

**COMPLEMENTARY
PRODUCTS**

CATALOG



USA



PASSION TO PERFORM





A WORLDWIDE LEADER IN THE FIELD
OF HYDRAULIC FILTRATION EQUIPMENT.

Our company started life in 1964, when Bruno Pasotto decided to attempt to cater for the requests of a market still to be fully explored, with the study, design, development, production and marketing of a vast range of filters for hydraulic equipment, capable of satisfying the needs of manufacturers in all sectors. The quality of our products, our extreme competitiveness compared with major international producers and our constant activities of research, design and development has made us a worldwide leader in the field of hydraulic circuit filtering. Present for over 50 years in the market, we have played a truly decisive role in defining our sector, and by now we are a group capable of controlling our entire chain of production, monitoring all manufacturing processes to guarantee superior quality standards and to provide concrete solutions for the rapidly evolving needs of customers and the market.

COMPLEMENTARY PRODUCTS

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Our work is based on a skillful interaction between advanced technology and fine workmanship, **customizing products according to specific market requests**, focusing strongly on innovation and quality, and following every step in the manufacturing of both standard and special products, fully respecting customer expectations.

MARKET
LEADER



Our customer-oriented philosophy, which enables us to satisfy all customer requests **rapidly** and **with personalized products**, makes us a **dynamic and flexible enterprise**.

The possibility of constantly controlling and monitoring the entire production process is essential to allow us to guarantee the quality of our products.

WORLDWIDE PRESENCE



Scan or click me!

Our foreign Branches enable us to offer a diversified range of products that allow us to successfully face the aggressive challenge of international competition, and also to maintain a stable presence at a local level.

The Group boasts **9** business branches



TECHNOLOGY

Our constant **quest for excellence in quality and technological innovation** allows us to offer only the best solutions and services for applications in many fields, including general industry, test rigs, lubrication, heavy engineering, renewable energies, naval engineering, offshore engineering, aviation systems, emerging technologies and mobile plant (i.e. tractors, excavators, concrete pumps, platforms).





AND PRODUCTION

Our high level of technological expertise means **we can rely entirely on our own resources, without resorting to external providers.** This in turn enables us to satisfy a growing number of customer requests, also exploiting our constantly updated range of machines and equipment, featuring **fully-automated workstations** capable of **24-hour production.**





SUCTION FILTERS

- Mounting:
- Tank immersed
 - In-Line
 - In tank with shut off valve
 - In tank with flooded suction



RETURN FILTERS

- Mounting:
- In-Line
 - Tank top
 - In single and duplex designs



RETURN / SUCTION FILTERS

- Mounting:
- In-Line
 - Tank top



SPIN-ON FILTERS

- Mounting:
- In-Line
 - Tank top



LOW & MEDIUM PRESSURE FILTERS

- Mounting:
- In-Line
 - Parallel manifold version
 - In single and duplex designs



HIGH PRESSURE FILTERS

- Mounting:
- In-Line
 - Manifold
 - In single and duplex designs

PRODUCT RANGE

MP Filtri can offer a vast and articulated range of products for the global market, suitable for all industrial sectors using hydraulic equipment.

This includes filters (suction, return, return/suction, spin-on, pressure, stainless steel pressure, ATEX filters) and structural components (motor/pump bell-housings, transmission couplings, damping rings, foot brackets, aluminium tanks, cleaning covers).

We can provide all the skills and solutions required by the modern hydraulics industry to monitor contamination levels and other fluid conditions.

Mobile filtration units and a full range of accessories allow us to supply everything necessary for a complete service in the hydraulic circuits.



STAINLESS STEEL HIGH PRESSURE FILTERS

Pressure from 320 bar up to 1000 bar

Mounting:

- In-Line
- Manifold
- In single and duplex designs

FILTERS FOR POTENTIALLY EXPLOSIVE ATMOSPHERE

Mounting:

- In-Line

CONTAMINATION CONTROL SOLUTIONS

- Off-line, in-line particle counters
- Off-line bottle sampling products
- Fully calibrated using relevant ISO standards
- A wide range of variants to support fluid types and communication protocols
- Mobile Filtration Units with flow rates from 15 l/min up to 200 l/min

POWER TRANSMISSION PRODUCTS

- Aluminium bell-housings for motors from 0.12 kW to 400 kW
- Couplings in Aluminium Cast Iron - Steel
- Damping rings
- Foot bracket
- Aluminium tanks
- Cleaning covers

TANK ACCESSORIES

- Oil filler and air breather plugs
- Optical and electrical level gauges
- Pressure gauge valve selectors
- Pipe fixing brackets
- Pressure gauges

COMPLEMENTARY PRODUCTS

- Electro-magnetic fluid level indicators
- Visual level indicators
- High pressure ball valves
- Pressure gauges
- Pressure switch
- Pressure Transducer
- Temperature switch
- Weld Flange

MP Filtri offers a comprehensive range of instrumentation products as well as high pressure ball valves, float level switches, level indicators, visual flowmeters, flow switches, pressure switches, thermostatic plugs, temperature transmitters, and pressure gauges.

Complementary Products

Oil Level Indicators



RL



LV

Pressure Gauges



MPG

Temperature Switch



MPF5TAF/MPF7TAF

Weld Flanges



Weld Flange

Pressure Switches & Transducers



MPDF



MPBA & MPBF



MPT200/201

High pressure ball valves



MPAP2V

MPAP3V

Test Equipment



HSP690



HSP1040



HSP2000



HSP3000



HSP6000



HSP7000

RL Series - Electro-magnetic fluid level indicators	page 13
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RL Series

Electro-magnetic fluid level indicators



Technical data

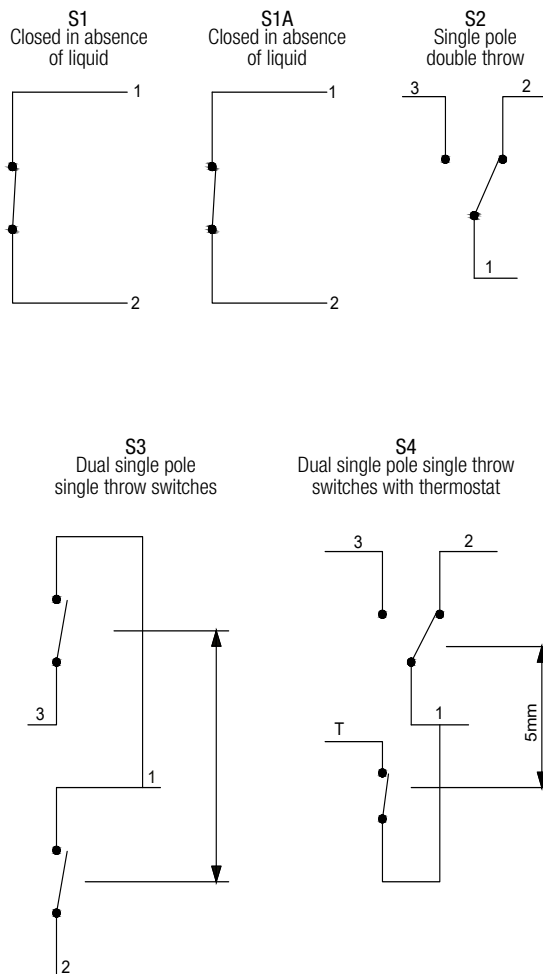
Electrical Oil Level Indicators

Electro Magnetic Float Level Switches

Rapid level 'RL' Series can be single float, double float or side mounted single float types. It is specially designed to be rugged, compact and lightweight. Offering flanged and threaded mounting options. Complete range of single, double and multiple switching systems. Trouble free reed switches housed in a totally sealed unit mounted securely to the reservoir. DIN 43650 Connector as standard and IP635 rated.

Available features:

- Ease of Use: The control rod is cut to length "on site" with no special tools required
- Variety of Applications: The float carries no magnets and therefore can be used with a wide range of fluids
- Electrically Safe: No electrical contact with fluid. - Electrically Safe: No electrical contact with fluid.



RL/G1 SERIES

- Single float type
- NPT or Flange Mount

RL/L SERIES

- Side mounted type
- For wiring and switching circuits refer to RL/G1 series
- Distance between 1st & 2nd signal is not fixed, as the length of the control rod increases, distance between the two signals increases

RL/G2 SERIES

- Double float type
- Each rod activates a separate switch
- Each switch can be wired with S1, S2 configuration allowing a wide variety of signal options. Reinforced control rods available for applications with turbulence
- Wiring circuits and switching option below
- RL/G2-F3-S2-S2 incorporates sealed box connector (no DIN 43650 connector)

Specification

- Glass reinforced nylon housing
- DIN 43650 connector
- Stainless steel rod
- Delrin Float with silicone security joint
- 1" NPT Thread for single float type
- 1-1/4" NPT Thread for dual float type
- Flange (complete with gasket & screws) available for all types
- IP 65 rated
- RL/G2-F3-S2-S2 incorporates sealed box connector (no DIN 43650 connector)

Temperature

From -20 °F to + 210 °F

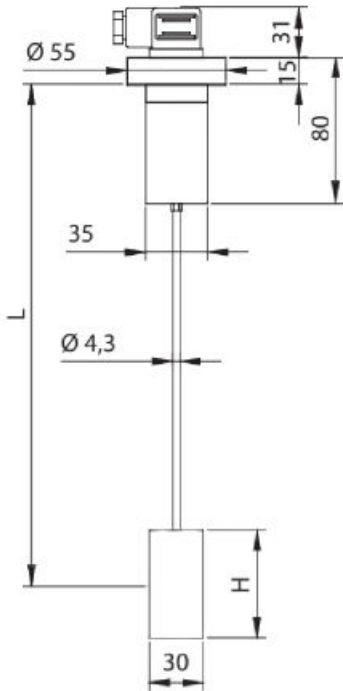
Reed switch detail (resistive load)

S1 & S2 Type
 Max. Current 3A
 DC Power 60W
 AC Power 60VA
 Voltage 250V

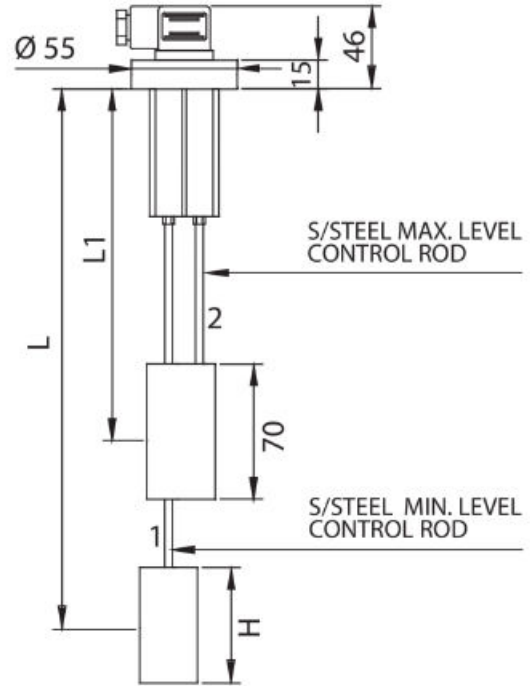
RL/G1 & RL/L		
Series		Configuration example 1: RL/G1 R F3 S2
RL/G1 One float		Configuration example 2: RL/L T3 S1
RL/L Horizontal mount		
Optional		
R Reinforced Rod		
None		
Type of Mounting		
F3 Flange		
1 1" NPT		
T3 1 1/4" NPT		
Wiring Scheme		
	RL/G1	RL/L
S1 Closed contact in the absence of liquid	•	•
S2 Exchange	•	•
S1A Open in the absence of liquid	•	-
Note: Upper float RL-G2 only		

RL/G2		
Series		Configuration example : RL/G2 R F3 S2 S2
RL/G2 Two floats		
Optional		
R Reinforced Rod		
None		
Type of Mounting		
F3 Flange		
1 1" NPT		
T3 1 1/4" NPT		
Wiring Scheme (Lower Float)		
S1 Closed contact in the absence of liquid		
S2 Exchange		
S1A Closed in the absence of liquid		
Wiring Scheme (Upper Float)		
S1 Closed contact in the absence of liquid		
S2 Exchange		
S1A Closed in the absence of liquid		

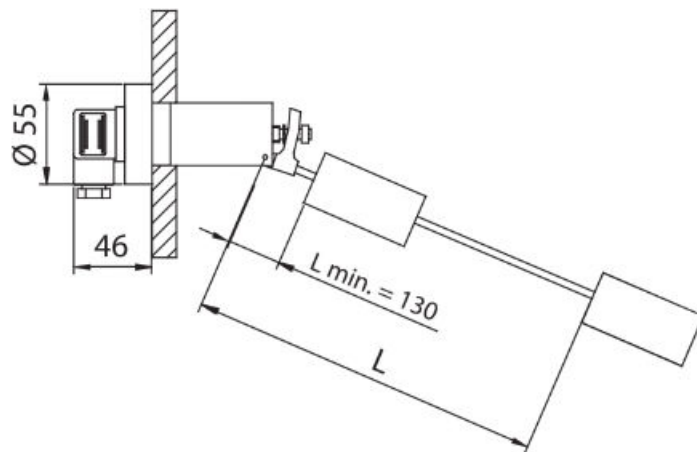
RL / G-1



RL / G-2

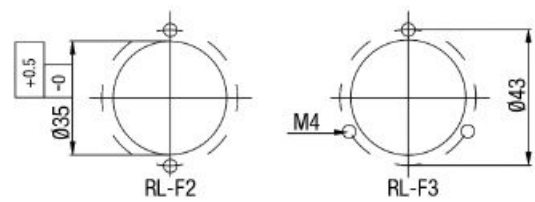


RL / L



Holes on the tank

k

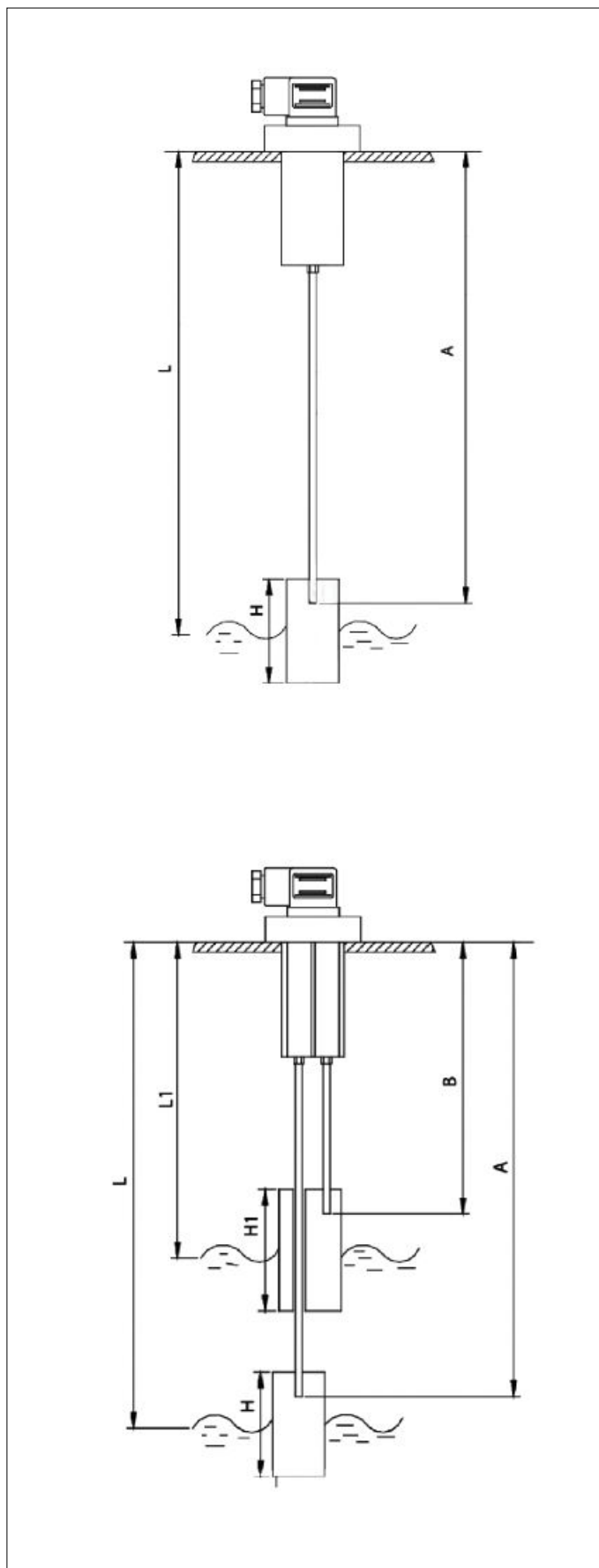


Connection rod cutting table

Control value L= (mm)	Rod cutting for min. level A= (mm)	Control value L= (mm)	Rod cutting for max level B= (mm)
90	116 H = 35		
100	116 H = 45		
110	116 H = 55		
120	116		
140	137		
160	158		
180	179	90	62 H1 = 35
200	200	100	62 H1 = 45
220	221	120	131
240	242	140	152
260	263	160	173
280	284	180	194
300	305	200	215
320	326	220	236
340	347	240	257
360	368	260	278
380	389	280	299
400	410	300	320
420	431	320	341
440	452	340	362
460	473	360	383
480	494	380	404
500	515	400	425
520	511	420	421
540	532	440	442
560	553	460	463
580	574	480	484
600	595	500	505
620	616	520	526
640	637	540	547
660	658	560	568
680	679	580	589
700	700	600	610
720	721	620	631
740	742	640	652
760	763	660	673
780	784	680	694
800	805	700	715
820	826	720	736
840	847	740	757
860	868	760	778
880	889	780	799
900	910	800	820
920	931	820	841
940	952	840	862
960	973	860	883
980	994	880	904
1000	1015	900	925

L - L1 = 100 mm
A - B = 90 mm

- H = 35 (L = 90 mm)
- H = 45 (L = 100 mm)
- H = 55 (L = 110 mm)
- H = 60 (L = 120 - 500 mm)
- H = 90 (L = 501 - 1000 mm)
- H1 = 35 (L1 = 90 mm)
- H1 = 45 (L1 = 100 mm)
- H1 = 70 (L1 = 120 - 1000 mm)



LV Series

Visual level indicators



Technical data

Electrical Oil Level Indicators

Visual level indicators

Multi-control range visual level gauges. The visual level gauges allow the liquid level to be checked in a clear and precise way at any time. The principle used is that of communicating vessels: the liquid goes through the level gauge by means of hollow screws, showing the user the each point inside the tank.

The level gauges can be equipped with a tap that stops the flow from the tank to the gauge.

C/C distances of 5-19.7 inch are fully interchangeable with all major level gauges. 'U' protection screen is normally fitted in order to ensure visibility on the front part of the level gauge, but if necessary, it can be turned 90° to deliver visibility on the right or left.

Minimum level signal which can be 'Normally Open, Normally Closed, or Exchange' contacts upon request

Available features:

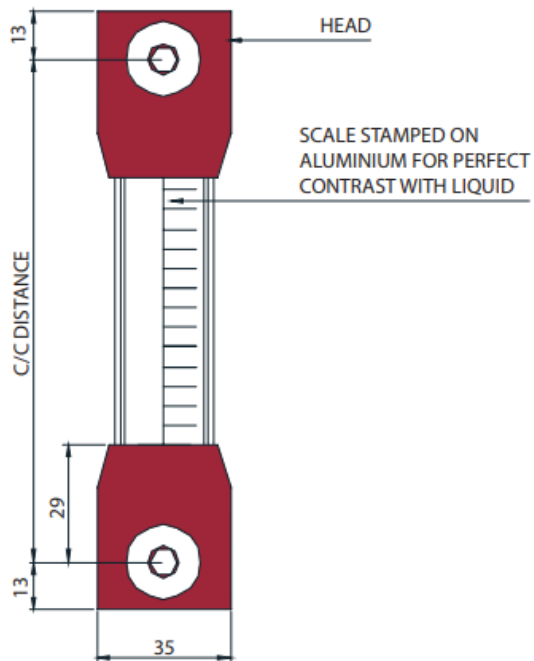
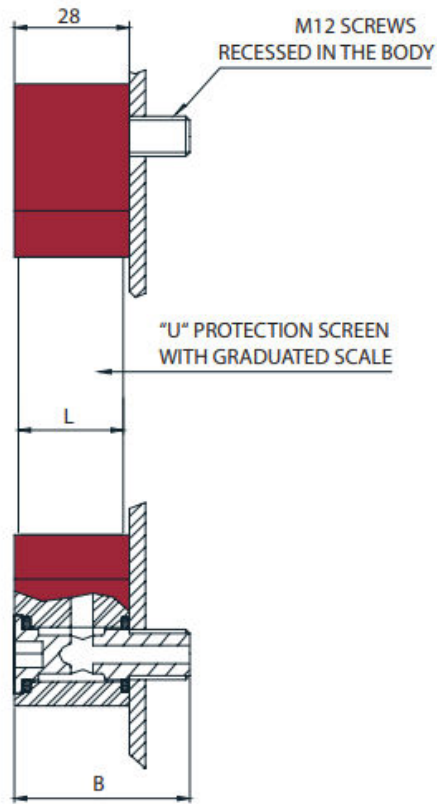
- Ease of Use: The visual gauges allow the liquid level to be checked clearly at any time
- Electrically Safe: No electrical contact with fluid.
- Variability in Size: Multiple sizes and distances meet the needs for all customers and applicaitons.

LV SERIES

- Side mounted that can be turned to 90° to obtain visibility if needed
- 'U' protection screen with graduated scale fitted for visibility from all angles
- Maximum Tightening Torque: 10Nm
- Maximum pressure: 35 Bar
- M10 or M12 Screws recessed in the body

Designation & Ordering code

COMPLETE VISUAL OIL LEVEL INDICATORS	
Series	Configuration example : LV 20 T A P M10 S01
LV	
Size	
10 20 30	
Thermometer	
S Without thermometer	
T With thermometer	
Seals	
A NBR	
V FPM	
Cover material	
P Polyamide	
Connections	
M10 M10	
M12 M12	
U38 3/8" UNC	
U12 1/2" UNC	
Execution	
S01 Tag MP Filtri, with nuts	
S02 Tag MP Filtri, without nuts	



MPAP2V & MPAP3V Series

High Pressure Ball Valves



Technical data

Ball valves

High Pressure Ball Valves

MP Filtri USA offers 2-way and 3-way steel high pressure ball valves

MPAP2V

- Steel body
- Zinc plated
- No Leakage
- Valve can turn under maximum pressure

MPAP3V

- Steel body
- Zinc plated
- Valve can turn under pressure
- Counter pressure to closed port cannot be applied

Standard Features

- Steel body
- Zinc plated
- No leakage
- Valve can turn under maximum pressure

Optional Features

- Chromium plated
- Green zinc plated
- Special hand lever
- Metric thread
- Male thread
- DIN 2353 fitting port thread

Applications

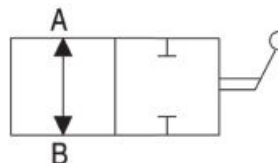
- Ball valves are used to open or close flow
- Can be opened or closed even under maximum pressure without allowing leakage

Installation

- Pressure flow and actuator are connected with valve ports

Operation

- Oil flows through valve when hand lever is in Pos. 1
- Flow stops when hand lever is in Pos. 2



Designation & Ordering code

COMPLETE BALL VALVE

Series

MPAP2V 2 way ball valve

Configuration example 1 : MPAP2V 03 N P01

Configuration example 2 : MPAP2V 015 S P01

Valve size

	NPT	SAE
005	-	7/16" - 20 (SAE - 4)
01	1/4"	-
015	-	9/16" - 18 (SAE - 6)
02	3/8"	3/4" - 16 (SAE - 8)
03	1/2"	7/8" - 14 (SAE - 10)
04	3/4"	1 1/16" - 12 (SAE - 12)
05	1"	1 5/6" - 12 (SAE - 16)
06	1 1/4"	1 5/8" - 12 (SAE - 20)
07	1 1/2"	1 7/8" - 12 (SAE - 24)

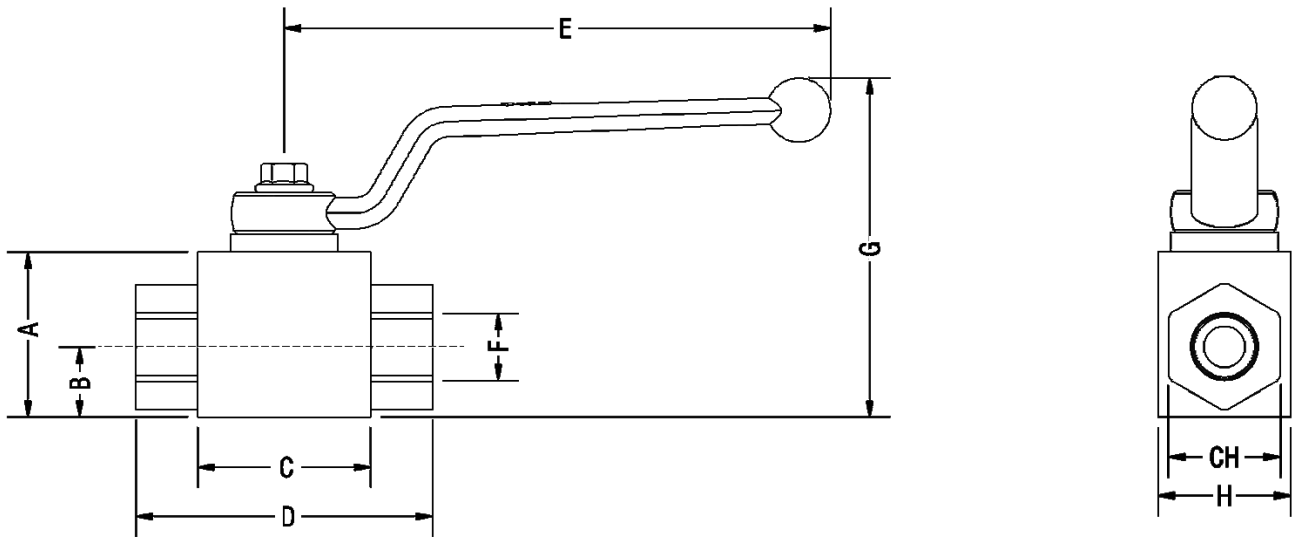
Connection type

N Thread NPT
S Thread SAE

Execution

P01 MP Filtri Standard

Pxx Custom



Valve size	A	B	C	D	E	F (NPT)	F (SAE)	G	H	Ch
005	32	13	37	69	120	-	SAE 4	72.5	28	22
01	32	13	37	69	120	1/4"	-	72.5	28	22
015	40	17	42	72	120	-	SAE 6	80.5	32	27
02	40	17	48	83	120	3/8"	SAE 8	80.5	35	30
03	46	19	47	83	155	1/2"	SAE 10	102	38	32
04	57	24	60	95	170	3/4"	SAE 12	118	48	41
05	64	28.5	65	113	170	1"	SAE 16	125	57	50
06	64	28.5	65	120	170	1 - 1/4" / 1-1/2"	SAE 20	125	60	55
07	64	28.5	65	130	170	1 - 1/2"	SAE 24	125	60	60

Dimension	005	01	015	02	03	04	05	06	07
Max Pressure (PSI)	7252	7252	7252	7252	7252	5076	42.27	4061	4061
Max Flow (gpm)	7.93	7.63	7.93	13.21	21.13	31.70	5076	42.27	42.27
Nominal Diameter (mm)	6	6	6	10	13	20	25	25	25

Technical data

Ball valves

High Pressure Ball Valves

High performance ball valve that ensures efficient fluid flow, safeguarding critical components and prolonging equipment lifespan while being protected from all materials due to its stainless steel body

Standard Features

- Steel body
- Zinc plated
- Valve can turn under maximum pressure
- Counter pressure to closed port cannot be applied

Optional Features

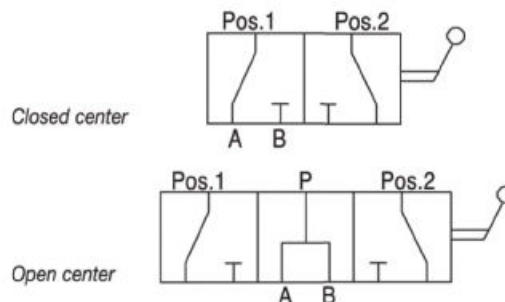
- Chromium plated
- Green zinc plated
- Special hand lever
- Metric thread
- Male thread
- DIN 2353 fitting port thread

Applications

- Connect single inlet flow into two outlet flows or combine two inlet flows into single outlet flow
- Control a single acting actuator

Operation

- Hand lever is Pos. 1 allows flow to port A
- Hand lever is Pos. 2 allows flow to port B
- L type (closed center) - when hand lever is in mid position all ports are partially closed (hand lever only turns 90°)
- T type (open center) - when hand lever is in mid position all ports are completely open (hand lever turns 180°)



Designation & Ordering code

COMPLETE BALL VALVE

Series

MPAP3V 3 way ball valve

Configuration example 1 : MPAP3V 03 N T P01

Configuration example 2 : MPAP3V 015 S L P01

Valve size

	NPT	SAE
005	-	7/16" - 20 (SAE - 4)
01	1/4"	-
015	-	9/16" - 18 (SAE - 6)
02	3/8"	3/4" - 16 (SAE - 8)
03	1/2"	7/8" - 14 (SAE - 10)
04	3/4"	1 1/16" - 12 (SAE - 12)
05	1"	1 5/8" - 12 (SAE - 16)
06	1 1/4"	1 5/8" - 12 (SAE - 20)

Connection type

N Thread NPT

S Thread SAE

Hydraulic scheme

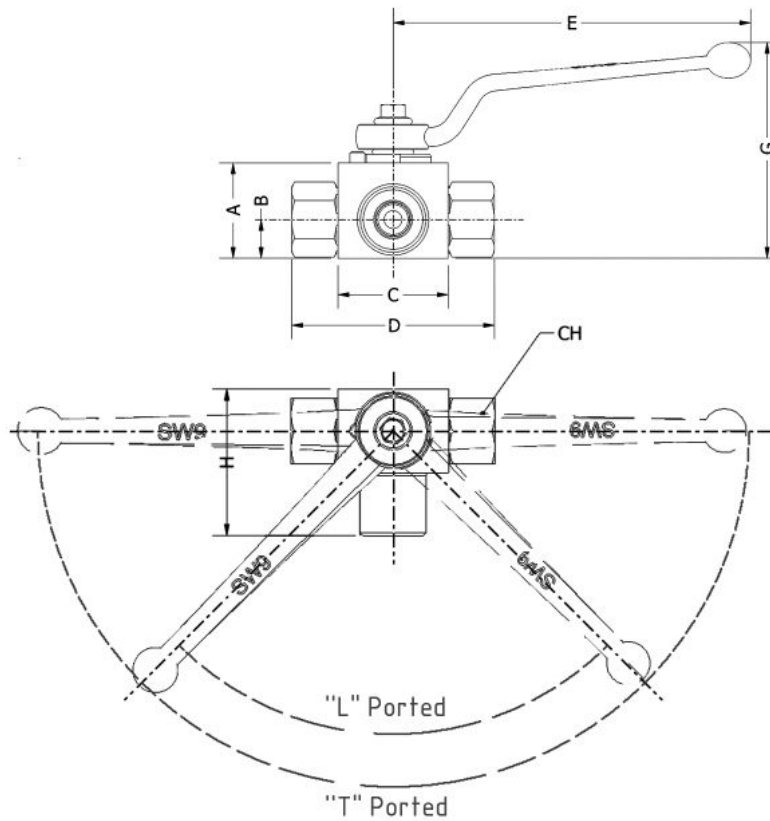
T Open center

L Close center

Execution

P01 MP Filtri Standard

Pxx Custom



Valve size	A	B	C	D	E	F (NPT)	F (SAE)	G	H	Ch
005	32	13	37	69	120	-	SAE 4	72.5	49	22
01	32	13	37	69	120	1/4"	-	72.5	49	22
015	40	17	42	72	120	-	SAE 6	80.5	52	27
02	40	17	48	83	120	3/8"	SAE 8	80.5	57.5	30
03	40	17	48	83	120	1/2"	SAE 10	80.5	57.5	30
04	57	24	60	95	170	3/4"	SAE 12	118	73	41
05	64	28.5	65	113	170	1"	SAE 16	125	85	50
06	64	28.5	65	120	170	1" - 1/4"	SAE 20	125	90	55

Dimension	005	01	015	02	03	04	05	06
Max Pressure (PSI)	7252	7252	7252	7252	7252	5076	42.27	4061
Max Flow (gpm)	7.93	7.63	7.93	13.21	21.13	31.70	5076	42.27
Nominal Diameter (mm)	6	6	10	13	13	20	25	25

MPG Series

Pressure Gauges



Technical data

Clogging indicators

Pressure gauges

MP Filtri USA offers a choice of accurate, high-visibility pressure gauges.

Liquid (Glycerine) Filled Gauge
Stem and Back Mount
Scale: Concentric 270° - PSI/BAR

Specification

- Connection: Bottom (Model A); Center back (Model D)
- Standard Threads: 1/4" NPT and SAE -4
- Accuracy: 1.5% of span
- Temperature Range: Between -20° to +80°C
- Working Range: Steady: 3/4 scale valve
Fluctuating: 2/3 scale valve
Short Time: full scale
- Protection Degree: IP 65
- Scale: Concentric 270° PSI/Bar

Materials

- Socket: Copper Alloy
- Case: Stainless Steel
- Flange and Ring Stainless Steel (Model E)
- Ring: Stainless Steel (Model B)
- Bourdon Tube: Circular in copper alloy up to 600 PSI, Helical in copper alloy above 900 PSI
- Movement: Copper Alloy
- Window: Polycarbonate, Acrylic 4"
- Dial: White ABS, black scale
- Mounting: Model E: Front flange with 3 mounting holes
Model B: With special ring and back clamp

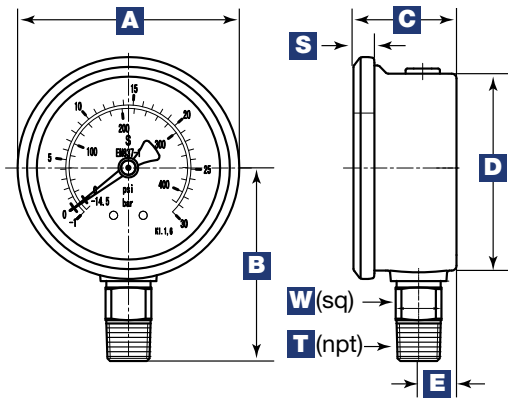
Designation & Ordering code

PRESSURE GAUGE

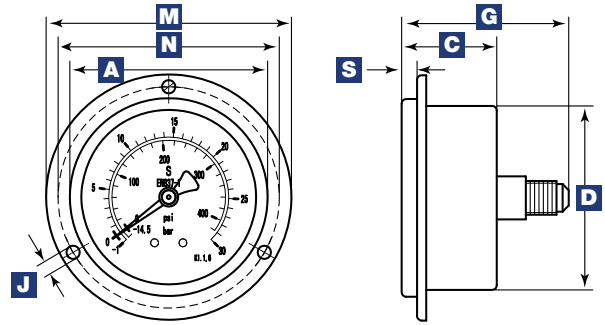
Series		Configuration example : MPG 1 V 300 A N					
MPG Pressure gauge							
Diameter							
1	2- 1/2"						
2	4"						
Gauge type							
V	Vacuum						
P	Pressure						
Pressure range							
30/0	30 in. Hg/0 psi	600	600 psi				
30/30	30 in. Hg/300 psi	1000	1000 psi				
30	30 psi	1500	1500 psi				
60	60 psi	2000	2000 psi				
100	100 psi	3000	3000 psi				
160	160 psi	4000	4000 psi				
200	200 psi	5000	5000 psi				
300	300 psi	6000	6000 psi				
500	500 psi	10000	10000 psi				
Thread							
N	1/4" NPT						
S	4 SAE (7/16" - 20 UNF)						
Style							
A	Bottom stem						
B	Panel clamp (**)						
D	Back stem (N/A on 4" gauge)						
E	Back flange (N/A on 4" gauge) (**)						

(**) Panel flange and clamp may be ordered separately to fit "D" style gauge 2- 1/2" model only.

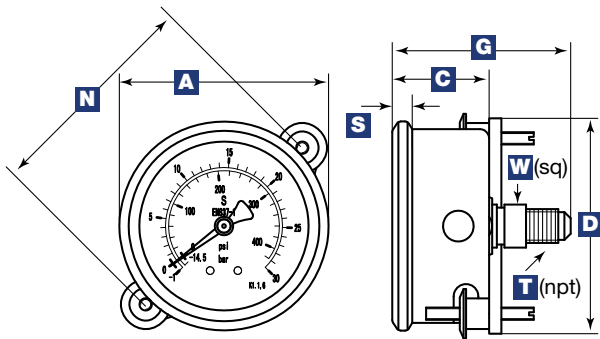
Part Number:
MPG-1-E-Flange
MPG-1-B-Clamp



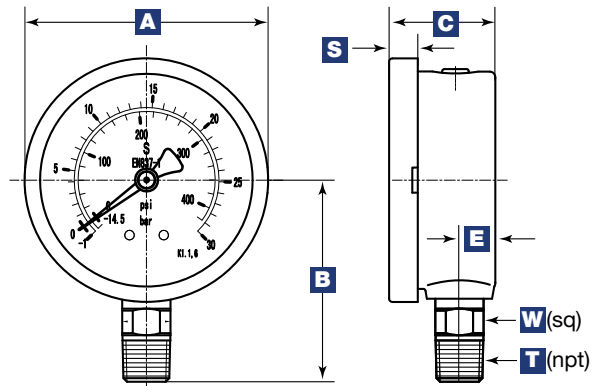
2-1/2" MPG Model A



2-1/2" MPG Model D & E



2-1/2" MPG Model B



4" MPG Model A

Size	Weight	Key	A	B	C	D	E	G	H	J	M	N	S	T	W
2- 1/2"	0.36 lbs + 0.06 lbs if filled	mm/in.	63/2.5	54/2.13	32/1.26	62/2.44	13/0.51	54/2.13	N/A	3.6/0.14	85/3.35	75/2.95	6.5/0.26	1/4 in.	14/0.55
4"	1.10 lbs + 0.66 lbs if filled	mm/in.	100/4	82/3.41	48/1.89	100/3.99	15.5/0.61	79.5/3.13	30/1.18	4.8/0.19	12/5.2	116/4.57	8/0.31	1/2 in.	12/0.87

A = Nominal Size
 T = SAE -4 (7/16 -20 UNF) Connection, Supplied with Viton o-ring, hex nut, and washer

MPDF Series

OEM Integrated Pressure Switch



Technical data

Clogging indicators

OEM Integrated Pressure Switch

One of the smallest switches in the market offering an integrated Deutsch receptacle. Plug in a mating DT04-2P plug for an instant solution to the constant water spray present in mobile applications.

Standard Features

- Silver Nickel alloy contacts
- Direct blade contact
- Diaphragm/Piston combination
- Integrated Deutsch receptacle
- Gold contact available

Applications

- Mobile equipment
- Street sweepers
- Cement trucks
- Aerial booms

Materials

Diaphragm: standard Nitrile (optional Viton, EPDM, HNBR)
Housing: Steel, Zinc-plated

Specification

Electrical: 100 VA - 42 VDC
Switch type: blade contact
Protection: IP67
Electrical connector: DT04-P2
Mechanical range: 1,000,000 cycles at 1000 PSI (69 bar)

Pressure range

From 1.5 to 2175 PSI (from 0.1 to 150 bar)
Maximum overpressure: 9000 PSI (600 bar)

Temperature range

From -20°F to +180 °F (from -29 °C to +82 °C) Nitrile

Weight

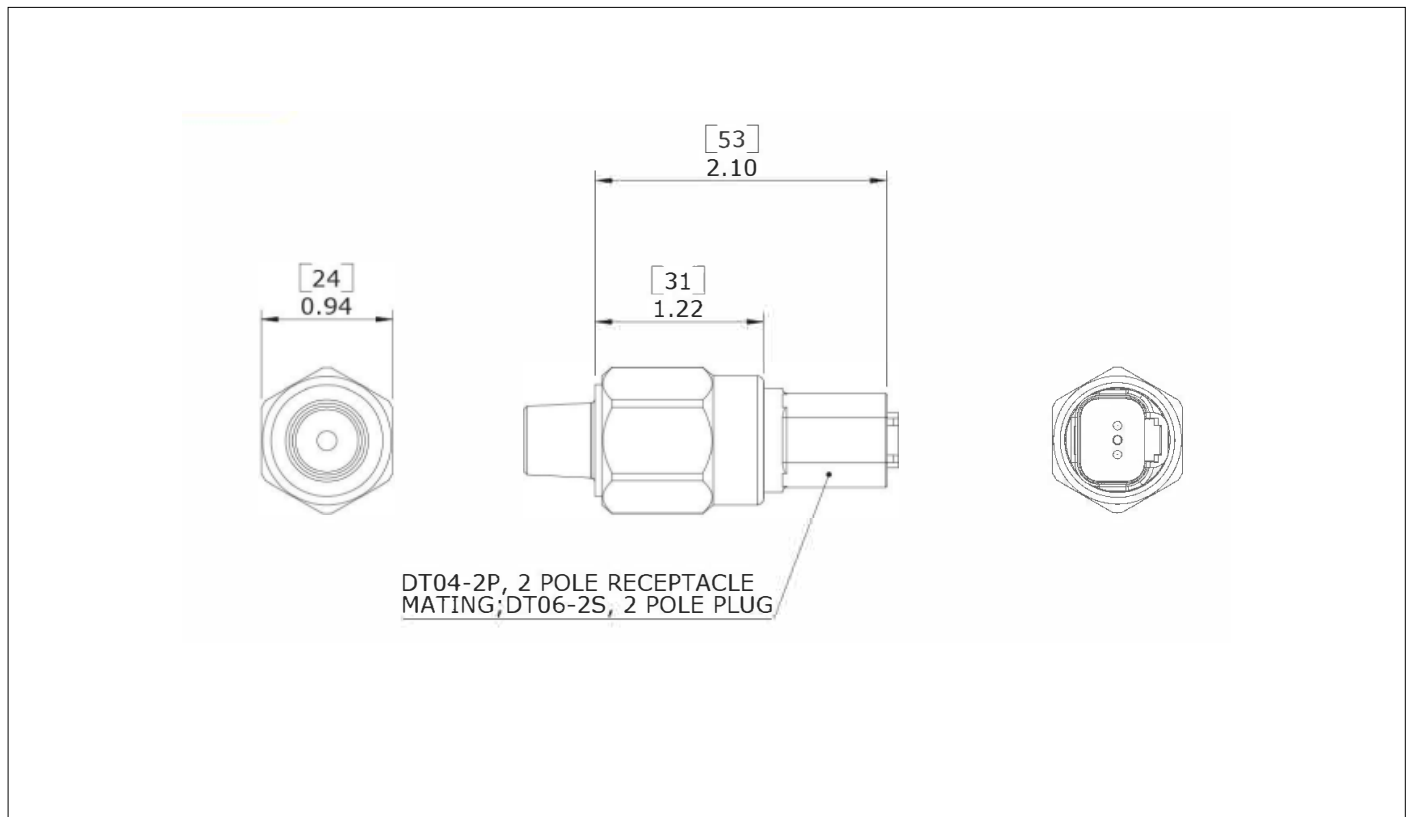
0.15 lbs (0.06 kg)

Available settings

22 psi ± 10%
35 psi ± 10%
40 psi ± 10%

*Other settings on Request, MOQ may apply

Dimensions



MPDF		
Series		
MPDF	OEM integrated pressure switch	
Pressure selection		
Adjustable range:	psi range	bar range
1	1.5 - 14.5	0.1 - 1.0
2	14.5 - 145	1.0 - 10
3	50 - 350	3.4 - 24
4	250 - 1000	17 - 69
5	500 - 2175	34 - 150
Thread option		
2M	1/8" NPT male	
4M	1/4" NPT male	
2G	1/8" BSPP male - G1/8	
4G	1/4" BSPP male - G1/4	
4S	7/16" - 20 SAE male with O-ring seal	
6S	9/16" - 18 SAE male with O-ring seal	
Circuit		
A	SPST (normally open)	
B	SPST (normally closed)	
Electrical termination		
DR	Integrated Deutsch Receptacle - Mates with DT06-2S	
Options		
1	FPM Diaphragm	
2	EPDM Diaphragm	
4	HNBR Diaphragm	
7	Gold contact 0.4 VA - 30 VDC	
20	Seal adjustment screw	

Set point	Direction	bar range
xxx	R	PSI Rising pressure
xxx	F	PSI Falling pressure
xxx	BR	BAR Rising pressure
xxx	BF	BAR Falling pressure

Configuration example 1:	MPDF	3	2M	A	DR	1
Configuration example 2:	MPDF	35R	M10	B	DR	2

Wiring code	
Contact	Deutsch receptacle
Common	PIN A
Normally closed	PIN B
Normally open	PIN B

MPBA & MPBF Series

Compact OEM Pressure Switch



Technical data

Clogging indicators

Compact OEM Pressure Switch

A miniature pressure switch with high proof pressures ideal for mobile and other harsh applications. It is a well sealed design that offers ingress protection to IP68 when paired with the flying lead option. It is offered with a variety of mechanical and electrical terminations for easy integration.

Standard Features

- Silver Nickel alloy contacts
- Direct blade contact
- Diaphragm/Piston combination
- High ingress protection
- Compact body
- Gold contact available

Applications

- Industrial tools
- Garbage trucks
- Brake pressure switch

Materials

Diaphragm: standard Nitrile (optional Viton, EPDM, HNBR)
Housing: zinc plated steel (optional stainless steel)

Specification

Electrical: 100 VA - 42 VDC
Switch type: blade contact
Protection: exposed terminals - IP00 (IP68 available)
Mechanical range: 1,000,000 cycles at 1000 PSI (69 bar)
Repeatability: +/- 3% of full set point range at 68 °F (20 °C)
+/- 1.5 psi

Pressure range

Model 1: from 1.5 to 20 psi (from 0.1 to 1.4 bar)
Model 2: from 20 to 120 psi (from 1.4 to 8.2 bar)
Model 3: from 90 to 250 psi (from 6.2 to 1.7 bar)
Model 4: from 250 to 950 psi (from 17 to 54 bar)
Model 5: from 700 to 1900 psi (from 48 to 131 bar)
Model 6: from 1000 to 3000 psi (from 69 to 206 bar)

Maximum overpressure: 9000 PSI (600 bar)

Temperature range

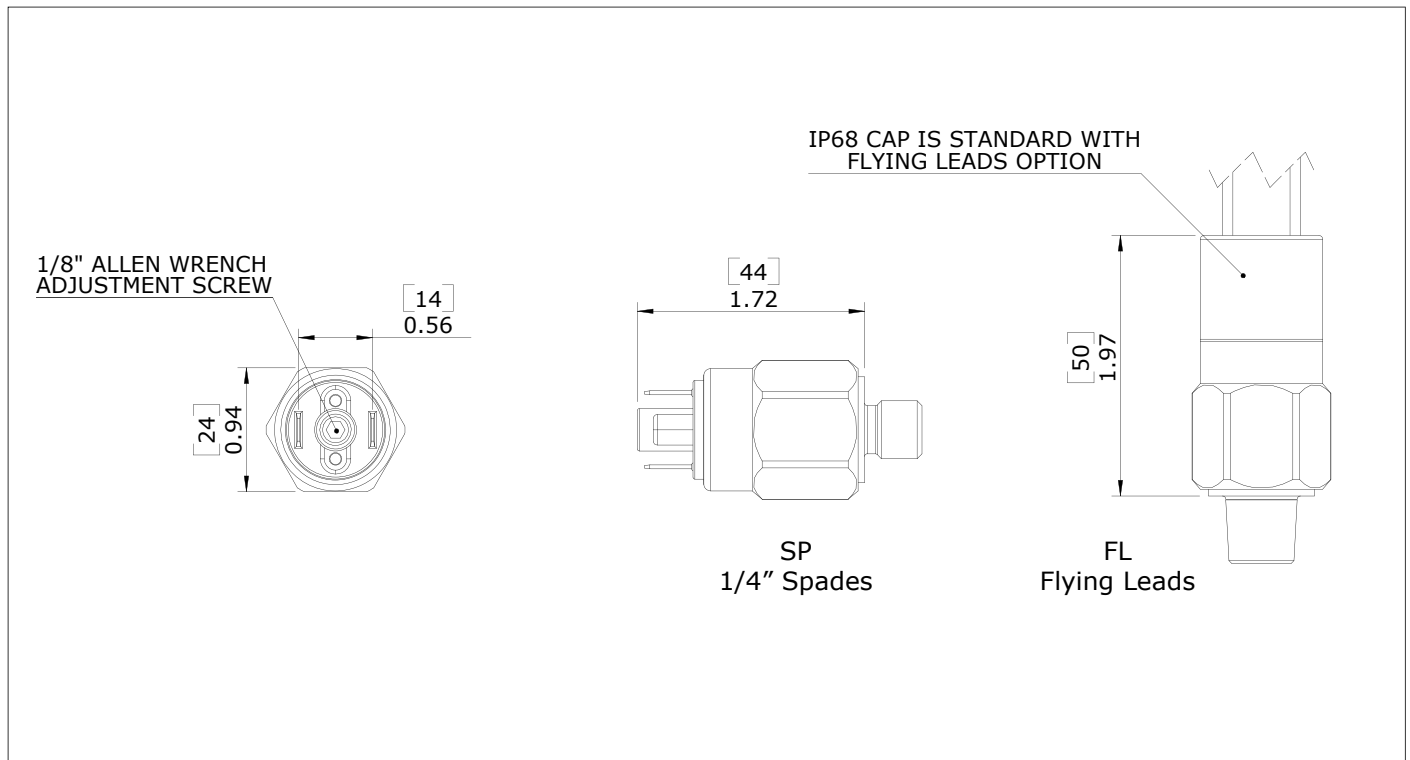
From -20°F to +180 °F (from -29 °C to +82 °C) Nitrile

Available settings

22 psi ± 10%
35 psi ± 10%

*Other Settings on request, MOQ may apply

Dimensions



MPBA & MPBF

Series

MPBA OEM integrated pressure switch
MPBF

Pressure selection

Adjustable range:	psi range	bar range
1	1.5 - 20	0.1 - 1.4
2	20 - 120	1.4 - 8.2
3	90 - 250	6.2 - 17
4	250 - 950	17 - 65
5	700 - 1900	48 - 131
6	1000 - 3000	69 - 206

Thread option

2M	1/8" NPT male
4m	1/4" NPT male
2G	1/8" BSPP male - G1/8
4G	1/4" BSPP male - G1/4
4S	7/16" - 20 SAE male with O-ring seal
6S	9/16" - 18 SAE male with O-ring seal

Circuit

A	SPST (normally open)
B	SPST (normally closed)

Electrical termination

FL	Flying Lead 18" long, 18 AWG, IP68 Cap is standard with this option
FLWF	Flying Lead Weatherpack connector, female, Tower, 10" long leads
FLWM	Flying Lead Weatherpack connector, male, Shroud, 10" long leads
FLDP	Flying Lead Deutsch connector, plug, 10" long leads
FLDR	Flying Lead Deutsch connector, receptacle, 10" long leads
SP	1/4" Spade

Options

1	FPM Diaphragm
2	EPDM Diaphragm
4	HNBR Diaphragm
7	Gold contact 0.4 VA - 30 VDC
20	Seal adjustment screw
30	Rubber Boot - Removable (Excludes IP68 Cap if selected)

Configuration example 1:	MPBA	2	2M	B	SP	1
Configuration example 2:	MPBF	35F	2M	B	SP	1

Set point	Direction	bar range
xxx	R	PSI Rising pressure
xxx	F	PSI Falling pressure
xxx	BR	BAR Rising pressure
xxx	BF	BAR Falling pressure

Wiring code

Contact	Flying leads	FLWF / FLWM Weatherpack	FLDR / FLDP Deutsch receptacle / pug
Common	Black	PIN A	PIN 1
Normally closed	Black	PIN B	PIN 2
Normally open	Black	PIN B	PIN 3

MPT Series

Pressure Transducer



Technical data

Clogging indicators

Pressure Transducer

The T200 / T201 series is suitable for both mobile and industrial applications. Its small profile is ideal for space constraints. The body is machined from a single piece of 304SS to provide added protection for the internal electronics. A piezoresistive ceramic sensor along with ASIC signal conditioning provides an excellent thermally compensated output.

Standard Features

- Piezoresistive Ceramic Sensor
- ASIC Signal conditioning

Applications

- Industrial Equipment
- Safety Monitoring
- Mobile Equipment

Materials

Ceramic Al_2O_3
NBR (Standard) or Optional: FKM,HNBR,EPDM

Specification

Accuracy: 0.5% BFSL
Long term drift: < 0.3% FS @ 77°F (25°C)
Process connection: SS304
Vibration: 10g (20-2000Hz) for ≤ 58 PSI (4 bar)
20g (20 - 500Hz) for ranges > 58 PSI (4 bar)
Shock: 50 g (11 ms)
Protection: Overvoltage, Short circuit, Reverse polarity protection
Ingress protection: IP67 (IP65 for M2 Electrical Connection)
Response Time: < 1 ms

Pressure

- Pressure range: from 0 to 7,500 psi (517 bar)
- Proof Pressure: 140% to 200% FS based on range (consult factory)
- Burst Pressure: 180% to 400% FS based on range (consult factory)

Compliance

- IEC/EN 61000-4-3(2006) 100V/m 80-1000MHz
- IEC/EN 61000-4-4(2004) Class 3
- IEC/EN 61000-4-6(2006) 3Vrms 0.15-80MHz
- ROHS

Temperatures

Thermal error:

- 7.5 psi ≥ 100 psi: 0.01% FS/°F (0.018% FS/°C)
- 100 psi > 400 psi: 0.009% FS/°F (0.016% FS/°C)
- 400 psi ≥ 1000 psi: 0.011% FS/°F (0.019% FS/°C)
- 1000 psi > 3000 psi: 0.012% FS/°F (0.021% FS/°C)
- 3000 psi ≥ 7500 psi: 0.018% FS/°F (0.028% FS/°C)

Compensated temperatures:

- MPT200 Series: from 32°F to 185°F (from 0°C to 85°C)
- MPT201 Series: from -40°F to 257°F (from -40°C to 125°C)

Operating temperatures:

from -40°F to 257°F (from -40°C to 125°C)

Storage temperature rating:

from -40°F to 275°F (from -40°C to 135°C)

Weight

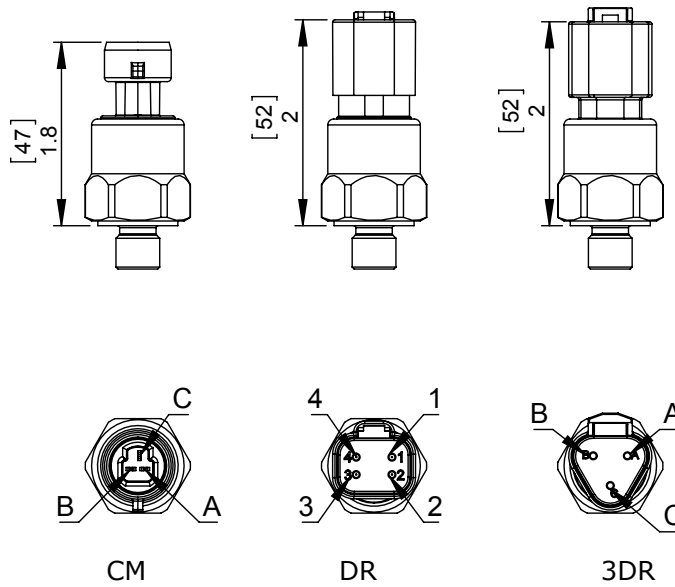
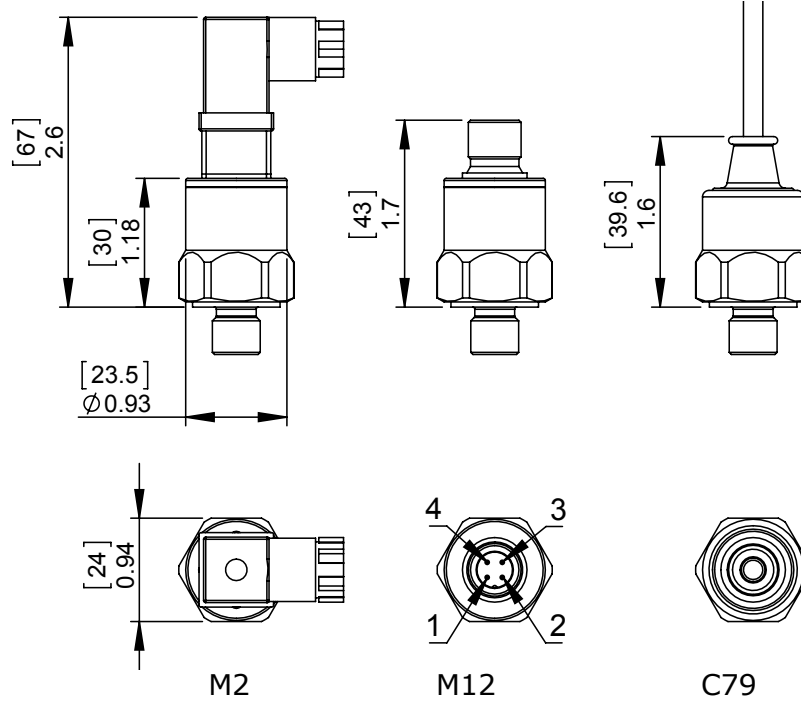
0.15 lbs (0.06 kg)

MPT	
Series	Example : MPT200 0100P G 3 M2 4M N T1 SR
MPT200	Compensated Temperat. Range 32°F to 185°F (0°C to 85°C)
MPT201	Compensated Temperat. Range -40°F to 257°F (-40°C to 125°C)
Pressure range	
psi	bar
0015P 15 psi	001B 1 bar
0030P 30 psi	002B 2 bar
0100P 100 psi	005B 5 bar
0150P 150 psi	010B 10 bar
0300P 300 psi	020B 20 bar
0400P 400 psi	050B 50 bar
0600P 600 psi	100B 100 bar
1000P 1000 psi	200B 200 bar
1500P 1500 psi	400B 400 bar
3000P 3000 psi	500B 500 bar (**)
5000P 5000 psi	
7500P 7500 psi (**)	
Reference	
A	Absolute
G	Gauge
S	Sealed
Output	
2	4 -20 mA (2 wire)
3	0 - 10 V (3 wire)
4	0.5 - 4.5 V ratiometric
5	0-5 V (3 wire)
6	1 - 5 V (3 wire)
7	0.5 - 4.5 V (3 wire)
8	1 - 6V (3 wire)
9	0.25 -10.25 V (3 wire)
Electrical connection	
M2	DIN 43650C (Mini DIN)
M12	M12, 4 pin
C79	Shielded Cable 79 inches (2 meter)
DR	Deutsch Receptacle DT04-4P
DR3	Deutsch Receptacle DT04-3P
CM	Packard, Metripack,150 Series (PS2)
Process connection	
2M	1/8" NPT male
4M	1/4" NPT male
4G	1/4" BSPP male - G1/4
4S	7/16" - 20 SAE male with O-ring seal
6S	9/16" - 18 SAE male with O-ring seal
Seals	
N	NPR (standard)
V	Viton
H	HNBR
R	EPDM
Accuracy	
T1	0.5% BFSL
Options	
SR	Snubber

Other material and options available upon request. Custom design available. Please consult factory.

(**) 7500 psi (500 bar) is only available with 7/16 SAE thread and 9/16 SAE thread.

Dimensions



Connector	Output				
	4 - 20 mA		Voltage		
	Supply +	Supply -	Supply +	Common	Output +
M2	1	2	1	2	3
M12	1	3	1	3	4
C79 - C158	Red	Black	Red	Black	White
DR	2	1	2	1	4
3DR	A	B	A	B	C
CM	B	A	B	A	C

MPF Series

Temperature Switch



MPF5TAF & MPF7TAF GENERAL INFORMATION

Technical data

Clogging indicators

Temperature Switch

The MPF5TAF and MPF7TAF model series are bimetallic temperature switches. The MPF5TAF series features a large temperature differential and the MPF7TAF series features a small temperature differential. The sensing element is designed to provide rapid temperature response.

Standard Features

- Temperature switch and sensor
- Compact size
- Low differential

Applications

- Coolant temperature switch/sensor
- Lubrication systems
- Oil reservoir temperature switch/sensor

Materials

Housing: brass

Specification

Electrical: 120/240 VAC - 3A Resistive
120/240 VAC - 2.5A Inductive
12/24 VDC - 3A Resistive
12/24 VDC - 2A Inductive

Contact:

MPF5TAF: silver

MPF7TAF: gold

Switch type: bimetal snap action

Protection: IP65

Probe Length:

MPF5TAF: 3/4"

MPF7TAF: 1/2", 1", 2"

Pressure

Maximum overpressure: 5000 psi (345 bar)

Temperatures

Set point range (factory set):

MPF5TAF: from 130 °F to 300 °F (from 54 °C to 150°C)

MPF7TAF: from 40 °F to 300 °F (from 4 °C to 150°C)

Temperature differential:

MPF5TAF: Approximately 30% of Setpoint

MPF7TAF: Approximately <4% of Setpoint

Temperature exposure limit:

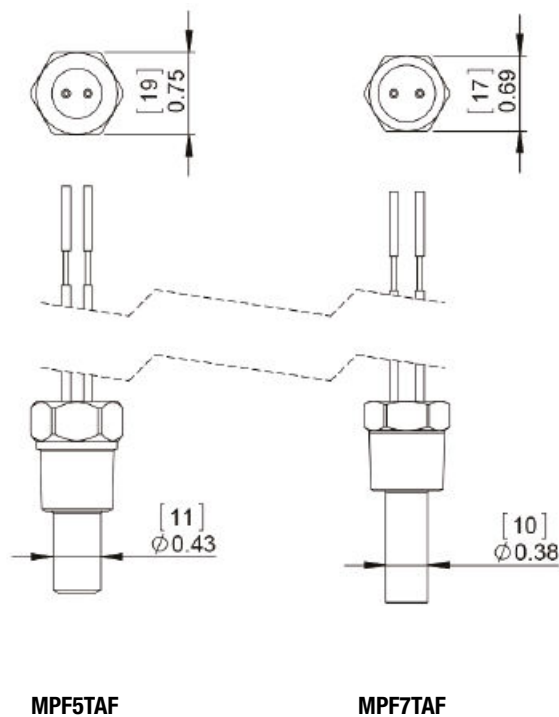
325°F (162°C)

Repeatability: +/- 7°F

Weight

0.15 lbs (0.06 kg)

Dimensions



MPF5TAF & MPF7TAF

Designation & Ordering code

MPF5TAF & MPF7TAF

Series

Configuration example: **MPF5TAF** **120R** **4M08** **A** **FL**

MPF5TAF Approximately 30% of differential (see Specifications Table)

MPF7TAF Approximately <4% of differential (see Specifications Table)

Temperature Selection (Fahrenheit Rising):

MPF5TAF Model	MPF7TAF Model
130R	120R
140R	140R
150R	160R
160R	170R
170R	180R
180R	
190R	
200R	
220R	

Other Setpoints are available upon request. Consult factory for availability.

Thread options

	MPF5TAF Model		MPF7TAF Model	
	3/4" Probe	1/2" Probe	1" Probe	2" Probe
1/4" NPT	4M12	4M08	4M16	4M32
3/8" NPT	6M12	N/A	6M16	N/A
1/2" NPT	8M12	8M08	8M16	8M32
3/4" - 16 SAE with Viton O-ring seal	8S12	N/A	8S16	N/A

Circuit

A SPST (Normally Open)

B SPST (Normally Closed)

Electrical termination

FL Flying Lead 18" long, 18 AWG, IP68 Cap is standard with this option

FLWF Flying Lead Weatherpack connector, female, Tower, 10" long leads

FLWM Flying Lead Weatherpack connector, male, Shroud, 10" long leads

FLDP Flying Lead Deutsch connector, plug, 10" long leads

FLDR Flying Lead Deutsch connector, receptacle, 10" long leads

FLCM Flying Lead, Metripack, male, 150 series, 10" long leads

FLCF Flying Lead, Metripack, female, 150 series, 10" long leads

FLPM Flying Lead Metripack 280 connector, male, 10" long leads

FLPF Flying Lead Metripack 280 connector, female, 10" long leads

Other material and options available upon request. Please consult factory for details.

Wiring code

Contact	Flying leads	FLWF / FLWM / FLCM / FLCF / FLPM / FLPF	FLDR / FLDP
Common	Black	PIN A	PIN 1
Normally closed	Black	PIN B	PIN 2
Normally open	Black	PIN B	PIN 2

Weld Flanges



Weld flange GENERAL INFORMATION

Technical data

Installation example

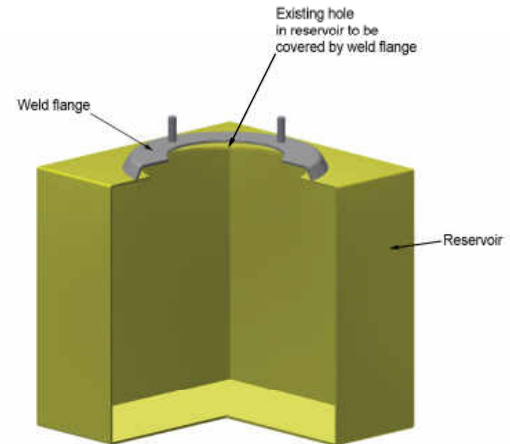
Accessories

Weld flange

Weld Flanges are designed to mount MP Filtri tank top filters onto metal tanks that have existing holes that do not match the desired filter. Round as well as square versions are available.

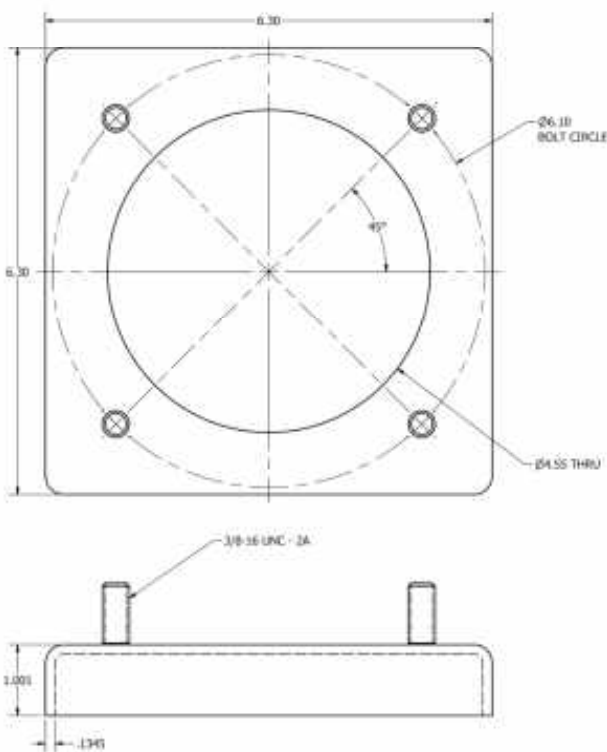
Standard Features

- Material: 1 gauge ASTM A569 steel
- Mounting surface flatness: 0.0007 in/in
- Press fit and tack welded studs

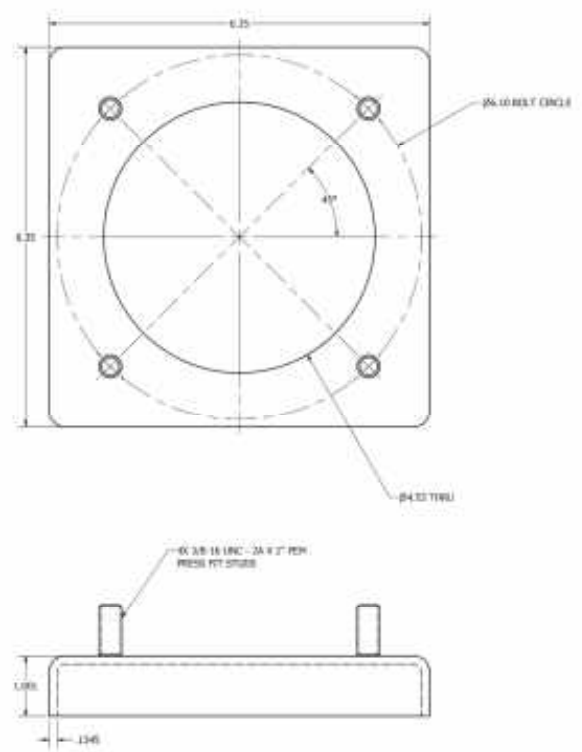


SUCTION FILTER WELD FLANGE

SFMC 250
Threaded connections

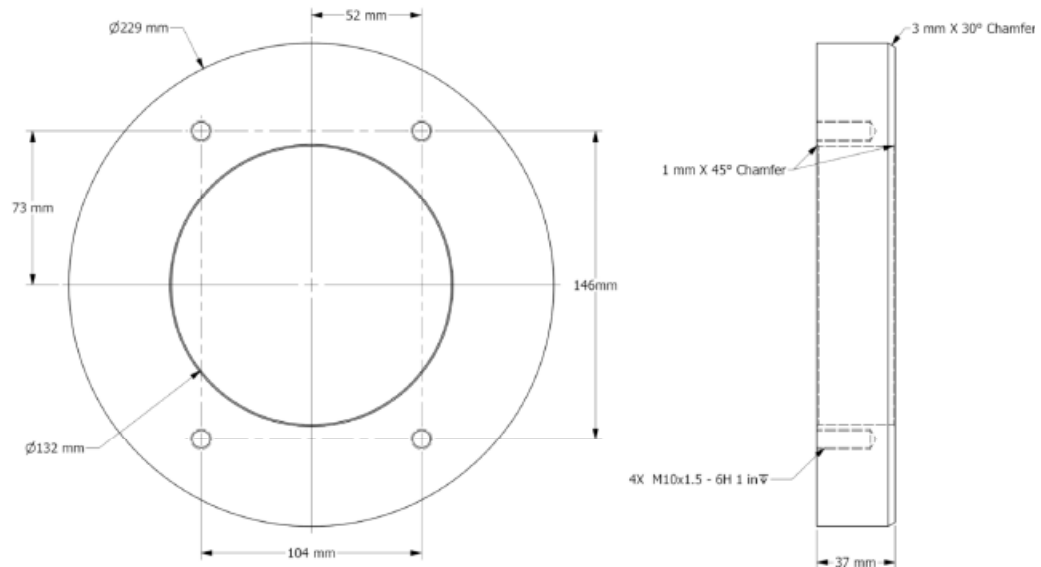


SFMC 250
Flanged connections

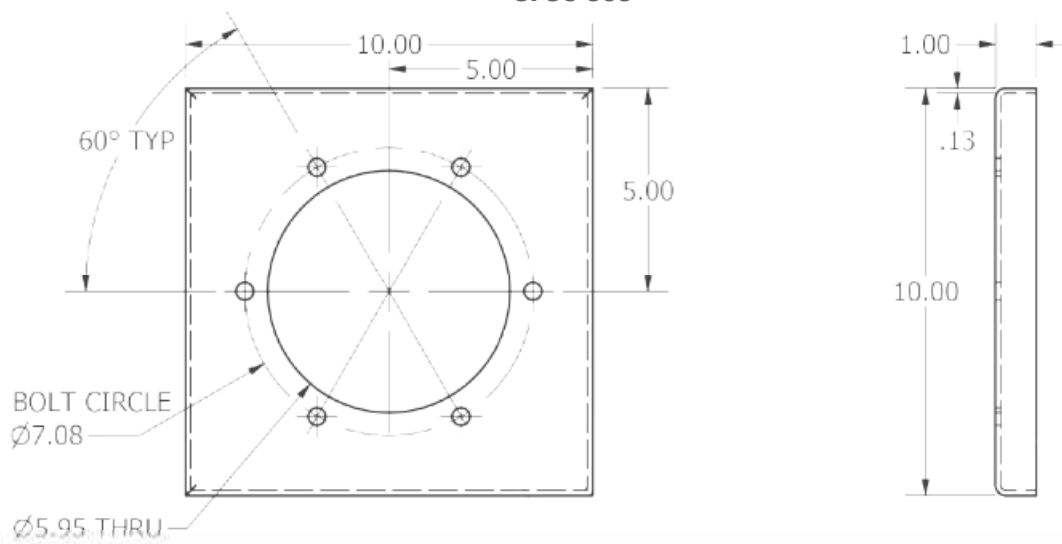


SUCTION FILTER WELD FLANGE

SFSC 500



SFSC 503

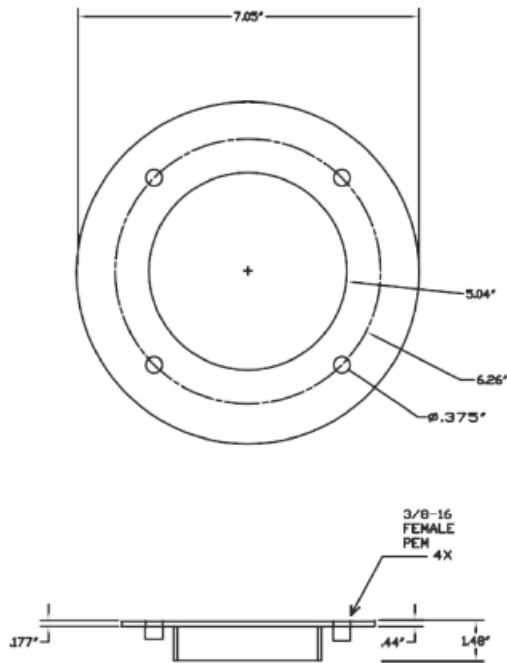


Weld flange

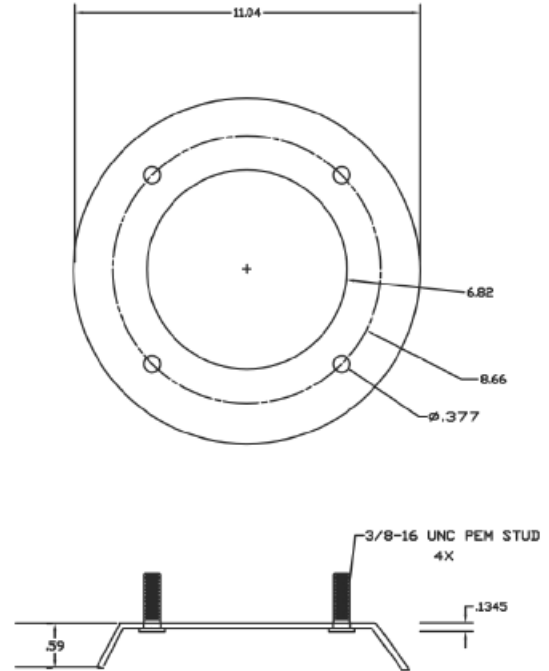
Dimensions

RETURN FILTER WELD FLANGE

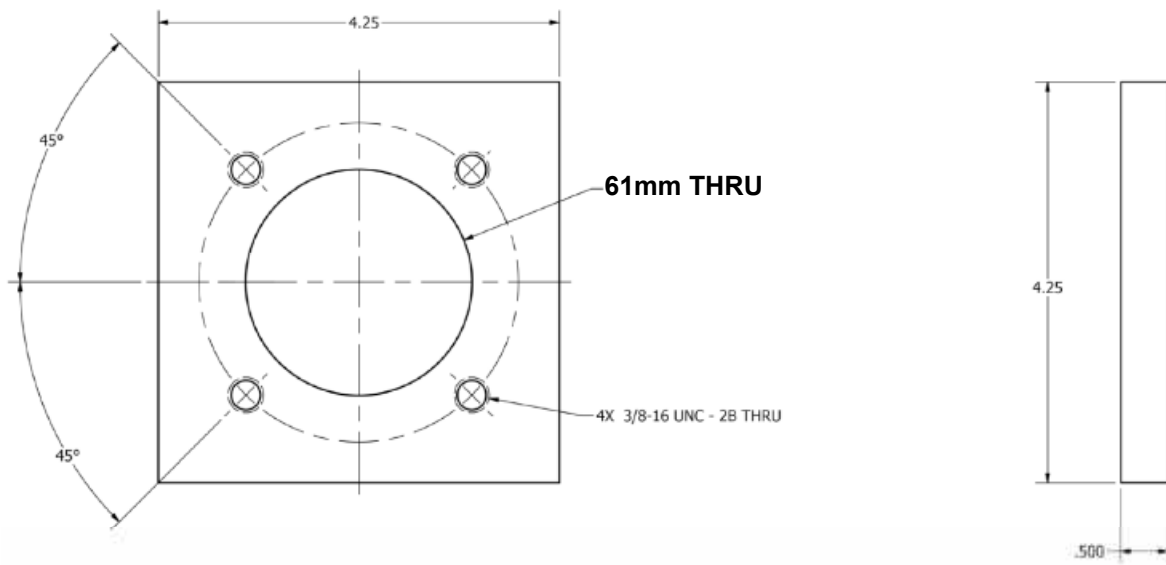
MPF/MPFX 184 Round



**MPF/MPFX 400 Round
MPF/MPFX 750 Round**

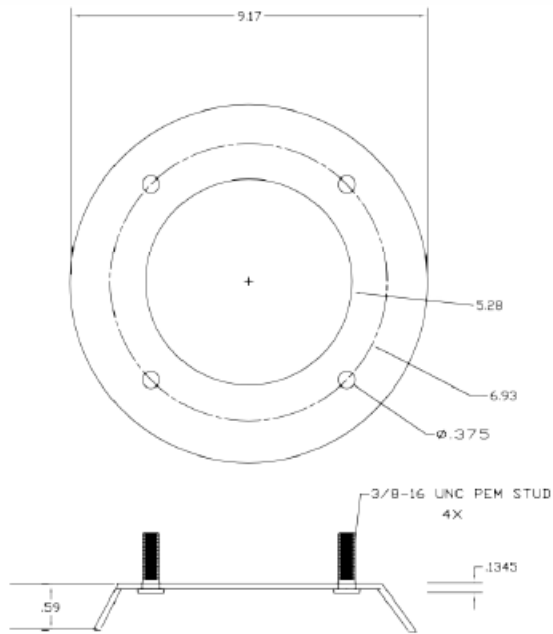


MPT/MPTX 027 Round

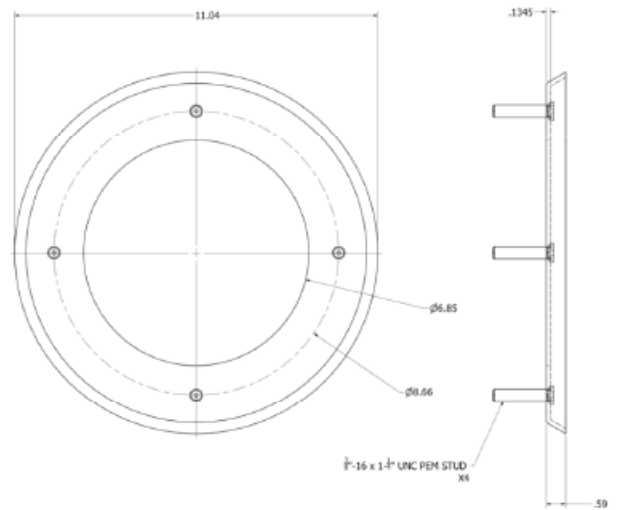


RETURN FILTER WELD FLANGE

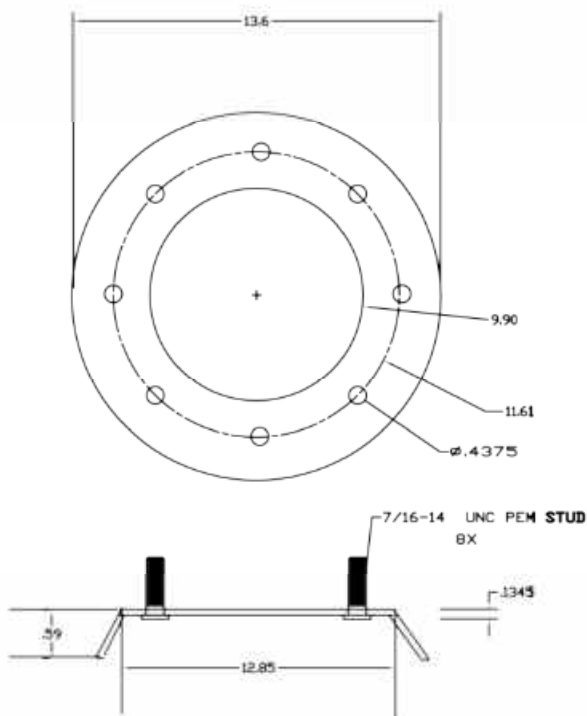
MPH 250



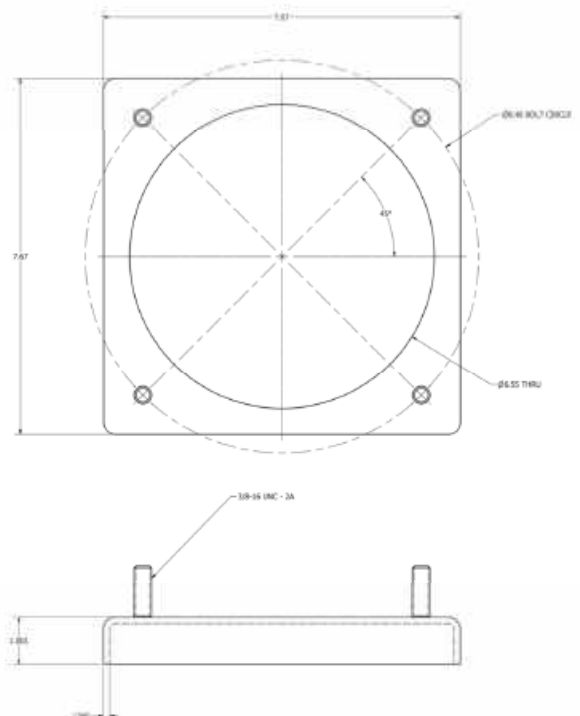
MPH 630



MPH 850



MPH 630 Square



HSP Series

Test Equipment



HSP1040



HSP2000



HSP3000



HSP6000



HSP690



HSP7000

HSP1040

Technical data

Hydraulic Hose Coupling Kit

Temperature and Pressure Test Kit

JIC 37° Hose Couplings are pivotal test kits used to obtain pressure of temperature checks during servicing or fault finding. Install JIC Hose Couplings between the female swivel nut of the flexible hose and the fixed male connection.

All probes may be connected and disconnected at full system pressure without fluid loss or ingress of dirt.

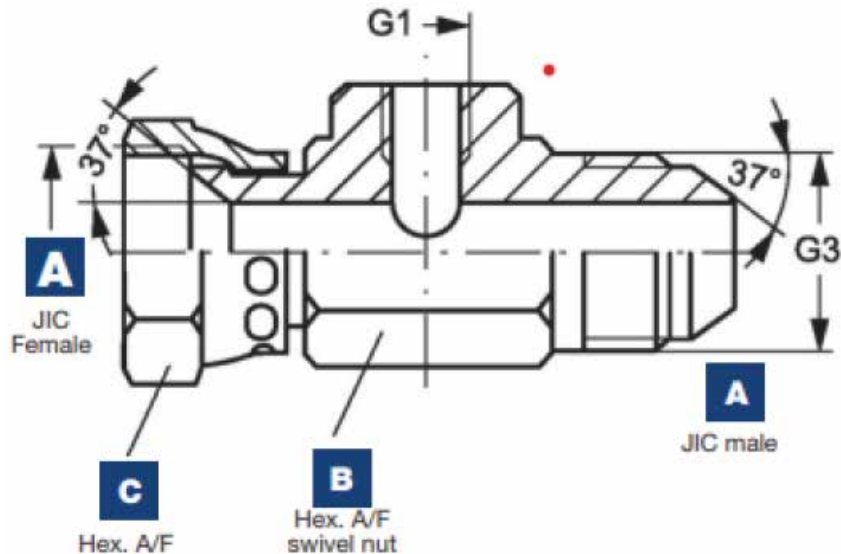
Available features

- Ease of Use: The male and female connections are designed to apply to all connection types
- Electrically Safe: No electrical contact with fluid.
- Variability in Size: Multiple sizes and distances meet the needs for all customers and applications.
- Flexibility: Can be used with direct or remote test probes

JIC Hydraulic Hose Series

- Fitted with a test point plug
- JIC 37° cone seat, Sizes: 1/4" to 1-1/2"
- 20°C to +200°C
- 4°F to 392°F
- Comes standard with Viton seals
- Material/Coating: Steel, Zinc/Nickel-Plated

Dimensions & Ordering Code



Part Number	Size	A JIC 37° Thread ISO 8434-2	G1 SAE straight thread Oring Boss Port	B	C	Working Pressure
HSP1040-4MV	1/4"	7/16" -20 UNF	7/16" -20 UNF	36 mm	17 mm	6100 psi
HSP1040-6MV	3/8"	9/16" -18 UNF	7/16" -20 UNF	36 mm	19 mm	5000 psi
HSP1040-8MV	1/2"	3/4" -16 UNF	7/16" -20 UNF	36 mm	22 mm	5000 psi
HSP1040-10MV	5/8"	7/8" -14 UNF	7/16" -20 UNF	36 mm	27 mm	5000 psi
HSP1040-12MV	3/4"	1- 1/6" -12 UN	7/16" -20 UNF	41 mm	32 mm	5000 psi
HSP1040-16MV	1"	1- 5/16" -12 UN	7/16" -20 UNF	46 mm	38 mm	3600 psi
HSP1040-20MV	1- 1/4"	1- 5/8" -12 UN	7/16" -20 UNF	50 mm	50 mm	3600 psi
HSP1040-24MV	1- 1/2"	1- 7/8" -12 UN	7/16" -20 UNF	60 mm	60 mm	2400 psi

Test Point Plugs

The HSP2000 test point plugs are designed to be complementary and interchangeable with similar equipment from other manufacturers.

Test point plugs and probes are installed in the hydraulic system to monitor conditions without the need for system shutdown. They allow connection to a pressure gauge and can be used in both mobile or industrial applications where system monitoring is required.

Available with Skydrol Hydraulic Fluid compatibility for Aerospace properties.

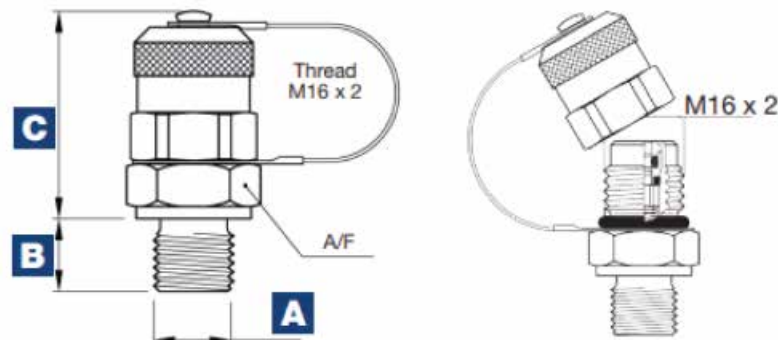
Available features

- Flexibility: HSP2000's design allows for interchangeability with similar equipment to adapt to the customer's current equipment easily
- Electrically Safe: No electrical contact with fluid.
- Variability in Size: Multiple sizes and distances meet the needs for all customers and applications.

HSP SERIES

- Conforms to ISO 1517-2
- Material/Coating: Steel, Zinc/Nickel-Plated
Stainless Steel AISI 316-DIN 14436 (optional)
- Seals: Viton (-4°F to 392°F / -20°C to 200°C) Standard
Buna (-22°F to 248°F / -30°C to 120°C) (Optional)
- Working Pressure: 91,000 psi (630 BAR) max
- Burst Pressure: >36,000 psi
- Compatibility: Hydraulic oils and mineral based oils
- All test points are supplied with integrated anti-vibration O-ring

Dimensions & Ordering Code



Part Number	A	B	C	A/F	Max Pressure	Weight
HSP2000-BV	1/4" BSPP	0.47"	1.38"	0.75"	9100 psi	0.16 lbs
HSP2000-BV-SKYDROL	1/4" BSPP	0.47"	1.38"	0.75"	9100 psi	0.16 lbs
HSP2000-DV	7/16"-20 UNF (SAE-4)	0.43"	1.38"	0.67"	9100 psi	0.14 lbs
HSP2000-DV-SKYDROL	7/16"-20 UNF (SAE-4)	0.43"	1.38"	0.67"	9100 psi	0.14 lbs
HSP2000-EV	9/16-18 UNF (SAE-6)	0.47"	1.38"	0.75"	9100 psi	0.16 lbs
HSP2000-HV 1/4" NPTF	1/4" NPTF	0.55"	1.30"	0.67"	9100 psi	0.15 lbs
HSP2000-HVSS	1/4" NPTF	0.55"	1.30"	0.67"	9100 psi	0.15 lbs
HSP2000-KV	1/8" NPTF	0.37"	1.30"	0.67"	5800 psi	0.13 lbs

HSP3000

Technical data

Pressure Gauge Connection

The HSP3000 are used to connect the gauge to the hose probe assemblies (HSP6000). These adaptors are designed to be complementary to and interchangeable with similar equipment from other manufacturers using ISO 15171-2 standards.

Adaptors may be bulkhead mounted in a control console or test panel, or hand held for use in servicing and fault finding to obtain pressure checks when required.

Test Point Plugs (HSP2000) installed in the hydraulic system allow connection and disconnection at full system pressure without loss of oil or ingress of dirt.

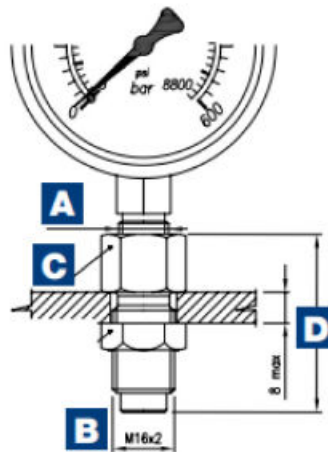
Available features

- Ease of Use: The visual gauges allow the liquid level to be checked clearly at any time
- Electrically Safe: No electrical contact with fluid.
- Variability in Size: Multiple sizes and distances meet the needs for all customers and applicaitons.

HSP 3000 Series

- Conforms to ISO 15171-2 standards
- Max Working pressure: 9100 psi (630 BAR)
- Material/Coating: Steel, Zinc/Nickel Plated
- To suit 1/4" or 1/2" NPTF
- Designed for use with HSP6000, HSP2000, and MPG series pressure gauge

Dimensions & Ordering Code



Part Number	A Thread	B Thread	C (A/F)	D	Max Panel Thickness
HSP3000-2NV	1/4" NPTF	M16 x 2	19 mm	51 mm / 2" 58 mm	8mm / 0.31"
HSP3000-4NV	1/2" NPTF	M16 x 2	27 mm	/ 2.28"	8mm / 0.31"

Hose/Probe Testing Assembly

Hose Testing Kit

These Hose/Probe assemblies are designed to be complementary to and interchangeable with similar equipment from other manufacturers using ISO 15171-2 standards.

The Hose/Probe forms the link between the ISO 15171-2 hydraulic system Test Point Plugs and the Pressure Gauge/Adaptor assemblies, the whole arrangement being used to obtain random pressure checks during servicing and fault finding.

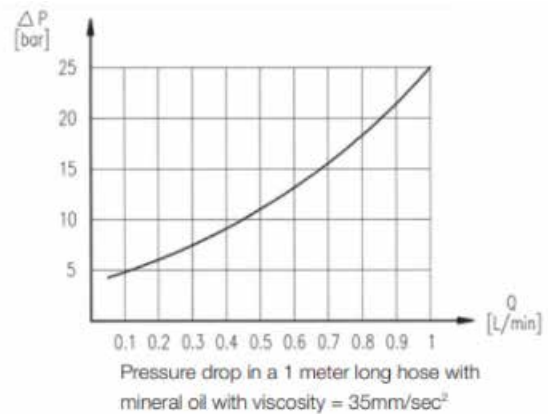
Probes may be connected and disconnected at full system pressure without fluid loss or ingress of dirt.

Available features

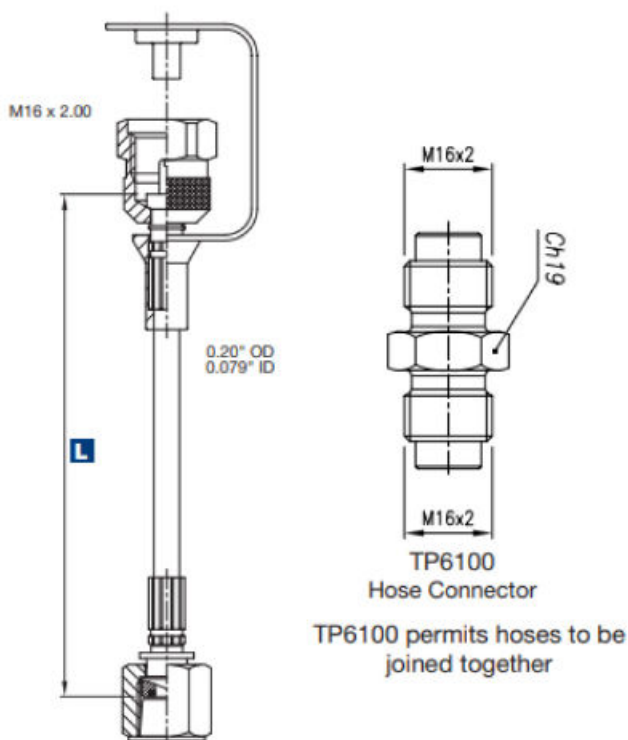
- Ease of Use: The visual gauges allow the liquid level to be checked clearly at any time
- Electrically Safe: No electrical contact with fluid.
- Variability in Size: Multiple sizes and distances meet the needs for all customers and applications.

HSP 6000 SERIES

- Working Pressure: 91000 PSI (630 BAR)
- Working Temperature: -20°C to 100°C
-4°F to 212°F
- Temperature / 100% Working Pressure: -20°C to 50°C
-4°F to 122°F
- Hose Material & Cover: Polyamide
- Material/Coating: Steel, Zinc/Nickel-Plated
- Nominal Bore (DN) (mm) DN2
- Inside Diameter: 2mm +/- 1mm
- Outside Diameter: 5mm +/- 1mm
- Weight per meter: 18g



Dimensions & Ordering Code



Part Number	L Length
HSP6000-12	12" / 30.5 cm
HSP6000-24	24" / 61.0 cm
HSP6000-36	36" / 91.4 cm
HSP6000-48	48" / 122 cm
HSP6000-60	60" / 152 cm
HSP6000-72	72" / 183 cm
HSP6100	Hose Connector

HSP690

Technical data

Fluid Sampling Kit

The equipment comprises a screw-on probe connected by a flexible hose to an adjustable flow control valve which allows steady state fluid samples to be extracted from the working system without having to disrupt your progress.

When used in conjunction with Test Point Plugs (HSP2000), the equipment facilitates the removal of fluid samples from selected points throughout a system without danger of extraneous contamination, even with the system at full working pressure and temperature.

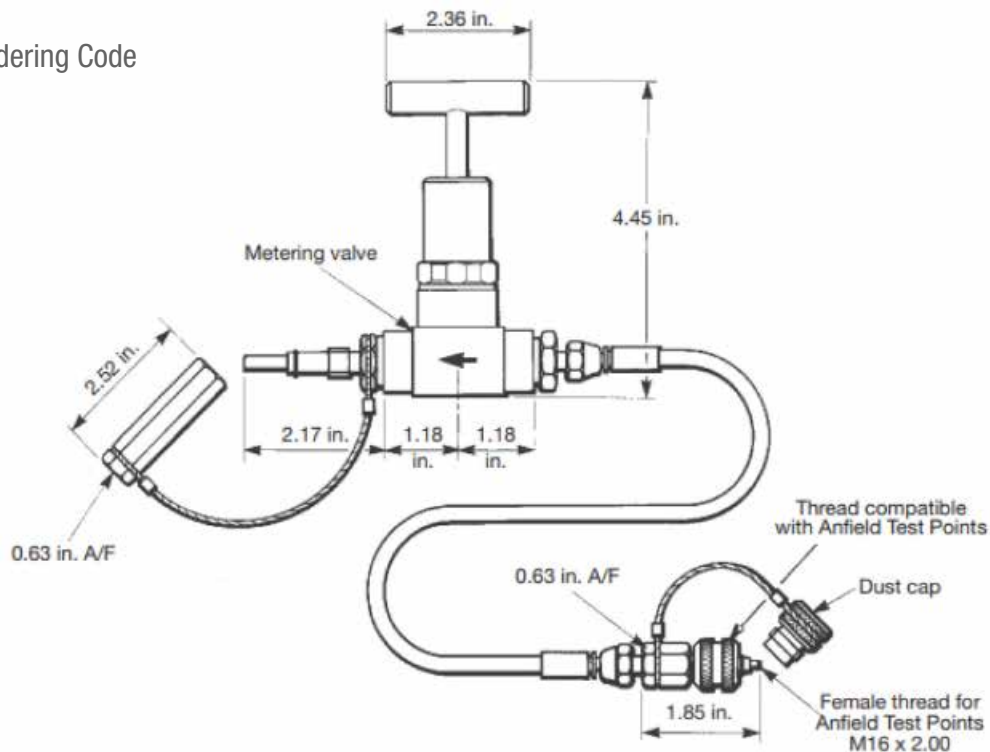
Available features

- Ease of Use: The valve and hose allow for easy removal of fluid for sampling during operation
- Electrically Safe: No electrical contact with fluid.

HSP690

- Designed for off-line bottle sampling
- Adjustable flow control for steady state samples
- Operates up to 6000 PSI (414 Bar) system pressure
- Viton Seals are standard: -20°C to 200°C
-4° F to 392°F

Dimensions & Ordering Code



Part Number	Length of Hose
HSP690-CMV	40" (1000 MM)

Pressure Gauge Adaptor

This Direct Gauge Adaptor Probe is designed for use with Test Point Plugs (HSP2000) or with plugs of other manufacturers to ISO 15171-2 standard.

The probe can be attached to any one of a number of plugs installed throughout the hydraulic system to facilitate random pressure readings during servicing and fault finding.

Probes may be connected or disconnected at full system pressure without loss of oil or ingress of dirt

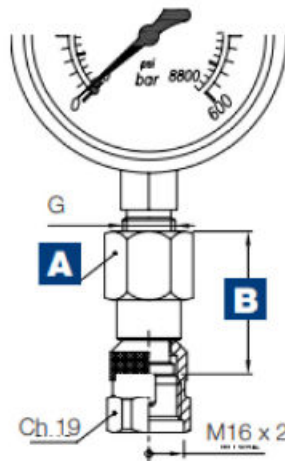
Available features

- Ease of Use: The gauges allow the liquid pressure readings to be checked clearly at any time
- Electrically Safe: No electrical contact with fluid.
- Variability in Size: Multiple gauge thread sizes allows for variability of products that are compatible

HSP 7000 SERIES

- Conforms to ISO 15171-2 standards
- Working pressure up to 9100 PSI (630 BAR)
- Material/Coating: Steel, Zinc/Nickel-Plated
Stainless Steel AISI 316- DIN 14436 (Optional)
- For use with MPG Series 2-1/2" & 4" diameter glycerine filled pressure gauges
- Suitable for HSP2000 and HSP1014 Series test point plugs

Dimensions & Ordering Code



Part Number	Gauge Thread	A (A/F)	B
HSP7000-2NV	1/4" NPTF	19 mm	1.34"
HSP7000-4SV	7/16" - 20 (SAE 4)	19 mm	1.34"
HSP7000-4NV	1/2" NPTF	19 mm	1.34"

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