

MEASURING INSTRUMENTS - STRUMENTI PER MISURARE



# COMPONENT AND ACCESSORIES

**NUOVA FIMA**

# bar stock two-valve manifold, block and bleed

# BSM/M2-

- ✓ - Pressure gauges, pressure switches aitters
- ✓ - Process, chemical and petrochemical industry
- ✓ - AISI 316L st.st or special materials wetted parts
- ✓ - Non-rotating needle
- ✓ - Operating temperature : -54...+550°C
- ✓ - Stem protected from system media
- ✓ - St.st. stop pin

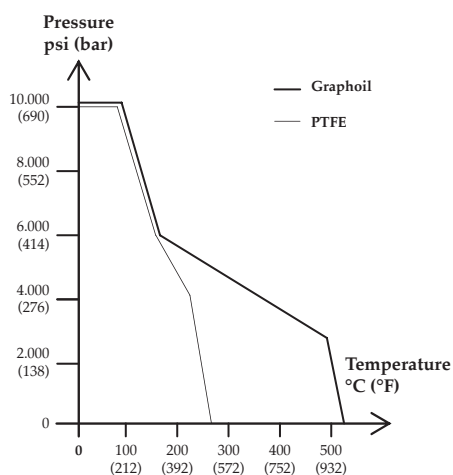


## Technical features

- Rating:** 6000 psig; or 10000 psig (code **10K**).
- Tee-bar:** AISI 303 st.st.
- Stem:** AISI 316 L st.st.
- Non-rotating needle:** AISI 316 L st.st (code **5**), (or special materials).
- Bonnet:** AISI 316 L st.st (code **5**), (or special materials).
- Packing:** PTFE or Graphoil (see chart below).
- Nuts:** carbon steel.
- Line dust cup:** Hytrel, blu.
- Drain dust cup:** Hytrel, red.
- Bonnet seal:** AISI 316L st.st. seal.
- Manifold body and drain plug:** AISI 316 L st.st. (code **5**), (or special materials).



Fig. 1 - Sectioned bonnet

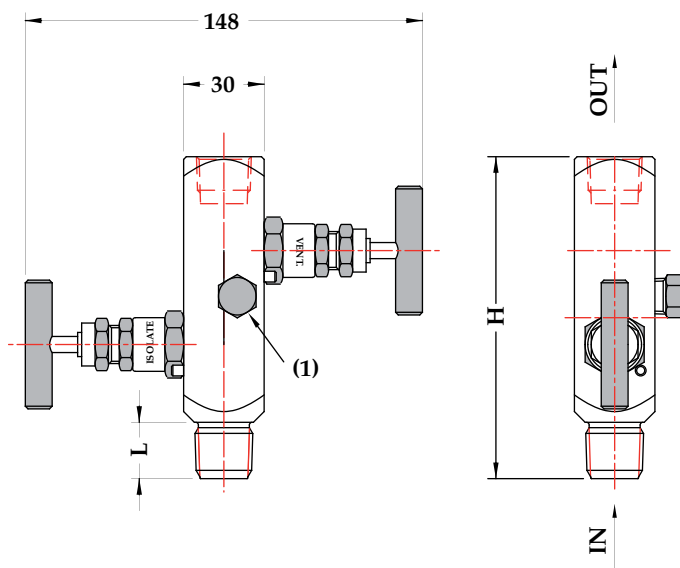
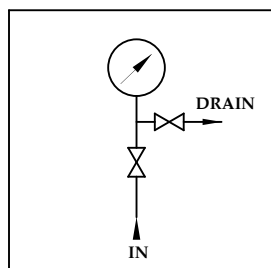


## OPTIONS

<b>10K</b> - Rating bonnet : 10000 psi	<b>LOK</b> - T-Bar handle locking
<b>ANT</b> - Anti-tamper	<b>P02</b> - Oxygen service
<b>E30</b> - NACE version as per MR 0103/0175-ISO15156	<b>SMI</b> - Tag
<b>GRA</b> - Graphoil packing	

5.M2M - BSM/M2M - male process connection

RB0 - 05/10



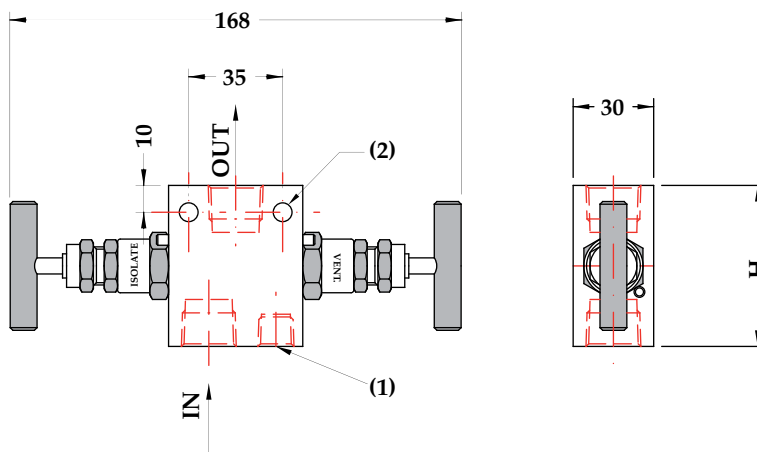
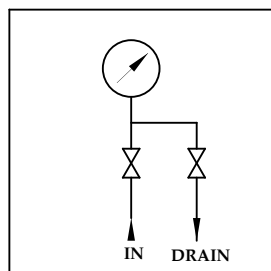
Weight: 0,88 kg

Code	IN-OUT	H	L
<b>43M x 43F</b>	1/2" NPT M x 1/2" NPT F	120	20

(1) Drain 1/4" NPT F with plug

dimensions : mm

5.M2F - BSM/M2F - female process connection



Weight: 0,90 kg

Code	IN-OUT	H
<b>43F x 43F</b>	1/2" NPT F x 1/2" NPT F	60

(1) Drain 1/4" NPT F with plug  
(2) No. 2 fixing holes ø 7 mm

dimensions : mm

"HOW TO ORDER" SEQUENCE

Section / Model / Material / Process connection / Instrument connection / Options  
 5 M2M 5 43M 43F 10K...SMI  
 M2F 43F

# bar stock needle valve, block and bleed

# BSV/VV-

- ✓ - Pressure gauges, pressure switches and transmitters
- ✓ - Process, chemical and petrochemical industry
- ✓ - AISI 316L st.st or special materials wetted parts
- ✓ - Non-rotating needle
- ✓ - Operating temperature : -54...+550°C
- ✓ - Stem protected from system media
- ✓ - St.st. stop pin

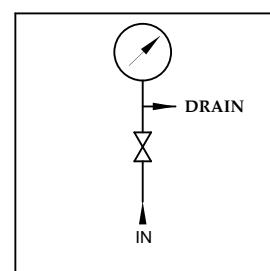
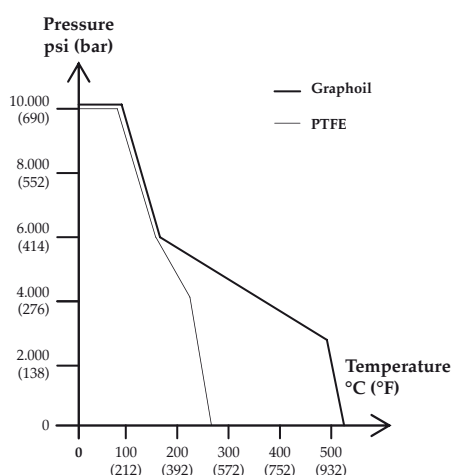


## Technical features

- Rating:** 6000 psig; or 10000 psig (code **10K**).
- Tee-bar:** AISI 303 st.st.
- Stem:** AISI 316 L st.st.
- Non-rotating needle:** AISI 316 L st.st (code **5**), (or special materials).
- Bonnet:** AISI 316 L st.st (code **5**), (or special materials).
- Packing:** PTFE or Graphoil (see chart below).
- Nuts:** carbon steel.
- Line dust cup:** Hytrel, blu.
- Bonnet seal:** AISI 316L st.st. seal.
- Valve body and drain plug:** AISI 316 L st.st. (code **5**), (or special materials).



Fig. 1 - Sectioned bonnet

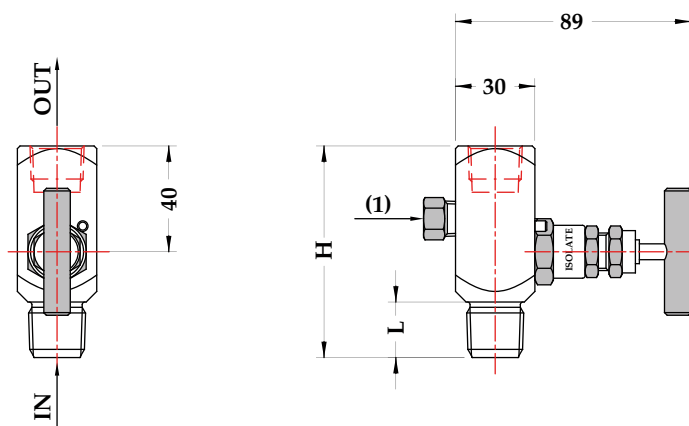


## OPTIONS

<b>10K</b> - Rating bonnet : 10000 psi	<b>LOK</b> -T-Bar handle locking
<b>ANT</b> -Anti-tamper	<b>P02</b> - Oxygen service
<b>E30</b> - NACE version as per MR 0103/0175-ISO15156	<b>SMI</b> - Tag
<b>GRA</b> -Graphoil packing	

5.VVM - BSV/VVM - male process connection

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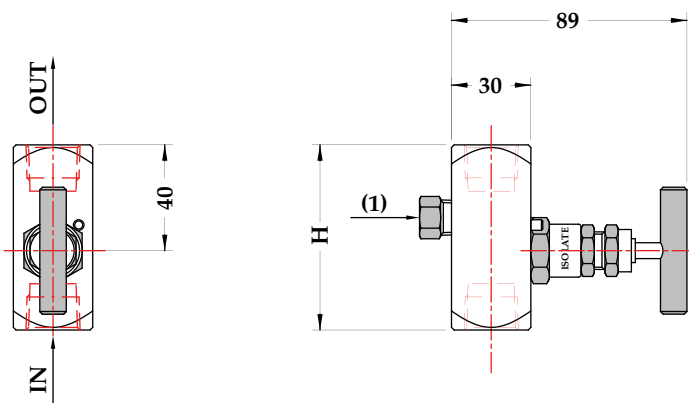
Weight : 0,53 kg

Code	IN-OUT	H	L
<b>43M x 43F</b>	1/2" NPT M x 1/2" NPT F	80	20

(1) Drain 1/4" NPT F with plug

dimensions : mm

5.VVF - BSV/VVF - female process connection



Weight : 0,48 kg

Code	IN-OUT	H
<b>43F x 43F</b>	1/2" NPT F x 1/2" NPT F	70

(1) Drain 1/4" NPT F with plug

dimensions : mm

“HOW TO ORDER” SEQUENCE

Section / Model / Material / Process connection / Instrument connection / Options  
 5 **VVM** 5 **43M** **43F** **10K...SMI**  
**VVF** **43F**

# bar stock needle valve, block, multiport

# BSV/VM-



- ✓ - Pressure gauges, pressure switches and transmitters
- ✓ - Process, chemical and petrochemical industry
- ✓ - AISI 316L st.st or special materials wetted parts
- ✓ - Non-rotating needle
- ✓ - Operating temperature : -54...+550°C
- ✓ - Stem protected from system media
- ✓ - St.st. stop pin

## Technical features

**Rating:** 6000 psig; or 10000 psig (code **10K**).

**Tee-bar:** AISI 303 st.st.

**Stem:** AISI 316 L st.st.

**Non-rotating needle:** AISI 316 L st.st (code **5**), (or special materials).

**Bonnet:** AISI 316 L st.st (code **5**), (or special materials).

**Packing:** PTFE or Graphoil (see chart below).

**Nuts:** carbon steel.

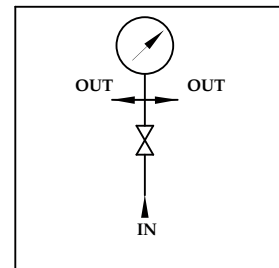
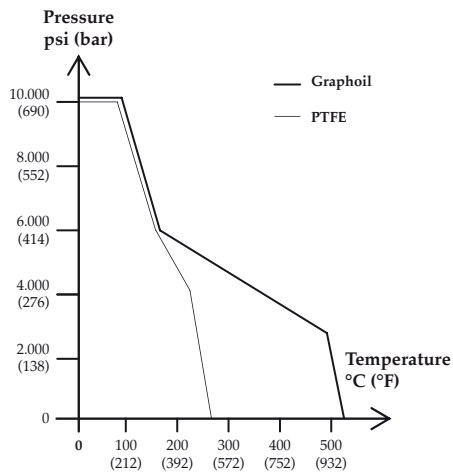
**Line dust cup:** Hytrel, blu.

**Bonnet seal:** AISI 316L st.st. seal.

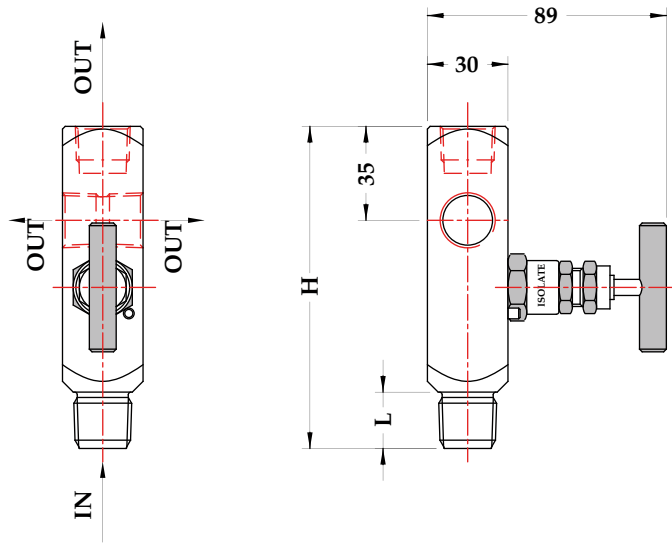
**Valve body and drain plug:** AISI 316 L st.st. (code **5**), (or special materials).



Fig. 1 - Sectioned bonnet



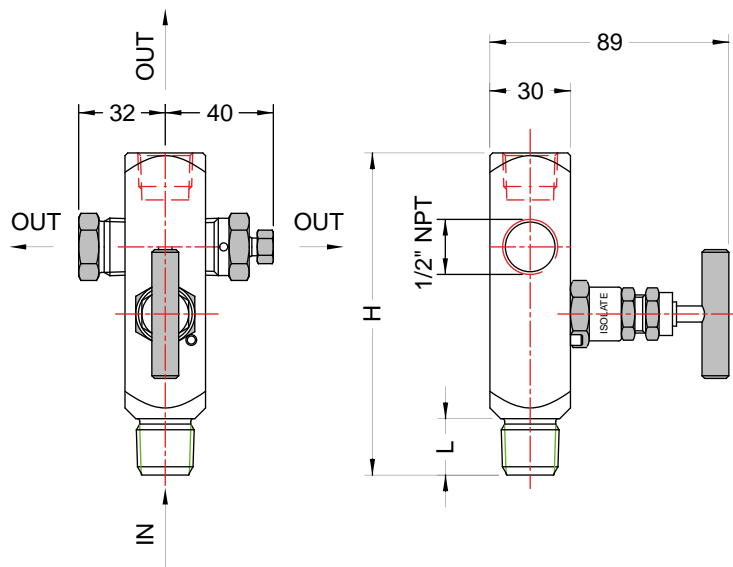
5.VMM - BSV/VMM - male process connection



Weight: 0,82 kg.

Code	IN-OUT	H	L
43M x 43F	1/2" NPT M x 1/2" NPT F	120	20

dimensions : mm



**VARIABILI**

<b>10K</b> - Rating bonnet : 10000 psi	<b>LOK</b> - T-Bar handle locking
<b>ANT</b> - Anti-tamper	<b>P02</b> - Oxygen service
<b>E30</b> - NACE version as per MR 0103/0175-ISO15156	<b>SMI</b> - Tag
<b>GRA</b> - Graphoil packing	

**"HOW TO ORDER" SEQUENCE**

Section / Model / Material / Process connection / Instrument connection / Options  
 5 VMM 5 43M 43F 10K...SMI

# bar stock three-valve manifold, block and equalizer, direct mounting

# BSM/M3A

- ✓ - Differential pressure gauges
- ✓ - Process, chemical and petrochemical industry
- ✓ - AISI 316L st.st or special materials wetted parts
- ✓ - Non-rotating needle
- ✓ - Operating temperature : -54...+550°C
- ✓ - Stem protected from system media
- ✓ - St.st. stop pin



## Technical features

**Rating:** 6000 psig; or 10000 psig (code **10K**).

**Tee-bar:** AISI 303 st.st.

**Stem:** AISI 316 L st.st.

**Non-rotating needle:** AISI 316 L st.st (code **5**), (or special materials).

**Bonnet:** AISI 316 L st.st (code **5**), (or special materials).

**Packing:** PTFE or Graphoil (see chart below).

**Nuts:** carbon steel.

**Line dust cup:** Hytrel, blu.

**Equalizer dust cup:** Hytrel, green.

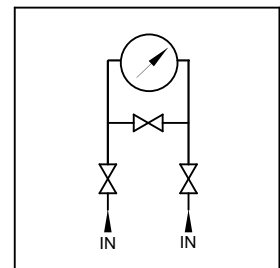
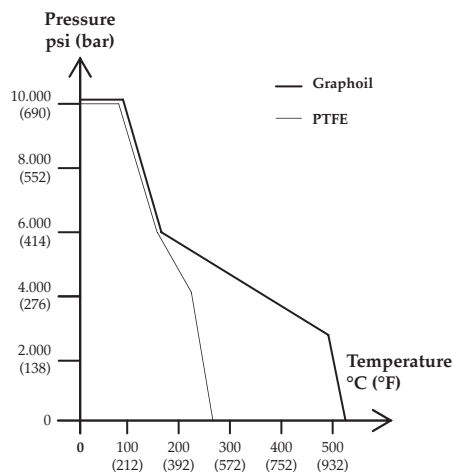
**Bonnet seal:** AISI 316L st.st. seal.

**Manifold body and drain plug:** AISI 316 L st.st. (code **5**), (or special materials).

**Weight:** 1,45 kg.

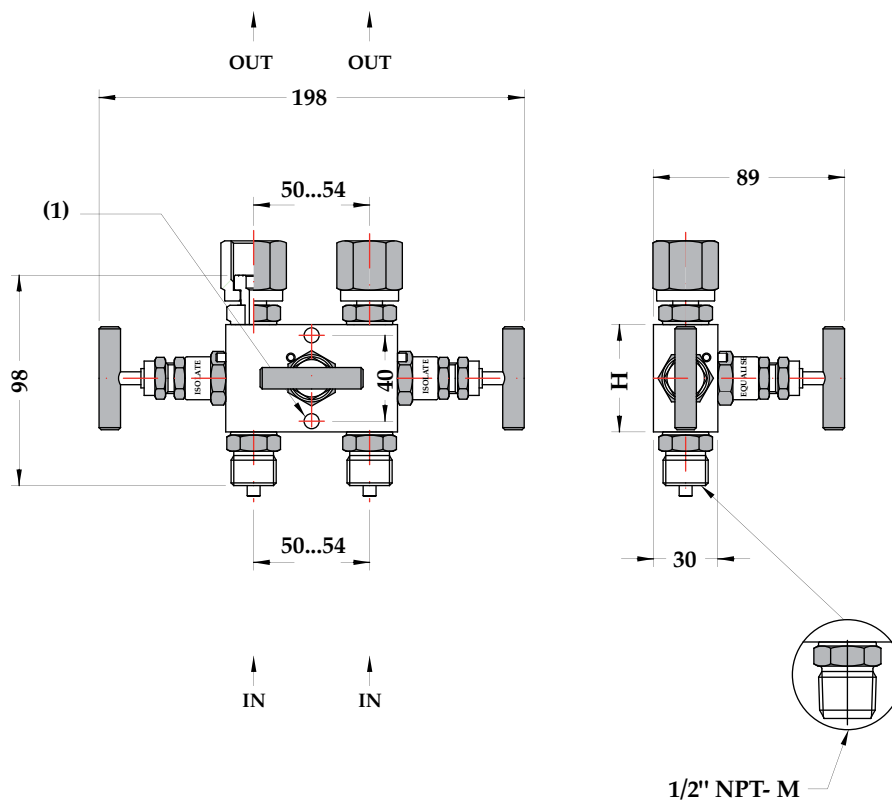


Fig. 1 - Sectioned bonnet





5.M3A - BSM/M3A - male process connection



Code	IN-OUT	H	L
41M x 41F	G 1/2" A x G 1/2"	50	20
43M x 41F	1/2" NPT x G 1/2"	50	20

(1) No. 2 fixing holes  $\varnothing$  7 mm

dimensions : mm

## OPTIONS

<b>10K</b> - Rating bonnet : 10000 psi	<b>LOK</b> - T-Bar handle locking
<b>ANT</b> - Anti-tamper	<b>P02</b> - Oxygen service
<b>E30</b> - NACE version as per MR 0103/0175-ISO15156	<b>S31</b> - 2" stake's mounting bracket
<b>GRA</b> - Graphoil packing	<b>SMI</b> - Tag

## "HOW TO ORDER" SEQUENCE

Section / Model / Material / Process connection / Instrument connection / Interaxis / Options  
 5 M3A 5 41M 41F 050 10K...SMI  
 43M 054

# bar stock five-valve manifold, block, bleed and equalizer, remote mounting

# BSM/M5F

- ✓ - Differential pressure gauges, switches and transmitters
- ✓ - Process, chemical and petrochemical industry
- ✓ - AISI 316L st.st or special materials wetted parts
- ✓ - Non-rotating needle
- ✓ - Operating temperature : -54...+550°C
- ✓ - Stem protected from system media
- ✓ - St.st. stop pin

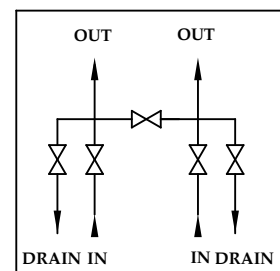
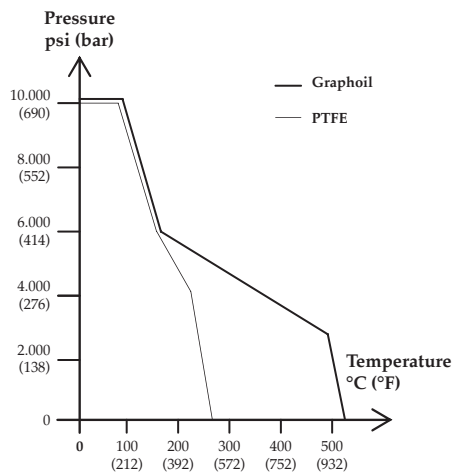


## Technical features

- Rating:** 6000 psig; or 10000 psig (code **10K**).
- Tee-bar:** AISI 303 st.st.
- Stem:** AISI 316 L st.st.
- Non-rotating needle:** AISI 316 L st.st (code **5**), (or special materials).
- Bonnet:** AISI 316 L st.st (code **5**), (or special materials).
- Packing:** PTFE or Graphoil (see chart below).
- Nuts:** carbon steel.
- Line dust cup:** Hytrel, blu..
- Drain dust cup:** Hytrel, red.
- Equalizer dust cup:** Hytrel, green.
- Bonnet seal:** AISI 316L st.st. seal.
- Manifold body and drain plug:** AISI 316 L st.st. (code **5**), (or special materials).
- Weight:** 2,7 kg.

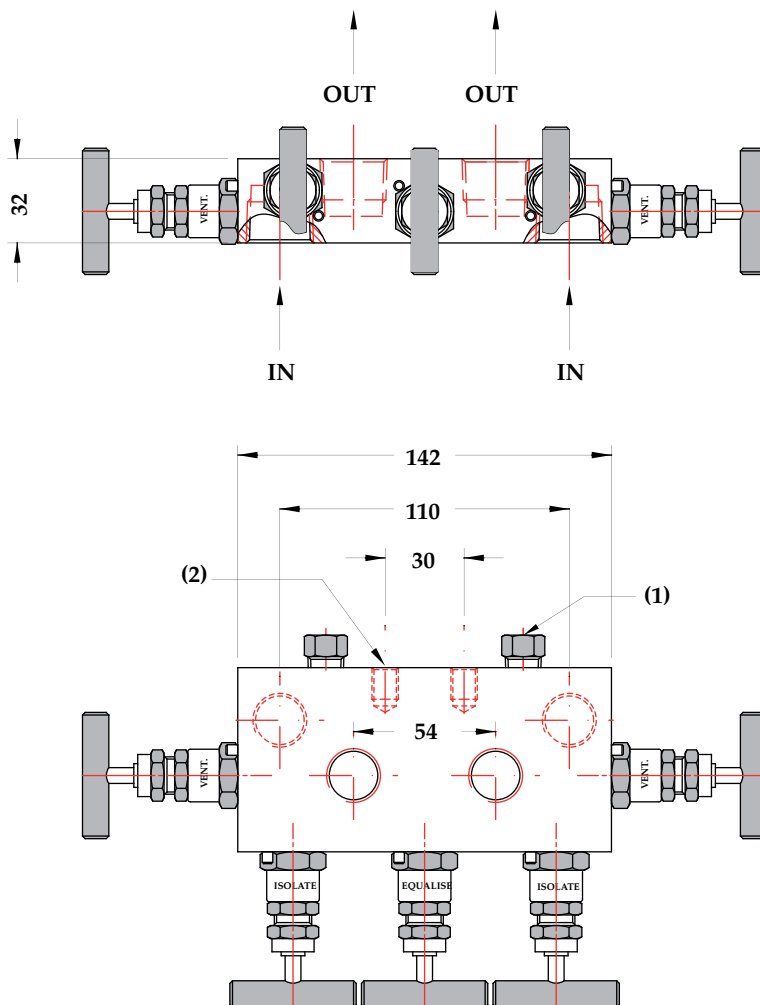


Fig. 1 - Sectioned bonnet



5.M5F - BSM/M5F - female process connection

BB0 - 05/10



Code	IN-OUT
<b>43F x 43F</b>	1/2" NPT F x 1/2" NPT F

(1) Drain 1/4" NPT F with plug      dimensions : mm  
(2) No. 2 fixing holes M10

## OPTIONS

<b>10K</b> - Rating bonnet : 10000 psi	<b>LOK</b> - T-Bar handle locking
<b>ANT</b> - Anti-tamper	<b>P02</b> - Oxygen service
<b>E30</b> - NACE version as per MR 0103/0175-ISO15156	<b>S31</b> - 2" stake's mounting bracket
<b>GRA</b> - Graphoil packing	<b>SMI</b> - Tag

## "HOW TO ORDER" SEQUENCE

Section / Model / Material / Process connection / Instrument connection / Interaxis / Options  
 5    M5F    5                    43F                    43F                    054    10K...SMI

# bar stock five-valve manifold, block, bleed and equalizer, direct mounting

# BSM/M5B

- ✓ - Differential pressure gauges
- ✓ - Process, chemical and petrochemical industry
- ✓ - AISI 316L st.st or special materials wetted parts
- ✓ - Non-rotating needle
- ✓ - Operating temperature : -54...+550°C
- ✓ - Stem protected from system media
- ✓ - St.st. stop pin



## Technical features

**Rating:** 6000 psig; or 10000 psig (code **10K**).

**Tee-bar:** AISI 303 st.st.

**Stem:** AISI 316 L st.st.

**Non-rotating needle:** AISI 316 L st.st (code **5**), (or special materials).

**Bonnet:** AISI 316 L st.st (code **5**), (or special materials).

**Packing:** PTFE or Graphoil (see chart below).

**Nuts:** carbon steel.

**Line dust cup:** Hytrel, blu..

**Drain dust cup:** Hytrel, red.

**Equalizer dust cup:** Hytrel, green.

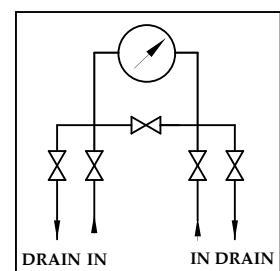
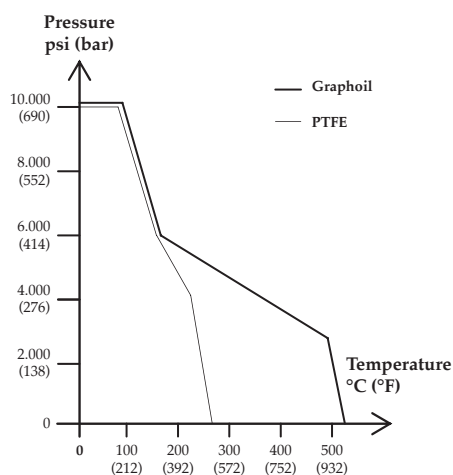
**Bonnet seal:** AISI 316L st.st. seal.

**Manifold body and drain plug:** AISI 316 L st.st. (code **5**), (or special materials).

**Weight:** 2,8 kg.



Fig. 1 - Sectioned bonnet



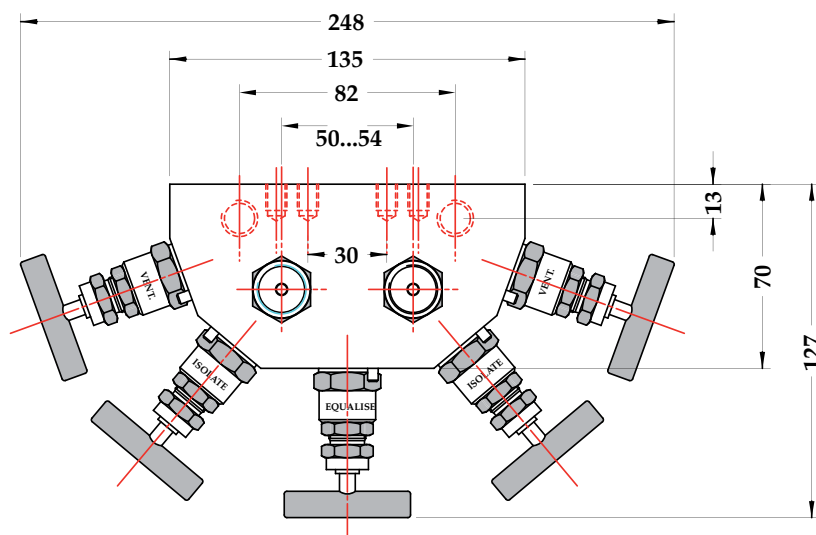
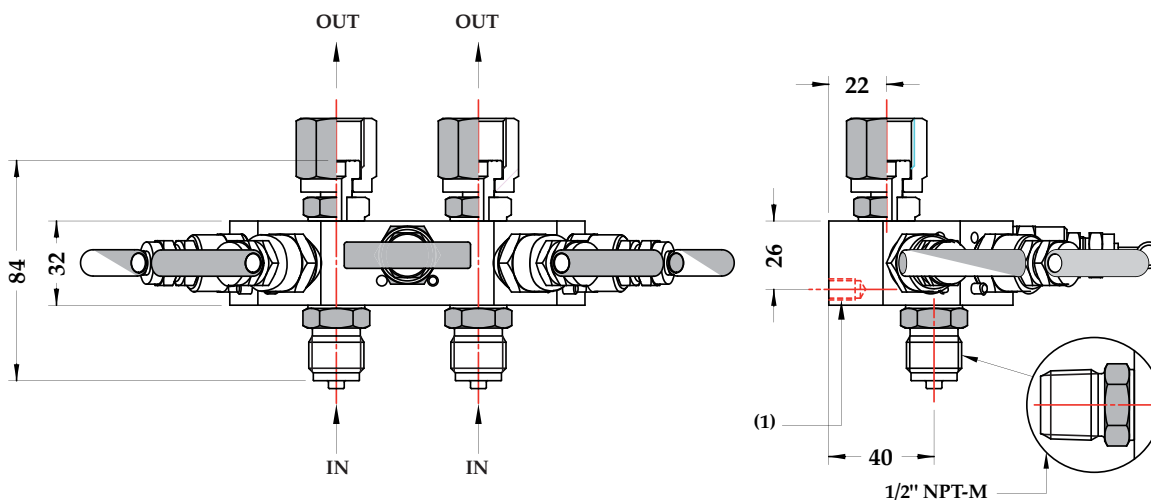
# bar stock five-valve manifold, block, bleed and equalizer, direct mounting

# BSM/M5B

## 5.M5B - BSM/M5B - male process connection

RB0 - 05/10

IN ORDER TO IMPROVE THEIR PRODUCTION, MESSRS. NUOVA FIMA RESERVE THE RIGHT TO THEMSELVES TO MAKE ALL THE MODIFICATIONS THAT THEY DEEM INDISPENSABLE AT ANY TIME. UPDATED DATA SHEETS ARE AVAILABLE ON SITE: [www.nuovafima.com](http://www.nuovafima.com)



Code	IN - OUT
41M x 41F	G 1/2 A x G 1/2 swivel
43M x 41F	1/2" NPT M x G 1/2 swivel

(1) No. 4 fixing holes M8

dimensions : mm

## OPTIONS

<b>10K</b> - Rating bonnet : 10000 psi	<b>LOK</b> - T-Bar handle locking
<b>ANT</b> - Anti-tamper	<b>P02</b> - Oxygen service
<b>E30</b> - NACE version as per MR 0103/0175-ISO15156	<b>S31</b> - 2" stake's mounting bracket
<b>GRA</b> - Graphoil packing	<b>SMI</b> - Tag

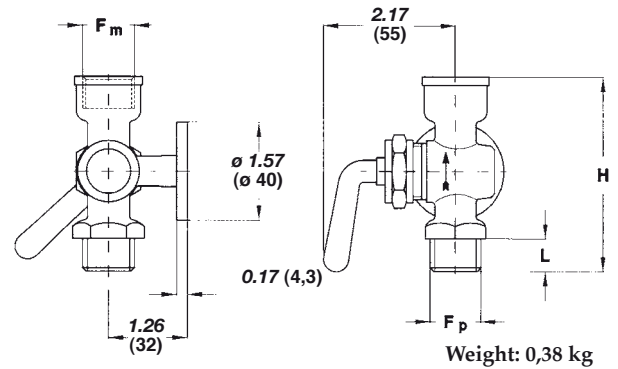
## "HOW TO ORDER" SEQUENCE

Section / Model / Material / Process connection / Instrument connection / Interaxis / Options  
 5 M5B 5 41M 41F 050 10K...SMI  
 43M 054



**5.02F - MP3/2F** - Three way cock, with a  $\phi 1.57''$  ( $\phi 40$ mm) flanged connection for test pressure gauge

**Body:** brass.  
**Cylindrical needle plug:** brass.  
**Wheel:** brass.  
**Seal:** mechanical.



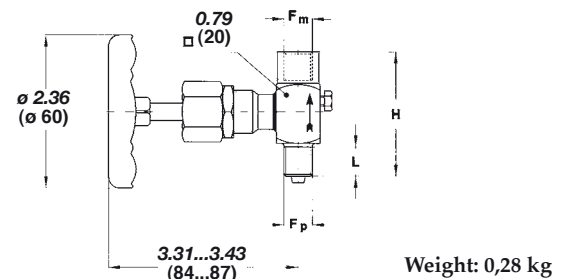
Body	Cod.	Class (PN)	°F (°C)
brass	<b>0</b>	232 psi (16 bar)	+50...+356 (+10...+180)

Cod.	Fp-Fm	L	H
<b>21M x 21F</b>	G 1/4 B M x G 1/4 B F	0.43 (11)	2.64 (67)
<b>31M x 31F</b>	G 3/8 B M x G 3/8 B F	0.51 (13)	2.91 (74)
<b>41M x 41F</b>	G 1/2 B M x G 1/2 B F	0.55 (14)	3.15 (80)

dimensions : inches (mm)

**5.330 - MP3/33** - Two way needle valve; DN 1/4"

**Body:** AISI 316 st.st.  
**Needle plug:** AISI 420 st. with carbon steel body;  
 AISI 316 st.st. stelite tipped with AISI 316 st.st. body.  
**Wheel:** painted steel plate.  
**Packing seal:** Grafoil.



Body	Cod.	Class (PN)	°F (°C)
AISI 316 st.st.	<b>4</b>	2000 psi (150 bar)	+14...+356 (-10...+180)

Cod.	Fp-Fm	L	H
<b>21F x 21F</b>	G 1/4 B F x G 1/4 B F	-	2.36 (60)
<b>21M x 21F</b>	G 1/4 B M x G 1/4 B F	0.59 (15)	2.24 (57)
<b>23F x 23F</b>	1/4" NPT F x 1/4" NPT F	-	2.36 (60)
<b>23M x 23F</b>	1/4" NPT M x 1/4" NPT F	0.59 (15)	2.36 (60)

dimensions : inches (mm)

**Constructive characteristics for 2, 3 ways valves**

**Body:** ASTM A/105 carbon steel, AISI 316 st.st., drop-forged.

**Needle plug:** AISI 420 st. with ASTM A/105 c. st. body;  
AISI 316 st.st. stelite tipped with AISI 316 st.st. body.

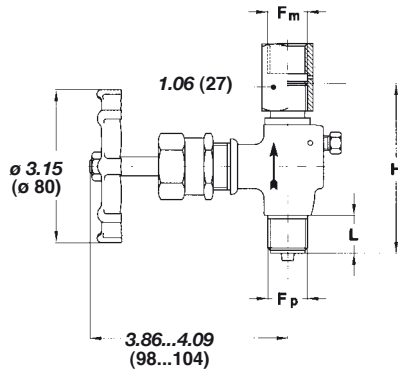
**Seat:** AISI 316 st.st.; deposited AISI 316 st.st. for ASTM A/105 c.st. body.

**Wheel:** ribbed galvanized steel plate.

**Gasket seal:** Grafoil.

Body	Cod.	Class (PN)	°F (°C)
ASTM A/105 c.st.	3	3600 psi (250 bar)	-4...+570 (-20...+300)
AISI 316 st.st.	4	5800 psi (400 bar)	-22...+570 (-30...+300)

**5.340 - MP3/34 - Two ways valve with a bleeding screw, type UNI 4669, UNAV 8828.1, DIN 16270**



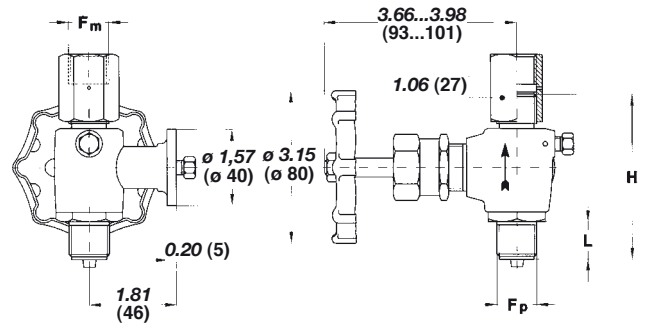
Weight: 0,73 kg

Cod.	Fp-Fm	L	H
21M x 41F	G 1/4 BM x G 1/2 BF (1)	0.67 (17)	3.50 (89)
41M x 41F	G 1/2 BM x G 1/2 BF	0.79 (20)	3.50 (89)

(1) c.st. only

dimensions : inches (mm)

**5.34F - Mp3/34F - Three ways valve, with a 1.57" (ø 40mm) flanged connection for test pressure gauge and bleeding screw**

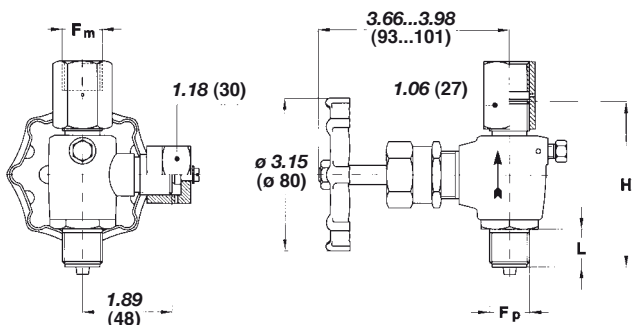


Weight: 1 kg

Cod.	Fp-Fm	L	H
21M x 41F	G 1/4 BM x G 1/2 BF (2)	0.67 (17)	3.46 (88)
41M x 41F	G 1/2 BM x G 1/2 BF	0.79 (20)	3.46 (88)

(2) AISI 316 st.st. only

**5.350 - MP3/35 - Three ways valve with threaded connection for test pressure gauges, type UNI 4670, UNAV 8830.1, DIN 16271**



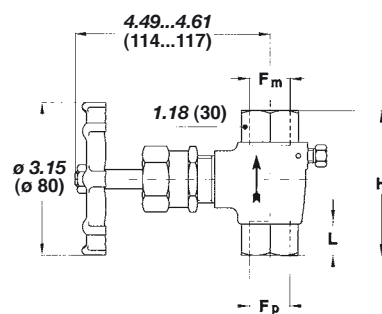
Weight: 1 kg

Cod.	Fp-Fm	L	H
21M x 41F	G 1/4 BM x G 1/2 BF (1)	0.67 (17)	3.46 (88)
41M x 41F	G 1/2 BM x G 1/2 BF	0.79 (20)	3.46 (88)

(1) c.st. only

dimensions : inches (mm)

**5.370 - MP3/37 - Two ways valve with bleeding screw**

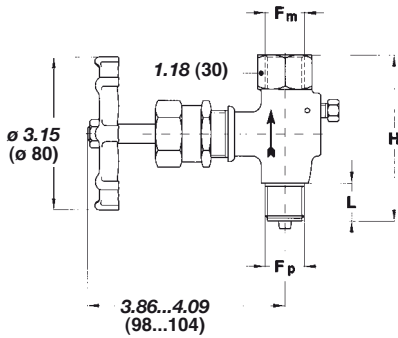


Weight: 0,74 kg

Cod.	Fp-Fm (welding)	L	H
2A0 x 2A0	1/4" x 1/4"	0.67 (17)	3.03 (77)
4A0 x 4A0	1/2" x 1/2"	0.71 (18)	3.03 (77)



5.360 - MP3/36 - Two ways valve with bleeding screw

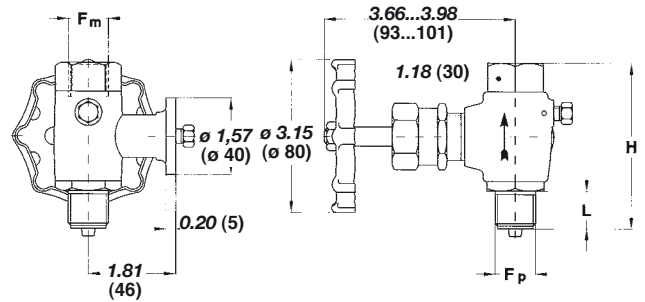


Weight: 0,65 kg

Cod.	Fp-Fm	L	H
21F x 41F	G 1/4 B F x G 1/2 B F	0.67 (17)	3.03 (77)
21M x 41F	G 1/4 B M x G 1/2 B F	0.67 (17)	3.46 (88)
41F x 41F	G 1/2 B F x G 1/2 B F	0.79 (20)	3.03 (77)
41M x 41F	G 1/2 B M x G 1/2 B F	0.79 (20)	3.46 (88)
23F x 43F	1/4" NPT F x 1/2" NPT F	-	3.03 (77)
23M x 43F	1/4" NPT M x 1/2" NPT F	0.67 (17)	3.46 (88)
43F x 43F	1/2" NPT F x 1/2" NPT F	-	3.03 (77)
43M x 43F	1/2" NPT M x 1/2" NPT F	0.79 (20)	3.46 (88)

dimensions : inches (mm)

5.36F - MP3/36F - Three ways valve, with a 1.57" (ø 40mm) flanged connection for test pressure gauge and bleeding screw



Weight: 0,92 kg

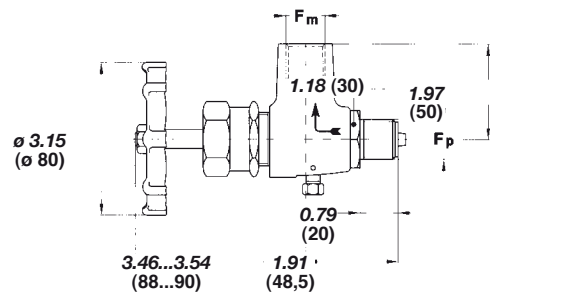
Cod.	Fp-Fm	L	H
21F x 41F	G 1/4 B F x G 1/2 B F	0.67 (17)	3.03 (77)
21M x 41F	G 1/4 B M x G 1/2 B F	0.67 (17)	3.46 (88)
41F x 41F	G 1/2 B F x G 1/2 B F	0.79 (20)	3.03 (77)
41M x 41F	G 1/2 B M x G 1/2 B F	0.79 (20)	3.46 (88)
23F x 43F	1/4" NPT F x 1/2" NPT F	-	3.03 (77)
23M x 43F	1/4" NPT M x 1/2" NPT F	0.67 (17)	3.46 (88)
43F x 43F	1/2" NPT F x 1/2" NPT F	-	3.03 (77)
43M x 43F	1/2" NPT M x 1/2" NPT F	0.79 (20)	3.46 (88)

dimensions : inches (mm)

5.380 - MP3/38 - Two ways angle (90°) valve with bleeding screw

Body	Cod.	Class (PN)	°F (°C)
AISI 316 st.st.	4	5800 psi (400 bar)	-22...+570 (-30...+300)

Cod.	Fp-Fm
41M x 41F	G 1/2 B M x G 1/2 B F
43M x 43F	1/2" NPT M x 1/2" NPT F



dimensions : inches (mm) Weight: 0,83 kg

5.060 - MP3/6 - Duplex valve

Body: ASTM A/105 carbon steel, AISI 316 st.st., drop-forged.

Needle plug: AISI 420 st. with ASTM A/105 c. st. body;

AISI 316 st.st. stellite tipped with AISI 316 st.st. body.

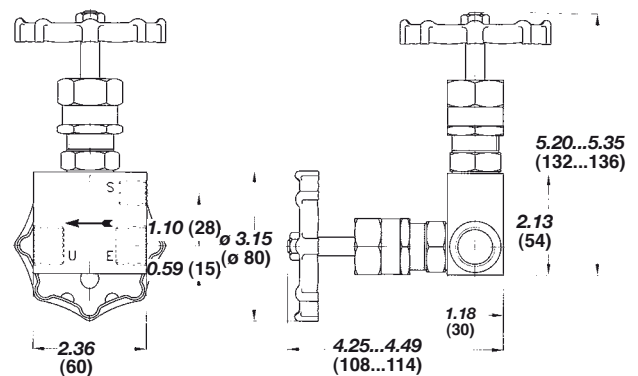
Seat: AISI 316 st.st.

Wheel: ribbed galvanized steel plate.

Gasket seal: Grafoil.

Process connection: 1/2" NPT F.

Drain connection: 1/4" NPT F.



dimensions : inches (mm) Weight: 1,22 kg

Body	Cod.	Class (PN)	°F (°C)
ASTM A/105 c.st.	3	2900 psi (200 bar)	-4...+570 (-20...+300)
AISI 316 st.st.	4	2900 psi (200 bar)	-22...+570 (-30...+300)



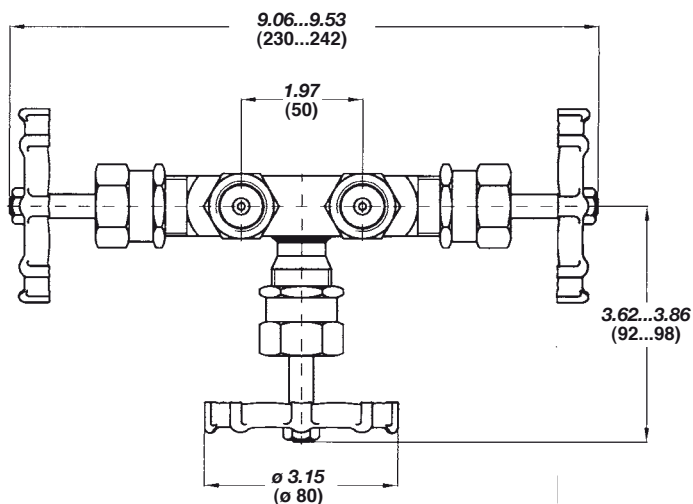
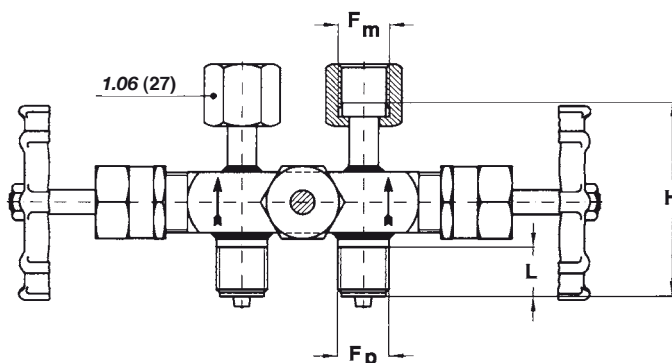
5.050 - MP3/5 - By-pass valve

Body: AISI 316 st.st., bar-stock.

Needle plug: AISI 316 st.st. stelite tipped.

Wheel: ribbed galvanized steel plate.

Gasket seal: Grafoil.



Weight: 1,50 kg

Body	Cod.	Class (PN)	°F (°C)
AISI 316 st.st.	4	2900 psi (200 bar)	+4...+570 (-20...300)

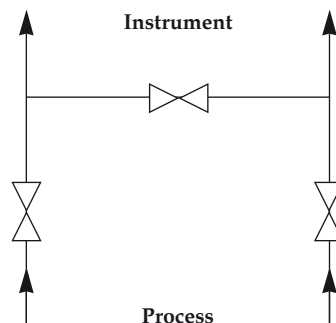
Cod.	Fp-Fm	L	H
21M x 21F	G 1/4 B M x G 1/4 B F	0.67 (17)	3.23 (82)
41M x 41F	G 1/2 B M x G 1/2 B F	0.79 (20)	3.15 (80)
23M x 23F	1/4" NPT M x 1/4" NPT F	0.67 (17)	3.23 (82)
43M x 43F	1/2" NPT M x 1/2" NPT F	0.79 (20)	3.15 (80)

dimensions : inches (mm)

OPTIONS

<b>P07</b> - Oxygene service, "all stainless steel" version (1)
<b>P04</b> - Tag punching
<b>BTP</b> - PTFE gasket seal for temperature ≤ 356°F - 180 °C)
<b>TAI</b> - "all stainless steel" version for AISI 316 st.st. valves (1)

(1) Not available for 5.02F and 5.330 models.



"HOW TO ORDER" SEQUENCE

Section / Model/	Material /	Process connection /	Instrument connection /	Options
5	02F	0	21M, 31M, 41M	21F, 31F, 41F
	340	3	23M, 43M	23F, 43F
	34F	4	21F, 41F	2A0, 4A0
	350		23F, 43F	
	370		2A0, 4A0	
	360			
	380			
	060			
	050			



These devices are used to protect pressure gauges and pressure switches from overpressure. If, due to occasional faults, the pressure exceeds the maximum allowed value, the device automatically by-passes the gauge until the pressure value is back to normal.

## 5.48A...B - MP4/8 - bellow overload protection device

### Setting range:

3...15 *psi* (0,2...1 bar) - **Cod. 48A;**

15...40 *psi* (1...3 bar) - **Cod. 48B.**

**Resetting value:** -30% of setting value.

**Working temperature:** -13...+212 °F (-25...+100° C).

**Maximum working pressure:** 7000 *psi* (500 bar).

**Operating principle:** bellow.

**Body and wetted parts:** AISI 316L st.st. (**Cod. 5**)

**Bellow:** AISI 316 Ti st.st.

**Gaskets:** VITON.

### Connections (process-instrument):

G 1/2 B M x G 1/2 B F;

1/2" NPT M x 1/2" NPT F;

G 1/4 B M x G 1/4 B F;

1/4" NPT M x 1/4" NPT F .

## 5.49A...D - MP4/9 - piston overload protection device

### Setting range:

40...230 *psi* (3...16 bar) - **Cod. 49A;**

230...500 *psi* (16...35 bar) - **Cod. 49B;**

500...2300 *psi* (35...160 bar) - **Cod. 49C;**

2300...5000 *psi* (160...350 bar) - **Cod. 49D.**

**Resetting value:** -30% of setting value.

**Working temperature:** -13...+212 °F (-25...+100° C).

**Maximum working pressure:** 7000 *psi* (500 bar).

**Operating principle:** bellow.

**Body, piston and wetted parts:** AISI 316L st.st. (**Cod. 5**)

**Gaskets:** VITON.

### Connections (process-instrument):

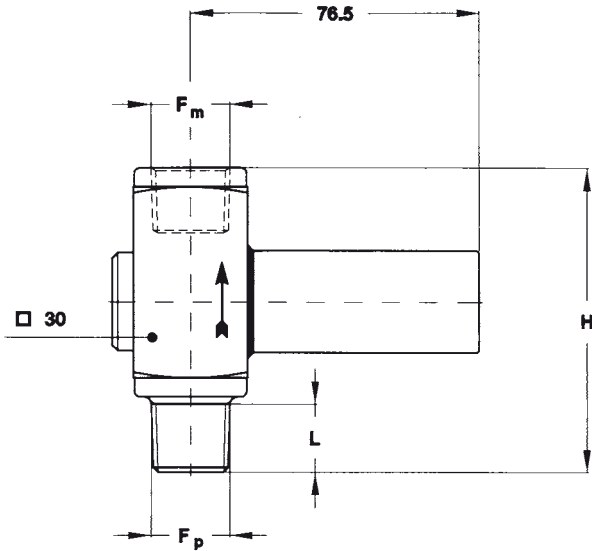
G 1/2 B M x G 1/2 B F;

1/2" NPT M x 1/2" NPT F;

G 1/4 B M x G 1/4 B F;

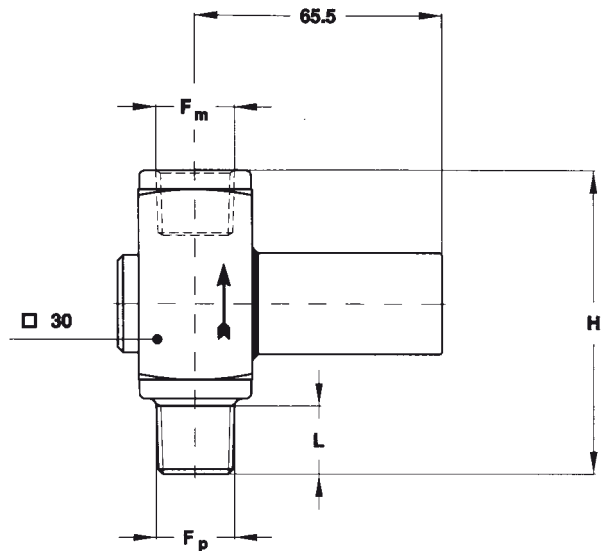
1/4" NPT M x 1/4" NPT F .

MP4/8



Weight : 1.23 lbs (0,56 kg)

MP4/9



Weight : 1.10 lbs (0,50 kg)

dimensions : inches (mm)

Cod.	Fp-Fm	L	H
41M x 41F	G 1/2 BM x G 1/2 BF	0.78 (20)	3.14 (80)
43M x 43F	1/2" NPT M x 1/2" NPT F	0.78 (20)	3.14 (80)
21M x 21F	G 1/4 BM x G 1/4 BF	0.59 (15)	2.95 (75)
23M x 23F	1/4" NPT M x 1/4" NPT F	0.59 (15)	2.95 (75)

Cod.	Fp-Fm	L	H
41M x 41F	G 1/2 BM x G 1/2 BF	0.78 (20)	3.14 (80)
43M x 43F	1/2" NPT M x 1/2" NPT F	0.78 (20)	3.14 (80)
21M x 21F	G 1/4 BM x G 1/4 BF	0.59 (15)	2.95 (75)
23M x 23F	1/4" NPT M x 1/4" NPT F	0.59 (15)	2.95 (75)

## "HOW TO ORDER" SEQUENCE

Section / Model/ Material / Process connection / Instrument connection / Options

5	48A	5	21M, 41M	21F, 41F
	48B		23M, 43M	23F, 43F
	49A			
	49B			
	49C			
	49D			



Designed to protect pressure measuring instruments from pulsating pressure applications. Sudden pressure changes are damped before they reach the sensing element, protecting it from high stress. This makes easier reading and helps to prolong the life of the instrument.

## 5.450 - MP4/5 - needle dampener

**Nominal pressure:** 6000 psi (400 bar).

**Working temperature:** -13...+392 °F  
(-25...+200°C).

**Operation principle:** variable section.

**Adjustment screw:** AISI 316 st.st.

**Body and wetted parts:** brass (Cod. 0) or  
AISI 316 st.st. (Cod. 4)

**Gaskets:** VITON.

**Connections (process-instrument):**

G 1/4 B M x G 1/4 B F;

1/4" NPT M x 1/4" NPT F;

G 1/2 B M x G 1/2 B F;

1/2" NPT M x 1/2" NPT F.

## 5.470 - MP4/7 - porous dampener

**Nominal pressure:** 15000 psi (1000 bar).

**Working temperature:** -58...+752 °F (-50...+400°C).

**Operation principle:** porous metal filter disc.

**Porous disc:** bronze (Cod. PB8) or AISI 316 st.st. (Cod. PAG)

**Body and wetted parts:** brass (Cod. 0) or  
AISI 316 st.st. (Cod. 4)

**Connections (process-instrument):**

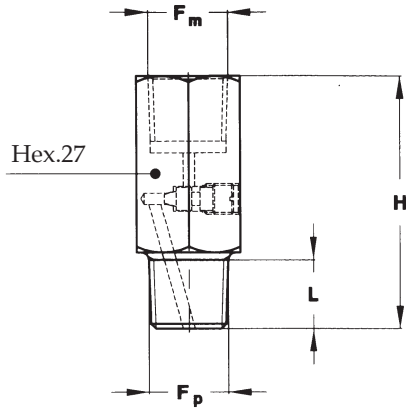
G 1/4 B M x G 1/4 B F;

1/4" NPT M x 1/4" NPT F;

G 1/2 B M x G 1/2 B F;

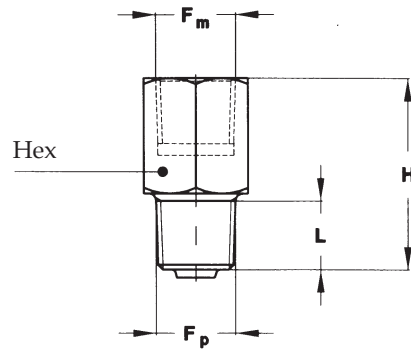
1/2" NPT M x 1/2" NPT F.

MP4/5



Weight : 0.5 lbs (0,23 kg)

MP4/7



Weight : 0.33 lbs (0,15 kg)

dimensions : inches (mm)

Fp-Fm	L	H
<b>21M x 21F</b> G 1/4 BM x G 1/4 BF	0.61 (15,5)	2.60 (66)
<b>23M x 23F</b> 1/4" NPT M x 1/4" NPT F	0.61 (15,5)	2.60 (66)
<b>41M x 41F</b> G 1/2 BM x G 1/2 BF	0.79 (20)	2.60 (66)
<b>43M x 43F</b> 1/2" NPT M x 1/2" NPT F	0.79 (20)	2.60 (66)

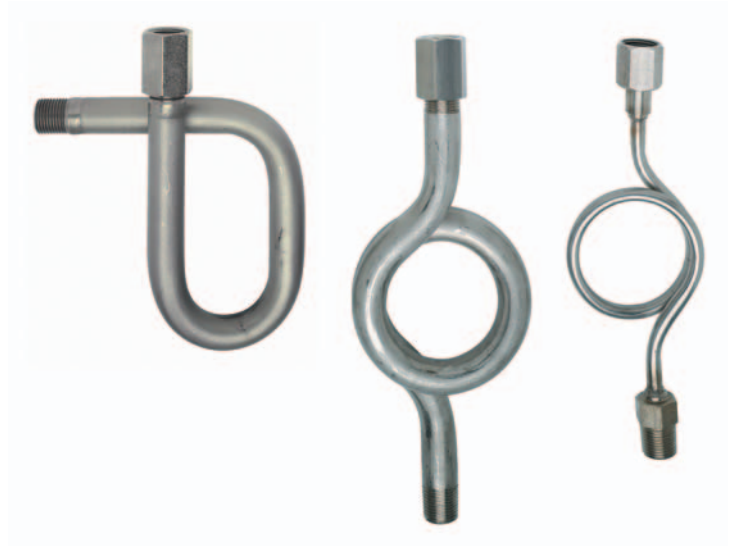
Fp-Fm	L	H	Hex
<b>21M x 21F</b> G 1/4 BM x G 1/4 BF	0.69 (17,5)	1.48 (37,5)	0.67 (17)
<b>23M x 23F</b> 1/4" NPT M x 1/4" NPT F	0.69 (17,5)	1.48 (37,5)	0.67 (17)
<b>41M x 41F</b> G 1/2 BM x G 1/2 BF	0.79 (20)	1.87 (47,5)	1.06 (27)
<b>43M x 43F</b> 1/2" NPT M x 1/2" NPT F	0.79 (20)	1.87 (47,5)	1.06 (27)

## POROUS DISC

Material	Use	MP4/7 - brass	MP4/7 - AISI316
Bronze	oil	◆	
Bronze	water	◆	
Bronze	air	◆	
AISI 316 st.st.	air		◆

## "HOW TO ORDER" SEQUENCE

Section	Model	Material	Process connection	Instrument connection	Porous disk
5	450	0	21M, 41M	21F, 41F	---
	470	4	23M, 43M	23F, 43F	PB8, PAG



The pig tails and coil siphons are used for measurement of pressure with vapour and are mounted between the instrument (pressure gauge, pressure switch, pressure transmitter) and the process. A part of the pipe remain always filled of condensation and this avoid the direct contact between the high temperature vapour and the instrument. Another use of these accessories is the heating dispersion, this avoid also to the instrument to work at dangerous temperature.

**Nominal pressure:**

**A106 gr. B carbon steel (Cod.E):** 3000 psi @ 68 °F ... 2000 psi @ 800 °F  
(200 bar @ 20 °C ... 150 bar @ 430 °C).

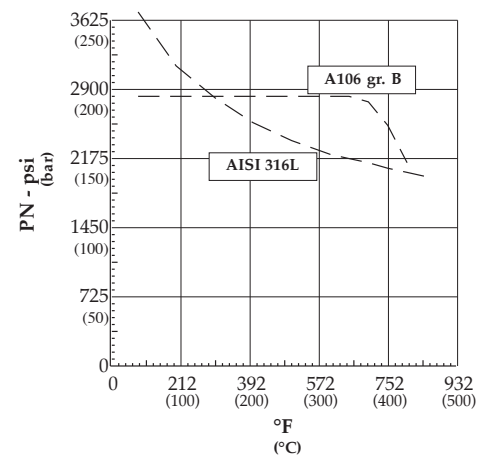
**AISI 316 L stainless steel (Cod. 5):** 4000 psi @ 68 °F ... 2000 psi @ 850 °F  
(260 bar @ 20 °C ... 135 bar @ 450 °C).

**Pipe dimensions:** 0.84 x 0.55", sch. 80 XS (21,34 x 13,88 mm).

**Process connection - Instrument connection:**

G 1/2 B M x G 1/2 B F (Cod. **41M** x **41F**);

1/2" NPT M x 1/2" NPT F (Cod. **43M** x **43F**).



**5.520 - MP 5/2 - A106 gr. B**

**5.530 - MP 5/3 - AISI 316L st. st.**

**5.522 - MP 5/22 - A106 gr. B**

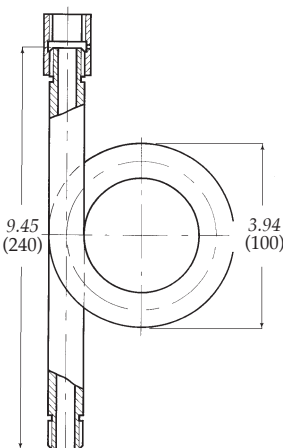
**5.533 - MP 5/33 - AISI 316L st. st.**

**5.550 - MP 5/5 - A106 gr. B**

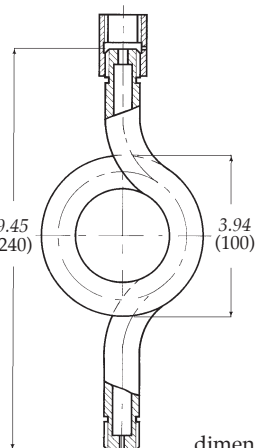
**5.560 - MP 5/6 - AISI 316L st. st.**

**5.555 - MP 5/55 - A106 gr. B**

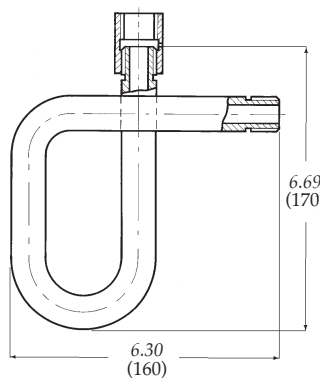
**5.566 - MP 5/66 - AISI 316L st. st.**



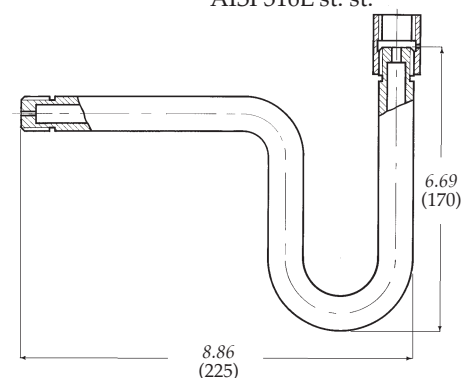
Weight 1.87 lbs  
(0,85 kg)



Weight 2.09 lbs  
(0,95 kg)



Weight 1.73 lbs  
(0,80 kg)



Weight 1.73 lbs  
(0,80 kg)

dimensions : inches (mm)

**Material:** AISI 316L stainless steel (Cod. 5).

**Nominal pressure:**

1800 psi @ 68 °F ... 1000 psi @ 850 °F  
(120 bar @ 20 °C ... 65 bar @ 450 °C)

for connections G 1/4 B M/F and 1/4" NPT M/F;

1300 psi @ 68 °F ... 700 psi @ 850 °F  
(90 bar @ 20 °C ... 50 bar @ 450 °C)

for connections G 1/2 B M/F and 1/2" NPT M/F

**Pipe dimensions:**

ø 0.28 x 0.20" (ø 7 x 5 mm)

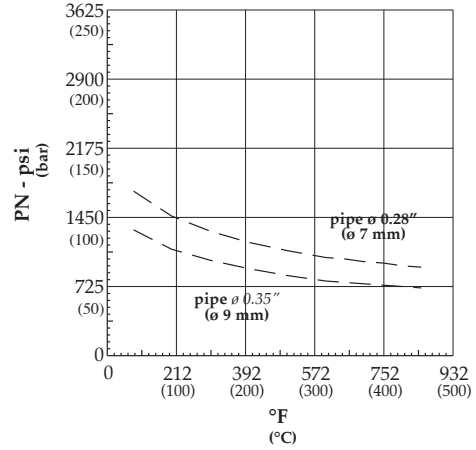
for connections G 1/4 B M/F e 1/4" NPT M/F

ø 0.35 x 0.28" (ø 9 x 7 mm)

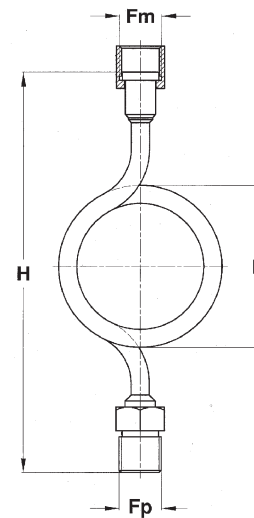
for connections G 1/2 B M/F e 1/2" NPT M/F

**Instrument connection - process connection:**

G 1/4 B M/F; 1/4" NPT M/F; G 1/2 B M/F; 1/2" NPT M/F.



5.510 - MP5/1



Cod.	Fp-Fm	H	h	Weight : lbs (kg)
21M x 21F	G 1/4 B M X G 1/4 B F	5.91 (150)	2.56 (65)	0.22 (0,100)
23M x 23F	1/4" NPT M X 1/4" NPT F	5.91 (150)	2.56 (65)	0.22 (0,100)
41M x 41F	G 1/2 B M X G 1/2 B F	7.87 (200)	3.15 (80)	0.5 (0,230)
43M x 43F	1/2" NPT M X 1/2" NPT F	7.87 (200)	3.15 (80)	0.5 (0,230)

dimensions : inches (mm)

**"HOW TO ORDER" SEQUENCE**

Section / Model/ Material / Process connection / Instrument connection / Options

- 5      510      E      21M, 41M      21F, 41F
- 520      5      23M, 43M      23F, 43F
- 522
- 530
- 533
- 550
- 555
- 560
- 566



NUOVA FIMA S.p.A.  
P.O. BOX 58 Via Cesare Battisti, 59  
28045 Inverio (NO) Italy  
Tel. +39 0322.253200  
Fax +39 0322.253232  
info@nuovafima.com

[www.nuovafima.com](http://www.nuovafima.com)