bar}), 1.5 \mathrm{bar} (10 \mathrm{bar}), 8 \mathrm{bar} (7 \mathrm{bar})$ As servo-pilot supples $8 \mathrm{bar} (3 \mathrm{bar}), 11 \mathrm{bar} (10 \mathrm{bar}), 1.5 \mathrm{bar} (10 \mathrm{bar}), 8 \mathrm{bar} (7 \mathrm{bar})$ As servo-pilot supples $8 \mathrm{bar} (3 \mathrm{bar}), 11 \mathrm{bar} (10 \mathrm{bar}), 1.5 \mathrm{bar} (10 \mathrm{bar}), 8 \mathrm{bar} (7 \mathrm{bar})$ As seed flow diagrams on the following pages see flow diagrams on the following pages are flow diagrams on the following pages see flow diagrams on the follo	Working pressure	0°C ÷ 50°C	0°C ÷ 50°C
Abax 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) 4 bar (essential for the proper functioning) 5 by pressure exhaust with Relieving (standard) or without Relieving 10 bominal flow 10 see flow diagrams on the following pages 10 see flow diagrams on the following pages 11 see flittered 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 \$2 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. 12 sessure gauge 13 with built-in pressure gauge (standard) with 61/8 port 14 according to ISO 8573.1 standard. 15 servo-pilot supply air quality class must be 7.4.4 according to ISO 8573.1 standard. 16 servo-pilot supply air quality class must be 7.4.4 according to ISO 8573.1 standard. 17 servo-pilot supply air quality class must be 7.4.4 according to ISO 8573.1 standard. 18 servo-pilot supply air quality class must be 7.4.4 according to ISO 8573.1 standard. 19 servo-pilot supply air quality class must be 7.4.4 according to ISO 8573.1 standard. 10 servo-pilot supply air quality class must be 7.4.4 according to ISO 8573.1 standard. 10 servo-pilot supply air quality class must be 7.4.4 according to ISO 8573.1 standard. 11 servo-pilot supply air quality class must be 7.4.4 according to ISO 8573.1 standard. 12 servo-pilot supply air quality class must be 7.4.4 according to ISO 8573.1 standard. 13 servo-pilot supply air quality class must be 7.4.4 according to ISO 8573.1 standard. 14 servo-pilot supply air quality class must be 7.4.4 according to ISO 8573.1 standard. 15 servo-pilot supply air quality class must be 7.4.4 according to ISO 8573.1 standard. 16 servo-pilot supply air quality class must be 7.4.4 according to ISO 8573.1 standard. 17 servo-pilot supply air quality class must be 7.4.4 according to ISO 8573.1 standard. 18 se	Max inlet pressure	11 bar (10 bar), 4 bar (3 bar), 1.5 bar (1 bar), 8 bar (7 bar)	6 bar
Interpressure exhaust with Relieving (standard) or without Relieving See flow diagrams on the following pages see flow see flow in the filtered compressed air, non lubricated, class 7.4.4 according to ISO 8573.1 standard. If the following pages see flow see flow in the termination in the following pages see flow see flow in the filtered compressed air, non lubricated, class 7.4.4 according to ISO 8573.1 standard. If the following pages see flow see flow in the filtered compressed air, non lubricated, class 7.4.4 according t	Regulated pressure	0.5 ÷ 10 bar, 0.15 ÷ 3 bar, 0.05 ÷ 1 bar, 0.35 ÷ 7	-
see flow diagrams on the following pages see flow diagrams on the following pages 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. The servo-pilot supply air quality class must be 7.4.4 according to ISO 8573.1 standard. The servo-pilot supply air quality class must be 7.4.4 according to ISO 8573.1 standard. The servo-pilot supply in quality class must be 7.4.4 according to ISO 8573.1 standard. The servo-pilot supply in quality class must be 7.4.4 according to ISO 8573.1 standard. The servo-pilot supply in quality class must be 7.4.4 according to ISO 8573.1 standard. The servo-pilot supply in quality class must be 7.4.4 according to ISO 8573.1 standard. The servo-pilot supply in quality class must be 7.4.4 according to ISO 8573.1 standard. The servo-pilot supply in quality class must be 7.4.4 according to ISO 8573.1 standard. The servo-pilot supply in quality class must be 7.4.4 according to ISO 8573.1 standard. The servo-pilot supply in quality class must be 7.4.4 according to ISO 8573.1 standard. The servo-pilot supply in quality class must be 7.4.4 according to ISO 8573.1 standard. The servo-pilot supply in quality class must be 7.4.4 according to ISO 8573.1 standard. The servo-pilot supply in quality class must be 7.4.4 according to ISO 8573.1 standard. The servo-pilot supply in quality class must be 7.4.4 according to ISO 8573.1 standard. The servo-pilot supply in quality class must be 7.4.4 according to ISO 8573.1 standard. The servo-pilot supply in quality class must be 7.4.4 according to ISO 8573.1 standard. The servo-pilot supply in quality class must be 7.4.4 according to ISO 8573.1 standard. The servo-pilot supply in quality class must be 7.4.4 according to ISO 8573.1 standard. The servo-pilot supply in quality class must b	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)
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. 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) without pressure gauge with G1/8 port with G1/8 port with 0-10 V DC Ripple ≤ 0.2%; 0-10 V DC Ripple ≤ 0.2%; 4 − 20 mA winalogical output 0.5 - 9.5 V DC [Feedback] not relevant lectrical supply 24 V DC ±10% 25 Expressis 26 SFS 10.5% FS 26 SFS 27 Expression 27 SFS 28 FS 28 FS	Overpressure exhaust	with Relieving (standard) or without Relieving	NO
Class 7.4.4 according to ISO 8573.1 standard. If Iubrication 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. If Iubrication 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. The servo-pilot supply air quality class must be 7.4.4 according to ISO 8573.1 standard. The servo-pilot supply air quality class must be 7.4.4 according to ISO 8573.1 standard. The servo-pilot supply air quality class must be 7.4.4 according to ISO 8573.1 standard. Personure gauge with built-in pressure gauge (standard) without pressure gauge	Nominal flow	see flow diagrams on the following pages	see flow diagrams on the following pages
with G1/8 port Land logical input $0-10 \text{ V DC Ripple} \le 0.2\%$; $4-20 \text{ mA}$ $0-10 \text{ V DC Ripple} \le 0.2\%$; $4-20 \text{ mA}$ Inalogical output $0.5 - 9.5 \text{ V DC [Feedback]}$ not relevant Idectrical supply $24 \text{ V DC} \pm 10\%$ $24 \text{ V DC} \pm 10\%$ Idectrical connection $M8 4 \text{ Pin (Male)}$ $M8 4 \text{ Pin (Male)}$ Inearity $\le \pm 1\% \text{ FS}$ $\pm 4\% \text{ FS}$ Idespetability $\pm 0.5\% \text{ FS}$ $\pm 1.0.5\% \text{ FS}$ Idensibility $0.3\% \text{ FS}$ $5\% \text{ FS}$	Air specifications	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	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
4 - 20 mA 4 - 20 mA Inalogical output 0.5 - 9.5 V DC [Feedback] not relevant Idectrical supply 24 V DC ±10% 24 V DC ±10% Idectrical connection M8 4 Pin (Male) M8 4 Pin (Male) inearity ≤ ± 1% FS ± 4% FS lysteresis ± 0.5% FS ± 8% FS tepeatability ± 0.5% FS ± 0.35% FS ensibility 0.3% FS 5% FS	Pressure gauge		without pressure gauge
Electrical supply 24 V D C ± 10% 24 V D C ± 10% Electrical connection M8 4 Pin (Male) M8 4 Pin (Male) inearity ≤ ± 1% FS ± 4% FS lysteresis ± 0.5% FS ± 8% FS tepeatability ± 0.5% FS ± 0.35% FS tensibility 0.3% FS 5% FS	Analogical input		
Electrical connection M8 4 Pin (Male) M8 4 Pin (Male) inearity ≤±1% FS ±4% FS lysteresis ±0.5% FS ±8% FS tepeatability ±0.5% FS ±0.35% FS ensibility 0.3% FS 5% FS	Analogical output	0.5 - 9.5 V DC [Feedback]	not relevant
inearity ≤±1% FS ±4% FS lysteresis ±0.5% FS ±8% FS tepeatability ±0.5% FS ±0.35% FS ensibility 0.3% FS 5% FS	Electrical supply	24 V DC ±10%	24 V DC ±10%
Experies is ±0.5% FS ±8% FS dependability ±0.5% FS ±0.35% FS densibility 0.3% FS 5% FS	Electrical connection	M8 4 Pin (Male)	M8 4 Pin (Male)
perpetability ±0.5% FS ±0.35% FS gensibility 0.3% FS 5% FS	Linearity	≤ ± 1% FS	±4% FS
ensibility 0.3% FS 5% FS	Hysteresis	±0.5% FS	±8% FS
- Comment of the comm	Repeatability	±0.5% FS	±0.35% FS
rotection class IP51 IP51	Sensibility	0.3% FS	5% FS
	Protection class	IP51	IP51

CODING EXAMPLE

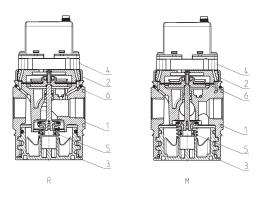
MX	2 - 1/2 - R CV 2 0 4 - LH
МХ	SERIES SERIES
2	SIZE: 2 = G1/2
1/2	PORTS: 1/2 = G1/2
R	FUNCTIONING: R = pressure regulator V = flow valve M = Manifold pressure regulator W = Manifold flow valve
CV	COMMAND: CV = electrical command 0-10 V DC (regulator only) EV = electrical command 0-10 V DC with external servo pilot supply CA = electrical command 4-20 mA (regulator only) EA = electrical command 4-20 mA with external servo pilot supply
2	SETTING RANGE: 1 = working pressure 0.15 ÷ 3 bar (regulator only) 2 = working pressure 0.5 ÷ 10 bar (regulator only) 3 = working pressure 0.5 ÷ 10 bar (regulator only) 3 = working pressure 0.5 ÷ 1 bar (regulator only) 4 = working pressure 0.35 ÷ 7 bar (regulator only)
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.



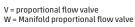
Series MX-PRO proportional pressure regulator - materials

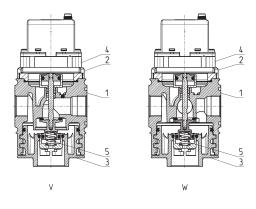
- R = proportional pressure regulator M = Manifold proportional pressure regulator



PARTS	MATERIALS, standard version	MATERIALS, oxygen version
1 = Body	Aluminium	Aluminium
2 = Covering	Polyacetal	РВТ
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





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 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

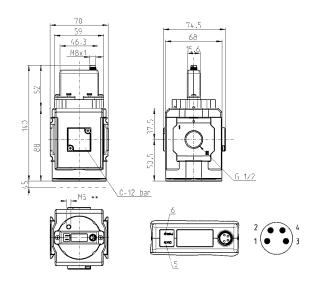
the command signal Pin 4: Output analogical signal

(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-R*V1**0	0-10 V DC	0.15 ÷ 3 bar	without pressure gauge
MX2-1/2-R*V1**2	0-10 V DC	0.15 ÷ 3 bar	with built-in pressure gauge 0-6
MX2-1/2-R*V1**4	0-10 V DC	0.15 ÷ 3 bar	with built-in pressure gauge 0-12
MX2-1/2-R*V2**0	0-10 V DC	0.5 ÷ 10 bar	without pressure gauge
MX2-1/2-R*V2**2	0-10 V DC	0.5 ÷ 10 bar	with built-in pressure gauge 0-6
MX2-1/2-R*V2**4	0-10 V DC	0.5 ÷ 10 bar	with built-in pressure gauge 0-12
MX2-1/2-R*V3**0	0-10 V DC	0.05 ÷ 1 bar	without pressure gauge
MX2-1/2-R*V3**2	0-10 V DC	0.05 ÷ 1 bar	with built-in pressure gauge 0-6
MX2-1/2-R*V3**4	0-10 V DC	0.05 ÷ 1 bar	with built-in pressure gauge 0-12
MX2-1/2-R*V4**0	0-10 V DC	0.35 ÷ 7 bar	without pressure gauge
MX2-1/2-R*V4**2	0-10 V DC	0.35 ÷ 7 bar	with built-in pressure gauge 0-6
MX2-1/2-R*V4**4	0-10 V DC	0.35 ÷ 7 bar	with built-in pressure gauge 0-12
MX2-1/2-R*A1**0	4-20 mA	0.15 ÷ 3 bar	without pressure gauge
MX2-1/2-R*A1**2	4-20 mA	0.15 ÷ 3 bar	with built-in pressure gauge 0-6
MX2-1/2-R*A1**4	4-20 mA	0.15 ÷ 3 bar	with built-in pressure gauge 0-12
MX2-1/2-R*A2**0	4-20 mA	0.5 ÷ 10 bar	without pressure gauge
MX2-1/2-R*A2**2	4-20 mA	0.5 ÷ 10 bar	with built-in pressure gauge 0-6
MX2-1/2-R*A2**4	4-20 mA	0.5 ÷ 10 bar	with built-in pressure gauge 0-12
MX2-1/2-R*A3**0	4-20 mA	0.05 ÷ 1 bar	without pressure gauge
MX2-1/2-R*A3**2	4-20 mA	0.05 ÷ 1 bar	with built-in pressure gauge 0-6
MX2-1/2-R*A3**4	4-20 mA	0.05 ÷ 1 bar	with built-in pressure gauge 0-12
MX2-1/2-R*A4**0	4-20 mA	0.35 ÷ 7 bar	without pressure gauge
MX2-1/2-R*A4**2	4-20 mA	0.35 ÷ 7 bar	with built-in pressure gauge 0-6
MX2-1/2-R*A4**4	4-20 mA	0.35 ÷ 7 bar	with built-in pressure gauge 0-12
MX2-1/2-R*V1**0-0X1	0-10 V DC	0.15 ÷ 3 bar	without pressure gauge
MX2-1/2-R*V1**2-0X1	0-10 V DC	0.15 ÷ 3 bar	with built-in pressure gauge 0-6
MX2-1/2-R*V1**4-0X1	0-10 V DC	0.15 ÷ 3 bar	with built-in pressure gauge 0-12
MX2-1/2-R*V3**0-0X1	0-10 V DC	0.05 ÷ 1 bar	without pressure gauge
MX2-1/2-R*V3**2-0X1	0-10 V DC	0.05 ÷ 1 bar	with built-in pressure gauge 0-6
MX2-1/2-R*V3**4-0X1	0-10 V DC	0.05 ÷ 1 bar	with built-in pressure gauge 0-12
MX2-1/2-R*V4**0-0X1	0-10 V DC	0.35 ÷ 7 bar	without pressure gauge
MX2-1/2-R*V4**2-0X1	0-10 V DC	0.35 ÷ 7 bar	with built-in pressure gauge 0-6
MX2-1/2-R*V4**4-0X1	0-10 V DC	0.35 ÷ 7 bar	with built-in pressure gauge 0-12
MX2-1/2-R*A1**0-0X1	4-20 mA	0.15 ÷ 3 bar	without pressure gauge
MX2-1/2-R*A1**2-OX1	4-20 mA	0.15 ÷ 3 bar	with built-in pressure gauge 0-6
MX2-1/2-R*A1**4-0X1	4-20 mA	0.15 ÷ 3 bar	with built-in pressure gauge 0-12
MX2-1/2-R*A3**0-OX1	4-20 mA	0.05 ÷ 1 bar	without pressure gauge
MX2-1/2-R*A3**2-OX1	4-20 mA	0.05 ÷ 1 bar	with built-in pressure gauge 0-6
MX2-1/2-R*A3**4-OX1	4-20 mA	0.05 ÷ 1 bar	with built-in pressure gauge 0-12
MX2-1/2-R*A4**0-0X1	4-20 mA	0.35 ÷ 7 bar	without pressure gauge
MX2-1/2-R*A4**2-OX1	4-20 mA	0.35 ÷ 7 bar	with built-in pressure gauge 0-6
MX2-1/2-R*A4**4-0X1	4-20 mA	0.35 ÷ 7 bar	with built-in pressure gauge 0-12

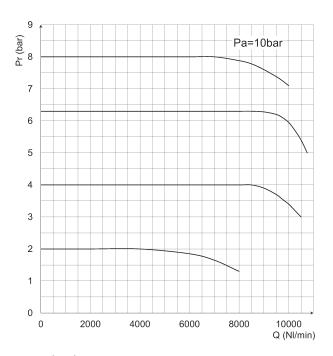
TABLE NOTES:

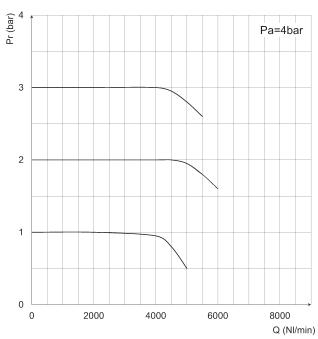
LH = add LH at the end of the code for air inlet from the right to the left

^{* =} versions with or without external pilot supply ** = versions with our without relieving

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PRESSURE REGULATOR FLOW DIAGRAMS - STANDARD VERSION





Pr = Regulated pressure

Q = Flow

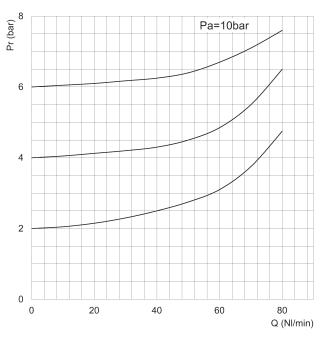
Pa = Inlet pressure

Pr = Regulated pressure

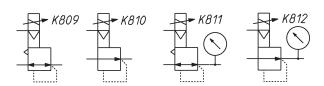
Q = Flow

Pa = Inlet pressure

EXHAUST FLOW DIAGRAM AND PNEUMATIC SYMBOLS



K801 K802 K803 K804



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 reliev., electrical command, ext. servo pilot supply

K811 = reliev., el. com., built-in pr. gauge, ext. servo pilot supply

K812 = NO reliev., el. com., built-in pr. gauge, ext. servo pilot sup.



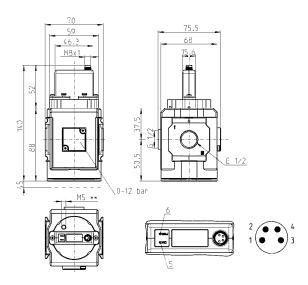
Series MX-PRO Manifold pressure regulator



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	0.15 ÷ 3 bar	without pressure gauge
MX2-1/2-M*V1**2	0-10 V DC	0.15 ÷ 3 bar	with built-in pressure gauge 0-6
MX2-1/2-M*V1**4	0-10 V DC	0.15 ÷ 3 bar	with built-in pressure gauge 0-12
MX2-1/2-M*V2**0	0-10 V DC	0.5 ÷ 10 bar	without pressure gauge
MX2-1/2-M*V2**2	0-10 V DC	0.5 ÷ 10 bar	with built-in pressure gauge 0-6
MX2-1/2-M*V2**4	0-10 V DC	0.5 ÷ 10 bar	with built-in pressure gauge 0-12
MX2-1/2-M*V3**0	0-10 V DC	0.05 ÷ 1 bar	without pressure gauge
MX2-1/2-M*V3**2	0-10 V DC	0.05 ÷ 1 bar	with built-in pressure gauge 0-6
MX2-1/2-M*V3**4	0-10 V DC	0.05 ÷ 1 bar	with built-in pressure gauge 0-12
MX2-1/2-M*V4**0	0-10 V DC	0.35 ÷ 7 bar	without pressure gauge
MX2-1/2-M*V4**2	0-10 V DC	0.35 ÷ 7 bar	with built-in pressure gauge 0-6
MX2-1/2-M*V4**4	0-10 V DC	0.35 ÷ 7 bar	with built-in pressure gauge 0-12
MX2-1/2-M*A1**0	4-20 mA	0.15 ÷ 3 bar	without pressure gauge
MX2-1/2-M*A1**2	4-20 mA	0.15 ÷ 3 bar	with built-in pressure gauge 0-6
MX2-1/2-M*A1**4	4-20 mA	0.15 ÷ 3 bar	with built-in pressure gauge 0-12
MX2-1/2-M*A2**0	4-20 mA	0.5 ÷ 10 bar	without pressure gauge
MX2-1/2-M*A2**2	4-20 mA	0.5 ÷ 10 bar	with built-in pressure gauge 0-6
MX2-1/2-M*A2**4	4-20 mA	0.5 ÷ 10 bar	with built-in pressure gauge 0-12
MX2-1/2-M*A3**0	4-20 mA	0.05 ÷ 1 bar	without pressure gauge
MX2-1/2-M*A3**2	4-20 mA	0.05 ÷ 1 bar	with built-in pressure gauge 0-6
MX2-1/2-M*A3**4	4-20 mA	0.05 ÷ 1 bar	with built-in pressure gauge 0-12
MX2-1/2-M*A4**0	4-20 mA	0.35 ÷ 7 bar	without pressure gauge
MX2-1/2-M*A4**2	4-20 mA	0.35 ÷ 7 bar	with built-in pressure gauge 0-6
MX2-1/2-M*A4**4	4-20 mA	0.35 ÷ 7 bar	with built-in pressure gauge 0-12
MX2-1/2-M*V1**0-0X1	0-10 V DC	0.15 ÷ 3 bar	without pressure gauge
MX2-1/2-M*V1**2-OX1	0-10 V DC	0.15 ÷ 3 bar	with built-in pressure gauge 0-6
MX2-1/2-M*V1**4-0X1	0-10 V DC	0.15 ÷ 3 bar	with built-in pressure gauge 0-12
MX2-1/2-M*V3**0-OX1	0-10 V DC	0.05 ÷ 1 bar	without pressure gauge
MX2-1/2-M*V3**2-OX1	0-10 V DC	0.05 ÷ 1 bar	with built-in pressure gauge 0-6
MX2-1/2-M*V3**4-0X1	0-10 V DC	0.05 ÷ 1 bar	with built-in pressure gauge 0-12
MX2-1/2-M*V4**0-0X1	0-10 V DC	0.35 ÷ 7 bar	without pressure gauge
MX2-1/2-M*V4**2-0X1	0-10 V DC	0.35 ÷ 7 bar	with built-in pressure gauge 0-6
MX2-1/2-M*V4**4-0X1	0-10 V DC	0.35 ÷ 7 bar	with built-in pressure gauge 0-12
MX2-1/2-M*A1**0-OX1	4-20 mA	0.15 ÷ 3 bar	without pressure gauge
MX2-1/2-M*A1**2-OX1	4-20 mA	0.15 ÷ 3 bar	with built-in pressure gauge 0-6
MX2-1/2-M*A1**4-0X1	4-20 mA	0.15 ÷ 3 bar	with built-in pressure gauge 0-12
MX2-1/2-M*A3**0-OX1	4-20 mA	0.05 ÷ 1 bar	without pressure gauge
MX2-1/2-M*A3**2-OX1	4-20 mA	0.05 ÷ 1 bar	with built-in pressure gauge 0-6
MX2-1/2-M*A3**4-0X1	4-20 mA	0.05 ÷ 1 bar	with built-in pressure gauge 0-12
MX2-1/2-M*A4**0-0X1	4-20 mA	0.35 ÷ 7 bar	without pressure gauge
MX2-1/2-M*A4**2-0X1	4-20 mA	0.35 ÷ 7 bar	with built-in pressure gauge 0-6
MX2-1/2-M*A4**4-0X1	4-20 mA	0.35 ÷ 7 bar	with built-in pressure gauge 0-12

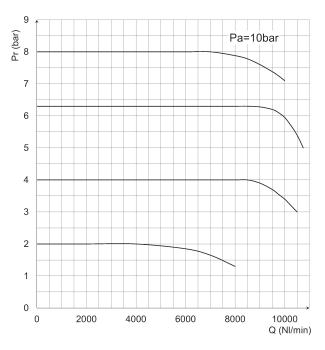
TABLE NOTES:

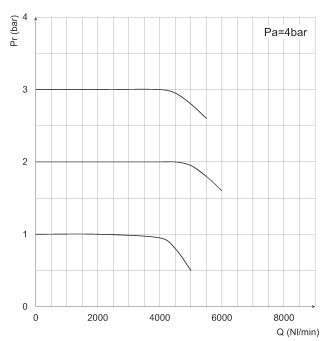
LH = add LH at the end of the code for air inlet from the right to the left

^{* =} versions with or without external pilot supply ** = versions with our without relieving

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PRESSURE REGULATOR FLOW DIAGRAMS - MANIFOLD VERSION





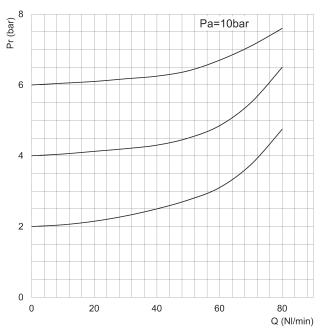
Pr = Regulated pressure Q = Flow

Pa = Inlet pressure

Pr = Regulated pressure Q = Flow

Pa = Inlet pressure

EXHAUST FLOW DIAGRAM - MANIFOLD VERSION

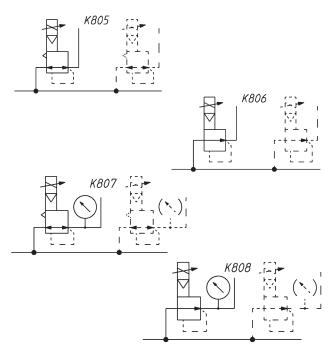


Pr = Regulated pressure Q = Flow

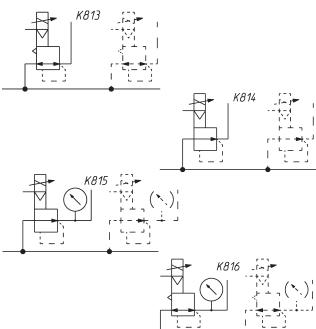
Pa = Inlet pressure



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



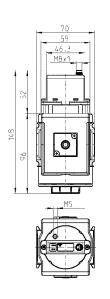
Series MX-PRO proportional flow valve

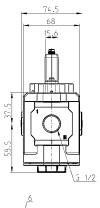


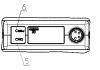
Male connector M8 4 poles
Pin 1: +24 V DC (Power supply)
Pin 2: Command analogical signal
0-10 V DC or 4-20 mA
Pin 3: 0 V (Ground) common also for
the command signal
Pin 4: Output analogical signal
(according to the regulated
pressure)

5 red LED 6 green LED









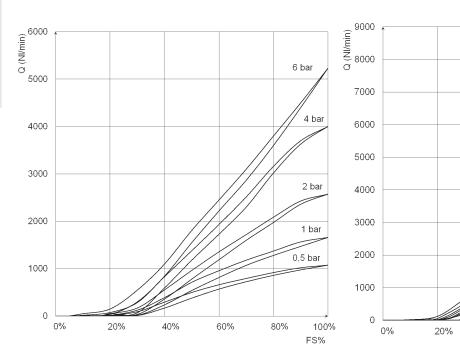


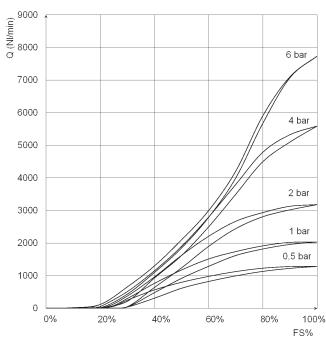
Mod.	Electrical command	Setting range
MX2-1/2-VEV810	0-10 V DC, external servo pilot supply	low flow
MX2-1/2-VEA810	4-20 mA, external servo pilot supply	low flow
MX2-1/2-VEV910	0-10 V DC, external servo pilot supply	high flow
MX2-1/2-VEA910	4-20 mA, external servo pilot supply	high flow
MX2-1/2-VEV810-LH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

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VALVE FLOW DIAGRAMS





Low flow version

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

High flow

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

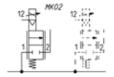
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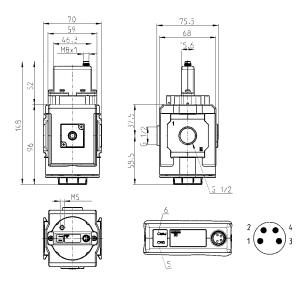
Series MX-PRO Manifold proportional flow valve



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

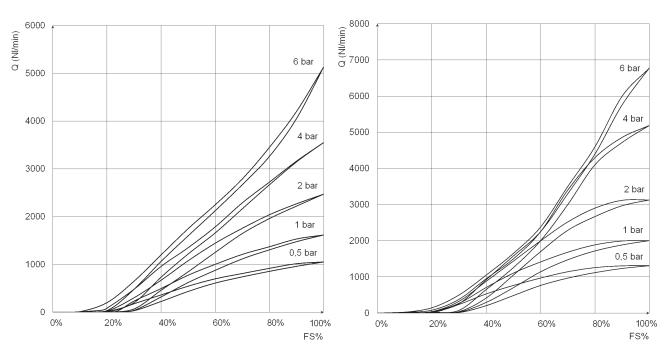




Mod.	Electrical command	Setting range
MX2-1/2-WEV810	0-10 V DC, external servo pilot supply	low flow
MX2-1/2-WEA810	4-20 mA, external servo pilot supply	low flow
MX2-1/2-WEV910	0-10 V DC, external servo pilot supply	high flow
MX2-1/2-WEA910	4-20 mA, external servo pilot supply	high flow
MX2-1/2-WEV810-LH	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-WEV810-0X1	0-10 V DC, external servo pilot supply	low flow
MX2-1/2-WEA810-0X1	4-20 mA, external servo pilot supply	low flow
MX2-1/2-WEV910-0X1	0-10 V DC, external servo pilot supply	high flow
MX2-1/2-WEA910-0X1	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

SERIES MX-PRO PROPORTIONAL REGULATOR AND VALVE

VALVE FLOW DIAGRAMS - MANIFOLD VERSION



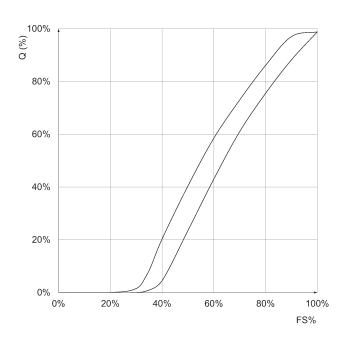
Low flow version

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



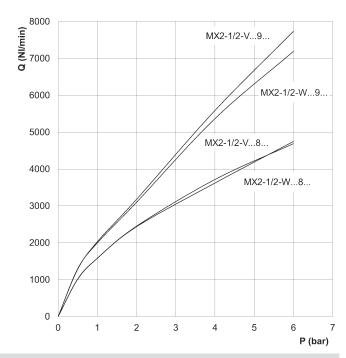


Valve maximum flow and response times

Maximum flow according to the inlet pressure

DIAGRAM LEGEND:

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



Pin	Туре	pe Flow at steady speed		Command [V]		Load respo	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 NI/min



Rapid clamp kit

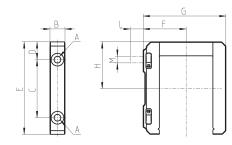


The kit MX2-X is supplied with: 1 rapid clamp, 1 0-ring OR 3125 *, 2 exagonal nuts M5, 2 screws M5x69.

The kit MX2-Z is supplied with: 1 rapid clamp, 1 0-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.



DIMENSIC	ONS										
Mod.	Α	В	С	D	E	F	G	Н	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

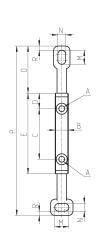
Rapid clamp kit with wall fixing brackets

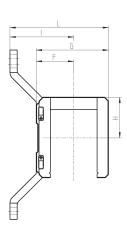


The kit MX2-Y is supplied with: 1 wall rapid clamp, 1 O-ring OR 3125 **, 2 exagonal nuts, 2 screws M5x69.

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

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





Mod.	Α	В	C	D	E	F	G	Н	- 1	L	М	N	0	Р	R
MX2-Y	5,2	12	46	14	73,5	32,5	70,5	37	70,5	103	12	6,5	42	152	4

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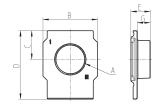
Terminal flanges (IN/OUT)



The kit is supplied with: - 1 flange INLET side

- 1 flange OUTLET side

Materials: painted aluminium flanges.



Mod.	Α	В	С	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

SERIES MX-PRO PROPORTIONAL REGULATOR AND VALVE

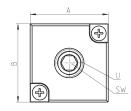
Block for pressure gauge fixing

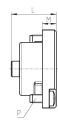


The kit is supplied with: 1 block

- 1 grain
- 2 screws

_	J C. C
1	sea

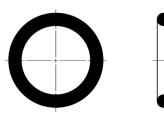




DIMENSIONS							
Mod.	А	В	L	М	Р	U	SW
MX2-R26/1-P	28	28	16.5	5	M3X7	1/8	5

O-ring for assembling



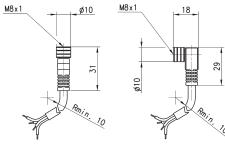


Mod.	0-ring	For assembly	
160-39-11/19	OR 3125	MX2	

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

right angle (90 degrees)

CS-DR04EG-E500