







1 Non-Modular FRL Series N 1/8" & 1/4" NPTF

Page

Series N		Summary and Features	20
Series N NEW		Filter and Coalescing Filter	22
Series N		Pressure Regulator	25
Series N NEW		Lubricator	27
Series N NEW		Filter/Regulator	29
Series N and M		Accessories	31

Summary and Features

Series M, N & T FRL 1/8" & 1/4" NPTF

Regulator

- Four Pressure Range Options
- Relieving, Non-Relieving & High Response Diaphragm Options
- Factory Pressure Presets Available
- Tamper-Proof Available
- Locking, Non-Rising Knob Standard
- Front & Rear Gauge Ports
- Convertible To "Piggy-Back" Filter/Reg Combo (Series N Only)



Pressure microregulator
Series T



Pressure microregulator
Series M



Optional Gauges

- Various Pressure Ranges Available
- Panel-Mount Nut Standard



Filter

- Coalescing, 5 & 25 Micron Elements Available
- Threaded Bowl Design
- Grilamid (Nylon Composite) Bowl Standard
- Four Drain Options Available
- Available In "Piggy-Back" Filter-Regulator Combos



Filter and Coalescing Filter Series N

New

Ports 1/8", 1/4" NPTF
with threaded transparent bowl (Nylon PA12) or nickel-plated brass bowl for
the small version (N1)

New Metal Bowl Option



The Series N filter is available with 1/8" and 1/4" NPTF ports.

The bowl, which is transparent (Nylon PA12), makes monitoring of the condensate levels very easy and is equipped with manual and automatic drain (plus 3 new drain options).

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

The models are available with 4 different filtering elements: 25µm, 5µm and 0.01µm and activated carbon.

TECHNICAL SPECIFICATIONS

Construction	HDPE filtering element
Materials	Nickel-Plated brass body, Buna-N seals, Nylon PA12 bowl, brass internals, filtering element in HDPE
Threaded ports	1/8", 1/4" NPTF
Max. condensate capacity	Size 1 = .4 oz Size 2 = 1 oz
Weight	Kg 0.220 = .5 lbs
Type of mounting	Vertical, in-line
Operating temperature	-5°C - 50°C, (23°F - 122°F), with Dew Point of air at least 2°C (4°F) below the min working temperature
Delivered air quality (ISO 8573-1: 2010)	25 um element = Class 7.8.4 5 um element = Class 6.8.4 0.01 um element = Class 1.8.1 Activated carbon = Class 1.7.1
Draining of condensate	Standard semiautomatic/manual; see code key for options

PNEUMATIC DATA

Operating pressure	0.3 – 16 bar (4.35 psi - 232 psi) (Maximum pressure 10 bar/145 psi with depressurization drains)
Nominal flow	See chart

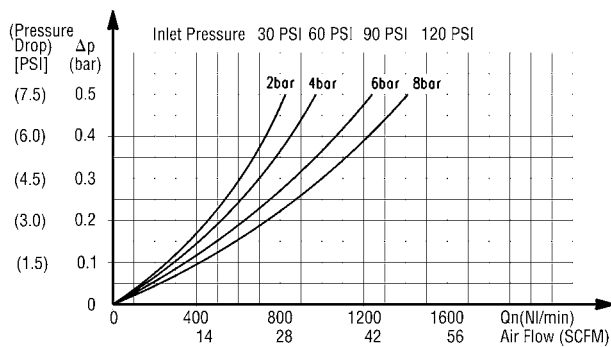
CODING EXAMPLE

N	2	04	-	F	0	0	-	TM	TF
---	---	----	---	---	---	---	---	----	----

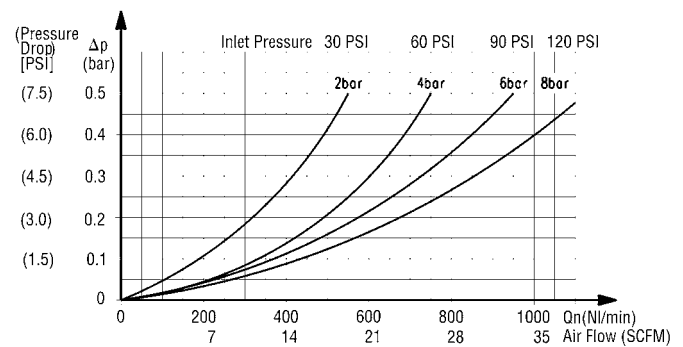
N	SERIES
2	SIZE 1 = small bowl (0.4 ounces) 2 = normal bowl (1 ounce)
04	PORTS: 08 = 1/8" 04 = 1/4"
F	FILTER
0	FILTERING ELEMENT 0 = 25µm 1 = 5µm B = 0.01µm, coalescing type CA = activated carbon (without drain, normal bowl size 2)
0	DRAINING OF CONDENSATE: 0 = manual - semiautomatic 4 = depressurization ("spitter type") - only normal bowl (Size 2) 5 = depressurization, filtered drain orifice - only normal bowl (Size 2) 8 = port 1/8" female (free flow) Condensate drains (see Accessories section at back of catalog)
TM	BOWL MATERIAL Blank = transparent Nylon PA12 TM = nickel-plated brass bowl (only in small size 1 with semi-auto drain or no drain)
TF	PORT TF = NPTF Blank = BSPP thread ports

FLOW DIAGRAMS

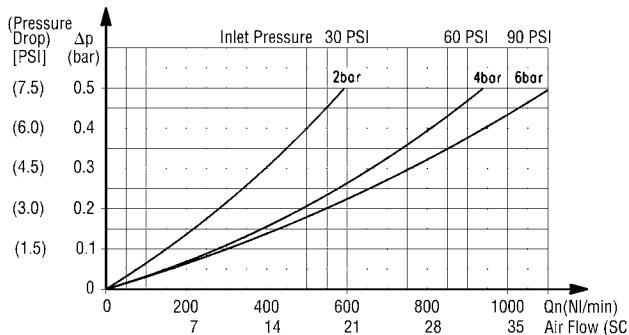
N204-F00TF



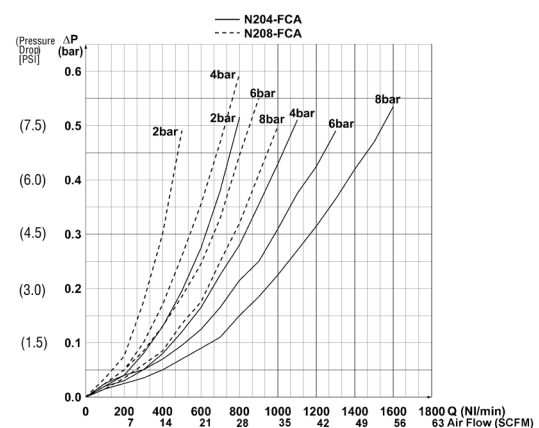
N204-F10TF



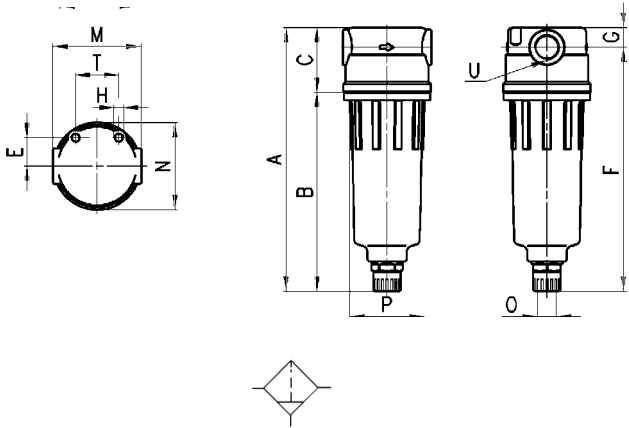
N204-FB0TF



N204-FCATF



Filters Series N



DIMENSIONS (in inches)													
Mod.	A	B	C	E	F	G	H	M	N	O	P	T	U (NPTF)
N108-F00TF	4.37	3.07	1.299	.570	3.976	.394	M5	1.772	1.751	1/8"	1.496	.866	1/8"
N104-F00TF	4.37	3.07	1.299	.570	3.976	.394	M5	1.772	1.751	1/8"	1.496	.866	1/4"
N208-F00TF	5.315	4.016	1.299	.570	4.921	.394	M5	1.772	1.751	1/8"	1.496	.866	1/8"
N204-F00TF	5.315	4.016	1.299	.570	4.921	.394	M5	1.772	1.751	1/8"	1.496	.866	1/4"

Pressure Regulator Series N

Ports 1/8", 1/4" NPTF
Nipple type



The Series N pressure regulator is available with 1/4" and 1/8" NPTF ports.

Its design incorporates a self relieving diaphragm so as to allow incremental adjustments.

This compact regulator may be mounted directly on pipes or onto a console.

TECHNICAL SPECIFICATIONS

Construction	Diaphragm type - nipple type
Materials	Nickel-Plated brass, brass body, Buna-N seals, Nylon knob, internals in brass
Threaded ports	1/8", 1/4" NPTF
Weight	Kg 0.316 = .7 lbs
Pressure gauge port	1/8" NPTF
Type of mounting	In-line or console (in any position)
Operating temperature	-5° C - 50° C, (23° F - 122° F), with Dew Point of air at least 2° C (4° F) below the min working temperature

PNEUMATIC DATA

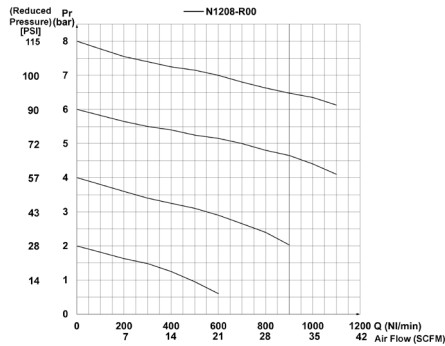
Inlet pressure	0 – 16 bar (0 – 232 psi)
Outlet pressure	0.5 – 10 bar (7.25 – 145 psi), Optional outlet ranges offered
Nominal flow	See graph
Secondary pressure relieving	Standard

CODING EXAMPLE

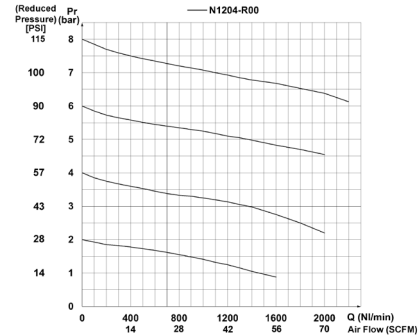
N	2	04	-	R	0	0	-	■	-	●	TF
N	SERIES										
2	SIZE 1 = small bowl 2 = normal bowl										
04	PORTS: 08 = 1/8" 04 = 1/4"										
R	REGULATOR										
0	OPERATING PRESSURE 0 = 0.5 – 10 bar (7.25 - 145 psi) 1 = 0 – 4 bar (0 - 58 psi) 2 = 0 – 2 bar (0 - 29 psi) 7 = 0.5 – 7 bar (7.25 - 103 psi) T = Calibrated * (adjustable up to a maximum fixed pressure) B = Locked * (fixed at a set pressure; non-adjustable)										
0	DESIGN TYPE 0 = self-relieving diaphragm 1 = non-relieving, diaphragm										
* NOTE : If regulator is "calibrated" or "locked," add the inlet pressure ■ and the outlet pressure ● to the end of the model code. "■" = enter the SUPPLY pressure value (in BAR) "●" = enter the OUTLET pressure (in BAR) for the locked regulator or the maximum pressure value of the calibrated regulator. Example: Calibrated regulator with Inlet Pressure = 6.3 Bar and Outlet Pressure = 4.5 Bar Complete part number: N204-RT0-6,3-4,5TF											
TF	PORT TF = NPTF Blank = BSPP thread ports										

FLOW DIAGRAMS

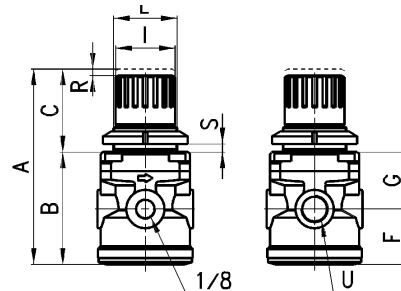
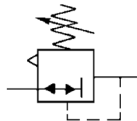
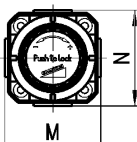
N208-R00TF, 1/8" Model



N 204-R00TF, 1/4" Model



Pressure regulator, Series N



DIMENSIONS (in inches)

Mod.	A	B	C	F	G	I	L	M	N	R	S	U
N208-R00TF	3.622	2.086	1.535	1.023	1.063	1.102	M30x1.5	1.772	1.772	.118	0 - .236	1/8" NPTF
N204-R00TF	3.622	2.086	1.535	1.023	1.063	1.102	M30x1.5	1.772	1.772	.118	0 - .236	1/4" NPTF

Lubricator Series N

Ports 1/8", 1/4" NPTF, Available with transparent Nylon PA12 bowl or nickel-plated brass bowl for the small version (N1)

New Metal Bowl Option



The Series "N" lubricator is available with 1/4" and 1/8" NPTF ports.

The special type of design fulfills a vast range of applications in relation to the amount of oil atomized and the air consumed.

The body of the lubricator is made of Nickel-Plated brass, while the bowl is transparent, (Nylon PA12).

TECHNICAL SPECIFICATIONS

Construction	Venturi Design
Materials	Nickel-Plated brass, body Buna-N seals, Nylon PA12 or nickel-plated brass , internals in brass
Threaded ports	1/8", 1/4" NPTF
Weight	Kg 0.288 = .63 lbs
Oil capacity	Size 1 = 26 cm ³ (.9 oz) Size 2 = 37 cm ³ (1.28 oz)
Type of mounting	Vertical, in-line
Operating temperature	-5° C - 50° C, (23° F - 122° F), with Dew Point of air at least 2° C (4° F) below the min working temperature
Oil refilling	Without pressure required, can be filled via bowl or cap screw in head
Oil for lubrication	use ISO VG32 oils
Oil consumption	recommendation 1 - 5 drops every 1000 NI of air consumed (35 SCFM) (10 drops = 1cm ³)
Droplet size	approx. 2µm

PNEUMATIC DATA

Operating pressure	0 – 16 bar (0 - 232 psi)
Nominal flow	See graph
Minimum air consumption for lubrication	At 1 bar = 7.5 NI/min (14.5 psi = .26 SCFM) At 6 bar = 11 NI/min (87 psi = .38 SCFM)

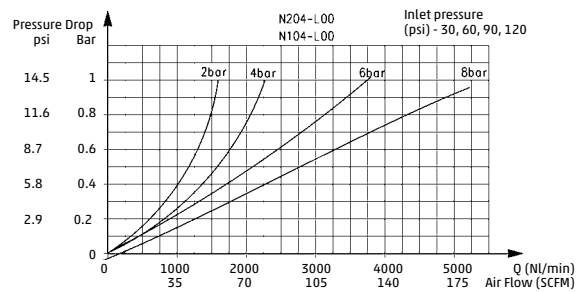
CODING EXAMPLE

N	2	04	-	L	00	-	TM	TF
---	---	----	---	---	----	---	----	----

N	SERIES
2	SIZE 1 = small bowl (0.9 oz) 2 = normal bowl (1.28 oz)
04	PORTS: 08 = 1/8" 04 = 1/4"
L	LUBRICATOR
00	DESIGN TYPE 00 = atomized oil, approx. 2 microns
TM	BOWL MATERIAL Blank = transparent Nylon PA12 TM = nickel-plated brass bowl (only in small size 1 with semi-auto drain or no drain)
TF	PORT TF = NPTF Blank = BSPP thread ports

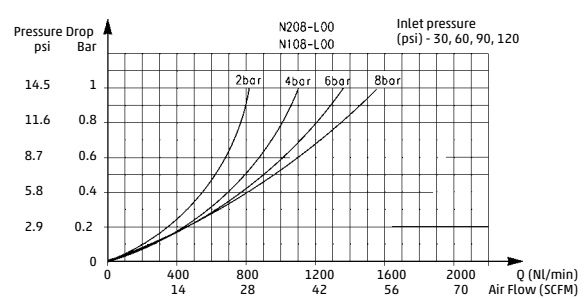
FLOW DIAGRAMS

N204-L00TF - 1/4" Model



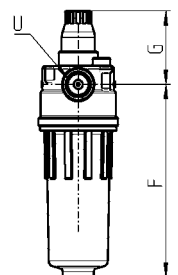
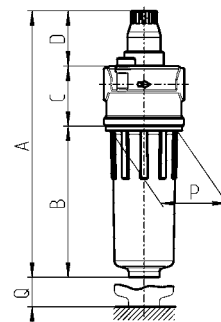
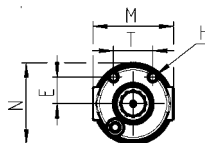
P_a = Inlet pressure
 ΔP = Pressure Drop
 Q_n = Flow

N208-L00TF - 1/8" Model



P_a = Inlet pressure
 ΔP = Pressure Drop
 Q_n = Flow

Lubricator, Series N



DIMENSIONS (in inches)

Mod.	A	B	C	D	E	F	G	H	M	N	O	P	Q	T	U (NPTF)
N108-L00TF	4.82	2.32	1.29	1.20	.57	2.97	1.57	M5	1.77	1.77	1.75	1.49	1.83	.86	1/8"
N104-L00TF	4.82	2.32	1.29	1.20	.57	2.97	1.57	M5	1.77	1.77	1.75	1.49	1.83	.86	1/4"
N208-L00TF	5.76	3.26	1.29	1.20	.57	4.17	1.57	M5	1.77	1.77	1.75	1.49	1.83	.86	1/8"
N204-L00TF	5.76	3.26	1.29	1.20	.57	4.17	1.57	M5	1.77	1.77	1.75	1.49	1.83	.86	1/4"

Filter/Regulator Series N

Ports 1/8", 1/4" NPTF

Available with transparent Nylon PA12 bowl or nickel-plated brass bowl for the small version (N1)

New Metal Bowl Option



The Series N filter/regulator is available with 1/4", 1/8" NPTF ports.

The regulator's design incorporates a self relieving diaphragm.

The filter bowl which is transparent allows easy monitoring of the condensate levels.

There are five (5) total drain options available standard.

TECHNICAL SPECIFICATIONS

Construction	HDPE and coalescing filtering element
Materials	Nickel-Plated brass body, Buna-N seals, Nylon PA12 or nickel-plated brass, stainless steel spring, filter element in HDPE
Threaded ports	1/8", 1/4" NPTF
Weight	Kg 0.379 = .8 lbs
Oil capacity	Size 1 = 26 cm ³ (.9 oz) Size 2 = 37 cm ³ (1.28 oz)
Pressure gauge port	1/8" NPTF
Type of mounting	Vertical, in-line
Operating temperature	-5° C - 50° C, (23° F - 122° F), with Dew Point of air at least 2° C (4° F) below the min working temperature
Delivered air quality (ISO 8573-1: 2010)	25 um element = Class 7.8.4 5 um element = Class 6.8.4
Draining of condensate	Standard semiautomatic, manual - see Code Key for optional drain styles

PNEUMATIC DATA

Inlet pressure	0 – 16 bar (0 - 232 psi)
Outlet Pressure	0.5 – 10 bar (7.25 – 145 psi), optional pressure outlet ranges available
Nominal flow	See graph
Secondary pressure relieving	Standard relieving and non-relieving

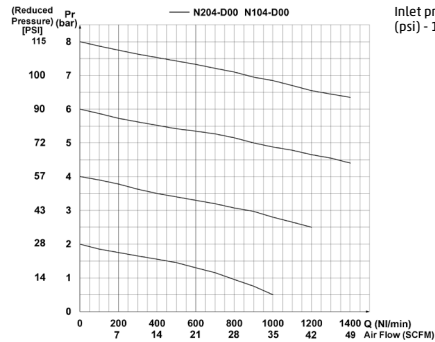
CODING EXAMPLE

N	2	04	-	D	0	0	-	TM	TF
---	---	----	---	---	---	---	---	----	----

N	SERIES								
2	SIZE 1 = small bowl (0.4 ounces) 2 = normal bowl (1 ounce)								
04	PORTS: 08 = 1/8" 04 = 1/4"								
D	FILTER-REGULATOR								
0	FILTER DESIGN 0 = 25 µm HDPE element 1 = 5 µm HDPE element Condensate drains (see Accessories section at back of catalog)								
0	DESIGN TYPE / DRAINS TYPE 0 = self-relieving, Manual/Semi-Automatic 1 = non-relieving, Manual/Semi-Automatic 4 = depressurization, self-relieving - "spitter type" (Sz bowl 2 ONLY) 5 = depressurization, protected with relieving, "spitter-type w/ filtered drain orifice" (Sz 2 bowl ONLY) 8 = port 1/8 female thread, self-relieving								
	OPERATING PRESSURE (bar) Blank = 0.5 - 10 (7.25 - 145 psi) 4 = 0 - 4 (0 - 58 psi) 2 = 0 - 2 (only 1/4") (0 - 29 psi) 7 = 0.5 - 7 (only 1/4") (7.25 - 103 psi)								
TM	BOWL MATERIAL Blank = transparent Nylon PA12 TM = nickel-plated brass (only in the small Size 1)								
TF	PORT TF = NPTF Blank = BSPP thread ports								

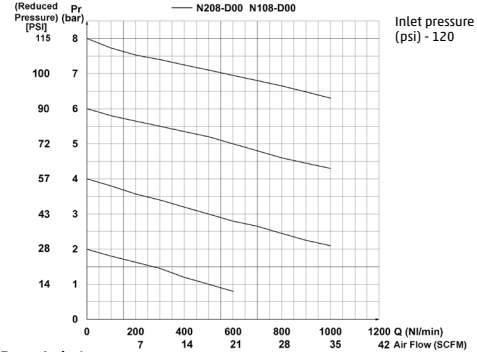
FLOW DIAGRAMS

N204-D00TF



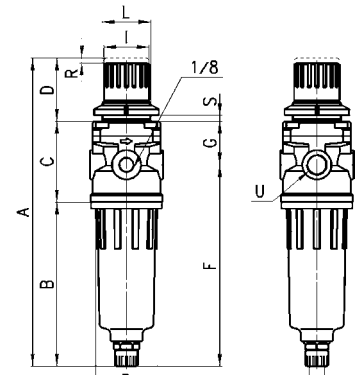
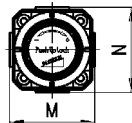
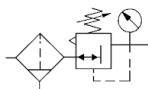
Pa = Inlet pressure
 Pr = Regulated pressure
 Qn = Flow

N208-D00TF



Pa = Inlet pressure
 Pr = Regulated pressure
 Qn = Flow

Filter/regulator, Series N



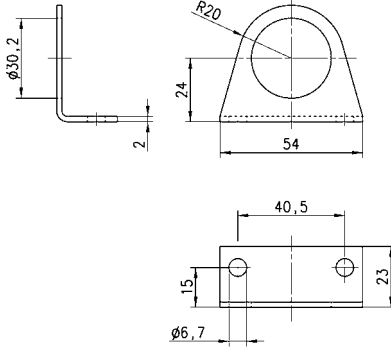
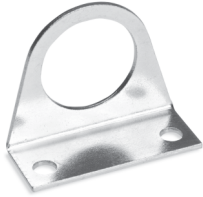
DIMENSIONS (IN INCHES)

Mod.	A	B	C	D	F	G	I	L	M	N	GAUGE PORT O	P	R	S	OUTLET PORT U
N108-D00TF	6.574	3.070	1.968	1.535	3.976	1.063	1.102	M30x1.5	1.772	1.772	1/8" NPTF	1.496	.118	0 - .236	1/8" NPTF
N104-D00TF	6.574	3.070	1.968	1.535	3.976	1.063	1.102	M30x1.5	1.772	1.772	1/8" NPTF	1.496	.118	0 - .236	1/4" NPTF
N208-D00TF	7.519	4.016	1.968	1.535	4.921	1.063	1.102	M30x1.5	1.772	1.772	1/8" NPTF	1.496	.118	0 - .236	1/8" NPTF
N204-D00TF	7.519	4.016	1.968	1.535	4.921	1.063	1.102	M30x1.5	1.772	1.772	1/8" NPTF	1.496	.118	0 - .236	1/4" NPTF

Accessories for Series N and M

Mounting bracket, Series MC-M-N-T

Mounting bracket for Regulators and Filter-Regulators (1/8 & 1/4) - zinc-plated steel bracket

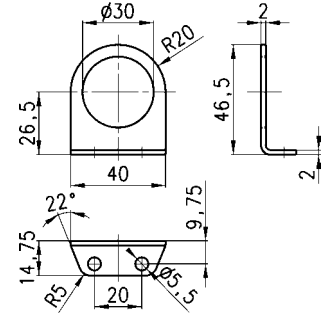


Mod.

C114-ST

Mounting bracket, Series MC-M-N-T

Mounting bracket for Regulators and Filter-Regulators (1/8 & 1/4) - zinc-plated steel bracket

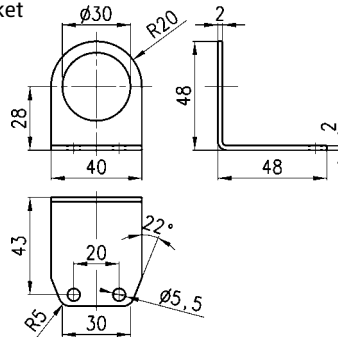


Mod. (dimensions in mm)

C114-ST/1

Mounting bracket Series MC-M-N-T

Mounting bracket for Regulators and Filter-Regulators, (1/8 & 1/4) - zinc-plated steel bracket

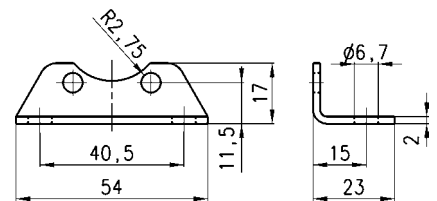


Mod. (dimensions in mm)

C114-ST/2

Mounting bracket Series Series N

Mounting bracket (for N204 Filters and Lubricators) (complete with 2 screws M5x6 and bracket, zinc-plated steel).

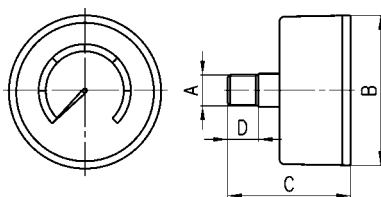


Mod. (dimensions in mm)

N204-ST

Pressure gauges Mod. M043-P04TF (0 - 60 psi)

Nominal face size 1 1/2"

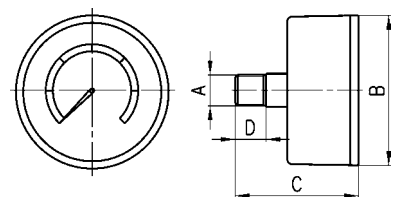


DIMENSIONS (in inches)

Mod.	A	B	C	D
M043-P04TF	1/8" NPTF	1.655	1.600	0.950

Pressure gauges Mod. M043-P10TF (0 - 160 psi)

Nominal face size 1 1/2"



DIMENSIONS (in inches)

Mod.	A	B	C	D
M043-P10TF	1/8" NPTF	1.655	1.600	0.950