

# Pressure Regulators Series MX

Standard Regulators MX2 ports: 3/8", 1/2", 3/4" NPTF - MX3 ports: 3/4", 1" NPTF

Manifold mount design: 1/2" NPTF (MX2 only)

Innovative modular clamping system

Available with built-in pressure gauges or with

**Reliable and repeatable set-points of the secondary reduced pressure ensures performance optimization and energy saving. Available in 2 standard spring options for regulated pressure ranges. All regulators 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 appeals to a broad spectrum of markets and applications because of the savings realized in installation time, space requirements and total cost.

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



- » Low set-point variance, or hysteresis
- » Lockable knob with adjustment stop
- » Tamper-proof system via slots in handle offers a fully lockable regulator
- » Integral return exhaust (relieving)
- » Available as Manifold regulator, non-cascading

## GENERAL DATA

|                       |   |
|-----------------------|---|
| Construction          | modular, compact, diaphragm type  |
| Materials             | see TABLE OF MATERIALS  |
| Ports                 | 3/8" - 1" NPTF  |
| Mounting              | vertical in-line<br>wall-mounting (by means of clamps)<br>panel mounting  |
| Operating temperature | -5°C - 50°C at 16 bar with Dew Point of air at least 2° C (4° F) below the min working temperature, (23 F - 122 F @ 232 psi, up to 140 F MAX at 145 psi )<br>-5°C - 60°C at 10 bar with Dew Point of air at least 2° C (4° F) below the min working temperature |
| Inlet pressure        | 0 - 16 bar (0 - 232 psi )   |
| Outlet pressure       | 0,5 - 10 bar, (7 - 145 psi) or<br>0 - 4 bar, (0 - 60 psi)   |
| Overpressure exhaust  | with relieving or<br>without relieving  |
| Nominal flow          | see FLOW DIAGRAMS   |
| Fluid                 | compressed air  |
| Pressure gauge        | version with built-in pressure gauge or<br>version with ports for pressure gauge (1/4 ports) available standard on all units  |

**CODING EXAMPLE**

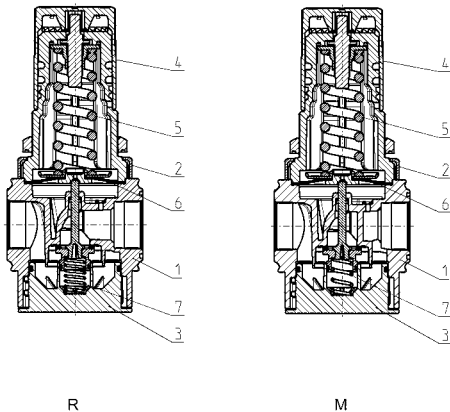
|    |   |   |     |   |   |   |   |   |    |
|----|---|---|-----|---|---|---|---|---|----|
| MX | 2 | - | 3/8 | - | R | 0 | 0 | 4 | TF |
|----|---|---|-----|---|---|---|---|---|----|

|            |  |
|------------|--|
| <b>MX</b>  | SERIES   |
| <b>2</b>   | SIZE:<br>2 = 3/8" - 1/2" - 3/4"<br>3 = 3/4" - 1"   |
| <b>3/8</b> | PORTS:<br>3/8 = 3/8<br>1/2 = 1/2<br>3/4 = 3/4<br>1 = 1   |
| <b>R</b>   | TYPER OF REGULATOR:<br>R = pressure regulator<br>M = Manifold pressure regulator (MX2 - 1/2" NPTF only)  |
| <b>0</b>   | OPERATING PRESSURE (1 bar = 14,5 psi)<br>0 = 0,5 - 10 bar (7,25 - 145 psi)<br>4 = 0 - 4 bar (0 - 58 psi)<br>7 = 0,5 - 7 bar (MX2 only) (7,25 - 103 psi)  |
| <b>0</b>   | DESIGN TYPE:<br>0 = relieving<br>1 = without relieving   |
| <b>4</b>   | PRESSURE GAUGE:<br>0 = without pressure gauge (with threaded port for gauges)<br>2 = with built-in pressure gauge 0-6 bar and working pressure 0 - 4 bar<br>3 = with built-in pressure gauge 0-10 bar and working pressure 0 - 7 bar (MX2 only)<br>4 = with built-in pressure gauge 0-12 bar and working pressure 0,5 - 10 bar |
| <b>TF</b>  | TF = NPTF ports<br>blank = BSP ports   |

For the assembly of a single component with fixing flanges or wall-mounting, see the section "FRL Series MX Assembled" (pag. 3/1.50.01)

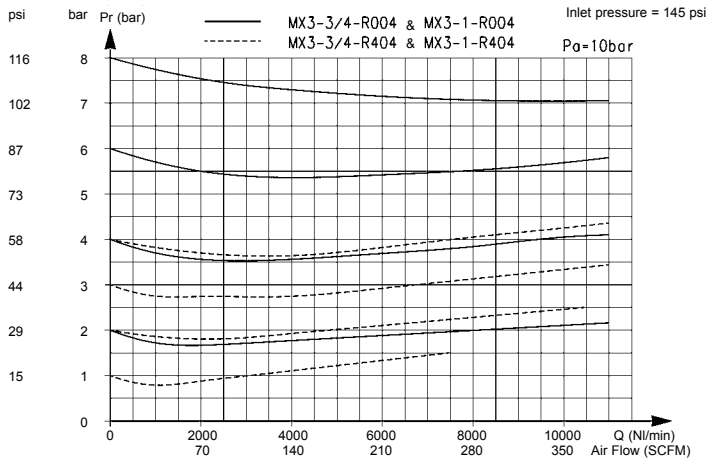
**Pressure regulators Series MX - materials**

R = pressure regulator  
M = Manifold pressure regulator



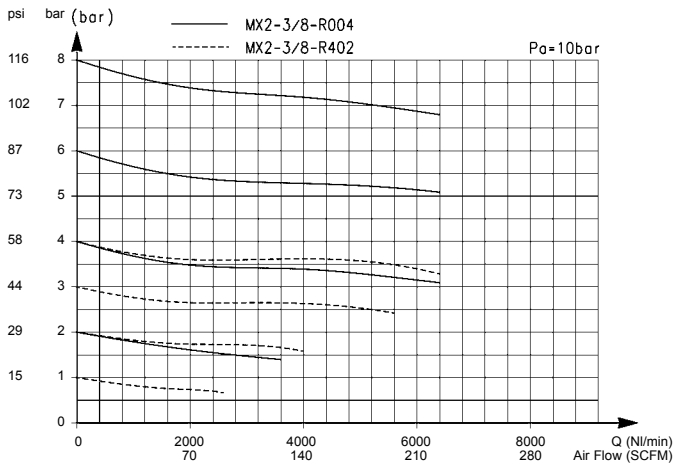
| PARTS                 | MATERIALS         |
|-----------------------|-------------------|
| 1 = Body              | Aluminium         |
| 2 = Covering          | Polyacetal        |
| 3 = Valve holder plug | Polyacetal        |
| 4 = Regulator knob    | Polyamide         |
| 5 = Upper spring      | Zinc-plated steel |
| 6 = Diaphragm         | NBR               |
| 7 = Lower spring      | Stainless steel   |
| Seals                 | NBR               |

**MX3 FLOW DIAGRAMS**

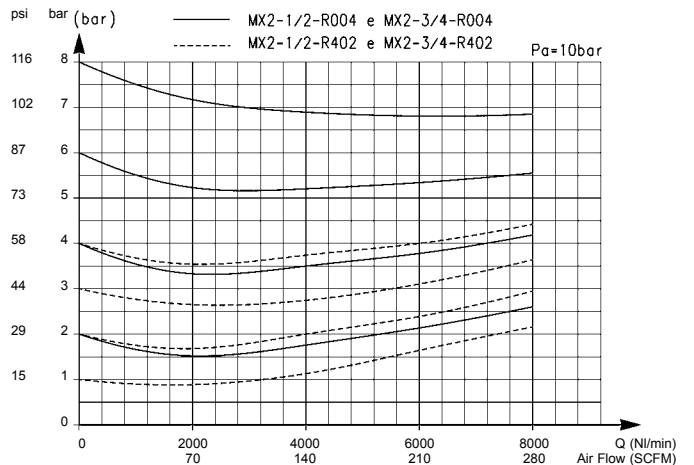


Pr = Regulated Pressure  
 Q = Flow  
 Pa = Inlet pressure

**MX2 FLOW DIAGRAMS**



Pr = Regulated pressure  
 Q = Flow  
 Pa = Inlet pressure



Pr = Regulated pressure  
 Q = Flow  
 Pa = Inlet pressure

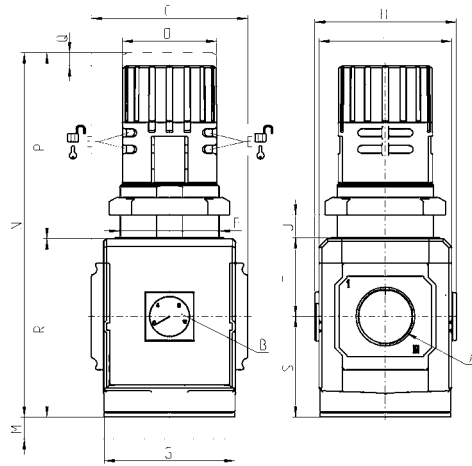
MODULAR FRL SERIES MX

Pressure regulators Series MX - dimensions



PR01 = regulator without relieving  
 PR02 = regulator with relieving

PR05 = regulator without relieving and with pressure gauge  
 PR06 = regulator with relieving and pressure gauge

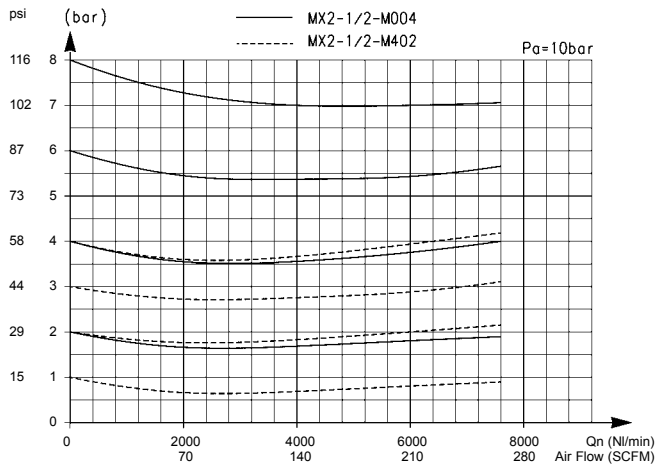


DIMENSIONS (in inches)

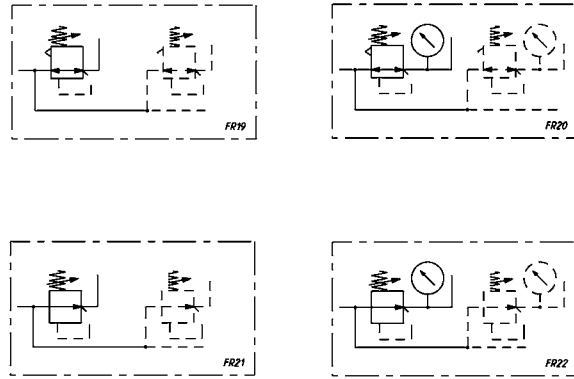
| Mod.           | A   | B        | C     | D     | E       | F       | G     | H     | I     | M     | N     | P     | Q     | R     | S     | T     | U    | Weight (kg) |
|----------------|-----|----------|-------|-------|---------|---------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|-------------|
| MX2-3/8-R004TF | 3/8 | 0-12 bar | 2.756 | 1.772 | Ø 5/32" | M47x1.5 | 2.756 | 2.933 | 2.677 | 1.772 | 6.535 | 3.071 | 0.197 | 3.465 | 1.988 | 1.476 | 0-13 | 0.6         |
| MX2-1/2-R004TF | 1/2 | 0-12 bar | 2.756 | 1.772 | Ø 5/32" | M47x1.5 | 2.756 | 2.933 | 2.677 | 1.772 | 6.535 | 3.071 | 0.197 | 3.465 | 1.988 | 1.476 | 0-13 | 0.6         |
| MX2-3/4-R004TF | 3/4 | 0-12 bar | 2.756 | 1.772 | Ø 5/32" | M47x1.5 | 2.756 | 2.933 | 2.677 | 1.772 | 6.535 | 3.071 | 0.197 | 3.465 | 1.988 | 1.476 | 0-13 | 0.6         |
| MX3-3/4-R004TF | 3/4 | 0-12 bar | 3.524 | 2.126 | Ø 5/32" | M57x1.5 | 2.953 | 3.189 | 2.992 | 1.772 | 8.110 | 4.094 | 0.197 | 4.016 | 2.264 | 1.752 | 0-20 | 1           |
| MX3-1-R004TF   | 1   | 0-12 bar | 3.524 | 2.126 | Ø 5/32" | M57x1.5 | 2.953 | 3.189 | 2.992 | 1.772 | 8.110 | 4.094 | 0.197 | 4.016 | 2.264 | 1.752 | 0-20 | 1           |

MODULAR FRL SERIES MX

MANIFOLD REGULATOR - FLOW DIAGRAM and PNEUMATIC SYMBOLS



Pr = Regulated pressure  
 Q = Flow  
 Pa = Inlet pressure

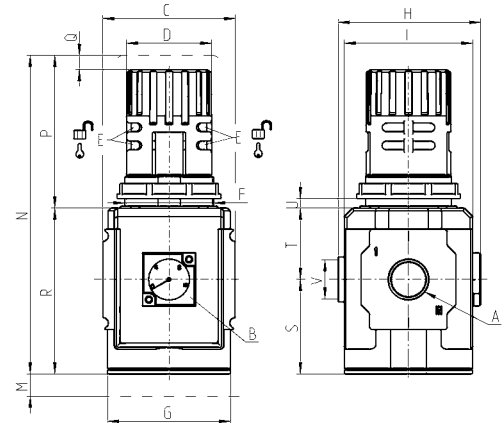


FR19 = Manifold regulator with relieving and without manometer  
 FR20 = Manifold regulator with relieving and manometer  
 FR21 = Manifold regulator without relieving nor manometer  
 FR22 = Manifold regulator without relieving and with manometer

MANIFOLD pressure regulator Series MX - dimensions



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.



DIMENSIONS (in inches)

| Mod.         | A   | B        | C     | D     | E     | F       | G     | H     | I     | M     | N     | P     | Q     | R     | S     | T     | U    | V     | Weight (kg) |
|--------------|-----|----------|-------|-------|-------|---------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|-------|-------------|
| MX2-1/2-M004 | 1/2 | 0-12 bar | 2.756 | 1.772 | 5/32" | M47x1.5 | 2.756 | 2.972 | 2.677 | 1.772 | 6.535 | 3.071 | 0.197 | 3.465 | 1.988 | 1.476 | 0-13 | G 1/2 | 0.6         |