

# MANIFOLD PRESSURE REGULATORS

## SERIES MC

Ports G1/4  
Modular



- Minimal pressure decreases
- Knob with closure
- Integral return exhaust (relieving)

The manifold pressure regulators with ports G1/4 are available with a second pressure relieving and can be in-line or panel mounted.

### General Data

|                                |                                                                                              |
|--------------------------------|----------------------------------------------------------------------------------------------|
| Construction                   | Compact modular, diaphragm type                                                              |
| Materials                      | Zama, NBR, technopolymer                                                                     |
| Port                           | G1/4                                                                                         |
| Weight                         | 0,320 Kg                                                                                     |
| Pressure gauge ports / outlet  | G1/8                                                                                         |
| Mounting                       | In-line, wall or panel mounting (in any position)                                            |
| Working temperature            | -5°C ÷ 50°C (with the dew point of the fluid lower than 2°C at the min. working temperature) |
| Finishing                      | Enamelled                                                                                    |
| Inlet pressure                 | 0 ÷ 16 bar                                                                                   |
| Outlet pressure                | 0,5 ÷ 10 bar; 0,5 ÷ 2 bar; 0,5 ÷ 4 bar; 0,5 ÷ 7 bar                                          |
| Secondary pressure (relieving) | Standard                                                                                     |

MANIFOLD PRESSURE REGULATORS  
SERIES MC - CODING EXAMPLES

Coding Example

|    |                                                                                                                                                                                                                                                                                                                                                                    |    |   |   |   |   |   |
|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|---|---|---|---|---|
| MC | 1                                                                                                                                                                                                                                                                                                                                                                  | 04 | - | M | 0 | 0 | 2 |
| MC | SERIES                                                                                                                                                                                                                                                                                                                                                             |    |   |   |   |   |   |
| 1  | SIZE<br>1 = G1/4                                                                                                                                                                                                                                                                                                                                                   |    |   |   |   |   |   |
| 04 | PORT<br>04 = G1/4                                                                                                                                                                                                                                                                                                                                                  |    |   |   |   |   |   |
| M  | MANIFOLD REGULATOR                                                                                                                                                                                                                                                                                                                                                 |    |   |   |   |   |   |
| 0  | OPERATING PRESSURE<br>0 = 0,5 ÷ 10 bar (standard)<br>1 = 0,5 ÷ 4 bar<br>2 = 0,5 ÷ 2 bar<br>7 = 0,5 ÷ 7 bar<br>T = Calibrated *<br>B = Locked *                                                                                                                                                                                                                     |    |   |   |   |   |   |
| 0  | CONSTRUCTION<br>0 = Self-relieving (standard)<br>1 = Non-relieving<br>5 = Precise relieving                                                                                                                                                                                                                                                                        |    |   |   |   |   |   |
| 2  | PRESSURE GAUGE<br>= Without pressure gauge (standard)<br>1 = With pressure gauge 0-2,5 with working pressure 0,5 ÷ 2 bar<br>2 = With pressure gauge 0-6 with working pressure 0,5 ÷ 4 bar<br>3 = With pressure gauge 0-10 with working pressure 0,5 ÷ 7 bar<br>4 = With pressure gauge 0-12 with working pressure 0,5 ÷ 10 bar<br>T = Calibrated *<br>B = Locked * |    |   |   |   |   |   |
|    |                                                                                                                                                                                                                                                                                                                                                                    |    |   |   |   |   |   |

\* If the regulator is calibrated or locked, after the ports add the inlet pressure "■" and the outlet pressure "●"

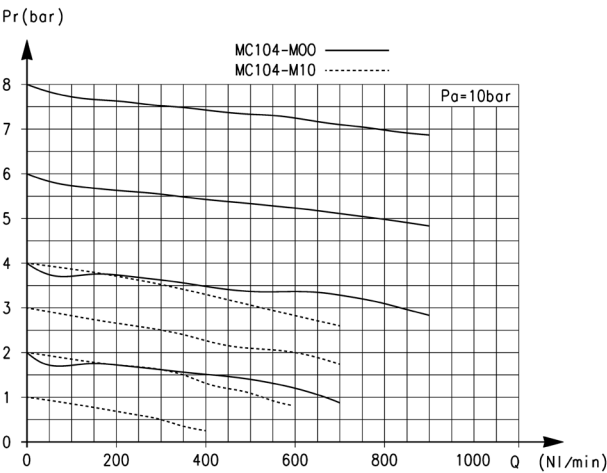
INLET PRESSURE: ■ = Enter the SUPPLY pressure value

OUTLET PRESSURE: ● = Enter the OUTLET pressure value for the LOCKED regulator or the maximum value of the ADJUSTABLE pressure for the CALIBRATED regulator

Example of a calibrated regulator with Inlet Pressure = 6,3 bar and Outlet Pressure = 4,5 bar  
Complete part number: MC104-MT03-6,3-4,5

\* The pressure gauges are supplied disassembly  
For size 1 pressure gauge mod. M043-P.  
For size 2 pressure gauge Mod. M053-P.

Flow diagram



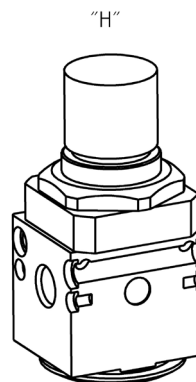
Flow diagram for model: MC104-M00  
Pa = Inlet pressure (bar)  
Pr = Regulated pressure (bar)  
Q = Flow (NI/min)

## Assembly

### EXAMPLE BODY TYPE [H]:

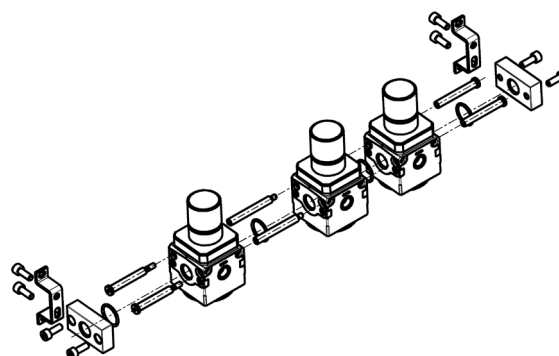
Manifold regulator with through holes on top (used to mount the manifold regulators to each other).

Once a group of manifolds has been assembled, it can be inserted in a FRL group. In this case the manifold regulator assembly alone would be defined as body type M.



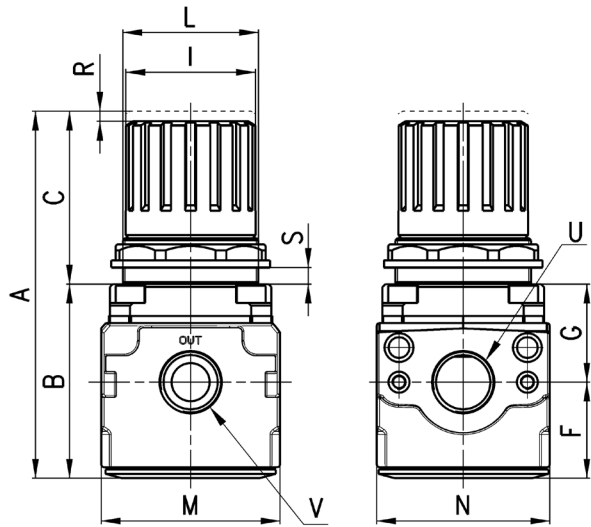
## Assembly kits

- Kit A: 1 right flange + 1 left flange + 4 screws + 2 O-ring.
- Kit B: 2 brackets + 4 screws.
- Kit C: 2 tie rods male-female + 1 O-ring.
- Kit D: 2 tie rods female-female.
- Kit E: 2 male screws + 1 O-ring.
- Kit F: 2 male screws + 2 female screws + 1 O-ring.
- Kit G: 4 screws + 4 spacers + 2 O-ring, to be used on a body type "P" positioned between two body types "M".
- For configurations which differ from the ones described, you can only add only bodies type "H" and for every part added you should add a Kit "C".



MANIFOLD PRESSURE REGULATORS  
**SERIES MC - DIMENSIONS**

Manifold pressure regulators Series MC

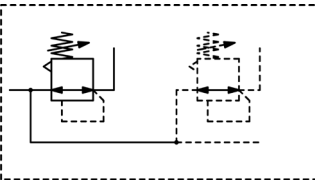


| Mod.      | A  | B  | C  | F  | G  | I  | L      | M  | N  | R | S     | U    | V    |
|-----------|----|----|----|----|----|----|--------|----|----|---|-------|------|------|
| MC104-M00 | 94 | 55 | 39 | 28 | 28 | 28 | 30x1,5 | 45 | 45 | 3 | 0 ÷ 6 | G1/4 | G1/8 |

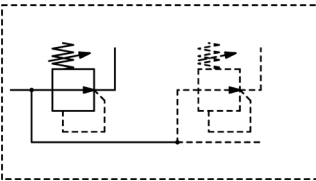
Pneumatic symbols

- RM01 = Manifold regulator with relieving and without pressure gauge
- RM02 = Manifold regulator without relieving and pressure gauge
- RM05 = Manifold regulator with relieving and pressure gauge
- RM06 = Manifold regulator without relieving and with pressure gauge

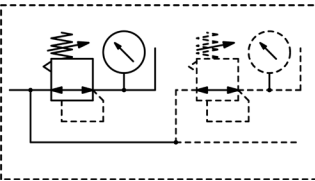
RM01



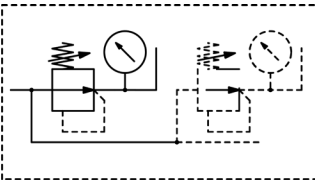
RM02



RM05



RM06



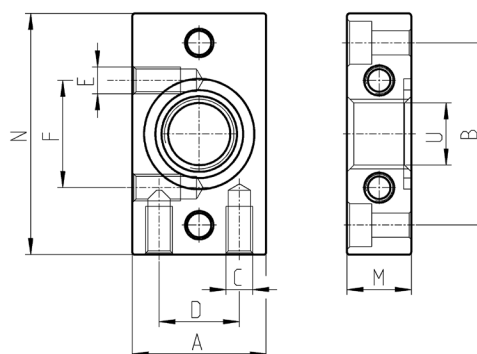


1x left flange,  
1x right flange;  
4x screws M4x14;  
2x O-Ring 2068.

supplied with:  
1x left flange,  
1x right flange;  
4x screws M5x14;  
2x O-Ring 3100.

**Materials:**  
painted aluminium flanges,  
zinc-plated steel screws and  
NBR O-ring.

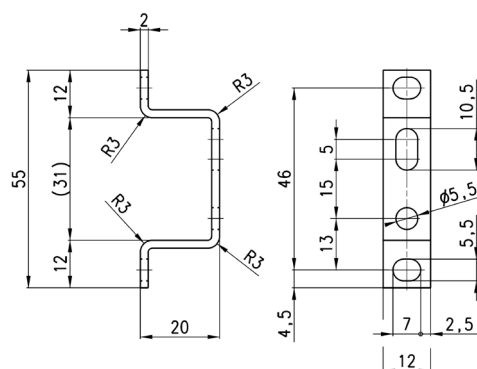
| Mod.     | A  | B    | C  | D  | E  | F  | N  | M  | U    | Size |
|----------|----|------|----|----|----|----|----|----|------|------|
| MC104-FL | 25 | 34   | M5 | 15 | M5 | 20 | 45 | 12 | G1/4 | 1    |
| MC238-FL | 35 | 44,5 | M5 | 20 | -  | -  | 60 | 14 | G3/8 | 2    |
| MC202-FL | 35 | 44,5 | M5 | 20 | -  | -  | 60 | 14 | G1/2 | 2    |



2x terminal brackets  
4x screws M5x10.

Materials:  
zinc-plated steel brackets  
and screws.

|          |
|----------|
| Mod.     |
| MC104-ST |

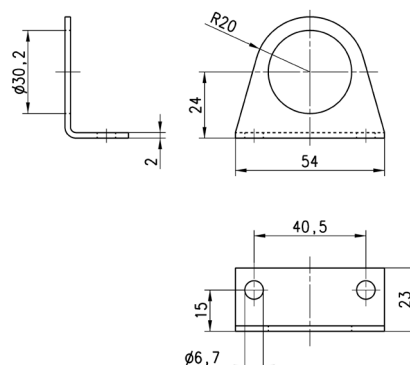


## A 3D rendering of a metal bracket, likely made of stainless steel, featuring a large circular hole and two smaller mounting holes.

Supplied with:  
1x bracket

**Material:**  
zinc-plated steel

|         |
|---------|
| Mod.    |
| C114-ST |



## Mounting bracket Mod. 114-ST/1

For regulators and filter-regulators MC1

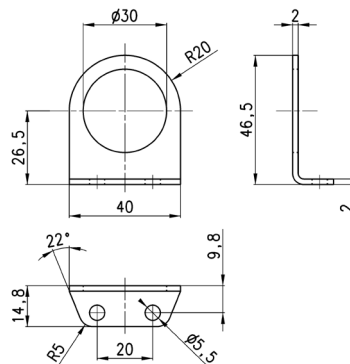


Supplied with:  
1x bracket

**Material:**  
zinc-plated steel

**Mod.**

C114-ST/1



## Mounting bracket C114-ST/2

For regulators and filter-regulators MC1

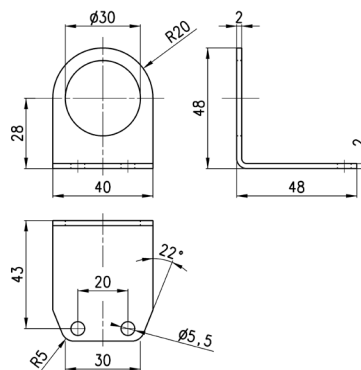


Supplied with:  
1x bracket

**Material:**  
zinc-plated steel

**Mod.**

C114-ST/2



## Mounting bracket Mod. C238-ST/1

For MC2

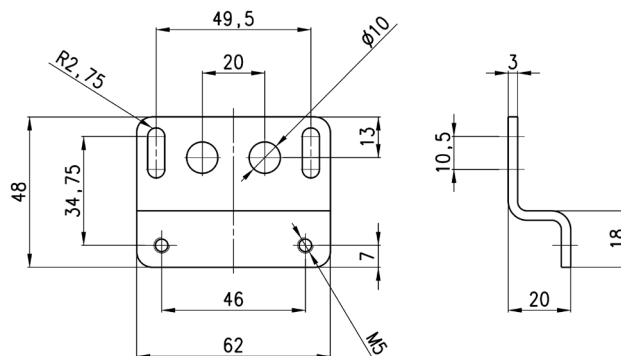


Supplied with:  
1x bracket  
2x screws M5X65.

**Materials:**  
zinc-plated steel bracket  
and screws.

**Mod.**

C238-ST/1



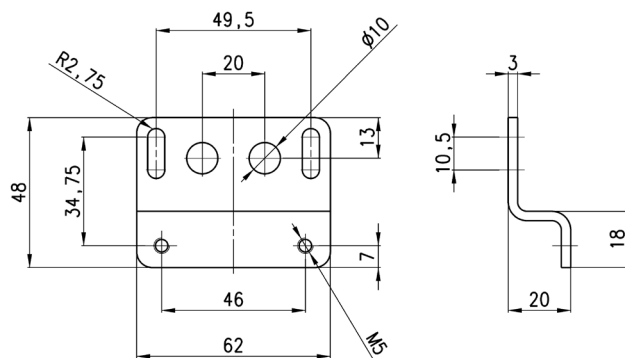
## Mounting bracket Mod. C238-ST/1

For MC2



Supplied with:  
 1x bracket  
 2x screws M5X65.

| Mod.      |
|-----------|
| C238-ST/1 |



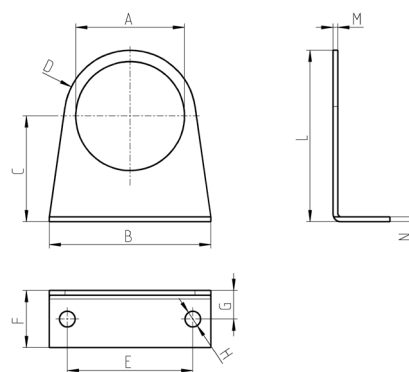
## Fixing bracket for regulators

For regulators MC2



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 |



AIR TREATMENT

9

## Tie-rods for assembling (Kit C)

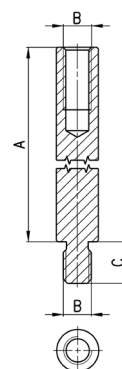
The kit MC1-TMF is supplied with:  
 2x male/female tie-rods  
 1x O-ring 2068.



The kit MC2-TMF is supplied with:  
 2x male/female tie-rods  
 1x O-ring 3100.

**Materials:**  
 nickel-plated steel tie-rods  
 and NBR O-ring.

| Mod.    | A  | B  | C | Size |
|---------|----|----|---|------|
| MC1-TMF | 45 | M4 | 6 | 1    |
| MC2-TMF | 62 | M5 | 6 | 2    |



**MANIFOLD PRESSURE REGULATORS**  
**SERIES MC - ACCESSORIES**

## Tie-rods for assembling (Kit D)

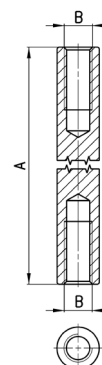


The kit MC1-TFF is supplied with:  
2x female tie-rods.

The kit MC2-TFF is supplied with:  
2x female tie-rods.

**Materials:**  
nickel-plated steel tie-rods.

| Mod.    | A  | B  | Size |
|---------|----|----|------|
| MC1-TFF | 44 | M4 | 1    |
| MC2-TFF | 61 | M5 | 2    |



## Screws for assembling (Kit E)

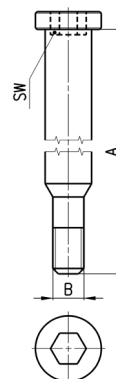


The kit MC1-VM is supplied with:  
2x male screws  
1x O-ring 2068.

The kit MC2-VM is supplied with:  
2x male screws  
1x O-ring 3100.

**Materials:**  
zinc-plated steel screws and  
NBR O-ring.

| Mod.   | A    | B  | SW | Size |
|--------|------|----|----|------|
| MC1-VM | 48,5 | M4 | 3  | 1    |
| MC2-VM | 65,5 | M5 | 4  | 2    |



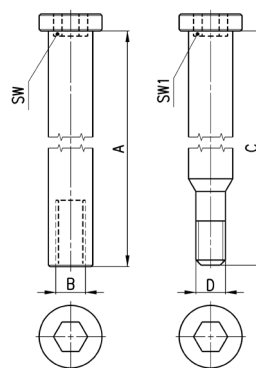
## Screws for assembling (Kit F)



The kit is supplied with:  
2x male screws  
2x female screws  
1x O-ring (OR 2068 for MC1-VMF; OR 3100 for MC2-VMF).

**Materials:**  
zinc-plated steel male  
screws, nickel-plated steel  
female screws and NBR  
O-ring.

| Mod.    | A  | B  | C    | D  | SW | SW1 | Size |
|---------|----|----|------|----|----|-----|------|
| MC1-VMF | 42 | M4 | 48,5 | M4 | 3  | 3   | 1    |
| MC2-VMF | 59 | M5 | 68,5 | M5 | 4  | 4   | 2    |

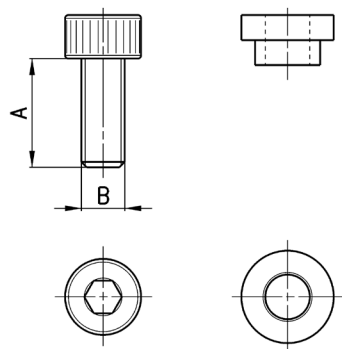


## Screws (Kit G) to assemble 2 bodies type "M"



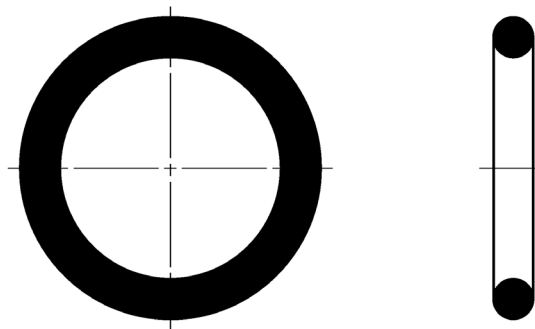
The kit MC1-VMD is supplied with:  
4x screws M4X10  
4x spacers  
2x O-ring 2068.

The kit MC2-VMD is supplied with:  
4x screws M5X12  
4x spacers  
2x O-ring 3100.



| Mod.    | A  | B  | Size |   |
|---------|----|----|------|---|
| MC1-VMD | 10 | M4 | 1    | * |
| MC2-VMD | 12 | M5 | 2    | * |

## O-ring for assembling



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