

# FILTER-REGULATORS

## SERIES N

Ports G1/8, G1/4



- Available with:
  - transparent PA12 bowl
  - nickel-plated brass bowl for the small version (N1)
- Available for use with oxygen

Series N filter-regulator is available with G1/4 and G1/8 ports.

Its design incorporates a self relieving diaphragm.

The transparent filter bowl allows an easy monitoring of the condensate level.

The semi-automatic manual drain makes both the manual and automatic condensate exhaust easier when there is no pressure.

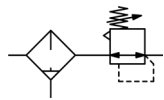
The version with metal bowl is particularly suitable for applications subject to impacts or in the presence of aggressive agents that could damage the PA12 bowl.

### General Data

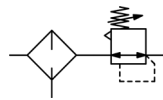
<b>Construction</b>	HDPE and coalescing filtering element
<b>Materials</b>	Brass body and poppet Stainless steel spring NBR O-ring HDPE filtering element Transparent PA12 or nickel-plated bowl Others: PA
<b>Ports</b>	G1/8 - G1/4
<b>Max condensate capacity</b>	11 cm <sup>3</sup> (bowl size = 1) 28 cm <sup>3</sup> (bowl size = 2)
<b>Weight</b>	0.370 Kg
<b>Pressure gauge ports</b>	G1/8
<b>Mounting</b>	Vertical, in-line
<b>Operating temperature</b>	-5°C + 50°C a 10 bar (with the dew point of the fluid lower than 2°C at the min. working temperature)
<b>Quality of delivered air according to ISO 8573-1:2010</b>	Class [7:8:4] with 25 µm filtering element Class [6:8:4] with 5 µm filtering element
<b>Draining of condensate</b>	See the Coding example
<b>Inlet pressure</b>	With all drain types except depressurization and protected depressurization 0.3 ÷ 16 bar. For depressurization type 0.3 ÷ 10 bar
<b>Outlet pressure</b>	With depressurisation drain 0.3 ÷ 10 bar
<b>Nominal flow</b>	See Flow diagrams
<b>Secondary pressure (relieving)</b>	With relieving (standard) Without relieving
<b>Fluid</b>	Compressed air

**FILTER-REGULATORS**  
**SERIES N - CODING EXAMPLES**
**Coding Examples**

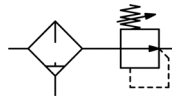
<b>N</b>	<b>2</b>	<b>04</b>	<b>D</b>	<b>0</b>	<b>0</b>	<b>4</b>
<b>N</b>	SERIES					
<b>2</b>	SIZE 1 = small bowl (11 cm <sup>3</sup> ) 2 = normal bowl (28 cm <sup>3</sup> )					
<b>04</b>	PORTS 08 = G1/8 04 = G1/4					
<b>D</b>	D = Filter-regulator					
<b>0</b>	FILTERING ELEMENT 0 = 25µm (standard) 1 = 5µm					
<b>0</b>	DRAINING OF CONDENSATE AND DESIGN TYPE 0 = semi-automatic manual drain with self-relieving 1 = semi-automatic manual drain without relieving 4 = depressurisation with self-relieving (with normal bowl only) 5 = protected depressurisation with self-relieving (with normal bowl only) 8 = no drain (direct port 1/8), with self-relieving					
<b>4</b>	OPERATING PRESSURE = 0.5 ÷ 10 bar (standard) 2 = 0.5 ÷ 2 bar 4 = 0.5 ÷ 4 bar 7 = 0.5 ÷ 7 bar					
	BOWL MATERIAL = transparent PA12 (standard) TM = nickel-plated brass (only in the small size with semi-automatic manual drain or without drain)					

**Filter-regulators**


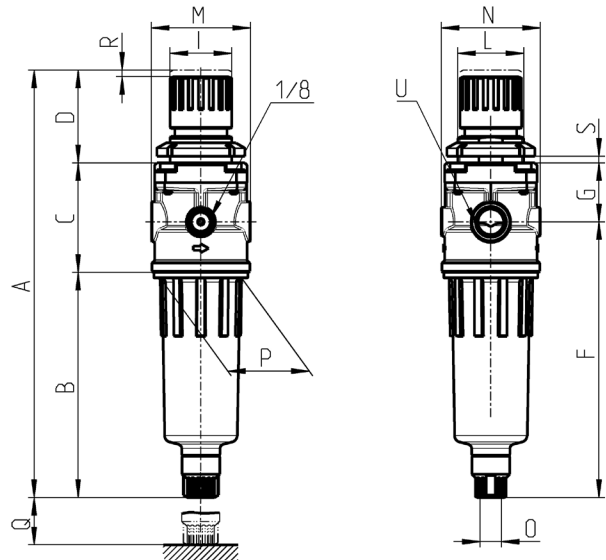
FR01



FR02



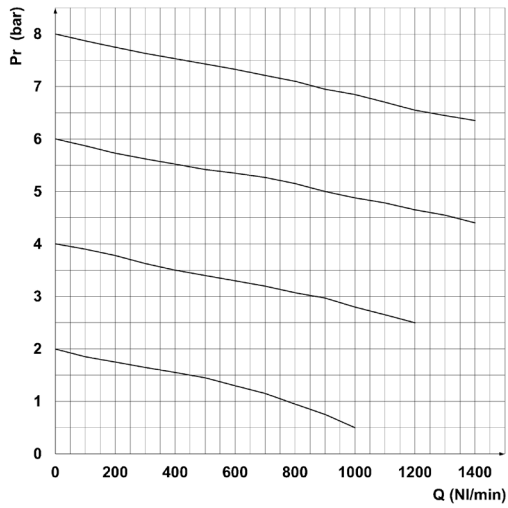
FR11



Mod.	A	B	C	D	F	G	I	L	M	N	O	P	Q	R	S	U
<b>N108-D00</b>	167	78	50	39	101	27	28	M30x1,5	45	45	G1/8	38	40	3	0 ÷ 6	G1/8
<b>N104-D00</b>	167	78	50	39	101	27	28	M30x1,5	45	45	G1/8	38	40	3	0 ÷ 6	G1/4
<b>N208-D00</b>	191	102	50	39	125	27	28	M30x1,5	45	45	G1/8	38	40	3	0 ÷ 6	G1/8
<b>N204-D00</b>	191	102	50	39	125	27	28	M30x1,5	45	45	G1/8	38	40	3	0 ÷ 6	G1/4
<b>N104-D19-OX1</b>	147	59	50	39	82	27	28	M30x1,5	45	45	-	38	40	3	0 ÷ 6	G1/4
<b>N108-D19-OX1</b>	147	59	50	39	82	27	28	M30x1,5	45	45	-	38	40	3	0 ÷ 6	G1/8

## Flow diagrams

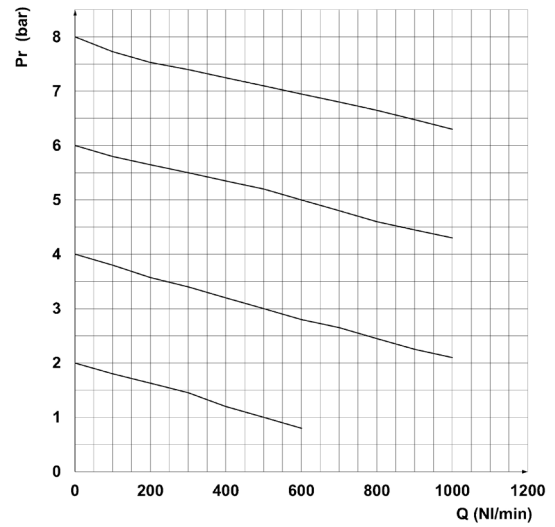
**N204-D00, N104-D00**



Flow diagrams for models: N204-D00 - N104-D00

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

**N208-D00, N108-D00**

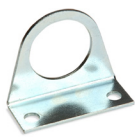


Flow diagrams for models: N208-D00 - N108-D00

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

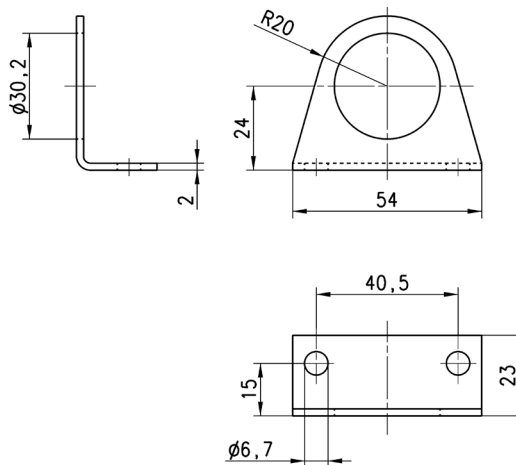
### Mounting bracket Mod. C114-ST

For regulators and filter-regulators (G1/4 - G1/8)



Supplied with:  
 1x bracket

**Material:**  
 zinc-plated steel



<b>Mod.</b>	
C114-ST	

AIR TREATMENT

9

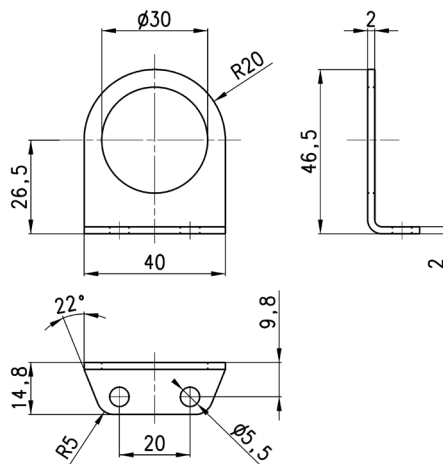
### Mounting bracket Mod. C114-ST/1

For regulators and filter-regulators (G1/4 - G1/8)



Supplied with:  
 1x bracket

**Material:**  
 zinc-plated steel



<b>Mod.</b>	
C114-ST/1	

## Mounting bracket Mod. C114-ST/2

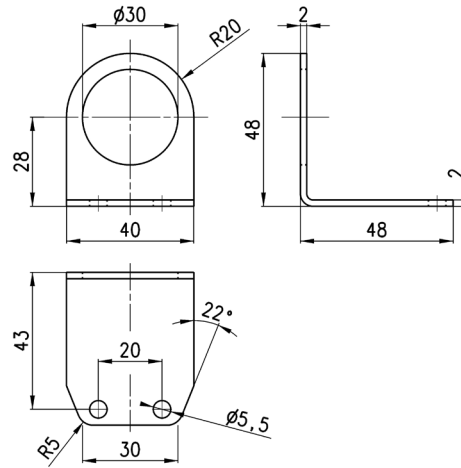
For regulators and filter-regulators (G1/4 - G1/8)



Material:  
zinc-plated steel

Supplied with:  
1x bracket

Material:  
zinc-plated steel



Mod.  
C114-ST/2

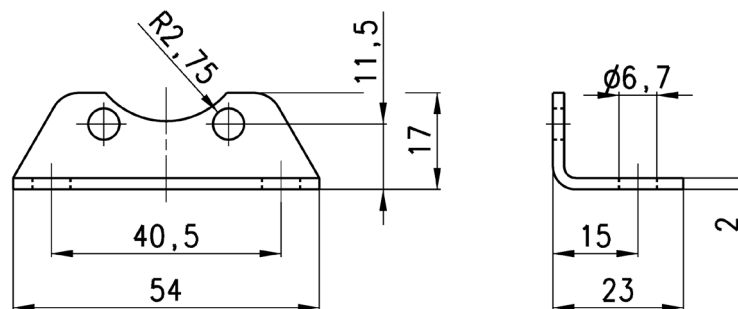
## Mounting bracket Mod. N204-ST

For filters and lubricators



The kit is supplied with:  
1x bracket  
2x screws M5X6

Materials:  
zinc-plated steel bracket  
and screws



Mod.  
N204-ST

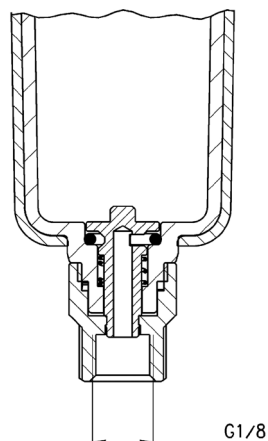
## Semi-automatic manual drain Type 0



Assembled with **Filtering element 25µ**, **Filtering element 5µ**, **Filtering element 1µ**, **Filtering element 0.01µ**.

Functioning: with the operator mechanism turned clockwise, each time the pressure falls below 0,3 bar, the draining of condensate will be released; when resetting the pressure, the drain will close again.

The release can also be carried out manually; when the bowl is pressurised, the operator mechanism is pushed upwards.

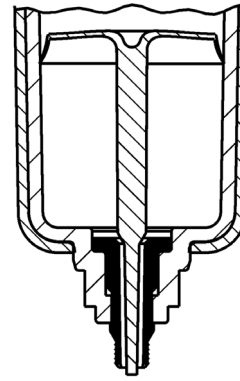


Mod. filter	Bowl with semiautomatic manual drain
N10...-F	N1-F71
N10...-D	N1-F71
N10...-FB	N1-F71
N20...-F	N2-F71
N20...-D	N2-F71
N20...-FB	N2-F71
MC104-F	MC1-F71
MC104-D	MC1-F71
MC104-FB	MC1-F71
MC202-F	MC2-F71
MC202-D	MC2-F71
MC202-FB	MC2-F71
MC238-F	MC2-F71
MC238-D	MC2-F71
MC238-FB	MC2-F71
MX2...-F	MX2-F2-P
MX2...-FR	MX2-F2-P
MX2...-FC	MX2-F2-P
MX3...-F	MX3-F2-P
MX3...-FR	MX3-F2-P
MX3...-FC	MX3-F2-P
MD1-F0..	MD1-FSP01
MD1-F1..	MD1-FSP04
MD1-FR0..	MD1-FSP01
MD1-FR1..	MD1-FSP04
MD1-FC0..	MD1-FCSP01
MD1-FC1..	MD1-FCSP04

## Depressurisation drain (Type 4)



Functioning: each time air is required from the inlet, a slight difference of pressure is created between the upper part and lower part of the drain that rises, thus opening the exhaust valve.



Assembled with Filtering element 25 $\mu$ , Filtering element 5 $\mu$ , Filtering element 0.01 $\mu$ .

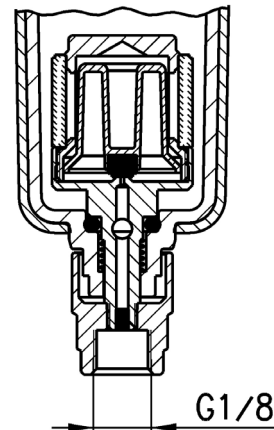
Mod. filter	Bowl with depressurization drain
N20...-F	N2-F71/2
N20...-D	N2-F71/2
N20...-FB	N2-F71/2
MC104-F	MC1-F71/2
MC104-D	MC1-F71/2
MC104-FB	MC1-F71/2

## Depressurisation drain, protected (Type 5)



Solution similar to the Type 4 but requiring a  $\Delta P = 1$  bar.

Functioning: this version has a filtering element which prevents any impurities from clogging the exhaust hole.



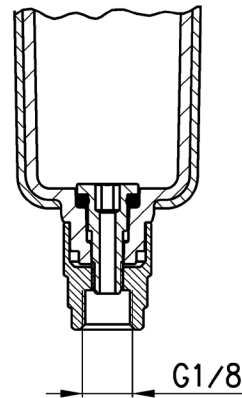
Assembled with Filtering element 25 $\mu$ , Filtering element 5 $\mu$ , Filtering element 1 $\mu$ , Filtering element 0.01 $\mu$ .

Mod. filter	Bowl with depressurization drain, protected
N20...-F	N2-F71/1
N20...-D	N2-F71/1
N20...-FB	N2-F71/1
MC104-F	MC1-F71/1
MC104-D	MC1-F71/1
MC104-FB	MC1-F71/1
MC202-F	MC2-F71/1
MC202-D	MC2-F71/1
MC202-FB	MC2-F71/1
MC238-F	MC2-F71/1
MC238-D	MC2-F71/1
MC238-FB	MC2-F71/1
MX2...-F	MX2-F2/3-P
MX2...-FR	MX2-F2/3-P
MX2...-FC	MX2-F2/3-P
MX3...-F	MX3-F2/3-P
MX3...-FR	MX3-F2/3-P
MX3...-FC	MX3-F2/3-P
MD1-F0..	MD1-FSP03
MD1-F1..	MD1-FSP06
MD1-FR0..	MD1-FSP03
MD1-FR1..	MD1-FSP06
MD1-FC0..	MD1-FCSP03
MD1-FC1..	MD1-FCSP06

## Bowl without drain (Type 8)



The solution with port G1/8 is used to assemble the items to the bowl which is realized with a through hole of  $\varnothing 3$  mm and a threaded port G1/8.



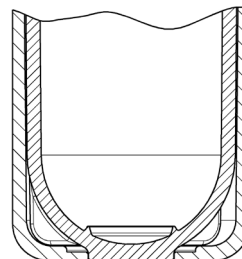
Assembled with Filtering element 25 $\mu$ , Filtering element 5 $\mu$ , Filtering element 1 $\mu$ , Filtering element 0.01 $\mu$ .

Mod. filter	Bowl without drain (1/8 port)
N10...-F	N1-F71-1/8
N10...-D	N1-F71-1/8
N10...-FB	N1-F71-1/8
N20...-F	N2-F71-1/8
N20...-D	N2-F71-1/8
N20...-FB	N2-F71-1/8
MC104-F	MC1-F71-1/8
MC104-D	MC1-F71-1/8
MC104-FB	MC1-F71-1/8
MC202-F	MC2-F71-1/8
MC202-D	MC2-F71-1/8
MC202-FB	MC2-F71-1/8
MC238-F	MC2-F71-1/8
MC238-D	MC2-F71-1/8
MC238-FB	MC2-F71-1/8
MX2...-F	MX2-F2/2-P
MX2...FR	MX2-F2/2-P
MX2...-FC	MX2-F2/2-P
MX3...-F	MX3-F2/2-P
MX3...-FR	MX3-F2/2-P
MX3...-FC	MX3-F2/2-P
MD1-F0..	MD1-FSP02
MD1-F1..	MD1-FSP05
MD1-FR0..	MD1-FSP02
MD1-FR1..	MD1-FSP05
MD1-FC0..	MD1-FCSP02
MD1-FC1..	MD1-FCSP05

## Closed bowl



Assembled with Activated carbon filter.



Mod. filter	Closed bowl
N20...-FCA	N2-L71
MC104-FCA	MC1-L71
MC202-FCA	MC2-L71
MC238-FCA	MC2-L71
MX2...-FCA	MX2-L2-P
MX3...-FCA	MX3-L2-P
MD1-FCA..	MD1-FCASP01

## Surface filtersac



Assembled with Semi-automatic manual drain, Automatic drain, Depressurisation drain, Depressurisation drain protected, Bowl without drain.

Mod. filter	Filtering element 25 µ
N10...-F	C104-F20/3
N10...-D	C104-F20/3
N20...-F	C104-F20/3
N20...-D	C104-F20/3
MC104-F	C104-F20/3
MC104-D	C104-F20/3
MC202-F	C238-F11/3
MC202-D	C238-F11/3
MC238-F	C238-F11/3
MC238-D	C238-F11/3
MX2...-F	C238-F11/3
MX2...FR	C238-F11/3
MX3...-F	MX3-F7
MX3...-FR	MX3-F7
MD1-F0..*	C104-F20/3
MD1-FR0..*	C104-F20/3

## Surface filters



Assembled with Semi-automatic manual drain, Automatic drain, Depressurisation drain, Depressurisation drain protected, Bowl without drain.

Mod. filter	Filtering element 5 µ
N10...-F	C104-F21/3
N10...-D	C104-F21/3
N20...-F	C104-F21/3
N20...-D	C104-F21/3
MC104-F	C104-F21/3
MC104-D	C104-F21/3
MC202-F	C238-F12/3
MC202-D	C238-F12/3
MC238-F	C238-F12/3
MC238-D	C238-F12/3
MX2...-F	C238-F12/3
MX2...FR	C238-F12/3
MX3...-F	MX3-F8
MX3...-FR	MX3-F8
MD1-F1..*	C104-F21/3
MD1-FR1..*	C104-F21/3