

Series MC assembled FRL

Ports G1/4, G3/8 and G1/2

SERIES MC ASSEMBLED FRL



- » Clean design
- » Great modularity
- » Easy maintenance

The FRL Series MC in the assembled version can be easily assembled by means of modular tie rods on which it is possible to mount the single elements without any limits in the composition. The FRL groups Series MC are available already mounted (with a single code).

The connections can be made directly on the elements or on the terminal flanges (Kit A) with the advantage that in case of maintenance the group can be extracted without disconnecting the tubing. The version with flanges is supplied without tie-rods.

GENERAL DATA

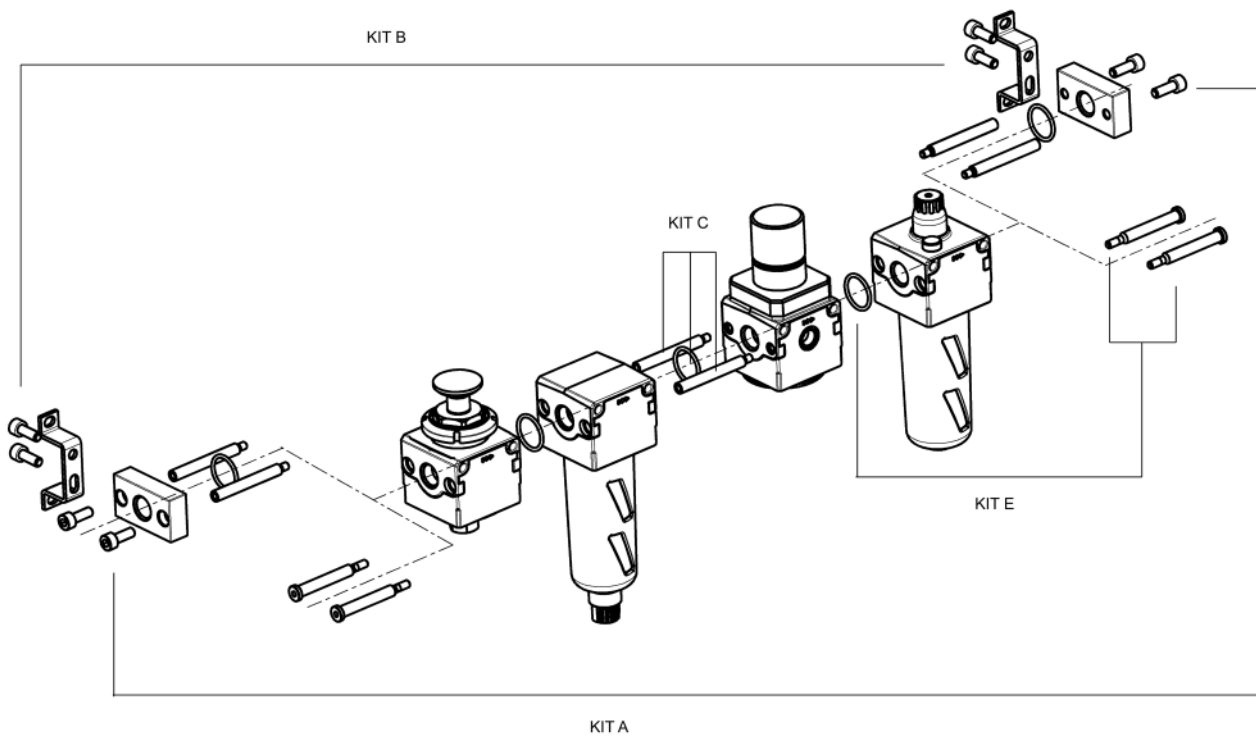
| | |
|------------------------------|--|
| Construction | modular, compact |
| Materials | zama, NBR, technopolymer |
| Ports | G1/4 - G3/8 - G1/2 |
| Mounting | vertical, in-line or wall-mounting |
| Operating temperature | -5°C ÷ 50°C at 10 bar (with the dew point of the fluid lower than 2°C at the min. working temperature) |
| Finish | enamelled |
| Flow | determined at 6 bar inlet supply with ΔP 1 bar (ΔP 0,5 only for FRL) |

COMPOSITION OF THE KITS

- EXAMPLE BODY TYPE [M] with female no through threads: - regulator - filter-regulator - Manifold regulator group, an assembly of more manifold regulators counts as a body type "M".

- EXAMPLE BODY TYPE [P] with through holes:
- filter - lubricator - soft start valve - take off block - isolation valve

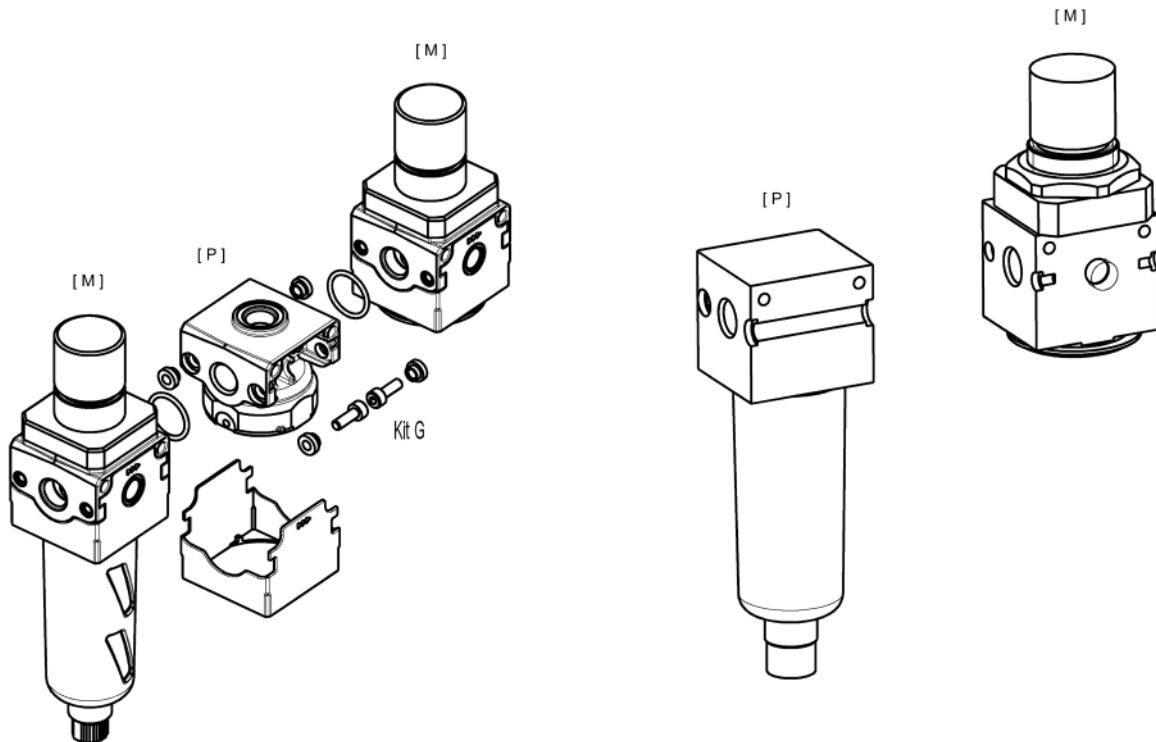
The "x" in the codes in the following table refer to the size, see MC Accessories in the section 3/2.44.



| Mod. | Description | Supplied with: |
|----------|-------------|--|
| MCxxx-FL | Kit A | 1 right flange 1 left flange 4 screws - 2 O-ring |
| MCxxx-ST | Kit B | 2 brackets + 4 screws |
| MCx-TMF | Kit C | 2 tie rods male-female 1 O-ring |
| MCx-TFF | Kit D | 2 tie rods female-female |
| MCx-VM | Kit E | 2 male screws 1 O-ring |
| MCx-VMF | Kit F | 2 male screws 2 female screws 1 O-ring |
| MCx-VMD | Kit G | 4 screws 4 spacers + 2 O-ring To be used on a body type "P" positioned in between two body types "M". |

ASSEMBLY EXAMPLE WITH AND WITHOUT TERMINAL FLANGES

- the body types [M] are with female no through threads
- the body types [P] are with through holes



| Assembly between types P and M | KIT for ass. without terminal flanges | KIT for ass. with terminal flanges |
|--------------------------------|---------------------------------------|------------------------------------|
| P + M | 1 kit E | 1 Kit A + 1 Kit C |
| M + P | 1 kit E | 1 Kit A + 1 Kit C |
| P + P | 1 Kit F | 1 Kit A + 1 Kit C + 1 Kit D |
| P + M + P | 2 Kit E | 1 Kit A + 2 Kit C |
| P + P + P | 1 Kit F + 1 Kit C | 1 Kit A + 2 Kit C + 1 Kit D |
| M + P + P | 1 Kit E + 1 Kit C | 1 Kit A + 2 Kit C |
| M + P + M | 1 Kit G | 1 Kit A + 1 Kit G |
| P + M + P + P | 2 Kit E + 1 Kit C | 1 Kit A + 3 Kit C |
| P + P + M + P + P | 2 Kit E + 2 Kit C | 1 Kit A + 4 Kit C |

CODING EXAMPLE

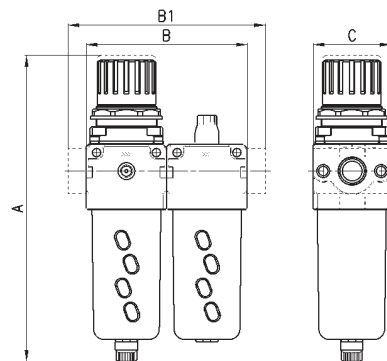
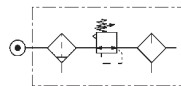
| | | | | | | | | |
|-----------|----------|-----------|----------|----------|----------|----------|----------|-----------|
| MC | 2 | 02 | - | C | - | 5 | - | FL |
|-----------|----------|-----------|----------|----------|----------|----------|----------|-----------|

| | |
|--|---|
| MC | MC = SERIES |
| 2 | SIZE 1 = G1/4 2 = G3/8 - G1/2 |
| 02 | PORT 04 = G1/4 38 = G3/8 02 = G1/2 |
| C | ASSEMBLY GROUP C = D + L E = V01 + D + L FRL = F + R + L GN = D + L + V16 + AV HNA = V01 + D + L + V16 + AV + PRESS NO HNC = V01 + D + L + V16 + AV + PRESS NC N = V01 + D PN = D + V16 + AV QN = V01 + D + V16 + AV TN = V01 + D + L + V16 + AV U = F13 + FB3 (only for 3/8 - 1/2) ZNA = V01 + D + V16 + AV + PRESS NO ZNC = V01 + D + V16 + AV + PRESS NC |
| 5 | FILTERING ELEMENT 5 = 5 µm (standard) 25 = 25 µm (upon request) |
| FL | VERSION FL = with terminal flanges (without brackets) |
| <p>LEGEND:</p> <p>D = Filter-regulator 0.5-10 bar, semi-automatic-manual drain with relieving, filtering element 5 µm or 25 µm</p> <p>L = Lubricator</p> <p>V01 = 3/2-way manually operated valve</p> <p>F = Filter 5 µm or 25 µm</p> <p>R = Regulator 0.5-10 bar with relieving</p> <p>V16 = 3/2-way electropneumatically operated valve</p> <p>AV = Soft start valve</p> <p>PRESS NO = Pressure switch, Normally Open</p> <p>PRESS NC = Pressure switch, Normally Closed</p> <p>F13 = Filter 5 µm with automatic drain</p> <p>FB3 = Coalescing filter 0.01 µm with automatic drain</p> | |

SERIES MC ASSEMBLED FRL

Assembly group C

Components:
Filter-regulator
Lubricator

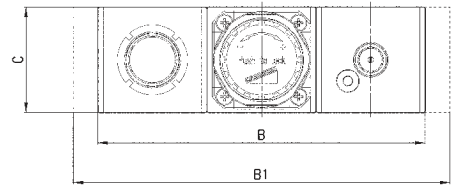
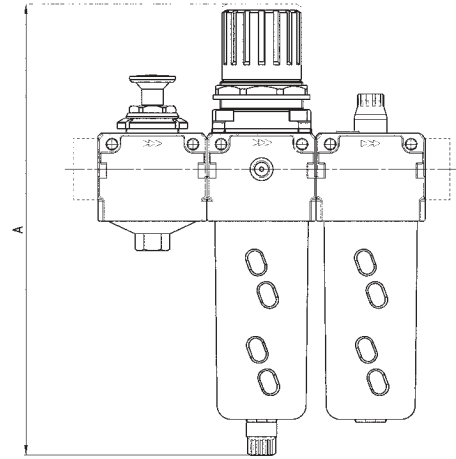


| DIMENSIONS | | | | | |
|--------------|-------|-----|-----|----|--------------------|
| Mod. | A | B | B1 | C | Flow rate (NL/min) |
| MC104-C-5 | 193,5 | 90 | - | 45 | 1450 |
| MC238-C-5 | 256,5 | 124 | - | 60 | 4800 |
| MC202-C-5 | 256,5 | 124 | - | 60 | 4900 |
| MC104-C-5-FL | 193,5 | - | 114 | 45 | 1450 |
| MC238-C-5-FL | 256,5 | - | 152 | 60 | 4800 |
| MC202-C-5-FL | 256,5 | - | 152 | 60 | 4900 |

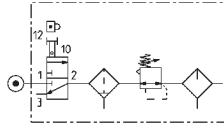
Assembly group E



Components:
Lockable isolation 3/2-way valve
Filter-regulator
Lubricator



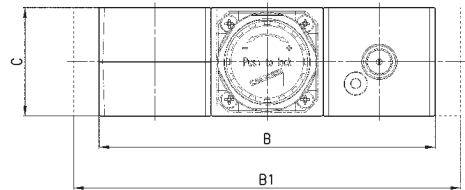
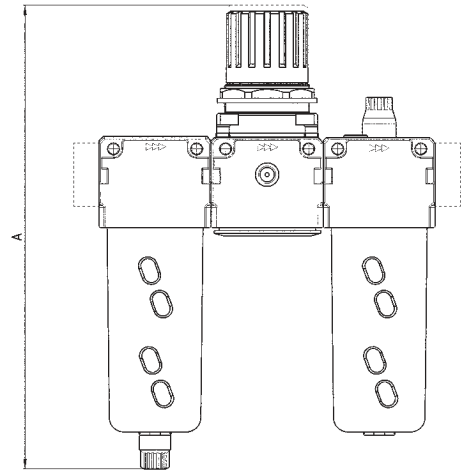
| DIMENSIONS | | | | | |
|--------------|-------|-----|-----|----|--------------------|
| Mod. | A | B | B1 | C | Flow rate (NI/min) |
| MC104-E-5 | 193,5 | 135 | - | 45 | 1450 |
| MC238-E-5 | 256,5 | 186 | - | 60 | 4800 |
| MC202-E-5 | 256,5 | 186 | - | 60 | 4950 |
| MC104-E-5-FL | 193,5 | - | 159 | 45 | 1450 |
| MC238-E-5-FL | 256,5 | - | 214 | 60 | 4800 |
| MC202-E-5-FL | 256,5 | - | 214 | 60 | 4950 |



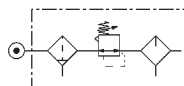
Assembly group FRL



Components:
Filter
Regulator
Lubricator



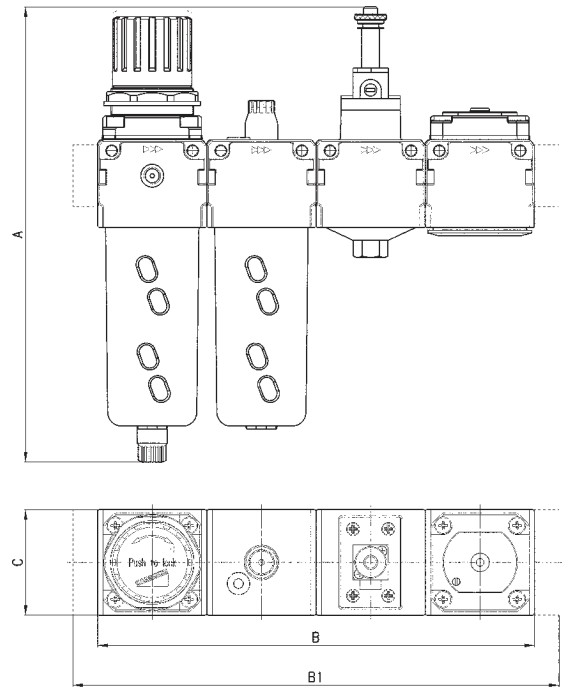
| DIMENSIONS | | | | | |
|----------------|-------|-----|-----|----|--------------------|
| Mod. | A | B | B1 | C | Flow rate (NI/min) |
| MC104-FRL-5 | 193 | 135 | - | 45 | 1450 |
| MC238-FRL-5 | 256,5 | 186 | - | 60 | 4800 |
| MC202-FRL-5 | 256,5 | 186 | - | 60 | 4900 |
| MC104-FRL-5-FL | 193,5 | - | 159 | 45 | 1450 |
| MC238-FRL-5-FL | 256,5 | - | 214 | 60 | 4800 |
| MC202-FRL-5-FL | 256,5 | - | 214 | 60 | 4900 |



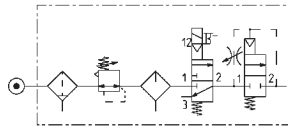
Assembly group GN



Components:
 Filter-regulator
 Lubricator
 Lockable isolation 3/2-way valve
 Soft start valve



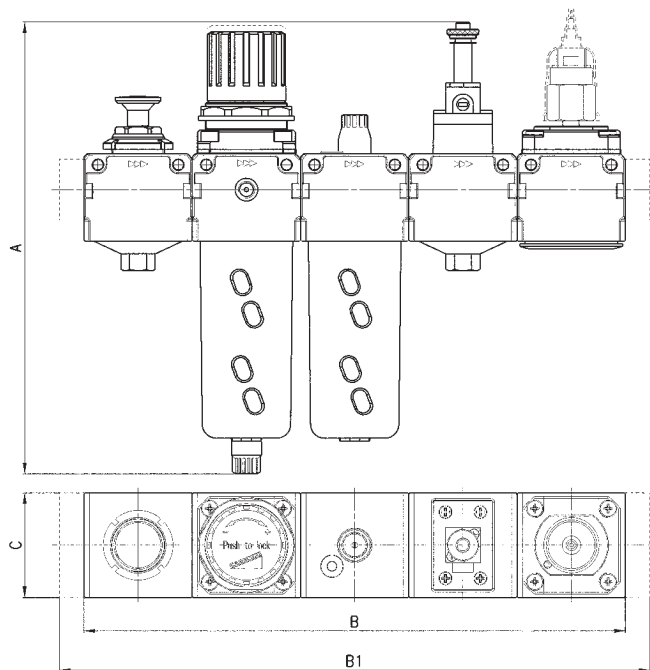
| DIMENSIONS | | | | | |
|---------------|-----|-----|-----|----|--------------------|
| Mod. | A | B | B1 | C | Flow rate (NI/min) |
| MC104-GN-5 | 208 | 180 | - | 45 | 1450 |
| MC238-GN-5 | 259 | 248 | - | 60 | 4800 |
| MC202-GN-5 | 259 | 248 | - | 60 | 4900 |
| MC104-GN-5-FL | 208 | - | 204 | 45 | 1450 |
| MC238-GN-5-FL | 259 | - | 276 | 60 | 4800 |
| MC202-GN-5-FL | 259 | - | 276 | 60 | 4950 |



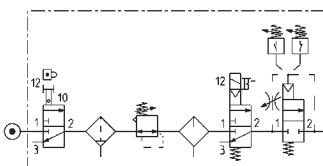
Assembly group HN...



Components:
 Lockable isolation 3/2-way valve
 Filter-regulator
 Lubricator
 Lockable isolation 3/2-way valve
 Soft start valve + pressure switch (NC)



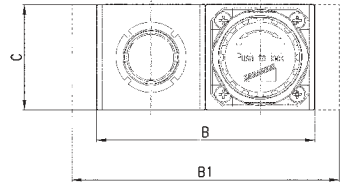
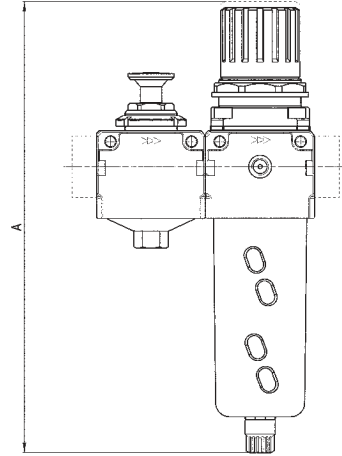
| DIMENSIONS | | | | | |
|------------------|-----|-----|-----|----|--------------------|
| Mod. | A | B | B1 | C | Flow rate (NI/min) |
| MC104-HN...-5 | 208 | 225 | - | 45 | 1450 |
| MC238-HN...-5 | 259 | 310 | - | 60 | 4800 |
| MC202-HN...-5 | 259 | 310 | - | 60 | 4950 |
| MC104-HN...-5-FL | 208 | - | 249 | 45 | 1450 |
| MC238-HN...-5-FL | 259 | - | 338 | 60 | 4800 |
| MC202-HN...-5-FL | 259 | - | 338 | 60 | 4950 |



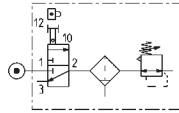
Assembly group N



Components:
Lockable isolation 3/2-way valve
Filter-regulator



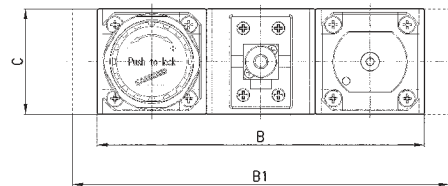
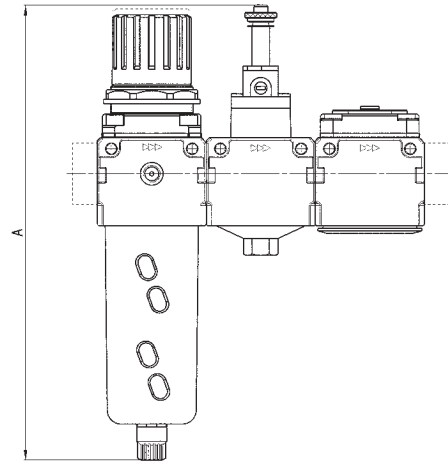
| DIMENSIONS | | | | | |
|--------------|-------|-----|-----|----|--------------------|
| Mod. | A | B | B1 | C | Flow rate (NI/min) |
| MC104-N-5 | 193,5 | 90 | - | 45 | 1450 |
| MC238-N-5 | 256,5 | 124 | - | 60 | 4800 |
| MC202-N-5 | 256,5 | 124 | - | 60 | 4950 |
| MC104-N-5-FL | 193,5 | - | 114 | 45 | 1450 |
| MC238-N-5-FL | 256,5 | - | 152 | 60 | 4800 |
| MC202-N-5-FL | 256,5 | - | 152 | 60 | 4950 |



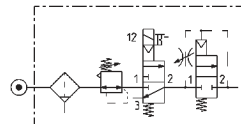
Assembly group PN



Components:
Filter-regulator
Lockable isolation 3/2-way valve
Soft start valve



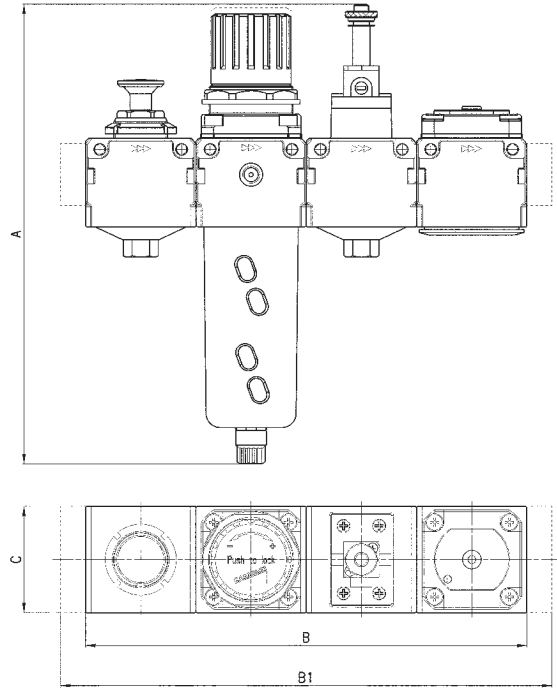
| DIMENSIONS | | | | | |
|---------------|-----|-----|-----|----|--------------------|
| Mod. | A | B | B1 | C | Flow rate (NI/min) |
| MC104-PN-5 | 208 | 135 | - | 45 | 1450 |
| MC238-PN-5 | 259 | 186 | - | 60 | 4800 |
| MC202-PN-5 | 259 | 186 | - | 60 | 4950 |
| MC104-PN-5-FL | 208 | - | 159 | 45 | 1450 |
| MC238-PN-5-FL | 259 | - | 214 | 60 | 4800 |
| MC202-PN-5-FL | 259 | - | 214 | 60 | 4950 |



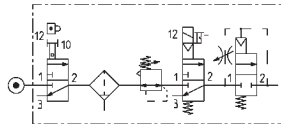
Assembly group QN



Components:
 Lockable isolation 3/2-way valve
 Filter-regulator
 Lockable isolation 3/2-way valve
 Soft start valve



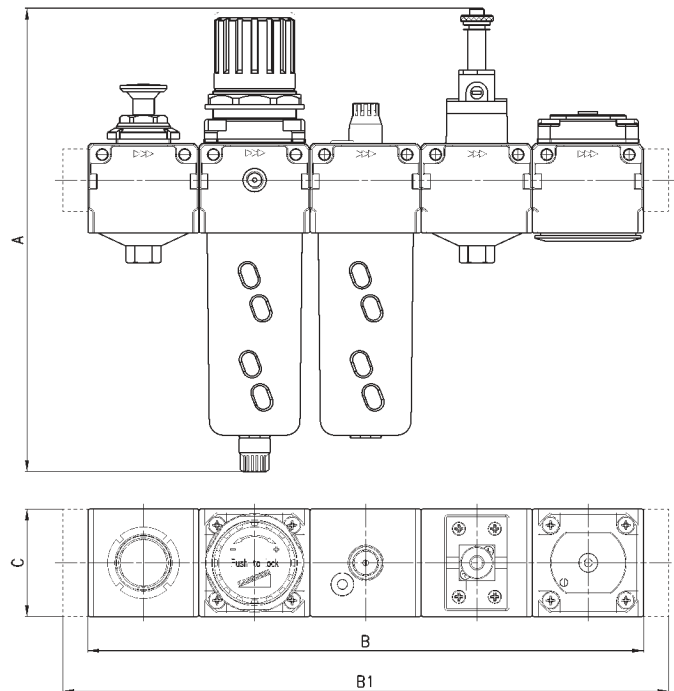
| DIMENSIONS | | | | | |
|---------------|-----|-----|-----|----|--------------------|
| Mod. | A | B | B1 | C | Flow rate (NI/min) |
| MC104-QN-5 | 208 | 180 | - | 45 | 1450 |
| MC238-QN-5 | 259 | 248 | - | 60 | 4800 |
| MC202-QN-5 | 259 | 248 | - | 60 | 4950 |
| MC104-QN-5-FL | 208 | - | 204 | 45 | 1450 |
| MC238-QN-5-FL | 259 | - | 276 | 60 | 4800 |
| MC202-QN-5-FL | 259 | - | 276 | 60 | 4950 |



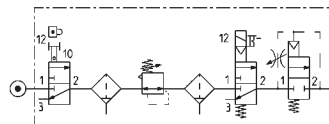
Assembly group TN



Components:
 Lockable isolation 3/2-way valve
 Filter-regulator
 Lubricator
 Lockable isolation 3/2-way valve
 Soft start valve



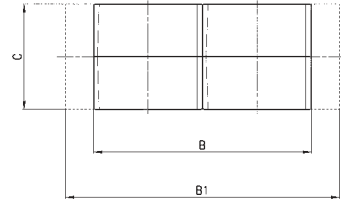
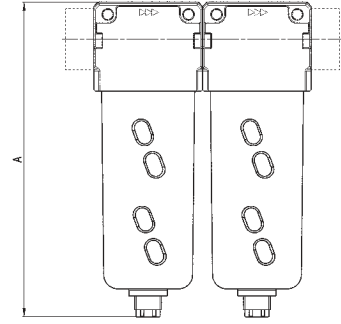
| DIMENSIONS | | | | | |
|---------------|-----|-----|-----|----|--------------------|
| Mod. | A | B | B1 | C | Flow rate (NI/min) |
| MC104-TN-5 | 208 | 225 | - | 45 | 1450 |
| MC238-TN-5 | 259 | 310 | - | 60 | 4800 |
| MC202-TN-5 | 259 | 310 | - | 60 | 4950 |
| MC104-TN-5-FL | 208 | - | 249 | 45 | 1450 |
| MC238-TN-5-FL | 259 | - | 338 | 60 | 4800 |
| MC202-TN-5-FL | 259 | - | 338 | 60 | 4950 |



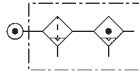
Assembly group U



Components:
Filter
Coalescing filter

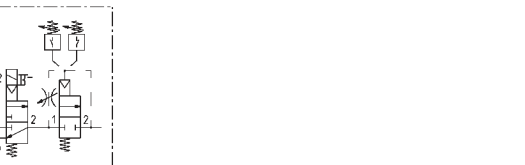
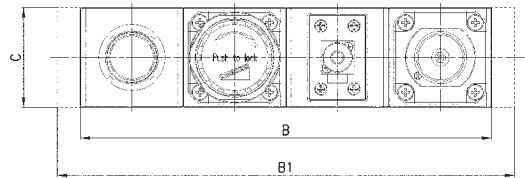
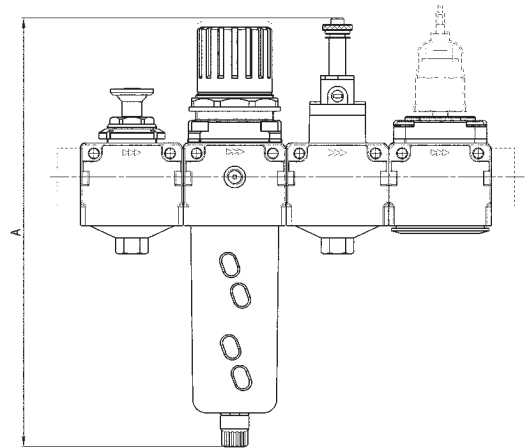


| DIMENSIONS | | | | | |
|--------------|-----|-----|-----|----|--------------------|
| Mod. | A | B | B1 | C | Flow rate (NI/min) |
| MC238-U-5 | 180 | 124 | - | 60 | 2050 |
| MC202-U-5 | 180 | 124 | - | 60 | 2300 |
| MC238-U-5-FL | 180 | - | 152 | 60 | 2050 |
| MC202-U-5-FL | 180 | - | 152 | 60 | 2300 |



Assembly group ZN...

Components:
Lockable isolation 3/2-way valve
Filter-regulator
Lockable isolation 3/2-way valve
Soft start valve + pressure switch (NO or NC)



| DIMENSIONS | | | | | |
|------------------|-----|-----|-----|----|--------------------|
| Mod. | A | B | B1 | C | Flow rate (NI/min) |
| MC104-ZN...-5 | 208 | 180 | - | 45 | 1450 |
| MC238-ZN...-5 | 259 | 248 | - | 60 | 4800 |
| MC202-ZN...-5 | 259 | 248 | - | 60 | 4950 |
| MC104-ZN...-5-FL | 208 | - | 204 | 45 | 1450 |
| MC238-ZN...-5-FL | 259 | - | 276 | 60 | 4800 |
| MC202-ZN...-5-FL | 259 | - | 276 | 60 | 4950 |

