

# PRESSURE REGULATORS

## SERIES MX

MX2 ports: G3/8, G1/2, G3/4 - MX3 ports: G3/4, G1  
 Manifold ports: G1/2 (MX2 only)  
 Modular - Available with built-in pressure gauges or ports for gauges



- Minimal pressure decreases
- Knob with closure
- Tamper-proof system (lockable regulator)
- Integral return exhaust (relieving)
- Available versions:
  - Manifold
  - with by-pass valve

The availability of constant values of the secondary pressure ensures performance optimization and energy saving. The tamper-proof system allows to adjust pressure safely with primary pressure compensation. All reducers are equipped with an integrated locking system and built-in pressure gauges for a more compact product. The regulators Series MX are suitable also for panel mountings.

The Series MX has been realized to offer a multi-sector solution that guarantees saving in terms of installation time, space and costs.

A special configurator, available on Camozzi website at <http://shop.camozzi.com> (sec. Configurators), allows the customer to choose the most suitable solution for his application, selecting single components or by configuring assembled FRLs.

### General Data

<b>Construction</b>	Modular, compact, diaphragm type
<b>Materials</b>	See TABLE OF MATERIALS on the following page
<b>Ports</b>	MX2: G3/8 - G1/2 - G3/4 - MX3: G3/4 - G1 Manifold regulator: G1/2 (MX2 only)
<b>Mounting</b>	Vertical in-line, wall-mounting (by means of clamps), panel mounting
<b>Operating temperature</b>	-5°C ÷ 50°C up to 16 bar (with the dew point of the fluid lower than 2°C at the min. working temperature) -5°C ÷ 60°C up to 10 bar (with the dew point of the fluid lower than 2°C at the min. working temperature)
<b>Inlet pressure</b>	0 ÷ 16 bar
<b>Outlet pressure</b>	0,5 ÷ 10 bar (standard) 0,5 ÷ 4 bar 0,5 ÷ 7 bar (MX2 only)
<b>Overpressure exhaust</b>	With relieving (standard) or without relieving
<b>Nominal flow</b>	See FLOW DIAGRAMS on the following pages
<b>Fluid</b>	Compressed air
<b>Pressure gauge</b>	Built-in pressure gauge (standard) with G1/4 port (MX3 only) or G1/8 port (MX2 only)

**PRESSURE REGULATORS**  
**SERIES MX - CODING EXAMPLES**

**Coding Example**

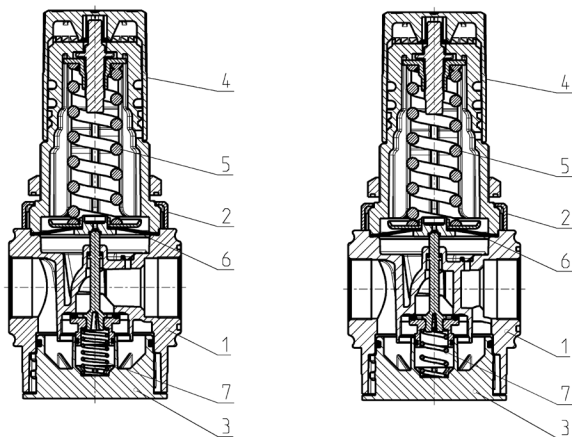
<b>MX</b>	<b>2</b>	<b>-</b>	<b>3/8</b>	<b>-</b>	<b>R</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>-</b>	<b>LH</b>
<b>MX</b>	SERIES									
<b>2</b>	SIZE 2 = G3/8 - G1/2 - G3/4 3 = G3/4 - G1									
<b>3/8</b>	PORTS 3/8 = G3/8 1/2 = G1/2 3/4 = G3/4 1 = G1									
<b>R</b>	TYPE OF REGULATOR R = Pressure regulator M = Manifold pressure regulator (MX2 - G1/2 only)									
<b>0</b>	OPERATING PRESSURE (1 bar = 14,5 psi) 0 = 0,5 ÷ 10 bar (standard) 4 = 0,5 ÷ 4 bar 7 = 0,5 ÷ 7 bar (MX2 only)									
<b>0</b>	DESIGN TYPE 0 = Relieving (standard) 1 = Without relieving 2 = Relieving, with by-pass valve (only regulator) 3 = Without relieving, with by-pass valve (only regulator)									
<b>4</b>	PRESSURE GAUGE 0 = Without pressure gauge (with threaded port for gauges) 2 = With built-in pressure gauge 0-6 and working pressure 0,5 ÷ 4 bar 3 = With built-in pressure gauge 0-10 and working pressure 0,5 ÷ 7 bar (MX2 only) 4 = With built-in pressure gauge 0-12 and working pressure 0,5 ÷ 10 bar (standard)									
<b>LH</b>	FLOW DIRECTION = From left to right (standard) LH = From right to left									

AIR TREATMENT

**9**

**Materials**

R = Pressure regulator  
M = Manifold pressure regulator

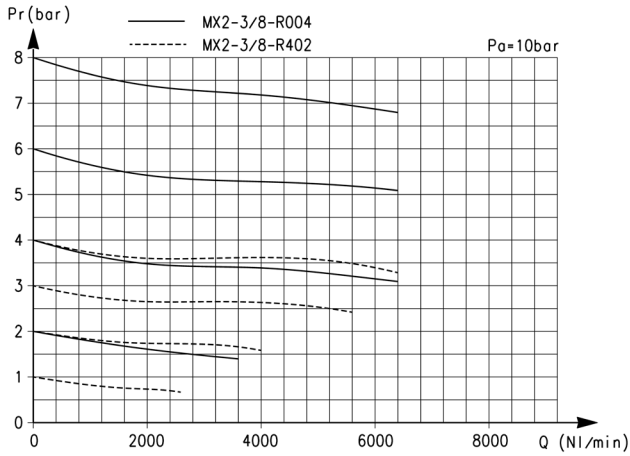


R

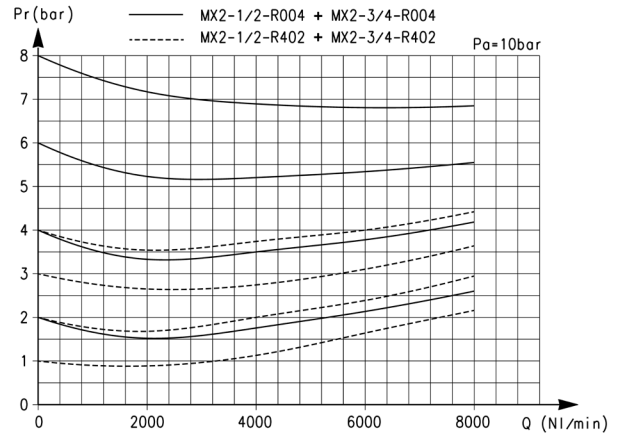
M

Parts	Materials
<b>1 = Body</b>	Aluminium
<b>2 = Covering</b>	Polyacetal
<b>3 = Valve holder plug</b>	Polyacetal
<b>4 = Regulator knob</b>	Polyamide
<b>5 = Upper spring</b>	Zinc-plated steel
<b>6 = Diaphragm</b>	NBR
<b>7 = Lower spring</b>	Stainless steel
<b>Seals</b>	NBR

### MX2 Pressure regulators - Flow diagrams

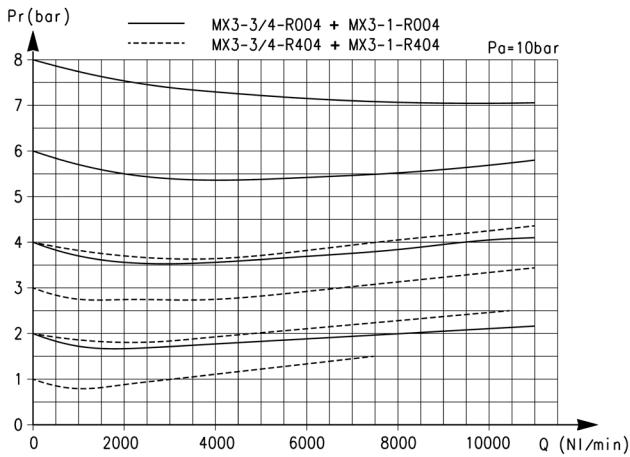


Pr = Regulated pressure (bar)  
Q = Flow (NL/min)  
Pa = Inlet pressure (bar)



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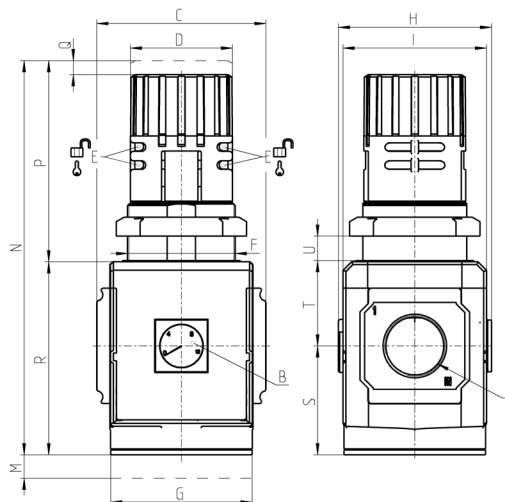
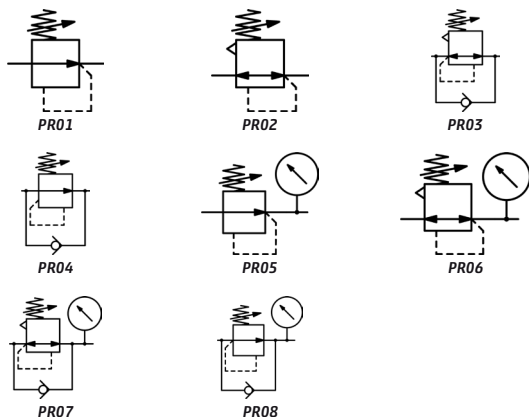
### MX3 Pressure regulators Flow diagram and Pneumatic symbols



Pr = Regulated pressure (bar)  
Q = Flow (NL/min)  
Pa = Inlet pressure (bar)

**PRESSURE REGULATORS**  
**SERIES MX - DIMENSIONS**

**Pressure regulators**

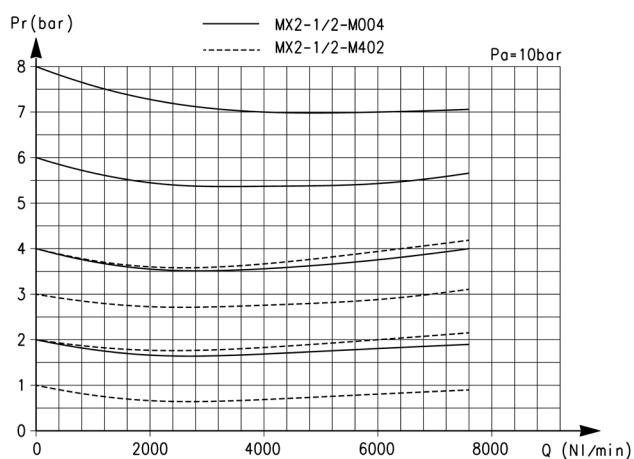


Mod.	A	B (bar)	C	D	F	G	H	I	M	N	P	Q	R	S	T	U	Weight [kg]	Weight [kg]
MX2-3/8-R004	G3/8	0 ÷ 12	70	45	M47x1,5	70	74,5	68	45	166	78	5	88	50,5	37,5	0 ÷ 13	0,6	0,6
MX2-1/2-R004	G1/2	0 ÷ 12	70	45	M47x1,5	70	74,5	68	45	166	78	5	88	50,5	37,5	0 ÷ 13	0,6	0,6
MX2-3/4-R004	G3/4	0 ÷ 12	70	45	M47x1,5	70	74,5	68	45	166	78	5	88	88	37,5	0 ÷ 13	0,6	0,6
MX3-3/4-R004	G3/4	0 ÷ 12	89,5	54	M57x1,5	75	81	76	45	206	104	5	102	57,5	44,5	0 ÷ 20	1	1
MX3-1-R004	G1	0 ÷ 12	89,5	54	M57x1,5	75	81	76	45	206	104	5	102	57,5	44,5	0 ÷ 20	1	1

AIR TREATMENT

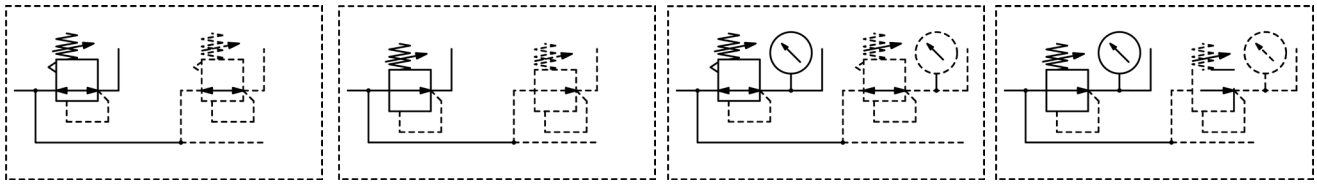
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**Manifold regulator - Flow diagram**



Pr = Regulated pressure (bar)  
Q = Flow (NL/min)  
Pa = Inlet pressure (bar)

## Pneumatic symbols



RM01	RM02	RM05	RM06
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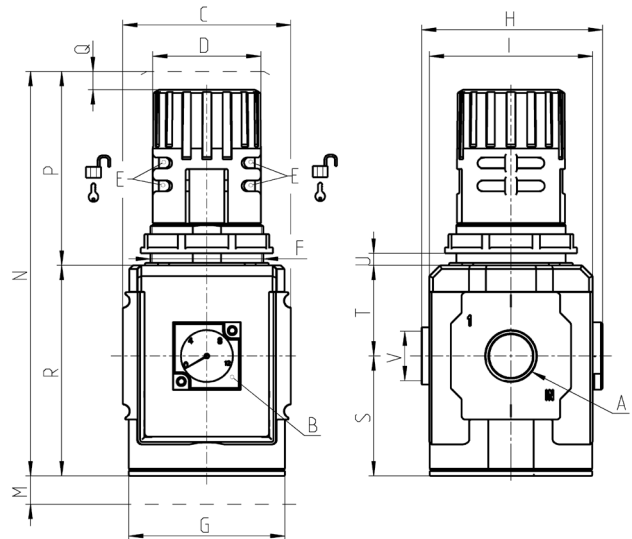
## Manifold - Pressure regulator



The picture on the left side shows that it is possible to assembly a certain number of regulators with the same inlet pressure using proper mounting kits, with or without terminals.

The regulation of the outlet pressure (OUT port) of each regulator can be set up rotating the knob clockwise or anticlockwise until the desired pressure is reached.

This regulation has no effect on pressures of previous or following regulators.



Mod.	A	B (bar)	C	D	F	G	H	I	M	N	P	Q	R	S	T	U	V (OUT)	Weight [kg]	Weight [kg]
MX2-1/2-M004	G1/2	0 ÷ 12	70	45	M47x1,5	70	75,5	68	45	166	78	5	88	50,5	37,5	0 ÷ 13	G1/2	0,6	0,6

## Rapid clamp kit



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

The MX2-X kit is supplied with:

- 1x Rapid clamp,
- 1x O-ring OR 3125 \*;
- 2x Hexagonal nuts M5;
- 2x Screws M5x69.

The MX2-Z kit is supplied with:

- 1x Rapid clamp,
- 1x O-ring OR 3125 \*;
- 1x Hexagonal nut M5;
- 1x Screw M5x69;
- 1x Screw M5x85 for wall fixing.

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

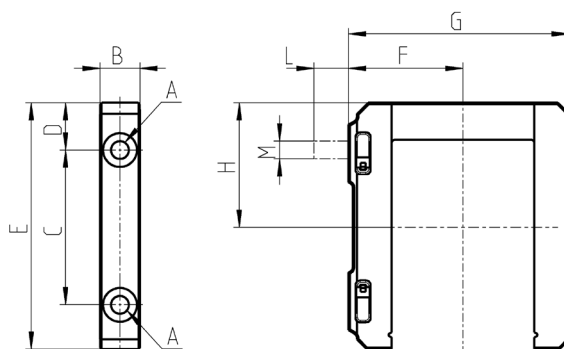
The MX3-X kit is supplied with:

- 1x Rapid clamp,
- 1x O-ring OR 38X2,8 \*\*;
- 2x Square nuts M6;
- 2x Screws M6x75.

The MX3-Z kit is supplied with:

- 1x Rapid clamp,
- 1x O-ring OR 38X2,8 \*\*;
- 1x Square nut M6,
- 1x Screw M6x75;
- 1x Screw M6x90 for wall fixing.

\*\*It can be ordered separately (OR 38X2,8 NBR).



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
MX3-X	6,2	14	54	16,5	86	40	77	43,5	-	-	
MX3-Z	6,2	14	54	16,5	86	40	77	43,5	13	M6	Kit with wall fixing screw

## Rapid clamp kit with wall fixing brackets



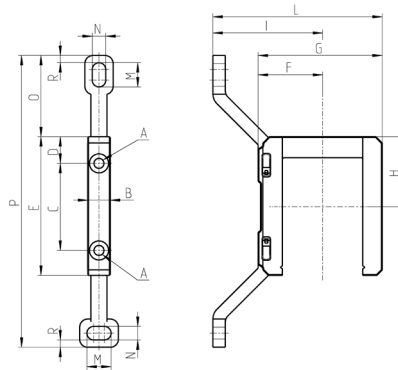
The MX2-Y kit is supplied with:  
 1x rapid wall clamp;  
 1x O-ring OR 3125 \*\*;  
 2x hexagonal nuts;  
 2x screws M5x69.

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

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

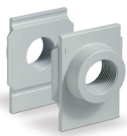
The kit MX3-Y is supplied with:  
 1x wall rapid clamp;  
 1x O-ring 38X2,8 \*\*;  
 2x square nuts M6;  
 2x screws M6x75.

\*\* It can be also separately ordered (OR 38X2,8 NBR).



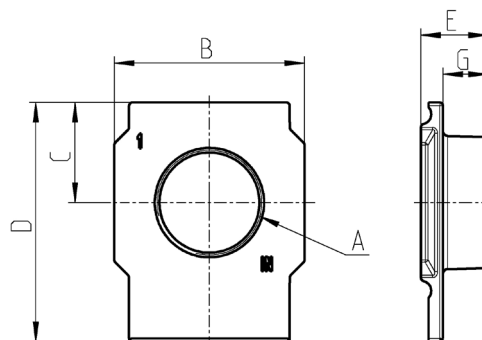
Mod.	A	B	C	D	E	F	G	H	I	L	M	N	O	P	R
MX2-Y	5,2	12	46	14	73,5	32,5	70,5	37	70,5	103	12	6,5	42	152	4
MX3-Y	6,2	14	54	16,5	86	40	77	43,5	68	105	15	8,4	50,5	181	4,5

## Terminal flanges (IN/OUT)



Supplied with:  
 1x flange INLET side  
 1x flange OUTLET side

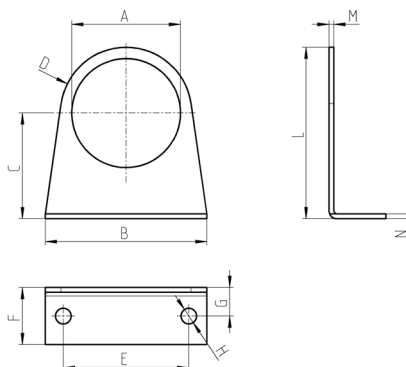
**Materials:**  
 painted aluminium flanges.



Mod.	A	B	C	D	E	G
MX2-3/8-FL	G3/8	50	26,5	63,5	17	11
MX2-1/2-FL	G1/2	50	26,5	63,5	17	11
MX2-3/4-FL	G3/4	50	26,5	63,5	17	11
MX3-3/4-FL	G3/4	58	30,5	73	20,5	13,5
MX3-1-FL	G1	58	30,5	73	20,5	13,5

## Fixing bracket for regulators

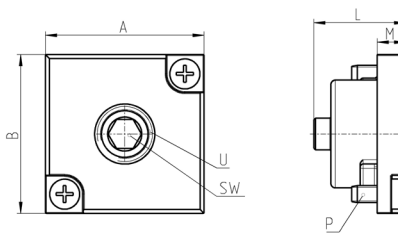
Supplied with:  
1x zinc-plated steel bracket



Mod.	A	B	C	D	E	F	G	H	L	M	N
MX2-S	Ø47,2	73	60,5	R29,5	54	25	15	Ø6,2	90	2,5	2,5
MX3-S	Ø57,2	85	55,5	R34,5	66	30	15	Ø8,2	90	2,5	2,5

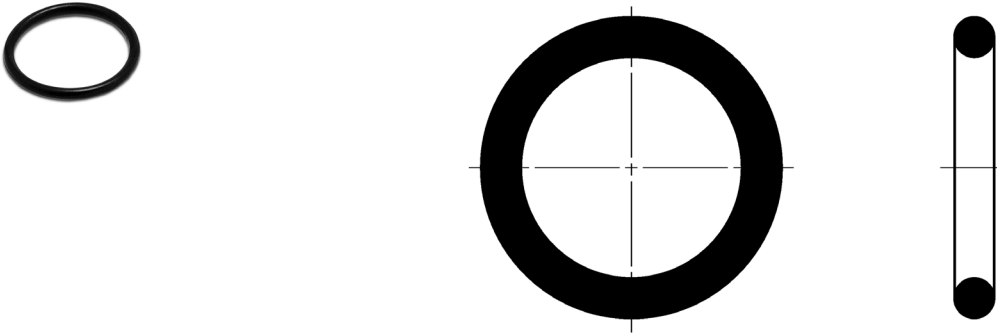
## Block for pressure gauge fixing

Supplied with:  
1x block  
1x grain  
2x screws  
1x seal



Mod.	A	B	L	M	P	U	SW
MX2-R26/1-P	28	28	16,5	5	M3x7	1/8	5
MX3-R26/1-P	28	28	16,5	5	M3x7	1/4	6

### O-ring for assembling

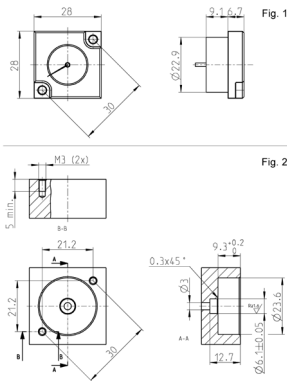


Mod.	O-ring	For assembly
160-39-11/19	OR 3125	MX2
OR 38x2,8 NBR	OR 38x2,8	MX3

### Built-in pressure gauge



Supplied with:  
1x pressure gauge  
1x seal  
2x screws



Mod.	Range
MX3-R34/W-P	0 ÷ 4 bar
MX3-R31/W-P	0 ÷ 6 bar
MX3-R32/W-P	0 ÷ 10 bar
MX3-R30/W-P	0 ÷ 12 bar