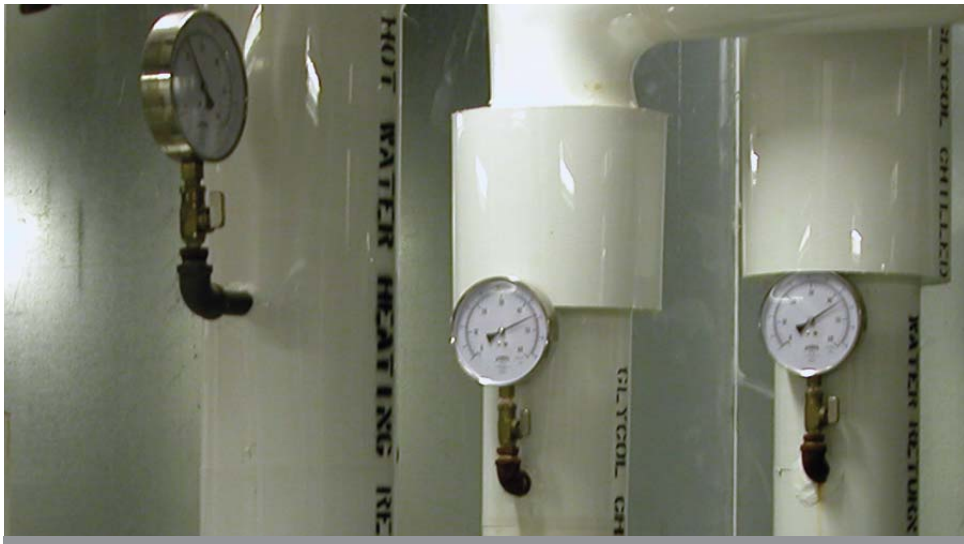
WINTERS

Since 1953

We're There.



Commercial Catalogue

Plumbing and HVAC

WINTERS INSTRUMENTS

MANUFACTURER OF INDUSTRIAL INSTRUMENTATION

Thank You for Choosing Winters

We're There in...

CUSTOMER SERVICE

Winters Instruments leads the industry in providing fast and efficient customer service. Full stocking warehouses enable same day shipping of all inventoried items.

QUALITY

An ISO 9001 corporation, Winters adheres to many approvals and standards, such as CE, CSA, UL, CRN, NACE, 3A, and more. We stand by the quality of our product.

COMMITMENT

Competitive prices, quality products and the utmost in service - your satisfaction is guaranteed!

CUSTOM PRODUCTS

Quick turnaround for all special and custom requests is a distinct Winters advantage. Whether it is a custom dial, unique connection or special range, Winters will fulfill your requirements.

EXPERIENCE

Winters has been manufacturing pressure and temperature instrumentation for diverse markets since 1953 and serves all markets globally.

DISTRIBUTION

Our international network of distributors in over 90 countries means you receive Winters' instrumentation solutions for every application quickly and easily.

Continuous product improvements may result in specifications being changed without notice. For updated information please call Winters.

WINTERS
F C
180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30
80 75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0
WINTERS
°F °C
280 260 240 220 200 180
130 120 110 100 90 80 70 60 50 40 30 20 10

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PRESSURE

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Specified, Installed and Trusted - We're There

HVAC

American University of Beirut	Lebanon
BCE Place	Canada
Burj Khalifa	UAE
Palm Jumairah	UAE
Pearl Qatar	Qatar
Princess Noura University	Saudi Arabia

Aerospace & Transport

Air Canada	Canada
Canadian National Railway	Canada
US Air Force	USA

Automotive

Chrysler	Canada
General Motors (Paint Plant)	Canada
Hainan Automobile Group	China
Honda	Canada
Nissan	USA
Toyota	USA/Canada

Food & Beverage / Pharmaceutical

Catalent Pharma Solutions	USA
Coca-Cola	Puerto Rico
Heinz	Canada
Kellogg's	Canada

Government

Department of Defence	Canada
US Coast Guard	USA
US Defense Department	USA
US Navy	USA

Industrial

Dupont	USA
Jordan Bomine Plant	Jordan

Mining

Diavik Diamond Mine	Canada
Peñaquito Polymetallic Mine	Mexico
Teck Cominco	Canada

Oil & Gas

Devon Energy	Canada
Devon (Jackfish)	Canada
Saudi Aramco	Saudi Arabia
Shell Oil (Motiva)	USA
Suncor Energy	Canada
Suncor (Millennium)	Canada

Petro-Chemical

Fushun Petrochemical Company	China
Irving Oil Refinery	Canada
Nanjing DSM Petrochemical	China
Sinopec	China

Power Generation

Dayawan Nuclear Power Plant	China
Georgia Power	USA
Jebel Ali Power Station	UAE
Ontario Hydro	Canada
Ras Abu Fontas Power and Desalination	Qatar
Takoradi Thermal Power Station	Ghana
Wasit Power Station	UAE
Williams Energy Refinery	Canada

Pulp & Paper

Harmack & Neucel	Canada
Irving Paper	Canada
Tembec	Canada

Water/Waste Water Treatment

Ashbridges Bay	Canada
Capital Region	Canada
Chelmsford, MA Water Treatment Plant	USA
Dallas Water Treatment Plant	USA
Hartford Dist. Water Pollution Control Facility	USA
SEWA Sarjah	UAE

5-Year Warranty

A 5-year warranty applies to all pressure gauges, thermometers and tridicators.

1-Year Warranty

A 1-year warranty applies to all diaphragm seals, pressure switches, pressure transmitters, RTDs, thermocouples and instrumentation accessories.

Winters Instruments' products are warranted for a stated period of time (see above) after date of purchase against manufacturing and materials defects. Any product which is found by Winters to be defective will be replaced at Winters' discretion. Winters' product warranty does not cover product defects resulting from improper product selection, misuse or misapplication EXCEPT AS SPECIFICALLY SET FORTH IN THIS WARRANTY. WINTERS INSTRUMENTS MAKES NO REPRESENTATION OR WARRANTY OF ANY KIND, WHETHER EXPRESSED OR IMPLIED, TO PURCHASER OR ANY OTHER PERSON WITH RESPECT TO ANY OF THE PRODUCTS. WITHOUT LIMITING THE GENERALITY OF THE PRECEDING SENTENCE, WINTERS INSTRUMENTS DISCLAIMS THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Any liability from Winters to Purchaser or any other person or entity pursuant to this Warranty, whether for a claim in tort, for breach of contract or otherwise, shall not exceed the purchase price of the Product giving rise to such liability. Winters shall in no event have any liability to Purchaser or any other person or entity for any consequential, indirect, punitive or special damages (including, without limitation, lost profits) pursuant to this Warranty or pursuant to its sale of the Products, even if the possibility of such damages could have been foreseen by Winters Instruments.

Winters Platinum Service

An expedited service that moves orders to the front of the line.

Both manufacturing and service orders will be expedited through our system. Orders manufactured in North America will be completed within **48 hours** and non-North American manufactured orders will be completed within **two weeks**.

Platinum Service applies to most products. Contact Winters or a Winters distributor for more details.

Winters Platinum Service is available for new and existing orders. All Platinum Service orders must be approved by a Winters representative prior to a purchase order being issued (as order size and parts availability may preclude an order from Platinum Service). Purchase orders issued more than 3 weeks after original quote may no longer qualify for Platinum Service. Changes made to Platinum Service orders already placed may void the service. If a Platinum Service order is not shipped in the time quoted the premium fee may be waived by Winters. Freight is not included.

Repairs

Features:
- Full repair service for pressure & temperature instruments and diaphragm seals
- Non-Winters products can also be repaired

Applications:
- Where cost savings justify repairing rather than replacing

How to order:
Please contact our customer service department for your repair order code. Send in your product (freight prepaid) to your nearest Winters location. A written estimate will be faxed or emailed to you before any work is done.

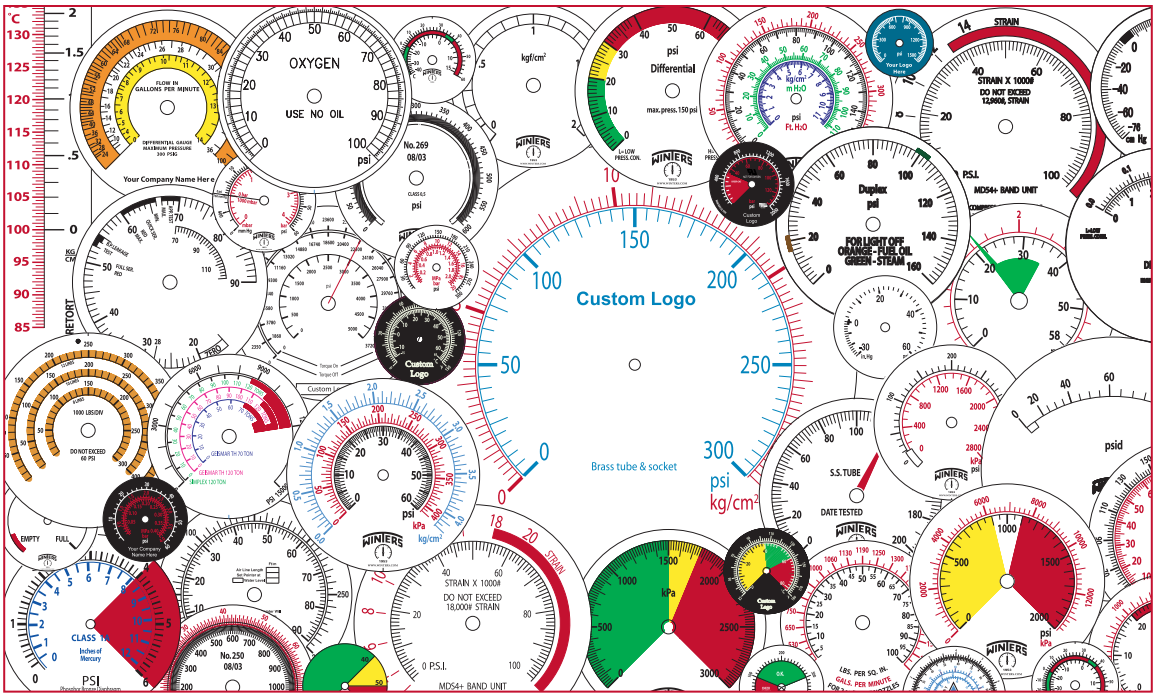
Test Certificates

Features:
- Winters will certify the accuracy of a pressure gauge, thermometer or pressure switch with a National Standards Council test certificate
- Certificates are traceable to the National Institute of Standards and Technology (NIST)
- Certificates may be registered online for renewal reminders

Applications:
- Where a formal test certificate is required
- For certification with the ISO 9000 process

How to order:
Please contact our customer service department for your order code.

Custom Dials



Customize Your Instrumentation

- Available for all makes and models of pressure and temperature instrumentation
- All colours are available
- All dials are custom manufactured to meet your specifications
- Available on new or repaired instruments
- Available for dry or liquid-filled instruments
- Emergency same-day custom dial manufacturing is available

Applicable to OEM Requirements

- Where easy-to-read, highly visible warning zones are required
- Non-standard custom measurement scales
- Replacement of damaged or outdated dials
- For time-sensitive dial requirements

Available Options:

- Colour safety zones
- Warning identification
- Tons on Ram scales
- Feet of Water scales
- Bar scales
- Kg/cm^2 scales
- Receiver gauge scales
- mm of H_2O scales
- Custom logos

More available. Please call us with your requirements.

Quick Tips:

- Review our pressure gauge, thermometer and diaphragm seal selection guides
- Take a moment to review and learn how to read our order code matrix
- If options are available and required, attach the option suffix code to the end of the product order code
- If a scale change is required (i.e. change from standard offering to bar scale), attach the scale code to the end of the product order code

Order Code Matrix (for standard, in stock products):

Each product series has an order code matrix listed after the product specifications. Locate the column of order codes that lists your desired dial size, connection size, connection location and wetted material. Then follow that column downward until it intersects with the row of your choice.

Example:

Order Codes

Dial Size	3.5" (90mm)		4" (100mm)	4.5" (115mm)		6" (150mm)	
Case Material	Steel		Steel	Aluminum		Steel	Aluminum
Connection	Bottom	Centre Back	Centre Back	Bottom	Lower Back	Bottom	Lower Back
30" Hg Vac/kPa	P1S234	*P1S460*	P1S460	P1S410	*P1S430*	P1S250	P1S475
30"/0/15 psi/kPa	P1S230	*P1S568*	P1S468	P1S411	*P1S431*	P1S251C	P1S476
30"/0/30 psi/kPa	[illegible]	*P1S569*	P1S469	P1S412	*P1S432*	P1S252C	P1S477
30"/0/60 psi/kPa	P1S232	*P1S570*	P1S470	P1S413	*P1S433*	P1S259C	P1S478
30"/0/100 psi/kPa	P1S233	*P1S571*	P1S471	P1S414	*P1S434*	P1S253C	[illegible]
30"/0/160 psi/kPa	P1S229	*P1S572*	P1S472	P1S416	*P1S436*	[illegible]	
30"/0/200 psi/kPa	-	*P1S573*	-	[illegible]			
30"/0/300 psi/kPa	P1S227	*P1S574*	[illegible]				
0/15 psi/kPa	P1S228	[illegible]					
0/30 psi/kPa	[illegible]						

Scale Codes

R1 = psi
R2 = kPa
R3 = kg/cm^2
R4 = cm of H_2O
R5 = ft of H_2O
R6 = in of Hg
R7 = mm of Hg
R8 = in of H_2O
R9 = oz/in^2
R10 = atmosphere
R11 = bar
R12 = mbar
R13 = MPa
R14 = mH_2O

If a scale change is required (i.e. change from standard offering to bar scale), attach the scale code to the end of the product order code

Options

Some options include:

Maximum Indicating Pointer
Front Flange
Back Flange
U-Clamp
Red Hand Setpoint
Rubber Boot
Stainless Steel Tag
Safety Glass
Capillary
Thermowell Cap and Chain
StabiliZR™ Movement
Filling

More options available. See individual catalogue pages or call us with your requirements.

Pressure Gauge Selection Guide

Catalogue Page	Series	Dial Size									Ranges (Pressure)								Case Material							Wetted Parts			Connection Size				Connection Location				Accuracy								
		1.5" & under	2"	2.5"	3.5"	4"	4.5"	6"	8.5"	10"	30" Hg Vac	Compound	15" H_2O - 200" H_2O	15" H_2O Vac - 200" H_2O Vac	15 - 300 psi	400 - 600 psi	1,000 - 5,000 psi	6,000 - 20,000 psi	Steel	Plastic	Phenolic	Stainless Steel	Fluid-fillable Case	Aluminum	Brass	Lead Free Brass	Stainless Steel	1/8" NPT	1/4" NPT	1/2" NPT	3/4" NPT	Bottom Mount	Centre Back	Lower Back	In Line	5% of full scale value	3-2-3% (Grade B)	2.5% of full scale value	2% of full scale value	2-1-2% (Grade A)	1.5% of full scale value	1% (Grade 1A)	0.5% and better (2A - 4A)	RoHS compliant	Lead Free
58	DPG Digital Pressure Gauge			X							X	X			X	X	X	X		X						X		X		X			X								X	
23	P1S 100 Series Gauge				X	X	X	X			X	X			X	X	X		X					X	X					X	X	X							X			
26	P3S 300 Series Gauge						X	X	X	X	X	X			X	X	X	X						X	X		X		X	X			X								X		
46	P9S 90 Series Gauge	X	X	X	X						X	X			X	X			X						X			X	X		X	X					X						
59	PAM Ammonia Gauge			X	X	X		X	X	X	X	X							X			X	X	X			X			X	X	X			X			X	X	X	X	
29	PCT Contractor Gauge						X				X	X			X	X	X					X			X					X										X		
29	PCT-LF Lead Free Contractor Gauge						X				X	X			X	X	X					X				X					X										X		X
54	PDT Differential Gauge						X	X							X	X								X	X		X				X									X		
49	PEM Economy Gauge	X	X	X		X					X	X			X	X	X		X		X				X			X	X			X	X				X						
49	PEM-LF Lead Free Economy Gauge	X	X	X		X					X	X			X	X	X		X		X					X		X	X			X	X				X						X
68	PET Economy Test Gauge		X	X											X				X						X					X	X					X						
68	PET-LF Lead Free Economy Test Gauge			X											X				X							X				X	X					X						X
52	PEU Economy Panel Mounted Gauge	X	X	X							X				X				X						X			X	X				X				X						
62	PFE Sprinkler Gauge				X										X					X					X				X			X					X						
63	PFG Refrigeration Gauge			X		X		X			X	X			X	X			X	X								X	X			X	X					X					
30	PFP Premium Stainless Steel Liquid Filled Gauge			X		X		X			X	X			X	X	X	X				X	X		X		X		X	X			X	X	X					X	X		X	
14	PFP-ZR Premium Stainless Steel StabiliZR™ Gauge			X		X		X			X	X			X	X	X	X				X					X		X	X			X	X	X					X	X		X	
36	PFQ Stainless Steel Liquid Filled Gauge	X	X	X		X					X	X			X	X	X	X				X	X		X		X	X	X	X	X			X	X			X					X	
36	PFQ-LF Lead Free Stainless Steel Liquid Filled Gauge			X		X					X	X			X	X	X	X				X				X			X		X	X			X	X				X				X
18	PFQ-ZR Stainless Steel StabiliZR™ Gauge			X							X	X			X	X	X	X				X			X				X		X	X						X					
65	PLP Low Pressure Gauge			X		X	X	X					X	X					X			X		X	X		X		X		X	X			X								
11	PPC Process Gauge						X				X	X			X	X	X	X			X		X		X		X		X	X		X								X	X		
20	PPC-ZR StabiliZR™ Process Gauge						X				X	X			X	X	X	X			X				X		X		X	X		X								X	X		
56	PPD Piston (High Static Pressure Differential)			X	X		X								X					X				X	X		X		X	X			X	X		X						
13	PRC Receiver Gauge						X								X						X				X		X		X	X		X								X			
56	PRD Rolling Diaphragm (High Static Pressure Differential)			X											X					X						X			X				X	X									
56	PSD Small Convoluted Diaphragm (High Static Pressure Differential)			X	X		X								X					X				X	X		X	X	X				X			X							
56	PVD Convoluted Diaphragm (High Static Pressure Differential)				X		X						X							X				X	X		X		X				X	X		X							

1. Optional Hinged Case
2. Optional Flush Mounting Ring

Description & Features:

- Solid phenolic front and polypropylene pressure relief back safety case
- Field liquid-fillable (bottom connection only)
- ±0.5% accuracy
- Stainless steel full rotary movement for longer life
- Micrometer pointer for ease in calibration
- Under and overload stops
- 316L stainless steel, brass, Monel® wetted parts
- Restricted orifice standard on dual scale (optional on single scale)
- ASME B40.100 compliant
- CRN registered
- 5 year warranty

Applications:

- Used where operator safety is a must
- Ideally suited for process, chemical and petroleum industries
- Highly corrosive media

RoHS compliant

Note: RoHS applies to SS and Monel® internals only

Specifications	Stainless Steel Internals	Brass Internals
Dial	4.5” (115mm) white aluminum with black and red markings	4.5” (115mm) white aluminum with black and red markings
Case	Black phenolic with pressure relief back, solid front, integral back flange	Black phenolic with pressure relief back, solid front, integral back flange
Solid Wall	Phenolic	Phenolic
Pressure Relief Back	Polypropylene	Polypropylene
Window	Polycarbonate	Polycarbonate
Ring	Phenolic	Phenolic
Pointer	Aluminum, anodized black, micrometer adjustable	Aluminum, anodized black, micrometer adjustable
Socket	316L SS	OT 58 brass
Connection	1/4” NPT or 1/2” NPT standard, bottom or back	1/4” NPT or 1/2” NPT standard, bottom or back
Bourdon Tube	316L SS, drawn seamless	Phosphor bronze
Movement	304 SS with under and overload stops	304 SS with under and overload stops
Gasket Materials	Silicone (Viton® option)	Silicone (Viton® option)
Welding	TIG	Silver alloy
Over-pressure Limit	25% for pressures below 1,500 psi (10,341 kPa), 15% for pressures 1,500 psi to 8,700 psi (10,341 kPa to 59,984 kPa), 10% for pressures above 8,700 psi (59,984 kPa)	25% for pressures below 1,500 psi (10,341 kPa), 15% for pressures 1,500 psi to 8,700 psi (10,341 kPa to 59,984 kPa), 10% for pressures above 8,700 psi (59,984 kPa)
Working Pressure	Maximum 75% of full scale value	Maximum 75% of full scale value
Ambient Temperature	Dry: -40°F to 250°F (-40°C to 120°C) Glycerin Filled: -4°F to 150°F (-20°C to 65°C)	Dry: -40°F to 250°F (-40°C to 120°C) Glycerin Filled: -4°F to 150°F (-20°C to 65°C)
Process Temperature	-40°F to 257°F (-40°C to 125°C)	-40°F to 150°F (-40°C to 65°C)
Accuracy	±0.5% ANSI/ASME Grade 2A	±0.5% ANSI/ASME Grade 2A
Enclosure Rating	IP65	IP65

Monel® is a registered trademark of Inco Alloys International
Viton® is a registered trademark of DuPont Performance Elastomers

Single Scale Order Codes (products in bold are normally stock in North America)

Connection	1/4" Bottom	1/4" Back (LB)	1/2" Bottom	1/2" Back (LB)
Socket, Tube	SS			
30" Hg Vac	PPC5040R1	PPC5340R1	PPC5060R1	PPC5460R1
30"/0/15 psi	PPC5130R1	PPC5330R1	PPC5140R1	PPC5440R1
30"/0/30 psi	PPC5131R1	PPC5331R1	PPC5141R1	PPC5441R1
30"/0/60 psi	PPC5132R1	PPC5332R1	PPC5142R1	PPC5442R1
30"/0/100 psi	PPC5133R1	PPC5333R1	PPC5143R1	PPC5443R1
30"/0/160 psi	PPC5134R1	PPC5334R1	PPC5144R1	PPC5444R1
30"/0/200 psi	PPC5135R1	PPC5335R1	PPC5145R1	PPC5445R1
30"/0/300 psi	PPC5136R1	PPC5336R1	PPC5146R1	PPC5446R1
0/15 psi	PPC5041R1	PPC5341R1	PPC5061R1	PPC5461R1
0/30 psi	PPC5042R1	PPC5342R1	PPC5062R1	PPC5462R1
0/60 psi	PPC5043R1	PPC5343R1	PPC5063R1	PPC5463R1
0/100 psi	PPC5044R1	PPC5344R1	PPC5064R1	PPC5464R1
0/160 psi	PPC5045R1	PPC5345R1	PPC5065R1	PPC5465R1
0/200 psi	PPC5046R1	PPC5346R1	PPC5066R1	PPC5466R1
0/300 psi	PPC5047R1	PPC5347R1	PPC5067R1	PPC5467R1
0/400 psi	PPC5048R1	PPC5348R1	PPC5068R1	PPC5468R1
0/600 psi	PPC5049R1	PPC5349R1	PPC5069R1	PPC5469R1
0/800 psi	PPC5058R1	PPC5358R1	PPC5078R1	PPC5478R1
0/1,000 psi	PPC5050R1	PPC5350R1	PPC5070R1	PPC5470R1
0/1,500 psi	PPC5051R1	PPC5351R1	PPC5071R1	PPC5471R1
0/2,000 psi	PPC5052R1	PPC5352R1	PPC5072R1	PPC5472R1
0/3,000 psi	PPC5053R1	PPC5353R1	PPC5073R1	PPC5473R1
0/5,000 psi	PPC5054R1	PPC5354R1	PPC5074R1	PPC5474R1
0/10,000 psi	PPC5055R1	PPC5355R1	PPC5075R1	PPC5475R1
0/15,000 psi	PPC5056R1	PPC5356R1	PPC5076R1	PPC5476R1
0/20,000 psi	PPC5057R1	PPC5357R1	PPC5077R1	PPC5477R1

Note: Restrictor screws are not standard on single scale gauges

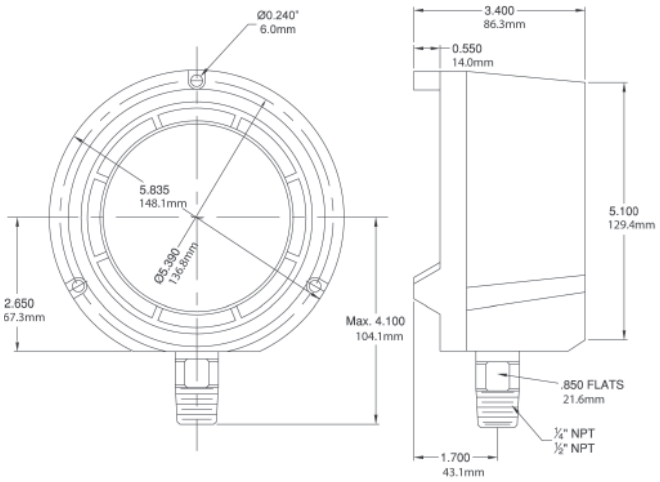
Other ranges and connection sizes available upon request. For scale change, refer to How to Order Guide for scale codes.

Option suffix:
FMR = Flush mounting ring
G = Glycerin (bottom connection only)
GID = Glow-in-the-dark dial
HCSF = Solid front hinged case (back connection only)
MS = Monel® tube and socket
SG-45 = Safety glass
SF45 = Silicone fill (bottom connection only)
REST = Restrictor Screw (psi only)

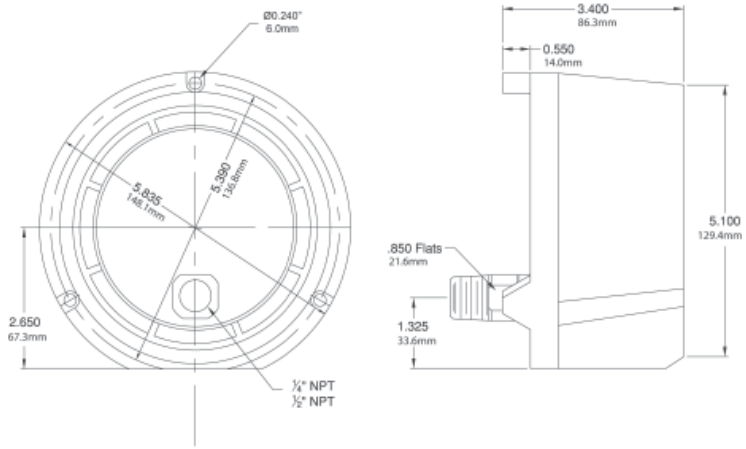
Dual Scale Order Codes (products in bold are normally stock in North America)

Connection	1/4" Bottom	1/4" Back (LB)	1/4" Bottom	1/4" Back (LB)	1/2" Bottom	1/2" Back (LB)	1/2" Bottom	1/2" Back (LB)
Socket, Tube	Brass		SS		Brass		SS	
30" Hg Vac/kPa	PPC5080	PPC5280	PPC5040	PPC5340	-	-	PPC5060	PPC5460
30"/0/15 psi/kPa	PPC5120	PPC5220	PPC5130	PPC5330	-	-	PPC5140	PPC5440
30"/0/30 psi/kPa	PPC5121	PPC5221	PPC5131	PPC5331	-	-	PPC5141	PPC5441
30"/0/60 psi/kPa	PPC5122	PPC5222	PPC5132	PPC5332	-	-	PPC5142	PPC5442
30"/0/100 psi/kPa	PPC5123	PPC5223	PPC5133	PPC5333	-	-	PPC5143	PPC5443
30"/0/160 psi/kPa	PPC5124	PPC5224	PPC5134	PPC5334	-	-	PPC5144	PPC5444
30"/0/200 psi/kPa	PPC5125	PPC5225	PPC5135	PPC5335	-	-	PPC5145	PPC5445
30"/0/300 psi/kPa	PPC5126	PPC5226	PPC5136	PPC5336	-	-	PPC5146	PPC5446
0/15 psi/kPa	PPC5081	PPC5281	PPC5041	PPC5341	-	-	PPC5061	PPC5461
0/30 psi/kPa	PPC5082	PPC5282	PPC5042	PPC5342	-	-	PPC5062	PPC5462
0/60 psi/kPa	PPC5083	PPC5283	PPC5043	PPC5343	-	-	PPC5063	PPC5463
0/100 psi/kPa	PPC5084	PPC5284	PPC5044	PPC5344	-	-	PPC5064	PPC5464
0/160 psi/kPa	PPC5085	PPC5285	PPC5045	PPC5345	-	-	PPC5065	PPC5465
0/200 psi/kPa	PPC5086	PPC5286	PPC5046	PPC5346	-	-	PPC5066	PPC5466
0/300 psi/kPa	PPC5087	PPC5287	PPC5047	PPC5347	-	-	PPC5067	PPC5467
0/400 psi/kPa	PPC5088	PPC5288	PPC5048	PPC5348	-	-	PPC5068	PPC5468
0/600 psi/kPa	PPC5089	PPC5289	PPC5049	PPC5349	-	-	PPC5069	PPC5469
0/800 psi/kPa	PPC5099	PPC5299	PPC5058	PPC5358	PPC5188	PPC5198	PPC5078	PPC5478
0/1,000 psi/kPa	PPC5098	PPC5298	PPC5050	PPC5350	PPC5090	PPC5290	PPC5070	PPC5470
0/1,500 psi/kPa	-	-	PPC5051	PPC5351	PPC5091	PPC5291	PPC5071	PPC5471
0/2,000 psi/kPa	-	-	PPC5052	PPC5352	PPC5092	PPC5292	PPC5072	PPC5472
0/3,000 psi/kPa	-	-	PPC5053	PPC5353	PPC5093	PPC5293	PPC5073	PPC5473
0/5,000 psi/kPa	-	-	PPC5054	PPC5354	PPC5094	PPC5294	PPC5074	PPC5474
0/10,000 psi/kPa	-	-	PPC5055	PPC5355	PPC5095	PPC5295	PPC5075	PPC5475
0/15,000 psi/kPa	-	-	PPC5056	PPC5356	PPC5096	PPC5296	PPC5076	PPC5476
0/20,000 psi/kPa	-	-	PPC5057	PPC5357	PPC5097	PPC5297	PPC5077	PPC5477

4.5” Bottom Connection



4.5” Back Connection



PRC Receiver Gauge

Description & Features:

- High quality gauge designed to work with a pneumatic transmitter or controller
- 3-15 psi with a variety of receiver ranges
- 316 stainless steel or brass wetted parts
- ASME B40.100 compliant
- CRN registered
- 5 year warranty

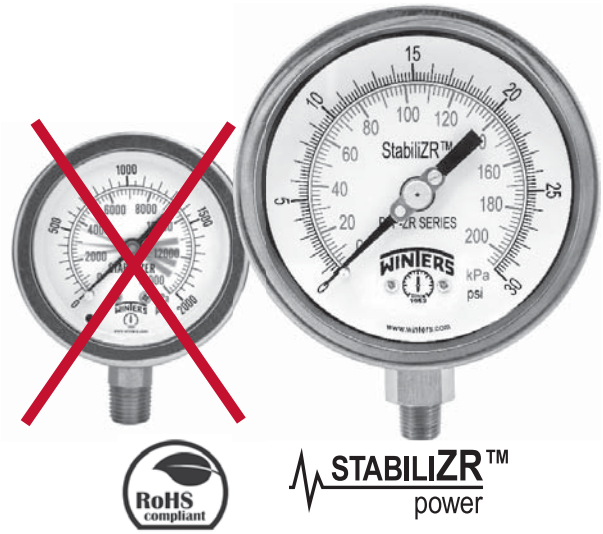
Applications:

- Reliable indication of changes in pressure, temperature, flow, level, or other measured variables

Order Codes

Connection	1/4” Bottom	1/4” Back	1/4” Bottom	1/4” Back
Socket, Tube	Brass		SS	
3/15 psi/0-100%	PRC5081REC	PRC5281REC	PRC5041REC	PRC5341REC
3/27 psi/0-100%	PRC5082REC	PRC5283REC	PRC5042REC	PRC5342REC

PFP-ZR Premium Stainless Steel StabiliZR™ Gauge



RoHS compliant

STABILIZR™ power

Description & Features:

- StabiliZR™ dampened movement minimizes effects of pulsation and vibration without liquid filling
- Restrictor screw standard on dual scale (optional on single scale)
- Stainless steel case
- Under and overload stops (4” and 6”)
- Back, bottom or panel mounted
- 316 SS wetted parts
- ASME B40.100 compliant (EN837-1 available)
- CRN registered
- 5 year warranty

Applications:

- Ideally suited for process, chemical and petroleum industry
- Where chemical compatibility and contamination is a concern

Specifications	
Dial	2.5” (63mm), 4” (100mm), 6” (150mm) white aluminum with black and red markings
Case	AISI 304 SS (dry)
Lens	Polycarbonate
Ring	AISI 304 SS bayonet
Socket	316 SS
Connection	2.5” (63mm): 1/4” NPT 4” (100mm), 6” (150mm): 1/4”, 1/2” NPT
Bourdon Tube	316 SS
Movement	304 SS, (under and overload stops 4” and 6”) and StabiliZR™ dampened movement (silicone in sealed chamber)
Pointer	2.5” (63mm): Aluminum, anodized black 4” (100mm), 6” (150mm): Aluminum, anodized black, micrometer adjustable
Welding	Laser welded socket to case
Over-pressure Limit	25% for pressures up to 1,450 psi (9,998 kPa), 15% for pressures over 1,450 psi (9,998 kPa)
Lens Ring Gasket	Buna N
Ambient Temperature	-40°F to 250°F (-40°C to 120°C)
Process Temperature	-40°F to 250°F (-40°C to 120°C)
Working Pressure	Maximum 75% of full scale value
Accuracy	2.5” (63mm): ±1.5% of full scale value 4” (100mm), 6” (150mm): ±1% ANSI/ASME Grade 1A
Enclosure Rating	NEMA 4X/IP66, EN60529-1 (IEC529-1)

Single Scale Order Codes (products in italics are normally available in 3 - 5 days)

Dial Size	2.5" (63mm)		4" (100mm)				6" (150mm)	
Connection	1/4" Bottom	1/4" Back (CB)	1/4" Bottom	1/4" Back (LB)	1/2" Bottom	1/2" Back (LB)	1/4" Bottom	1/2" Bottom
30" Hg Vac	PFP820ZRR1	PFP840ZRR1	PFP640ZRR1	PFP1090ZRR1	PFP655ZRR1	-	PFP1078ZRR1	PFP2326ZRR1
30"/0/15 psi	PFP860ZRR1	PFP870ZRR1	PFP1036ZRR1	PFP1244ZRR1	PFP1044ZRR1	-	PFP1079ZRR1	PFP2327ZRR1
30"/0/30 psi	PFP861ZRR1	PFP871ZRR1	PFP1037ZRR1	PFP1245ZRR1	PFP1045ZRR1	-	PFP1052ZRR1	PFP2328ZRR1
30"/0/60 psi	PFP862ZRR1	PFP872ZRR1	PFP1038ZRR1	PFP1246ZRR1	PFP1046ZRR1	-	PFP1053ZRR1	PFP2329ZRR1
30"/0/100 psi	PFP863ZRR1	PFP873ZRR1	PFP1039ZRR1	PFP1247ZRR1	PFP1047ZRR1	-	PFP1054ZRR1	PFP2330ZRR1
30"/0/150 psi	PFP864ZRR1	PFP874ZRR1	PFP1040ZRR1	PFP1248ZRR1	PFP1048ZRR1	-	PFP1055ZRR1	PFP2331ZRR1
30"/0/200 psi	PFP866ZRR1	PFP876ZRR1	PFP1042ZRR1	PFP1249ZRR1	PFP1050ZRR1	-	PFP1057ZRR1	PFP2332ZRR1
30"/0/300 psi	PFP867ZRR1	PFP877ZRR1	PFP1043ZRR1	PFP1250ZRR1	PFP1051ZRR1	-	PFP1058ZRR1	PFP2333ZRR1
0/15 psi	PFP821ZRR1	PFP921ZRR1	PFP641ZRR1	PFP1091ZRR1	PFP656ZRR1	-	PFP1059ZRR1	PFP2334ZRR1
0/30 psi	PFP822ZRR1	PFP922ZRR1	PFP642ZRR1	PFP1092ZRR1	PFP657ZRR1	-	PFP1060ZRR1	PFP2335ZRR1
0/60 psi	PFP823ZRR1	PFP923ZRR1	PFP643ZRR1	PFP1093ZRR1	PFP658ZRR1	-	PFP1061ZRR1	PFP2336ZRR1
0/100 psi	PFP824ZRR1	PFP924ZRR1	PFP644ZRR1	PFP1094ZRR1	*PFP659ZRR1*	-	PFP1062ZRR1	PFP2337ZRR1
0/160 psi	PFP825ZRR1	PFP925ZRR1	*PFP645ZRR1*	PFP1095ZRR1	*PFP660ZRR1*	-	PFP1063ZRR1	PFP2338ZRR1
0/200 psi	PFP826ZRR1	PFP926ZRR1	PFP646ZRR1	PFP1096ZRR1	*PFP661ZRR1*	-	PFP1064ZRR1	PFP2339ZRR1
0/300 psi	PFP827ZRR1	PFP927ZRR1	PFP647ZRR1	PFP1097ZRR1	*PFP662ZRR1*	-	PFP1065ZRR1	PFP2340ZRR1
0/400 psi	PFP880ZRR1	PFP881ZRR1	PFP650ZRR1	PFP1251ZRR1	PFP666ZRR1	-	PFP1077ZRR1	PFP2341ZRR1
0/600 psi	PFP828ZRR1	PFP928ZRR1	PFP648ZRR1	PFP1098ZRR1	*PFP663ZRR1*	-	PFP1066ZRR1	PFP2342ZRR1
0/1,000 psi	PFP829ZRR1	PFP929ZRR1	PFP649ZRR1	PFP1099ZRR1	*PFP664ZRR1*	-	PFP1067ZRR1	PFP1080ZRR1
0/1,500 psi	PFP834ZRR1	PFP934ZRR1	-	PFP1252ZRR1	PFP665ZRR1	PFP1190ZRR1	PFP1068ZRR1	PFP1081ZRR1
0/2,000 psi	PFP830ZRR1	PFP930ZRR1	-	PFP1253ZRR1	PFP667ZRR1	PFP1191ZRR1	PFP1069ZRR1	PFP1082ZRR1
0/3,000 psi	PFP831ZRR1	PFP931ZRR1	-	PFP1254ZRR1	PFP668ZRR1	PFP1192ZRR1	PFP1070ZRR1	PFP1083ZRR1
0/5,000 psi	PFP832ZRR1	PFP852ZRR1	-	PFP1255ZRR1	PFP669ZRR1	PFP1193ZRR1	PFP1072ZRR1	PFP1085ZRR1
0/6,000 psi	PFP836ZRR1	PFP851ZRR1	-	PFP1259ZRR1	PFP675ZRR1	PFP1197ZRR1	-	PFP1089ZRR1
0/10,000 psi	PFP833ZRR1	PFP853ZRR1	-	PFP1256ZRR1	PFP670ZRR1	PFP1194ZRR1	PFP1073ZRR1	PFP1086ZRR1
0/15,000 psi	PFP835ZRR1	PFP855ZRR1	-	PFP1257ZRR1	PFP671ZRR1	PFP1195ZRR1	PFP1074ZRR1	PFP1087ZRR1
0/20,000 psi	PFP837ZRR1	-	-	PFP1258ZRR1	PFP672ZRR1	PFP1196ZRR1	PFP1075ZRR1	PFP1088ZRR1

Note: Restrictor screws are not standard on single scale gauges

Other ranges and connection sizes available upon request. For scale change, refer to How to Order Guide for scale codes. **For options, attach suffix to end of order code: i.e. PFP660ZRR1-4FF for FRONT FLANGE.**

Option suffix:

25BF = 2.5" (63mm) Back flange
25BOOT = 2.5" (63mm) Black rubber boot
25FF = 2.5" (63mm) Front flange
25UC = 2.5" (63mm) U-Clamp
4BF = 4" (100mm) Back flange
4FF = 4" (100mm) Front flange
4UC-P = 4" (100mm) U-Clamp premium
6BF = 6" (150mm) Back flange
EN = EN837-1 compliant
GID = Glow-in-the-dark dial
MAXI25 = 2.5" (63mm) Maximum adjustable pointer
REST = Restrictor screw
SG25 = 2.5" (63mm) Safety glass lens
SG-4 = 4" (100mm) Safety glass lens
SG-6 = 6" (150mm) Safety glass lens

Dual Scale Order Codes (products in italics are normally available in 3 - 5 days)

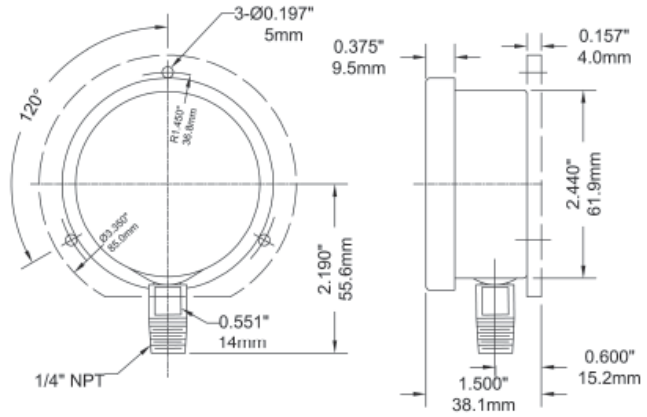
Dial Size	2.5" (63mm)		4" (100mm)				6" (150mm)	
Connection	1/4" Bottom	1/4" Back (CB)	1/4" Bottom	1/4" Back (LB)	1/2" Bottom	1/2" Back (LB)	1/4" Bottom	1/2" Bottom
30" Hg Vac/kPa	PFP820ZR	PFP840ZR	PFP640ZR	PFP1090ZR	PFP655ZR	PFP2308ZR	PFP1078ZR	PFP2326ZR
30"/0/15 psi/kPa	PFP860ZR	PFP870ZR	PFP1036ZR	PFP1244ZR	PFP1044ZR	PFP2309ZR	PFP1079ZR	PFP2327ZR
30"/0/30 psi/kPa	PFP861ZR	PFP871ZR	PFP1037ZR	PFP1245ZR	PFP1045ZR	PFP2310ZR	PFP1052ZR	PFP2328ZR
30"/0/60 psi/kPa	PFP862ZR	PFP872ZR	*PFP1038ZR*	PFP1246ZR	PFP1046ZR	PFP2311ZR	PFP1053ZR	PFP2329ZR
30"/0/100 psi/kPa	PFP863ZR	PFP873ZR	PFP1039ZR	PFP1247ZR	PFP1047ZR	PFP2312ZR	PFP1054ZR	PFP2330ZR
30"/0/150 psi/kPa	PFP864ZR	PFP874ZR	PFP1040ZR	PFP1248ZR	PFP1048ZR	PFP2313ZR	PFP1055ZR	PFP2331ZR
30"/0/200 psi/kPa	PFP866ZR	PFP876ZR	PFP1042ZR	PFP1249ZR	PFP1050ZR	PFP2314ZR	PFP1057ZR	PFP2332ZR
30"/0/300 psi/kPa	PFP867ZR	PFP877ZR	PFP1043ZR	PFP1250ZR	PFP1051ZR	PFP2315ZR	PFP1058ZR	PFP2333ZR
0/15 psi/kPa	PFP821ZR	PFP921ZR	PFP641ZR	PFP1091ZR	PFP656ZR	PFP2316ZR	PFP1059ZR	PFP2334ZR
0/30 psi/kPa	PFP822ZR	PFP922ZR	*PFP642ZR*	PFP1092ZR	PFP657ZR	PFP2317ZR	PFP1060ZR	PFP2335ZR
0/60 psi/kPa	PFP823ZR	PFP923ZR	*PFP643ZR*	PFP1093ZR	*PFP658ZR*	PFP2318ZR	PFP1061ZR	PFP2336ZR
0/100 psi/kPa	PFP824ZR	PFP924ZR	*PFP644ZR*	PFP1094ZR	*PFP659ZR*	PFP2319ZR	PFP1062ZR	PFP2337ZR
0/160 psi/kPa	PFP825ZR	PFP925ZR	*PFP645ZR*	PFP1095ZR	*PFP660ZR*	PFP2320ZR	PFP1063ZR	PFP2338ZR
0/200 psi/kPa	PFP826ZR	PFP926ZR	*PFP646ZR*	PFP1096ZR	*PFP661ZR*	PFP2321ZR	PFP1064ZR	PFP2339ZR
0/300 psi/kPa	PFP827ZR	PFP927ZR	*PFP647ZR*	PFP1097ZR	*PFP662ZR*	PFP2322ZR	PFP1065ZR	PFP2340ZR
0/400 psi/kPa	PFP880ZR	PFP881ZR	*PFP650ZR*	PFP1251ZR	*PFP666ZR*	PFP2323ZR	PFP1077ZR	PFP2341ZR
0/600 psi/kPa	PFP828ZR	PFP928ZR	*PFP648ZR*	PFP1098ZR	*PFP663ZR*	PFP2324ZR	PFP1066ZR	PFP2342ZR
0/1,000 psi/kPa	PFP829ZR	PFP929ZR	PFP649ZR	PFP1099ZR	*PFP664ZR*	PFP2325ZR	PFP1067ZR	PFP1080ZR
0/1,500 psi/kPa	PFP834ZR	PFP934ZR	PFP2301ZR	PFP1252ZR	*PFP665ZR*	PFP1190ZR	PFP1068ZR	PFP1081ZR
0/2,000 psi/kPa	PFP830ZR	PFP930ZR	PFP2302ZR	PFP1253ZR	*PFP667ZR*	PFP1191ZR	PFP1069ZR	PFP1082ZR
0/3,000 psi/kPa	PFP831ZR	PFP931ZR	PFP2303ZR	PFP1254ZR	*PFP668ZR*	PFP1192ZR	PFP1070ZR	PFP1083ZR
0/5,000 psi/kPa	PFP832ZR	PFP852ZR	PFP2304ZR	PFP1255ZR	*PFP669ZR*	PFP1193ZR	PFP1072ZR	PFP1085ZR
0/6,000 psi/kPa	PFP836ZR	PFP851ZR	PFP2305ZR	PFP1259ZR	PFP675ZR	PFP1197ZR	-	PFP1089ZR
0/10,000 psi/kPa	PFP833ZR	PFP853ZR	PFP2306ZR	PFP1256ZR	PFP670ZR	PFP1194ZR	PFP1073ZR	PFP1086ZR
0/15,000 psi/kPa	PFP835ZR	PFP855ZR	PFP2307ZR	PFP1257ZR	PFP671ZR	PFP1195ZR	PFP1074ZR	PFP1087ZR
0/20,000 psi/kPa	PFP837ZR	-	-	PFP1258ZR	*PFP672ZR*	PFP1196ZR	PFP1075ZR	PFP1088ZR

Other ranges and connection sizes available upon request. For scale change, refer to How to Order Guide for scale codes. **For options, attach suffix to end of order code: i.e. PFP660ZR-4FF for FRONT FLANGE.**

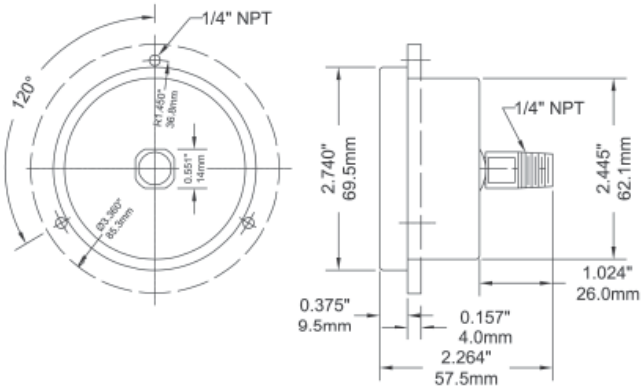
Option suffix:

25BF = 2.5" (63mm) Back flange
25BOOT = 2.5" (63mm) Black rubber boot
25FF = 2.5" (63mm) Front flange
25UC = 2.5" (63mm) U-Clamp
4BF = 4" (100mm) Back flange
4FF = 4" (100mm) Front flange
4UC-P = 4" (100mm) U-Clamp premium
6BF = 6" (150mm) Back flange
EN = EN837-1 compliant
GID = Glow-in-the-dark dial
MAXI25 = 2.5" (63mm) Maximum adjustable pointer
REST = Restrictor screw
SG25 = 2.5" (63mm) Safety glass lens
SG-4 = 4" (100mm) Safety glass lens
SG-6 = 6" (150mm) Safety glass lens

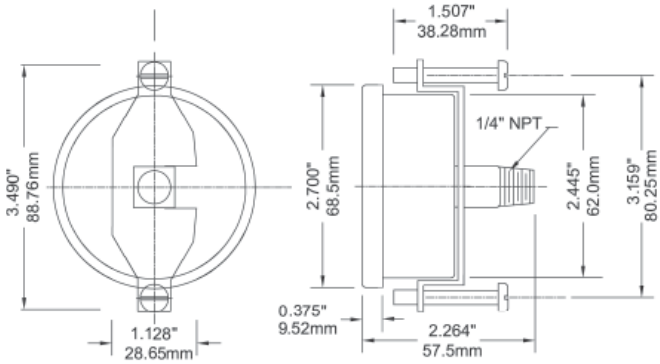
2.5” Bottom Connection with Back Flange



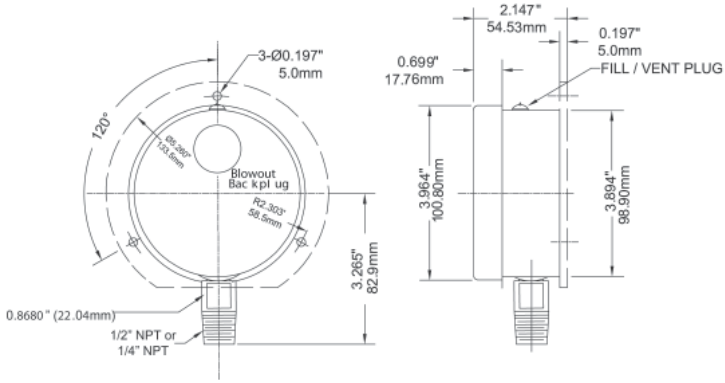
2.5” Back Connection with Front Flange



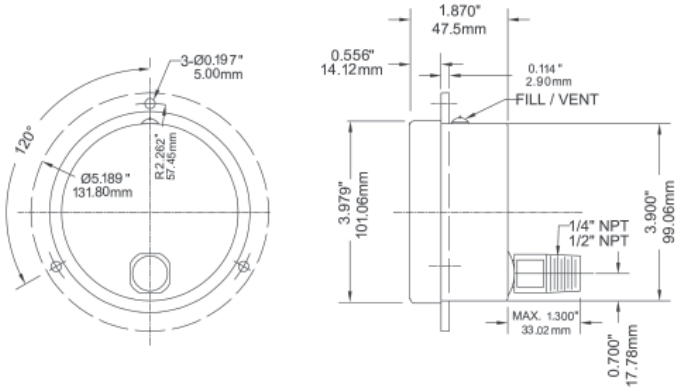
2.5” Back Connection with U-Clamp



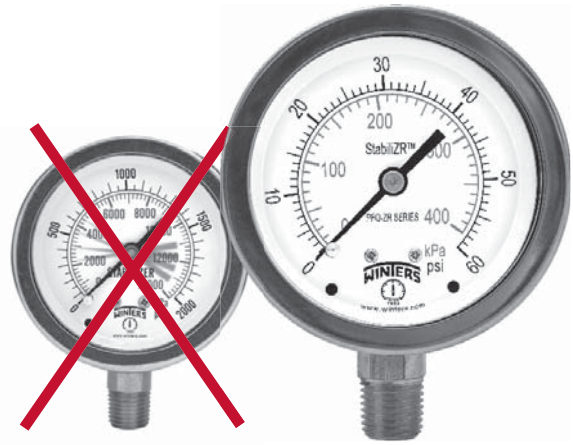
4” Bottom Connection with Back Flange



4” Lower Back Connection with Front Flange



PFQ-ZR StabiliZR™ Stainless Steel Gauge



STABILIZR™ power

Description & Features:

- StabiliZR™ dampened movement minimizes effects of pulsation and vibration without liquid filling (flutterless pointer)
- Restricted orifice standard on dual scale (included but not installed on single scale)
- Crimp-on bezel
- Brass internals
- Dual scale (psi/kPa)
- U-Clamps and front flanges for panel mounting
- ASME B40.100 compliant (EN837-1 available)
- CRN registered
- 5 year warranty

Applications:

- Ideal for pumps, compressors, hydraulic presses, machinery and motors that operate in harsh environments

Specifications	
Dial	2.5” (63mm) aluminum with red and black markings
Case	304 SS (dry)
Lens	Polycarbonate
Ring	304 SS (crimped on)
Socket	Brass
Connection	1/4” NPT
Bourdon Tube	Bronze
Movement	Bronze with StabiliZR™ dampened movement (silicone in sealed chamber)
Pointer	Anodized black aluminum
Over-pressure Limit	25% for pressures up to 1,450 psi (9,998 kPa), 15% for pressures over 1,450 psi (9,998 kPa)
Socket Gasket	Buna N for two-piece internal socket seal
Fill Plug	Buna N
Lens Ring Gasket	Silicone rubber
Working Pressure	75% of full scale value
Ambient/Process Temperature	-40°F to 200°F (-40°C to 93°C)
Accuracy	±1.5% of full scale value
Enclosure Rating	IP65

Single Scale Order Codes (products in bold are normally stock in North America)

Dial Size	2.5" (63mm)	
Connection	1/4" Bottom	1/4" Back (CB)
30" Hg Vac	PFQ801ZRR1	PFQ900ZRR1
30"/0/15 psi	PFQ790ZRR1	PFQ890ZRR1
30"/0/30 psi	PFQ798ZRR1	PFQ898ZRR1
30"/0/60 psi	PFQ799ZRR1	PFQ899ZRR1
30"/0/100 psi	PFQ791ZRR1	PFQ891ZRR1
30"/0/160 psi	PFQ792ZRR1	PFQ892ZRR1
30"/0/200 psi	PFQ794ZRR1	PFQ894ZRR1
30"/0/300 psi	PFQ795ZRR1	PFQ895ZRR1
0/15 psi	PFQ800ZRR1	PFQ901ZRR1
0/30 psi	PFQ802ZRR1	PFQ902ZRR1
0/60 psi	PFQ803ZRR1	PFQ903ZRR1
0/100 psi	PFQ804ZRR1	PFQ904ZRR1
0/160 psi	PFQ805ZRR1	PFQ905ZRR1
0/200 psi	PFQ806ZRR1	PFQ906ZRR1
0/300 psi	PFQ807ZRR1	PFQ907ZRR1
0/400 psi	PFQ817ZRR1	PFQ917ZRR1
0/600 psi	PFQ808ZRR1	PFQ908ZRR1
0/1,000 psi	PFQ809ZRR1	PFQ909ZRR1
0/1,500 psi	PFQ816ZRR1	PFQ914ZRR1
0/2,000 psi	PFQ810ZRR1	PFQ910ZRR1
0/3,000 psi	PFQ811ZRR1	PFQ911ZRR1
0/5,000 psi	PFQ812ZRR1	PFQ912ZRR1
0/6,000 psi	PFQ814ZRR1	PFQ915ZRR1
0/7,500 psi	PFQ818ZRR1	PFQ918ZRR1
0/10,000 psi	PFQ813ZRR1	PFQ913ZRR1

Dual Scale Order Codes

Dial Size	2.5" (63mm)	
Connection	1/4" Bottom	1/4" Back (CB)
30" Hg Vac/kPa	PFQ801ZR	PFQ900ZR
30"/0/15 psi/kPa	PFQ790ZR	PFQ890ZR
30"/0/30 psi/kPa	PFQ798ZR	PFQ898ZR
30"/0/60 psi/kPa	PFQ799ZR	PFQ899ZR
30"/0/100 psi/kPa	PFQ791ZR	PFQ891ZR
30"/0/150 psi/kPa	PFQ792ZR	PFQ892ZR
30"/0/200 psi/kPa	PFQ794ZR	PFQ894ZR
30"/0/300 psi/kPa	PFQ795ZR	PFQ895ZR
0/15 psi/kPa	PFQ800ZR	PFQ901ZR
0/30 psi/kPa	PFQ802ZR	PFQ902ZR
0/60 psi/kPa	PFQ803ZR	PFQ903ZR
0/100 psi/kPa	PFQ804ZR	PFQ904ZR
0/160 psi/kPa	PFQ805ZR	PFQ905ZR
0/200 psi/kPa	PFQ806ZR	PFQ906ZR
0/300 psi/kPa	PFQ807ZR	PFQ907ZR
0/400 psi/kPa	PFQ817ZR	PFQ917ZR
0/600 psi/kPa	PFQ808ZR	PFQ908ZR
0/1,000 psi/kPa	PFQ809ZR	PFQ909ZR
0/1,500 psi/kPa	PFQ816ZR	PFQ914ZR
0/2,000 psi/kPa	PFQ810ZR	PFQ910ZR
0/3,000 psi/kPa	PFQ811ZR	PFQ911ZR
0/5,000 psi/kPa	PFQ812ZR	PFQ912ZR
0/6,000 psi/kPa	PFQ814ZR	PFQ915ZR
0/7,500 psi/kPa	PFQ818ZR	PFQ918ZR
0/10,000 psi/kPa	PFQ813ZR	PFQ913ZR

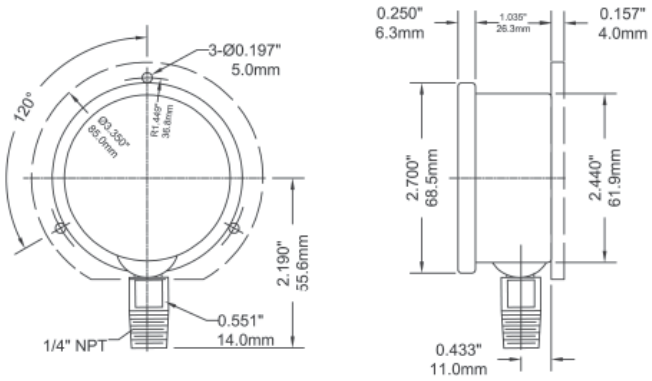
Note: Restrictor screws are not standard on single scale gauges

Other ranges and connection sizes available upon request. For scale change, refer to How to Order Guide for scale codes.
For options, attach suffix to end of order code: i.e. PFQ807ZR-25BF for BACK FLANGE.

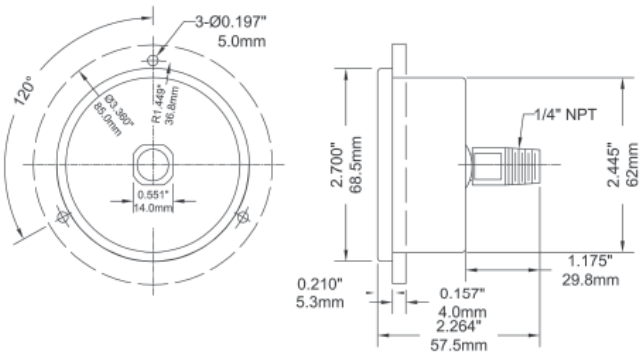
Option suffix:

25BF = 2.5" (63mm) Back flange
25BOOT = 2.5" (63mm) Black rubber boot
25FF = 2.5" (63mm) Front flange
25UC = 2.5" (63mm) U-Clamp
EN = EN837-1 compliant
REST = Restrictor screw

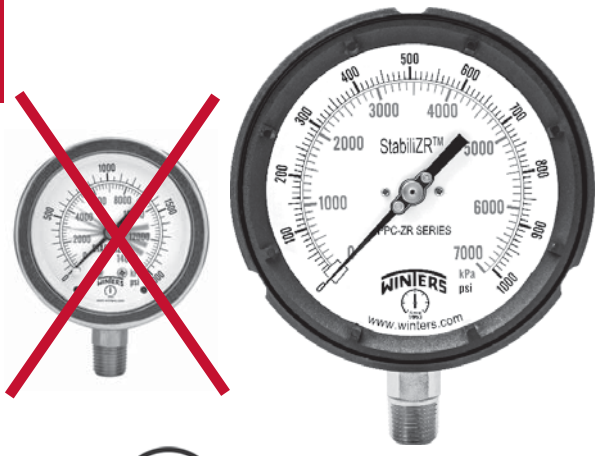
2.5" Bottom Connection with Back Flange



2.5" Back Connection with Front Flange



PPC-ZR StabiliZR™ Process Gauge



RoHS compliant

STABILIZR™ power

Note; RoHS applies to SS and Monel® internals only

Description & Features:

- StabiliZR™ dampened movement minimizes effects of pulsation and vibration without liquid filling
- Solid phenolic front and polypropylene pressure relief back safety case
- ±0.5% accuracy
- Stainless steel full rotary movement
- Micrometer pointer for ease in calibration
- Under and overload stops
- 316L stainless steel or brass wetted parts standard
- Restricted orifice standard on dual scale (optional on single scale)
- ASME B40.100 compliant
- CRN registered
- 5 year warranty

Applications:

- Used where operator safety is a must
- Ideally suited for process, chemical and petroleum industry applications where chemical compatibility and contamination is a concern
- Processes where pulsation and vibration exist

Specifications	Stainless Steel Internals	Brass Internals
Dial	4.5” (115mm) aluminum with black and red markings	4.5” (115mm) white aluminum with black and red markings
Case	Black phenolic with pressure relief back, solid front, integral back flange	Black phenolic with pressure relief back, solid front, integral back flange
Solid Wall	Phenolic	Phenolic
Pressure Relief Back	Polypropylene	Polypropylene
Window	Polycarbonate	Polycarbonate
Ring	Phenolic	Phenolic
Pointer	Aluminum, anodized black, micrometer adjustable	Aluminum, anodized black, micrometer adjustable
Socket	316L SS	OT 58 brass
Connection	1/4” or 1/2” NPT standard, bottom or back	1/4” NPT or 1/2” NPT standard, bottom or back
Bourdon Tube	316L SS, drawn seamless	Phosphor bronze
Movement	304 SS with under and overload stops and StabiliZR™ dampened movement (silicone in sealed chamber)	304 SS with under and overload stops and StabiliZR™ dampened movement (silicone in sealed chamber)
Gasket Materials	Silicone (Viton® option)	Silicone (Viton® option)
Welding	TIG	Silver alloy
Over-pressure Limit	25% for pressures below 1,500 psi (10,341 kPa), 15% for pressures 1,500 psi to 8,700 psi (10,341 kPa to 59,984 kPa), 10% for pressures above 8,700 psi (59,984 kPa)	25% for pressures below 1,500 psi (10,341 kPa), 15% for pressures 1,500 psi to 8,700 psi (10,341 kPa to 59,984 kPa), 10% for pressures above 8,700 psi (59,984 kPa)
Working Pressure	Maximum 75% of full scale value	Maximum 75% of full scale value
Ambient Temperature	-40°F to 200°F (-40°C to 93°C)	-40°F to 250°F (-40°C to 120°C)
Process Temperature	-40°F to 257°F (-40°C to 125°C)	-40°F to 150°F (-40°C to 65°C)
Accuracy	±0.5% ANSI/ASME Grade 2A	±0.5% ANSI/ASME Grade 2A
Enclosure Rating	IP65	IP65

Viton® is a registered trademark of DuPont Performance Elastomers

Single Scale Order Codes (products in bold are normally stock in North America)
(products in italics are normally available in 3-5 days)

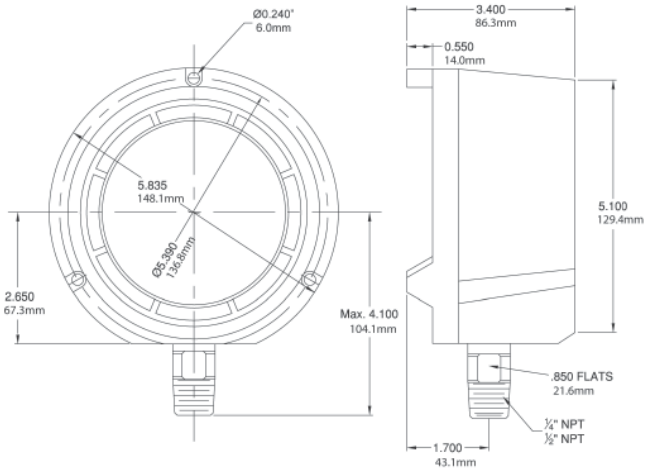
Connection	1/4" Bottom	1/4" Back (LB)	1/4" Bottom	1/4" Back (LB)	1/2" Bottom	1/2" Back (LB)
Socket, Tube	Brass		SS			
30" Hg Vac	PPC5080ZRR1	PPC5280ZRR1	PPC5040ZRR1	PPC5340ZRR1	PPC5060ZRR1	PPC5460ZRR1
30"/0/15 psi	PPC5120ZRR1	PPC5220ZRR1	PPC5130ZRR1	PPC5330ZRR1	PPC5140ZRR1	PPC5440ZRR1
30"/0/30 psi	PPC5121ZRR1	PPC5221ZRR1	PPC5131ZRR1	PPC5331ZRR1	PPC5141ZRR1	PPC5441ZRR1
30"/0/60 psi	PPC5122ZRR1	PPC5222ZRR1	PPC5132ZRR1	PPC5332ZRR1	PPC5142ZRR1	PPC5442ZRR1
30"/0/100 psi	PPC5123ZRR1	PPC5223ZRR1	PPC5133ZRR1	PPC5333ZRR1	PPC5143ZRR1	PPC5443ZRR1
30"/0/160 psi	PPC5124ZRR1	PPC5224ZRR1	PPC5134ZRR1	PPC5334ZRR1	PPC5144ZRR1	PPC5444ZRR1
30"/0/200 psi	PPC5125ZRR1	PPC5225ZRR1	PPC5135ZRR1	PPC5335ZRR1	PPC5145ZRR1	PPC5445ZRR1
30"/0/300 psi	PPC5126ZRR1	PPC5226ZRR1	PPC5136ZRR1	PPC5336ZRR1	PPC5146ZRR1	PPC5446ZRR1
0/15 psi	PPC5081ZRR1	PPC5281ZRR1	PPC5041ZRR1	PPC5341ZRR1	PPC5061ZRR1	PPC5461ZRR1
0/30 psi	PPC5082ZRR1	PPC5282ZRR1	PPC5042ZRR1	PPC5342ZRR1	*PPC5062ZRR1*	PPC5462ZRR1
0/60 psi	PPC5083ZRR1	PPC5283ZRR1	*PPC5043ZRR1*	PPC5343ZRR1	PPC5063ZRR1	PPC5463ZRR1
0/100 psi	PPC5084ZRR1	PPC5284ZRR1	*PPC5044ZRR1*	PPC5344ZRR1	PPC5064ZRR1	PPC5464ZRR1
0/160 psi	PPC5085ZRR1	PPC5285ZRR1	*PPC5045ZRR1*	PPC5345ZRR1	*PPC5065ZRR1*	PPC5465ZRR1
0/200 psi	PPC5086ZRR1	PPC5286ZRR1	PPC5046ZRR1	PPC5346ZRR1	PPC5066ZRR1	PPC5466ZRR1
0/300 psi	PPC5087ZRR1	PPC5287ZRR1	PPC5047ZRR1	PPC5347ZRR1	PPC5067ZRR1	PPC5467ZRR1
0/400 psi	PPC5088ZRR1	PPC5288ZRR1	PPC5048ZRR1	PPC5348ZRR1	PPC5068ZRR1	PPC5468ZRR1
0/600 psi	PPC5089ZRR1	PPC5289ZRR1	PPC5049ZRR1	PPC5349ZRR1	PPC5069ZRR1	PPC5469ZRR1
0/800 psi	-	-	PPC5058ZRR1	PPC5358ZRR1	PPC5078ZRR1	PPC5478ZRR1
0/1,000 psi	PPC5098ZRR1	PPC5298ZRR1	PPC5050ZRR1	PPC5350ZRR1	PPC5070ZRR1	PPC5470ZRR1
Connection	**1/2" Bottom**	**1/2" Back (LB)**	**1/4" Bottom**	**1/4" Back (LB)**	**1/2" Bottom**	**1/2" Back (LB)**
0/1,000 psi	PPC5188ZRR1	PPC5290ZRR1	PPC5050ZRR1	PPC5350ZRR1	PPC5070ZRR1	PPC5470ZRR1
0/1,500 psi	PPC5091ZRR1	PPC5291ZRR1	PPC5051ZRR1	PPC5351ZRR1	PPC5071ZRR1	PPC5471ZRR1
0/2,000 psi	PPC5092ZRR1	PPC5292ZRR1	PPC5052ZRR1	PPC5352ZRR1	PPC5072ZRR1	PPC5472ZRR1
0/3,000 psi	PPC5093ZRR1	PPC5293ZRR1	PPC5053ZRR1	PPC5353ZRR1	*PPC5073ZRR1*	PPC5473ZRR1
0/5,000 psi	PPC5094ZRR1	PPC5294ZRR1	PPC5054ZRR1	PPC5354ZRR1	PPC5074ZRR1	PPC5474ZRR1
0/10,000 psi	PPC5095ZRR1	PPC5295ZRR1	PPC5055ZRR1	PPC5355ZRR1	PPC5075ZRR1	PPC5475ZRR1
0/15,000 psi	PPC5096ZRR1	PPC5296ZRR1	PPC5056ZRR1	PPC5356ZRR1	PPC5076ZRR1	PPC5476ZRR1
0/20,000 psi	PPC5097ZRR1	PPC5297ZRR1	PPC5057ZRR1	PPC5357ZRR1	PPC5077ZRR1	PPC5477ZRR1

Note: Restrictor screws are not standard on single scale gauges

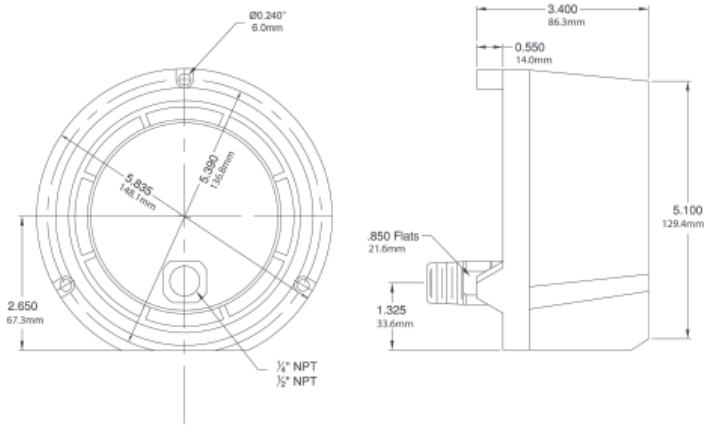
Other ranges and connection sizes available upon request. For scale change, refer to How to Order Guide for scale codes. 1/2" NPT brass available on ranges below 1,000 psi.
For options, attach suffix to end of order code: i.e. PPC5284ZRR1-FMR for FLUSH MOUNTED RING.

Option suffix:
CS = Carbon steel socket/stainless steel tube
FMR = Flush mounted ring
GID = Glow-in-the-dark dial
HCSF = 4.5" (115mm) Solid front hinged case (back connection only)
MS = Monel® tube and socket
SG-45 = 4.5" (115mm) Safety glass
REST = Restrictor screw

4.5" Bottom Connection



4.5" Back Connection



Dual Scale Order Codes (products in bold are normally stock in North America) (products in italics are normally available in 3 - 5 days)

Connection	Bottom 1/4"	Back (LB) 1/4"	Bottom 1/4"	Back (LB) 1/4"	Bottom 1/2"	Back (LB) 1/2"
Socket, Tube	Brass		SS			
30" Hg Vac/kPa	PPC5080ZR	PPC5280ZR	PPC5040ZR	PPC5340ZR	PPC5060ZR	PPC5460ZR
30"/0/15 psi/kPa	PPC5120ZR	PPC5220ZR	PPC5130ZR	PPC5330ZR	PPC5140ZR	PPC5440ZR
30"/0/30 psi/kPa	PPC5121ZR	PPC5221ZR	PPC5131ZR	PPC5331ZR	PPC5141ZR	PPC5441ZR
30"/0/60 psi/kPa	PPC5122ZR	PPC5222ZR	PPC5132ZR	PPC5332ZR	PPC5142ZR	PPC5442ZR
30"/0/100 psi/kPa	PPC5123ZR	PPC5223ZR	PPC5133ZR	PPC5333ZR	PPC5143ZR	PPC5443ZR
30"/0/160 psi/kPa	PPC5124ZR	PPC5224ZR	PPC5134ZR	PPC5334ZR	PPC5144ZR	PPC5444ZR
30"/0/200 psi/kPa	PPC5125ZR	PPC5225ZR	PPC5135ZR	PPC5335ZR	PPC5145ZR	PPC5445ZR
30"/0/300 psi/kPa	PPC5126ZR	PPC5226ZR	PPC5136ZR	PPC5336ZR	PPC5146ZR	PPC5446ZR
0/15 psi/kPa	*PPC5081ZR*	PPC5281ZR	PPC5041ZR	PPC5341ZR	PPC5061ZR	PPC5461ZR
0/30 psi/kPa	*PPC5082ZR*	PPC5282ZR	*PPC5042ZR*	PPC5342ZR	PPC5062ZR	PPC5462ZR
0/60 psi/kPa	*PPC5083ZR*	PPC5283ZR	*PPC5043ZR*	PPC5343ZR	PPC5063ZR	PPC5463ZR
0/100 psi/kPa	*PPC5084ZR*	PPC5284ZR	*PPC5044ZR*	PPC5344ZR	PPC5064ZR	PPC5464ZR
0/160 psi/kPa	*PPC5085ZR*	PPC5285ZR	*PPC5045ZR*	PPC5345ZR	PPC5065ZR	PPC5465ZR
0/200 psi/kPa	*PPC5086ZR*	PPC5286ZR	*PPC5046ZR*	PPC5346ZR	*PPC5066ZR*	PPC5466ZR
0/300 psi/kPa	*PPC5087ZR*	PPC5287ZR	*PPC5047ZR*	PPC5347ZR	*PPC5067ZR*	PPC5467ZR
0/400 psi/kPa	*PPC5088ZR*	PPC5288ZR	PPC5048ZR	PPC5348ZR	*PPC5068ZR*	PPC5468ZR
0/600 psi/kPa	*PPC5089ZR*	PPC5289ZR	PPC5049ZR	PPC5349ZR	*PPC5069ZR*	PPC5469ZR
0/800 psi/kPa	PPC5099ZR	PPC5299ZR	PPC5058ZR	PPC5358ZR	PPC5078ZR	PPC5478ZR
0/1,000 psi/kPa	PPC5098ZR	PPC5298ZR	PPC5050ZR	PPC5350ZR	*PPC5070ZR*	PPC5470ZR
Connection	**1/2"**	**1/2"**	**1/4"**	**1/4"**	**1/2"**	**1/2"**
0/800 psi/kPa	PPC5188ZR	PPC5198ZR	PPC5058ZR	PPC5358ZR	PPC5078ZR	PPC5478ZR
0/1,000 psi/kPa	PPC5090ZR	PPC5290ZR	PPC5050ZR	PPC5350ZR	*PPC5070ZR*	PPC5470ZR
0/1,500 psi/kPa	PPC5091ZR	PPC5291ZR	PPC5051ZR	PPC5351ZR	*PPC5071ZR*	PPC5471ZR
0/2,000 psi/kPa	PPC5092ZR	PPC5292ZR	PPC5052ZR	PPC5352ZR	*PPC5072ZR*	PPC5472ZR
0/3,000 psi/kPa	PPC5093ZR	PPC5293ZR	PPC5053ZR	PPC5353ZR	*PPC5073ZR*	PPC5473ZR
0/5,000 psi/kPa	PPC5094ZR	PPC5294ZR	PPC5054ZR	PPC5354ZR	*PPC5074ZR*	PPC5474ZR
0/10,000 psi/kPa	PPC5095ZR	PPC5295ZR	PPC5055ZR	PPC5355ZR	*PPC5075ZR*	PPC5475ZR
0/15,000 psi/kPa	PPC5096ZR	PPC5296ZR	PPC5056ZR	PPC5356ZR	PPC5076ZR	PPC5476ZR
0/20,000 psi/kPa	PPC5097ZR	PPC5297ZR	PPC5057ZR	PPC5357ZR	PPC5077ZR	PPC5477ZR

Other ranges and connection sizes available upon request. For scale change, refer to How to Order Guide for scale codes. 1/2" NPT brass available on ranges below 1,000 psi/kPa. **For options, attach suffix to end of order code: i.e. PPC5284ZR-FMR for FLUSH MOUNTED RING.**

Option suffix:

CS = Carbon steel socket/stainless steel tube
FMR = Flush mounted ring
GID = Glow-in-the-dark dial
MS = Monel® tube and socket
SG-45 = 4.5" (115mm) Safety glass
HCSF = 4.5" (115mm) Solid front hinged case (back connection only)

1. Optional Front Flange
2. Optional Back Flange

Description & Features:

- High quality, commercial grade gauge at an economical price
- ±1% accuracy
- Steel and aluminum cases
- Brass wetted parts
- ASME B40.100 compliant (EN837-1 available)
- CRN registered
- 5 year warranty

Applications:

- Plumbing and heating

Specifications	
Dial	3.5” (90mm), 4” (100mm), 4.5” (115mm), 6” (150mm) white aluminum with black and red markings
Case	3.5” (90mm), 4” (100mm): Steel painted black 4.5” (115mm): Aluminum 6” (150mm) Bottom: Steel painted black 6” (150mm) Back: Aluminum
Lens	3.5” (90mm), 4.5” (115mm) Bottom connection, 6” (150mm): Glass 4” (100mm), 4.5” (115mm) Back connection: Polycarbonate
Ring	3.5” (90mm), 4” (100mm), 4.5” (115mm) Bottom connection: Polished brass 6” (150mm) Bottom connection: Steel painted black 4.5” (115mm) Back connection, 6” (150mm) back connection: SS, polished
Socket	Brass
Connection	1/4” NPT standard
Bourdon Tube	Phosphor bronze
Pointer	Black aluminum
Welding	Silver alloy
Over-pressure Limit	25% of full scale value
Working Pressure	Maximum 75% of full scale value
Ambient/Process Temperature	-40°F to 200°F (-40°C to 93°C)
Accuracy	±1% ANSI/ASME Grade 1A
Enclosure Rating	IP52

Order Codes (products in bold are normally stock in North America)
(products in italics are normally available in 3 - 5 days)

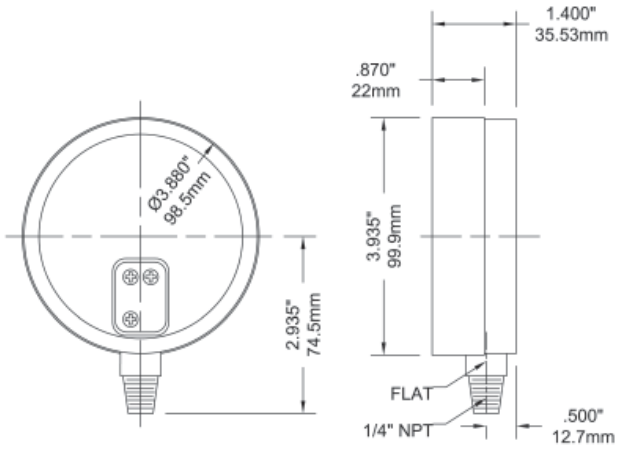
Dial Size	3.5” (90mm)		4” (100mm)	4.5” (115mm)		6” (150mm)	
Case Material	Steel			Aluminum		Steel	Aluminum
Connection	Bottom	Centre Back		Bottom	Lower Back	Bottom	Lower Back
30” Hg Vac/kPa	P1S234	*P1S560*	P1S460	P1S410	*P1S430*	P1S250	P1S475
30”/0/15 psi/kPa	P1S230	*P1S568*	P1S468	P1S411	*P1S431*	P1S251C	P1S476
30”/0/30 psi/kPa	P1S231	*P1S569*	P1S469	P1S412	*P1S432*	P1S252C	P1S477
30”/0/60 psi/kPa	P1S232	*P1S570*	P1S470	P1S413	*P1S433*	P1S259C	P1S478
30”/0/100 psi/kPa	P1S233	*P1S571*	P1S471	P1S414	*P1S434*	P1S253C	P1S479
30”/0/160 psi/kPa	P1S229	*P1S572*	P1S472	P1S416	*P1S436*	P1S254C	P1S480
30”/0/200 psi/kPa	-	*P1S573*	-	P1S417	*P1S437*	P1S255C	P1S481
30”/0/300 psi/kPa	P1S227	*P1S574*	P1S473	P1S418	*P1S438*	P1S256C	P1S482
0/15 psi/kPa	P1S228	*P1S561*	P1S461	P1S419	*P1S439*	-	-
0/30 psi/kPa	P1S235	*P1S562*	P1S462	P1S420	*P1S440*	P1S251	P1S483
0/60 psi/kPa	P1S236	*P1S563*	P1S463	P1S421	*P1S441*	P1S252	P1S484
0/100 psi/kPa	P1S237	P1S564	P1S464	P1S422	*P1S442*	P1S253	P1S485
0/160 psi/kPa	P1S238	*P1S565*	P1S465	P1S423	*P1S443*	P1S254	P1S486
0/200 psi/kPa	P1S239	*P1S566*	P1S466	P1S424	*P1S444*	P1S255	P1S487
0/300 psi/kPa	P1S240	*P1S567*	P1S467	P1S426	*P1S446*	P1S256	P1S488
0/600 psi/kPa	-	-	-	P1S490	-	-	-
0/1,000 psi/kPa	-	-	-	P1S491	-	-	-
0/3,000 psi/kPa	-	-	-	P1S492	-	-	-
0/5,000 psi/kPa	-	-	-	P1S493	-	-	-

Other ranges and connection sizes available upon request. For scale change, refer to How to Order Guide for scale codes.
For options, attach suffix to end of order code: i.e. P1S420-45QBF for BACK FLANGE.

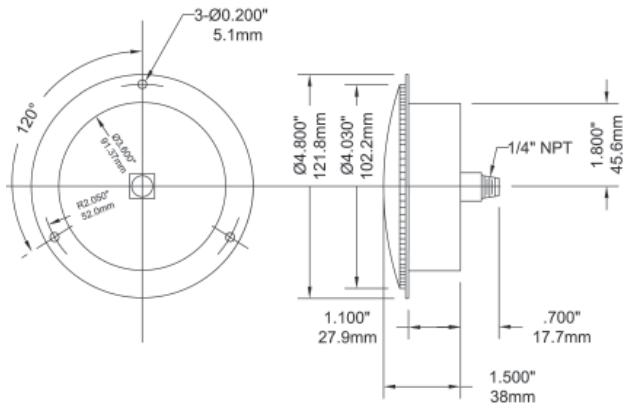
Option suffix:
35QBF = 3.5” (90mm) Back flange
4QBF = 4” (100mm) Back flange
EN = EN837-1 compliant
45QBF = 4.5” (115mm) Back flange
6QBF = 6” (150mm) Back flange

Note: Syphon recommended for all steam applications

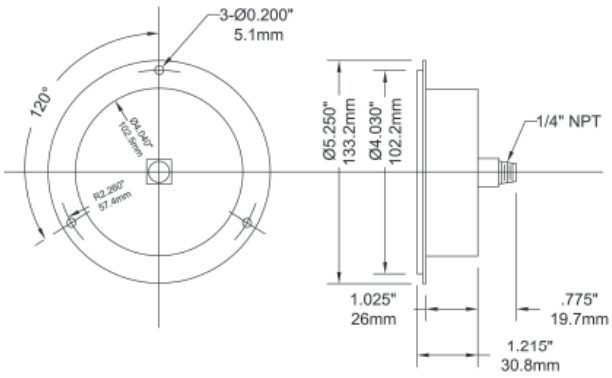
3.5” Bottom Connection



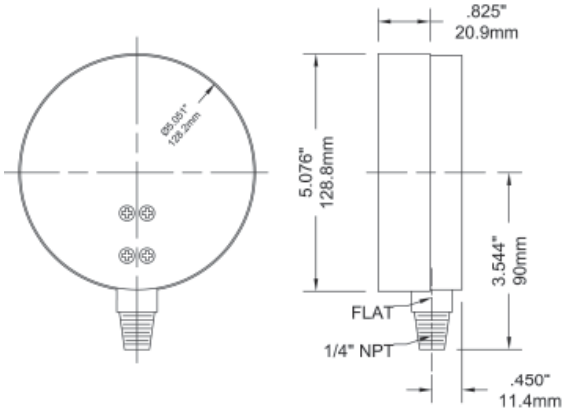
3.5” Back Connection



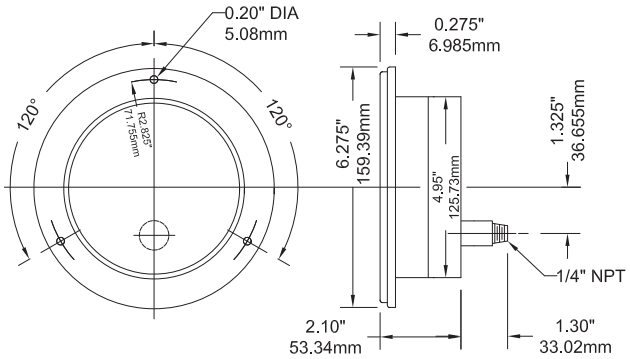
4” Centre Back Connection



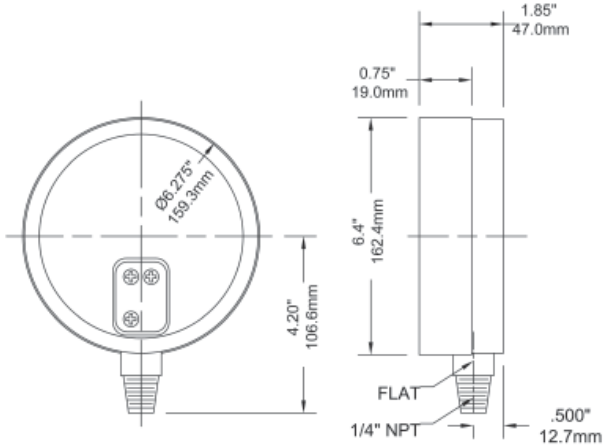
4.5” Bottom Connection



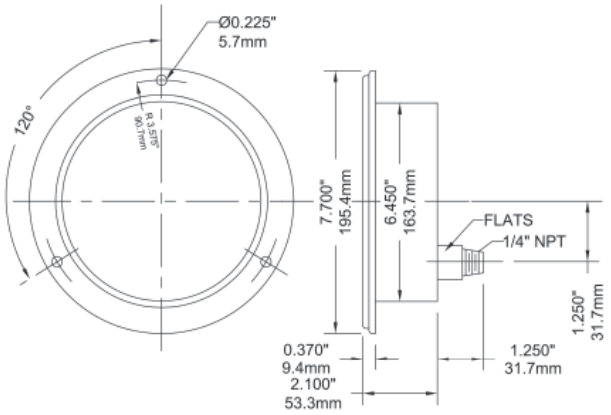
4.5” Lower Back Connection



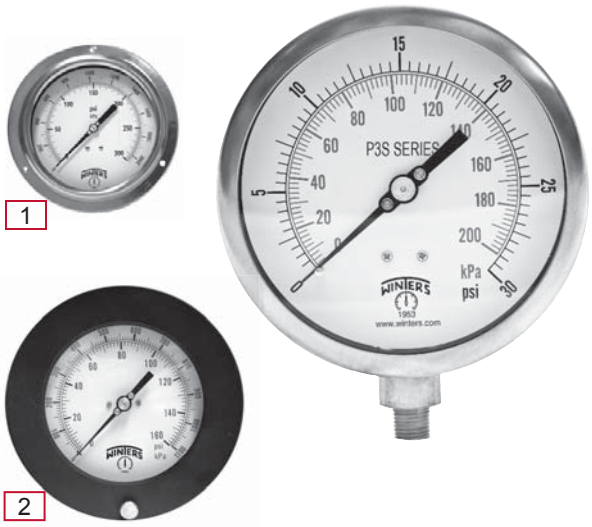
6” Bottom Connection



6” Back Connection with Front Flange



P3S 300 Series Gauge



1

2

1. Back Connection with Standard Front Flange
2. Optional Hinged Case Back Connection

Description & Features:

- Heavy duty, highly accurate aluminum case gauge
- ±0.5% accuracy
- Brass or stainless steel internals
- Large, easy-to-read dial
- StabiliZR™ dampened movement available on 4.5” (115mm) dial size
- ASME B40.100 compliant
- CRN registered
- 5 year warranty

Applications:

- Use on air, steam, oil, fresh water
- Boiler and control room

Specifications	Stainless Steel Internals	Brass Internals
Dial	4.5” (115mm), 6” (150mm), 8.5” (215mm) and 10” (250mm) white aluminum with black and red markings	4.5” (115mm), 6” (150mm), 8.5” (215mm) and 10” (250mm) white aluminum with black and red markings
Case	Aluminum painted black	Aluminum painted black
Front Flange	4.5” (115mm), 6” (150mm): SS, polished 8.5” (215mm), 10” (250mm): Aluminum, painted black	4.5” (115mm), 6” (150mm): SS, polished 8.5” (215mm), 10” (250mm): Aluminum, painted black
Back Flange	4.5” (115mm), 6” (150mm): Steel, painted black (optional) 8.5” (215mm), 10” (250mm): Aluminum, painted black	4.5” (115mm), 6” (150mm): Steel, painted black (optional) 8.5” (215mm), 10” (250mm): Aluminum, painted black
Lens	4.5” (115mm), 6” (150mm): Glass 8.5” (200mm), 10” (250mm): Polycarbonate	4.5” (115mm), 6” (150mm): Glass 8.5” (200mm), 10” (250mm): Polycarbonate
Ring	4.5” (115mm), 6” (150mm): SS, polished 8.5” (215mm), 10” (250mm): Anodized aluminum	4.5” (115mm), 6” (150mm): SS, polished 8.5” (215mm), 10” (250mm): Anodized aluminum
Socket	316L SS	Brass
Connection	1/4” NPT for ranges up to 600 psi (4,137 kPa), 1/2” NPT for ranges over 600 psi (4,137 kPa)	1/4” NPT for ranges up to 600 psi (4,137 kPa), 1/2” NPT for ranges over 600 psi (4,137 kPa)
Bourdon Tube	316L SS	Phosphor bronze for ranges up to 600 psi (4,137 kPa) 316L SS for ranges over 600 psi (4,137 kPa)
Movement	304 SS	Brass
Pointer	Aluminum, anodized black, micrometer adjustable	Aluminum, anodized black, micrometer adjustable
Welding	316L SS TIG Argonarc	Tin/copper alloy for ranges up to 600 psi (4,137 kPa) Silver alloy for ranges over 600 psi (4,137 kPa)
Over-pressure Limit	30% for pressures up to 600 psi (4,137 kPa), 25% for pressures 601 psi to 1,400 psi (4,137 kPa to 9,653 kPa), 15% for pressures over 1,400 psi (9,653 kPa)	30% for pressures up to 600 psi (4,137 kPa), 25% for pressures 601 psi to 1,400 psi (4,137 kPa to 9,653 kPa), 15% for pressures over 1,400 psi (9,653 kPa)
Working Pressure	Maximum 75% of full scale value	Maximum 75% of full scale value
Ambient/Process Temperature	-40°F to 150°F (-40°C to 65°C)	-40°F to 150°F (-40°C to 65°C)
Accuracy	±0.5% ANSI/ASME Grade 2A	±0.5% ANSI/ASME Grade 2A
Enclosure Rating	IP52	IP52

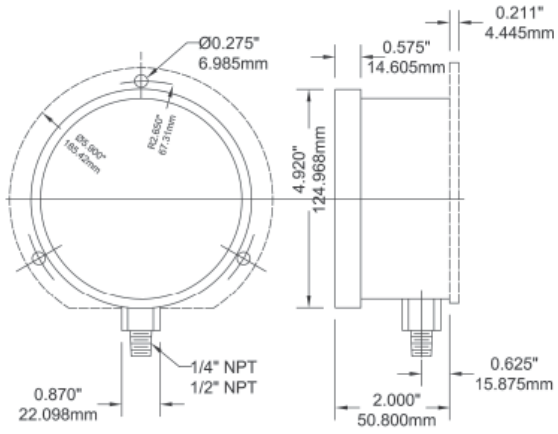
Order Codes (products in bold are normally stock in North America)
(products in italics are normally available in 3 - 5 days)

	Dial Size	4.5" (115mm)				6" (150mm)			
	Connection	Bottom	Back (LB)	Bottom	Back (LB)	Bottom	Back (LB)	Bottom	Back (LB)
	Movement, Socket, Tube	Brass		SS		Brass		SS	
1/4"	30" Hg Vac/kPa	*P3S6000*	*P3S6000B*	*P3S6025*	*P3S6025B*	*P3S6075*	*P3S6075B*	*P3S6260*	*P3S6260B*
	30"/0/15 psi/kPa	*P3S6001*	*P3S6001B*	*P3S6026*	*P3S6026B*	*P3S6076*	*P3S6076B*	*P3S6261*	*P3S6261B*
	30"/0/30 psi/kPa	*P3S6002*	*P3S6002B*	*P3S6027*	*P3S6027B*	*P3S6077*	*P3S6077B*	*P3S6162*	*P3S6162B*
	30"/0/60 psi/kPa	*P3S6003*	*P3S6003B*	*P3S6028*	*P3S6028B*	*P3S6078*	*P3S6078B*	*P3S6163*	*P3S6163B*
	30"/0/100 psi/kPa	*P3S6004*	*P3S6004B*	*P3S6029*	*P3S6029B*	*P3S6079*	*P3S6079B*	*P3S6164*	*P3S6164B*
	30"/0/160 psi/kPa	*P3S6005*	*P3S6005B*	*P3S6030*	*P3S6030B*	*P3S6080*	*P3S6080B*	*P3S6265*	*P3S6265B*
	30"/0/200 psi/kPa	*P3S6006*	*P3S6006B*	*P3S6031*	*P3S6031B*	*P3S6081*	*P3S6081B*	*P3S6266*	*P3S6266B*
	30"/0/300 psi/kPa	*P3S6007*	*P3S6007B*	*P3S6032*	*P3S6032B*	*P3S6082*	*P3S6082B*	*P3S6267*	*P3S6267B*
	0/15 psi/kPa	*P3S6008*	*P3S6008B*	*P3S6033*	*P3S6033B*	*P3S6083*	*P3S6083B*	*P3S6098*	*P3S6098B*
	0/30 psi/kPa	*P3S6009*	*P3S6009B*	*P3S6034*	*P3S6034B*	P3S6084	*P3S6084B*	*P3S6099*	*P3S6099B*
	0/60 psi/kPa	*P3S6010*	*P3S6010B*	*P3S6035*	*P3S6035B*	*P3S6085*	*P3S6085B*	*P3S6100*	*P3S6100B*
	0/100 psi/kPa	*P3S6011*	*P3S6011B*	*P3S6036*	*P3S6036B*	*P3S6086*	*P3S6086B*	*P3S6101*	*P3S6101B*
	0/160 psi/kPa	P3S6012	*P3S6012B*	*P3S6037*	*P3S6037B*	*P3S6087*	*P3S6087B*	*P3S6102*	*P3S6102B*
	0/200 psi/kPa	*P3S6013*	*P3S6013B*	*P3S6038*	*P3S6038B*	*P3S6088*	*P3S6088B*	*P3S6103*	*P3S6103B*
	0/300 psi/kPa	*P3S6014*	*P3S6014B*	*P3S6039*	*P3S6039B*	*P3S6089*	*P3S6089B*	*P3S6104*	*P3S6104B*
	0/400 psi/kPa	*P3S6015*	*P3S6015B*	*P3S6040*	*P3S6040B*	*P3S6090*	*P3S6090B*	*P3S6105*	*P3S6105B*
	0/600 psi/kPa	*P3S6016*	*P3S6016B*	*P3S6041*	*P3S6041B*	*P3S6091*	*P3S6091B*	*P3S6106*	*P3S6106B*
1/2"	0/1,000 psi/kPa	*P3S6017*	*P3S6017B*	*P3S6042*	*P3S6042B*	*P3S6092*	*P3S6092B*	*P3S6107*	*P3S6107B*
	0/1,500 psi/kPa	*P3S6018*	*P3S6018B*	*P3S6043*	*P3S6043B*	*P3S6093*	*P3S6093B*	*P3S6108*	*P3S6108B*
	0/2,000 psi/kPa	*P3S6019*	*P3S6019B*	*P3S6044*	*P3S6044B*	*P3S6094*	*P3S6094B*	*P3S6109*	*P3S6109B*
	0/3,000 psi/kPa	*P3S6020*	*P3S6020B*	*P3S6045*	*P3S6045B*	*P3S6095*	*P3S6095B*	*P3S6110*	*P3S6110B*
	0/5,000 psi/kPa	*P3S6021*	*P3S6021B*	*P3S6046*	*P3S6046B*	*P3S6096*	*P3S6096B*	*P3S6111*	*P3S6111B*
	0/10,000 psi/kPa	*P3S6022*	*P3S6022B*	*P3S6047*	*P3S6047B*	*P3S6170*	*P3S6170B*	*P3S6180*	*P3S6180B*
	0/15,000 psi/kPa	*P3S6023*	*P3S6023B*	*P3S6160*	*P3S6160B*	*P3S6171*	*P3S6171B*	*P3S6181*	*P3S6181B*
	0/20,000 psi/kPa	*P3S6024*	*P3S6024B*	*P3S6161*	*P3S6161B*	*P3S6172*	*P3S6172B*	*P3S6182*	*P3S6182B*
	Dial Size	**8.5" (215mm)**				**10" (250mm)**			
1/4"	30" Hg Vac/kPa	P3S6200	P3S6200B	P3S6300	P3S6300B	P3S6400	P3S6400B	P3S6500	P3S6500B
	30"/0/15 psi/kPa	P3S6201	P3S6201B	P3S6301	P3S6301B	P3S6401	P3S6401B	P3S6501	P3S6501B
	30"/0/30 psi/kPa	P3S6202	P3S6202B	P3S6302	P3S6302B	P3S6402	P3S6402B	P3S6502	P3S6502B
	30"/0/60 psi/kPa	P3S6203	P3S6203B	P3S6303	P3S6303B	P3S6403	P3S6403B	P3S6503	P3S6503B
	30"/0/100 psi/kPa	P3S6204	P3S6204B	P3S6304	P3S6304B	P3S6404	P3S6404B	P3S6504	P3S6504B
	30"/0/160 psi/kPa	P3S6205	P3S6205B	P3S6305	P3S6305B	P3S6405	P3S6405B	P3S6505	P3S6505B
	30"/0/200 psi/kPa	P3S6206	P3S6206B	P3S6306	P3S6306B	P3S6406	P3S6406B	P3S6506	P3S6506B
	30"/0/300 psi/kPa	P3S6207	P3S6207B	P3S6307	P3S6307B	P3S6407	P3S6407B	P3S6507	P3S6507B
	0/15 psi/kPa	P3S6208	P3S6208B	P3S6308	P3S6308B	P3S6408	P3S6408B	P3S6508	P3S6508B
	0/30 psi/kPa	P3S6209	P3S6209B	P3S6309	P3S6309B	P3S6409	P3S6409B	P3S6509	P3S6509B
	0/60 psi/kPa	P3S6210	P3S6210B	P3S6310	P3S6310B	P3S6410	P3S6410B	P3S6510	P3S6510B
	0/100 psi/kPa	P3S6211	P3S6211B	P3S6311	P3S6311B	P3S6411	P3S6411B	P3S6511	P3S6511B
	0/160 psi/kPa	P3S6212	P3S6212B	P3S6312	P3S6312B	P3S6412	P3S6412B	P3S6512	P3S6512B
	0/200 psi/kPa	P3S6213	P3S6213B	P3S6313	P3S6313B	P3S6413	P3S6413B	P3S6513	P3S6513B
	0/300 psi/kPa	P3S6214	P3S6214B	P3S6314	P3S6314B	P3S6414	P3S6414B	P3S6514	P3S6514B
	0/400 psi/kPa	P3S6215	P3S6215B	P3S6315	P3S6315B	P3S6415	P3S6415B	P3S6515	P3S6515B
	0/600 psi/kPa	P3S6216	P3S6216B	P3S6316	P3S6316B	P3S6416	P3S6416B	P3S6516	P3S6516B
1/2"	0/1,000 psi/kPa	P3S6217	P3S6217B	P3S6317	P3S6317B	P3S6417	P3S6417B	P3S6517	P3S6517B
	0/1,500 psi/kPa	P3S6218	P3S6218B	P3S6318	P3S6318B	P3S6418	P3S6418B	P3S6518	P3S6518B
	0/2,000 psi/kPa	P3S6219	P3S6219B	P3S6319	P3S6319B	P3S6419	P3S6419B	P3S6519	P3S6519B
	0/3,000 psi/kPa	P3S6220	P3S6220B	P3S6320	P3S6320B	P3S6420	P3S6420B	P3S6520	P3S6520B
	0/5,000 psi/kPa	P3S6221	P3S6221B	P3S6321	P3S6321B	P3S6421	P3S6421B	P3S6521	P3S6521B
	0/10,000 psi/kPa	P3S6222	P3S6222B	P3S6322	P3S6322B	P3S6422	P3S6422B	P3S6522	P3S6522B
	0/15,000 psi/kPa	P3S6223	P3S6223B	P3S6323	P3S6322B	P3S6423	P3S6423B	P3S6523	P3S6523B
	0/20,000 psi/kPa	P3S6224	P3S6224B	P3S6324	P3S6324B	P3S6424	P3S6424B	P3S6524	P3S6524B

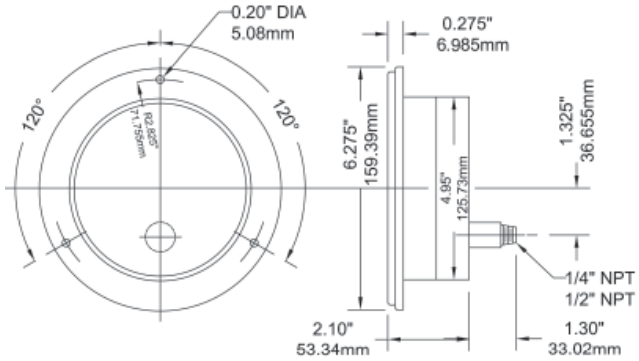
Other ranges and connection sizes available upon request. For scale change, refer to How to Order Guide for scale codes.

Option suffix:
ZR = StabiliZR™ movement (4.5" dial only)

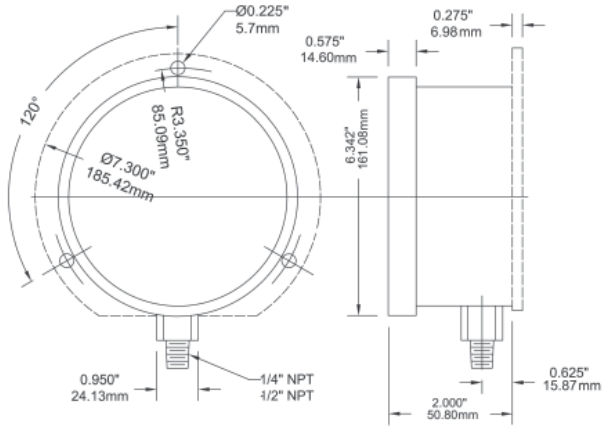
4.5” Bottom Connection with Back Flange



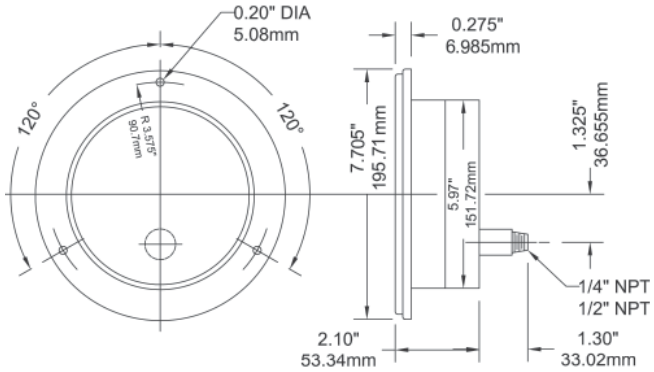
4.5” Back Connection with Front Flange



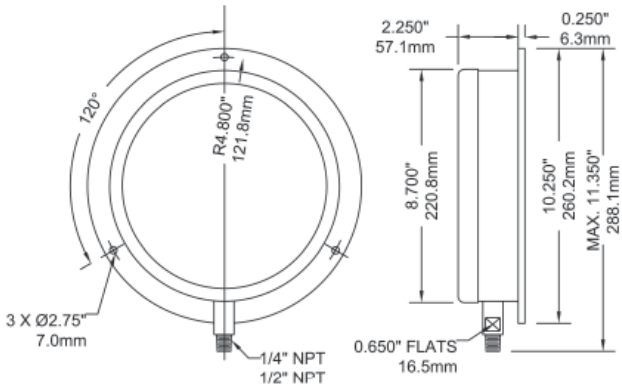
6” Bottom Connection with Back Flange



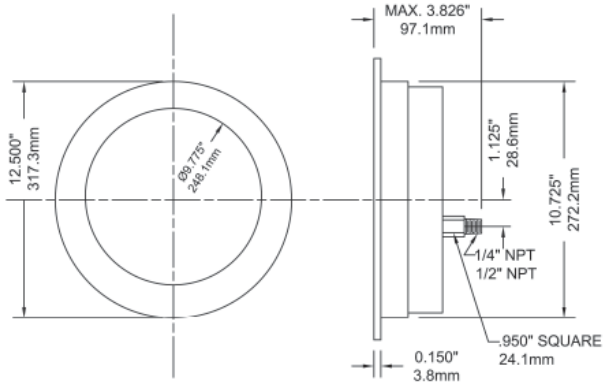
6” Back Connection with Front Flange

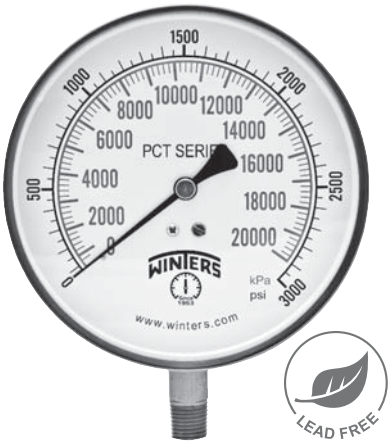


8.5” Bottom Connection with Back Flange



10” Back Connection with Front Flange





Description & Features:

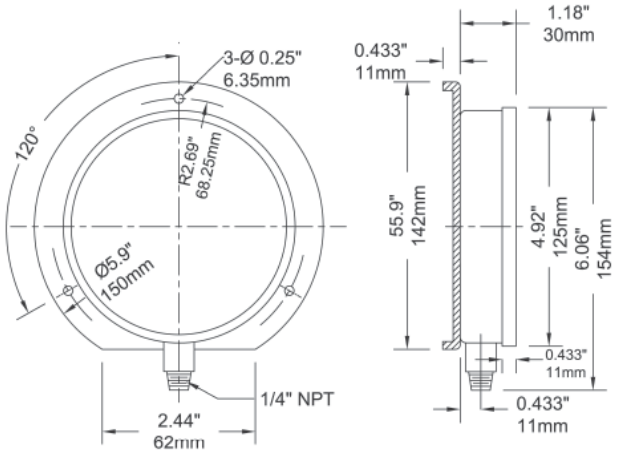
- Economical 4.5” (115mm) stainless steel case gauge
- Brass or lead free brass wetted parts
- ±1% accuracy
- Zero adjustment screw
- 1/4” NPT
- Restricted orifice
- ASME B40.100 compliant
- CRN registered
- 5 year warranty

Applications:

- Most commercial air, water and steam services that require a ±1% full-scale accuracy

Specifications	
Dial	4.5” (115mm) white aluminum with black and red markings
Case	304 SS
Lens	Acrylic
Ring	304 SS
Socket	PCT: Brass PCT-LF: Lead free brass
Connection	1/4” NPT standard
Bourdon Tube	Phosphor bronze
Movement	Brass
Pointer	Aluminum, anodized black, recalibrator screw
Welding	Silver solder
Over-pressure Limit	25% for pressures up to 1,450 psi (9,998 kPa), 15% for pressures over 1,450 psi (9,998 kPa)
Working Pressure	Maximum 75% of full scale value
Ambient/Process Temperature	-40°F to 200°F (-40°C to 93°C)
Accuracy	±1% ANSI/ASME Grade 1A
Enclosure Rating	IP52

4.5” Bottom Connection



PCT Order Codes (products in bold are normally stock in North America)

Connection	1/4” Bottom
30” Hg Vac/kPa	PCT320
30”/0/30 psi/kPa	PCT329
30”/0/60 psi/kPa	PCT330
30”/0/100 psi/kPa	PCT328
30”/0/160 psi/kPa	PCT332
30”/0/200 psi/kPa	PCT333
30”/0/300 psi/kPa	PCT334
0/15 psi/kPa	PCT319
0/30 psi/kPa	PCT321
0/60 psi/kPa	PCT322
0/100 psi/kPa	PCT323
0/160 psi/kPa	PCT324
0/200 psi/kPa	PCT325
0/300 psi/kPa	PCT326
0/400 psi/kPa	PCT327
0/600 psi/kPa	PCT331
0/1,000 psi/kPa	PCT293
0/3,000 psi/kPa	PCT294
0/5,000 psi/kPa	PCT295

Other ranges and connection sizes available upon request. For scale change, refer to How to Order Guide for scale codes. **For options, attach suffix to end of order code: i.e. PCT322-45BF for BACK FLANGE.**

Option suffix:
45BF = 4.5” (115mm) Back flange

PFP Premium Stainless Steel Liquid Filled Gauge

RoHS compliant

Note: RoHS applies to SS internals only

Description & Features:

- Liquid filled stainless steel case protects against vibration and pulsation
- Bayonet ring
- Highly accurate
- Back, bottom, or panel mounted
- Under and overload stops
- Ventable plug on 2.5” to 4.5” stainless steel and 4.5” brass bottom mount and 4” stainless steel back mount
- Stainless steel or brass wetted parts
- Restrictor screw standard on dual scale (optional on single scale)
- Dry case available
- ASME B40.100 compliant (EN837-1 available)
- CRN registered
- 5 year warranty

Applications:

- Outdoor and severe ambient and process conditions
- Use where harmful vibration and pulsation are present
- Hydraulic equipment, pressure washers, oil field equipment, pumps, compressors and process systems

Specifications	Stainless Steel Internals	Brass Internals
Dial	2.5” (63mm), 4” (100mm), 4.5” (115mm), 6” (150mm) white aluminum with black and red markings	4” (100mm), 4.5” (115mm) white aluminum with black and red markings
Case	AISI 304 SS	AISI 304 SS
Lens	Polycarbonate, High pressure BSP(G) and HP: Tempered safety glass	Polycarbonate
Ring	AISI 304 SS	AISI 304 SS
Socket	316 SS, 2.5” (63mm) to 4.5” (115mm): Welded one-piece socket	OT 58 brass
Connection	1/4” NPT or 1/2” NPT standard 2.5” (63mm): 1/4” NPT only, High Pressure: 1/2” BSP(G) or 9/16” (HP or HP autoclave w/gland)	1/4” NPT or 1/2” NPT standard
Bourdon Tube	316 SS, drawn seamless, High pressure BSP(G) and HP: 316L SS	Phosphor bronze
Movement	304 SS (under and overload stops 4” to 6”)	OT 59 brass (under and overload stops 4”)
Pointer	2.5” (63mm): Aluminum, anodized black, 4” (100mm), 4.5” (115mm), 6” (150mm): Aluminum, anodized black, micrometer adjustable	4” (100mm), 4.5” (115mm): Aluminum, anodized black
Welding	Laser welded socket to case	Silver alloy
Fill Liquid	Glycerin	Glycerin
Over-pressure Limit	25% for pressures up to 1,450 psi (9,998 kPa), 15% for pressures over 1,450 psi (9,998 kPa)	25% for pressures up to 1,450 psi (9,998 kPa), 15% for pressures over 1,450 psi (9,998 kPa)
Socket Gasket	2.5” (63mm), 4” (100mm), 4.5” (115mm): Welded (no gasket) 6” (150mm): Buna N for one-piece external socket seal, (silicone rubber option)	4” (100mm), 4.5” (115mm): Buna N for two-piece internal socket seal
Fill Plug	Buna N (silicone rubber option)	Buna N (silicone rubber option)
Lens Ring Gasket	Buna N (silicone rubber option)	Buna N (silicone rubber option)
Working Pressure	Maximum 75% of full scale value	Maximum 75% of full scale value
Ambient Temperature	Dry: -40°F to 250°F (-40°C to 120°C) Glycerin Filled: -4°F to 150°F (-20°C to 65°C)	Dry: -40°F to 200°F (-40°C to 93°C) Glycerin Filled: -4°F to 150°F (-20°C to 65°C)
Process Temperature	-40°F to 250°F (-40°C to 120°C)	-40°F to 200°F (-40°C to 93°C)
Accuracy	2.5” (63mm): ±1.5% of full scale value 4” (100mm), 4.5” (115mm), 6” (150mm): ±1% ANSI/ASME Grade 1A	4” (100mm), 4.5” (115mm): ±1% ANSI/ASME Grade 1A
Enclosure Rating	NEMA 4X/IP66, EN60529-1 (IEC529-1)	NEMA 4X/IP66, EN60529-1 (IEC529-1)

Single Scale Order Codes (products in bold are normally stock in North America)

Dial Size	2.5" (63mm)		4" (100mm)			
Connection	1/4" Bottom	1/4" Back (CB)	1/4" Bottom	1/4" Back (LB)	1/2" Bottom	1/2" Back (LB)
Movement, Socket, Tube	SS					
30" Hg Vac	PFP820R1	PFP840R1	PFP640R1	PFP1090R1	PFP655R1	-
30"/0/15 psi	PFP860R1	PFP870R1	PFP1036R1	PFP1244R1	PFP1044R1	-
30"/0/30 psi	PFP861R1	PFP871R1	PFP1037R1	PFP1245R1	PFP1045R1	-
30"/0/60 psi	PFP862R1	PFP872R1	PFP1038R1	PFP1246R1	PFP1046R1	-
30"/0/100 psi	PFP863R1	PFP873R1	PFP1039R1	PFP1247R1	PFP1047R1	-
30"/0/150 psi	PFP864R1	PFP874R1	PFP1040R1	PFP1248R1	PFP1048R1	-
30"/0/200 psi	PFP866R1	PFP876R1	PFP1042R1	PFP1249R1	PFP1050R1	-
30"/0/300 psi	PFP867R1	PFP877R1	PFP1043R1	PFP1250R1	PFP1051R1	-
0/15 psi	PFP821R1	PFP921R1	PFP641R1	PFP1091R1	PFP656R1	-
0/30 psi	PFP822R1	PFP922R1	PFP642R1	PFP1092R1	PFP657R1	-
0/60 psi	PFP823R1	PFP923R1	PFP643R1	PFP1093R1	PFP658R1	-
0/100 psi	PFP824R1	PFP924R1	PFP644R1	PFP1094R1	PFP659R1	-
0/160 psi	PFP825R1	PFP925R1	PFP645R1	PFP1095R1	PFP660R1	-
0/200 psi	PFP826R1	PFP926R1	PFP646R1	PFP1096R1	PFP661R1	-
0/300 psi	PFP827R1	PFP927R1	PFP647R1	PFP1097R1	PFP662R1	-
0/400 psi	PFP880R1	PFP881R1	PFP650R1	PFP1251R1	PFP666R1	-
0/600 psi	PFP828R1	PFP928R1	PFP648R1	PFP1098R1	PFP663R1	-
0/1,000 psi	PFP829R1	PFP929R1	PFP649R1	PFP1099R1	PFP664R1	-
0/1,500 psi	PFP834R1	PFP934R1	-	PFP1252R1	PFP665R1	PFP1190R1
0/2,000 psi	PFP830R1	PFP930R1	-	PFP1253R1	PFP667R1	PFP1191R1
0/3,000 psi	PFP831R1	PFP931R1	-	PFP1254R1	PFP668R1	PFP1192R1
0/5,000 psi	PFP832R1	PFP852R1	-	PFP1255R1	PFP669R1	PFP1193R1
0/6,000 psi	PFP836R1	PFP851R1	-	PFP1259R1	PFP675R1	PFP1197R1
0/10,000 psi	PFP833R1	PFP853R1	-	PFP1256R1	PFP670R1	PFP1194R1
0/15,000 psi	PFP835R1	PFP855R1	-	PFP1257R1	PFP671R1	PFP1195R1
0/20,000 psi	PFP837R1	-	-	PFP1258R1	PFP672R1	PFP1196R1

Other ranges and connection sizes available upon request. 316 SS case and mountable bezel available upon request. For scale change, refer to How to Order Guide for scale codes. **For options, attach suffix to end of order code: i.e. PFP929R1-25UC for U-CLAMP.**

Option suffix:

25BF = 2.5" (63mm) Back flange
25BOOT = 2.5" (63mm) black rubber boot
25FF = 2.5" (63mm) Front flange
25DRY = Supply 2.5" (63mm) gauge dry
25UC = 2.5" (63mm) U-Clamp
4BF = 4" (100mm) Back flange
4FF = 4" (100mm) Front flange
4UC-P = 4" (100mm) U-Clamp premium
DRY = Supply gauge dry
EN = EN837-1 compliant
GID = Glow-in-the-dark dial
REST = Restrictor screw
SF25 = 2.5" (63mm) Silicone filled
SF4 = 4" (100mm) Silicone filled
SG-25 = 2.5" (63mm) Safety glass lens
SG-4 = 4" (100mm) Safety glass lens

Dual Scale Order Codes (products in bold are normally stock in North America)

Dial Size	2.5" (63mm)		4" (100mm)							
Connection	1/4" Bottom	1/4" Back (CB)	1/4" Bottom	1/4" Back (LB)	1/4" Bottom	1/4" Back (LB)	1/2" Bottom	1/2" Back (LB)	1/2" Bottom	1/2" Back (LB)
Movement, Socket, Tube	SS		Brass		SS		Brass		SS	
30" Hg Vac/kPa	PFP820	PFP840	PFP600	PFP1000	PFP640	PFP1090	PFP2284	-	PFP655	PFP2308
30"/0/15 psi/kPa	PFP860	PFP870	PFP1020	PFP1028	PFP1036	PFP1244	PFP2285	-	PFP1044	PFP2309
30"/0/30 psi/kPa	PFP861	PFP871	PFP1021	PFP1029	PFP1037	PFP1245	PFP2286	-	PFP1045	PFP2310
30"/0/60 psi/kPa	PFP862	PFP872	PFP1022	PFP1030	PFP1038	PFP1246	PFP2287	-	PFP1046	PFP2311
30"/0/100 psi/kPa	PFP863	PFP873	PFP1023	PFP1031	PFP1039	PFP1247	PFP2288	-	PFP1047	PFP2312
30"/0/150 psi/kPa	PFP864	PFP874	PFP1024	PFP1032	PFP1040	PFP1248	PFP2289	-	PFP1048	PFP2313
30"/0/200 psi/kPa	PFP866	PFP876	PFP1026	PFP1034	PFP1042	PFP1249	PFP2290	-	PFP1050	PFP2314
30"/0/300 psi/kPa	PFP867	PFP877	PFP1027	PFP1035	PFP1043	PFP1250	PFP2291	-	PFP1051	PFP2315
0/15 psi/kPa	PFP821	PFP921	PFP601	PFP1001	PFP641	PFP1091	PFP2292	-	PFP656	PFP2316
0/30 psi/kPa	PFP822	PFP922	PFP602	PFP1002	PFP642	PFP1092	PFP2293	-	PFP657	PFP2317
0/60 psi/kPa	PFP823	PFP923	PFP603	PFP1003	PFP643	PFP1093	PFP2294	-	PFP658	PFP2318
0/100 psi/kPa	PFP824	PFP924	PFP604	PFP1004	PFP644	PFP1094	PFP2295	-	PFP659	PFP2319
0/160 psi/kPa	PFP825	PFP925	PFP605	PFP1005	PFP645	PFP1095	PFP2296	-	PFP660	PFP2320
0/200 psi/kPa	PFP826	PFP926	PFP606	PFP1006	PFP646	PFP1096	PFP2297	-	PFP661	PFP2321
0/300 psi/kPa	PFP827	PFP927	PFP607	PFP1007	PFP647	PFP1097	PFP2298	-	PFP662	PFP2322
0/400 psi/kPa	PFP880	PFP881	PFP610	PFP1016	PFP650	PFP1251	PFP2299	-	PFP666	PFP2323
0/600 psi/kPa	PFP828	PFP928	PFP608	PFP1008	PFP648	PFP1098	PFP2300	-	PFP663	PFP2324
0/1,000 psi/kPa	PFP829	PFP929	PFP609	-	PFP649	PFP1099	PFP624	PFP1009	PFP664	PFP2325
0/1,500 psi/kPa	PFP834	PFP934	-	-	PFP2301	PFP1252	PFP625	PFP1010	PFP665	PFP1190
0/2,000 psi/kPa	PFP830	PFP930	-	-	PFP2302	PFP1253	PFP626	PFP1011	PFP667	PFP1191
0/3,000 psi/kPa	PFP831	PFP931	-	-	PFP2303	PFP1254	PFP627	PFP1012	PFP668	PFP1192
0/5,000 psi/kPa	PFP832	PFP852	-	-	PFP2304	PFP1255	PFP628	PFP1013	PFP669	PFP1193
0/6,000 psi/kPa	PFP836	PFP851	-	-	PFP2305	PFP1259	PFP631	PFP1015	PFP675	PFP1197
0/10,000 psi/kPa	PFP833	PFP853	-	-	PFP2306	PFP1256	PFP629	PFP1014	PFP670	PFP1194
0/15,000 psi/kPa	PFP835	PFP855	-	-	PFP2307	PFP1257	PFP630	PFP1018	PFP671	PFP1195
0/20,000 psi/kPa	PFP837	-	-	-	-	PFP1258	PFP639	PFP1019	PFP672	PFP1196

High Pressure Order Codes

Dial Size	4" (100mm)			
Connection	1/2" BSP(G) Bottom	1/2" BSP(G) Back (LB)	9/16" HP Bottom	9/16" HP Autoclave w/Gland Bottom
Movement, Socket, Tube	SS			
0/20,000 psi/kPa	-	-	PFP9601	PFP9621
0/25,000 psi/kPa	PFP9602T1	PFP9652T1	PFP9602	PFP9622
0/30,000 psi/kPa	PFP9603T1	PFP9653T1	PFP9603	PFP9623
0/35,000 psi/kPa	PFP9604T1	PFP9654T1	PFP9604	PFP9624
0/40,000 psi/kPa	PFP9605T1	PFP9655T1	PFP9605	PFP9625

Other ranges and connection sizes available upon request. 316 SS case and mountable bezel available upon request. For scale change, refer to How to Order Guide for scale codes. **For options, attach suffix to end of order code: i.e. PFP929-25UC for U-CLAMP.**

Option suffix:

25BF = 2.5" (63mm) Back flange
25BOOT = 2.5" (63mm) Black rubber boot
25FF = 2.5" (63mm) Front flange
25DRY = Supply 2.5" (63mm) gauge dry
25UC = 2.5" (63mm) U-Clamp
4BF = 4" (100mm) Back flange
4FF = 4" (100mm) Front flange
4UC-P = 4" (100mm) U-Clamp premium
DRY = Supply gauge dry
EN = EN837-1 compliant
GID = Glow-in-the-dark dial
SF25 = 2.5" (63mm) Silicone filled
SF4 = 4" (100mm) Silicone filled
SG-25 = 2.5" (63mm) Safety glass lens
SG-4 = 4" (100mm) Safety glass lens

Dual Scale Order Codes

Dial Size	4.5" (115mm)							
Connection	1/4" Bottom	1/4" Back (LB)	1/2" Bottom	1/2" Back (LB)	1/4" Bottom	1/4" Back (LB)	1/2" Bottom	1/2" Back (LB)
Movement, Socket, Tube	Brass				SS			
30" Hg Vac/kPa	PFP500	PFP1300	PFP550	PFP1350	PFP700	PFP400	PFP750	PFP450
30"/0/15 psi/kPa	PFP501	PFP1301	PFP551	PFP1351	PFP701	PFP401	PFP751	PFP451
30"/0/30 psi/kPa	PFP502	PFP1302	PFP552	PFP1352	PFP702	PFP402	PFP752	PFP452
30"/0/60 psi/kPa	PFP503	PFP1303	PFP553	PFP1353	PFP703	PFP403	PFP753	PFP453
30"/0/100 psi/kPa	PFP504	PFP1304	PFP554	PFP1354	PFP704	PFP404	PFP754	PFP454
30"/0/150 psi/kPa	PFP505	PFP1305	PFP555	PFP1355	PFP705	PFP405	PFP755	PFP455
30"/0/200 psi/kPa	PFP506	PFP1306	PFP556	PFP1356	PFP706	PFP406	PFP756	PFP456
30"/0/300 psi/kPa	PFP507	PFP1307	PFP557	PFP1357	PFP707	PFP407	PFP757	PFP457
0/15 psi/kPa	PFP508	PFP1308	PFP558	PFP1358	PFP708	PFP408	PFP758	PFP458
0/30 psi/kPa	PFP509	PFP1309	PFP559	PFP1359	PFP709	PFP409	PFP759	PFP459
0/60 psi/kPa	PFP510	PFP1310	PFP560	PFP1360	PFP710	PFP410	PFP760	PFP460
0/100 psi/kPa	PFP511	PFP1311	PFP561	PFP1361	PFP711	PFP411	PFP761	PFP461
0/160 psi/kPa	PFP512	PFP1312	PFP562	PFP1362	PFP712	PFP412	PFP762	PFP462
0/200 psi/kPa	PFP513	PFP1313	PFP563	PFP1363	PFP713	PFP413	PFP763	PFP463
0/300 psi/kPa	PFP514	PFP1314	PFP564	PFP1364	PFP714	PFP414	PFP764	PFP464
0/400 psi/kPa	PFP515	PFP1315	PFP565	PFP1365	PFP715	PFP415	PFP765	PFP465
0/600 psi/kPa	PFP516	PFP1316	PFP566	PFP1366	PFP716	PFP416	PFP766	PFP466
0/1,000 psi/kPa	PFP517	PFP1317	PFP567	PFP1367	PFP717	PFP417	PFP767	PFP467
0/1,500 psi/kPa	PFP518	PFP1318	PFP568	PFP1368	PFP718	PFP418	PFP768	PFP468
0/2,000 psi/kPa	PFP519	PFP1319	PFP569	PFP1369	PFP719	PFP419	PFP769	PFP469
0/3,000 psi/kPa	PFP520	PFP1320	PFP570	PFP1370	PFP720	PFP420	PFP770	PFP470
0/5,000 psi/kPa	PFP521	PFP1321	PFP571	PFP1371	PFP721	PFP421	PFP771	PFP471
0/6,000 psi/kPa	PFP522	PFP1322	PFP572	PFP1372	PFP722	PFP422	PFP772	PFP472
0/10,000 psi/kPa	PFP523	PFP1323	PFP573	PFP1373	PFP723	PFP423	PFP773	PFP473
0/15,000 psi/kPa	PFP524	PFP1324	PFP574	PFP1374	PFP724	PFP424	PFP774	PFP474
0/20,000 psi/kPa	PFP525	PFP1325	PFP575	PFP1375	PFP725	PFP425	PFP775	PFP475

Other ranges and connection sizes available upon request. 316 SS case and mountable bezel available upon request. For scale change, refer to How to Order Guide for scale codes. **For options, attach suffix to end of order code: i.e. PFP1311-DRY for DRY GAUGE.**

Option suffix:

DRY = Supply gauge dry
GID = Glow-in-the-dark dial
EN = EN837-1 compliant
SF45 = 4.5" (115mm) Silicone filled
SG-45 = 4.5" (115mm) Safety glass lens

Dual Scale Order Codes

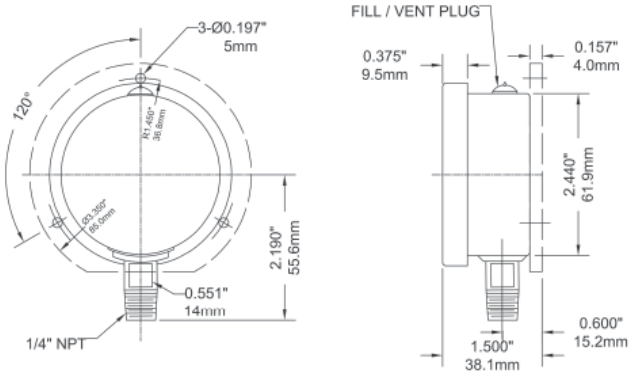
Dial Size	6” (150mm)			
Connection	1/4” Bottom	1/4” Back (LB)	1/2” Bottom	1/2” Back (LB)
Movement, Socket, Tube	SS			
30” Hg Vac/kPa	PFP1078	PFP1168	PFP2326	-
30”/0/15 psi/kPa	PFP1079	-	PFP2327	-
30”/0/30 psi/kPa	PFP1052	-	PFP2328	-
30”/0/60 psi/kPa	PFP1053	-	PFP2329	-
30”/0/100 psi/kPa	PFP1054	-	PFP2330	-
30”/0/150 psi/kPa	PFP1055	-	PFP2331	-
30”/0/200 psi/kPa	PFP1057	-	PFP2332	-
30”/0/300 psi/kPa	PFP1058	-	PFP2333	-
0/15 psi/kPa	PFP1059	PFP1159	PFP2334	-
0/30 psi/kPa	PFP1060	PFP1160	PFP2335	-
0/60 psi/kPa	PFP1061	PFP1161	PFP2336	-
0/100 psi/kPa	PFP1062	PFP1162	PFP2337	-
0/160 psi/kPa	PFP1063	PFP1163	PFP2338	-
0/200 psi/kPa	PFP1064	PFP1164	PFP2339	-
0/300 psi/kPa	PFP1065	PFP1165	PFP2340	-
0/400 psi/kPa	PFP1077	-	PFP2341	-
0/600 psi/kPa	PFP1066	PFP1166	PFP2342	-
0/1,000 psi/kPa	PFP1067	PFP1167	PFP1080	-
0/1,500 psi/kPa	PFP1068	-	PFP1081	PFP1169
0/2,000 psi/kPa	PFP1069	-	PFP1082	PFP1170
0/3,000 psi/kPa	PFP1070	-	PFP1083	PFP1171
0/4,000 psi/kPa	-	-	PFP1084	-
0/5,000 psi/kPa	PFP1072	-	PFP1085	PFP1172
0/6,000 psi/kPa	-	-	PFP1089	PFP1176
0/10,000 psi/kPa	PFP1073	-	PFP1086	PFP1173
0/15,000 psi/kPa	PFP1074	-	PFP1087	PFP1174
0/20,000 psi/kPa	PFP1075	-	PFP1088	PFP1175

Other ranges and connection sizes available upon request. For scale change, refer to How to Order Guide for scale codes. **For options, attach suffix to end of order code: i.e. PFP1064-SC for SAFETY CASE**

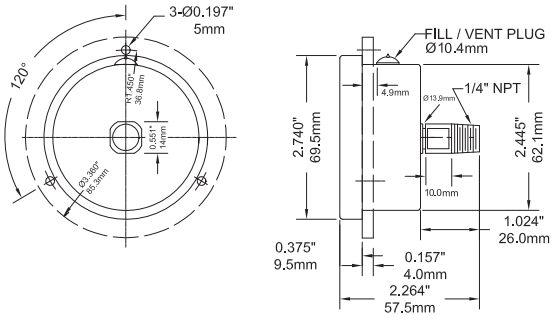
Option suffix:

6BF = 6” (150mm) Back flange
6FF = 6” (150mm) Front flange
6UC = 6” (150mm) U-Clamp
DRY = Supply gauge dry
EN = EN837-1 compliant
GID = Glow-in-the-dark dial
SC = 6” (150mm) Safety case
SF6 = 6” (150mm) Silicone fill
SG-6 = 6” (150mm) Safety glass lens

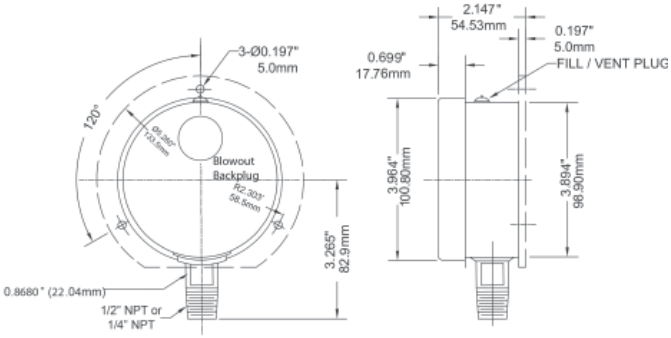
2.5” Bottom Connection with Back Flange



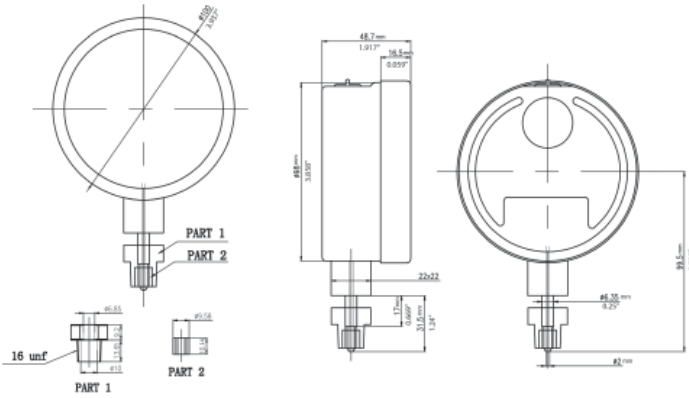
2.5” Back Connection with Front Flange



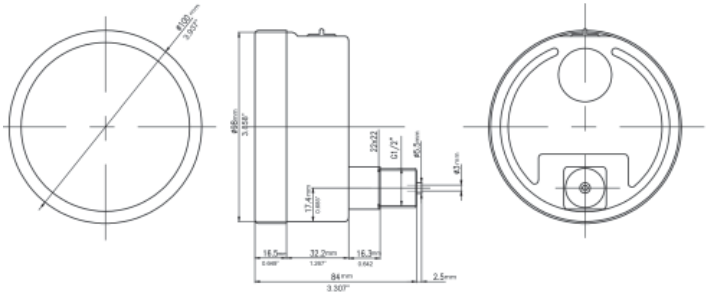
4” Bottom Connection with Back Flange



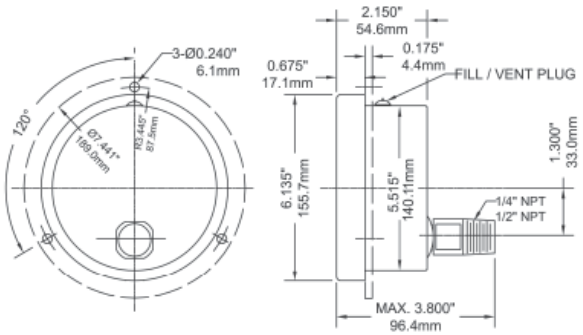
4” Bottom Connection HP



4” Back Connection HP 1/2” BSP(G)



6” Back Connection with Front Flange



PFQ, PFQ-LF

Stainless Steel Liquid Filled Gauge, Lead Free Stainless Steel Liquid Filled Gauge

1. Optional U-Clamp
2. Optional Front Flange

LEAD FREE

RoHS compliant

Note; RoHS applies SS internals only

Description & Features:

- Pulsation resistant, liquid filled stainless steel case
- Glycerin filled standard
- Brass or lead free brass and stainless steel internals
- Restricted orifice standard on dual scale
- Ventable plug on 2.5” (63mm) and 4” (100mm) bottom mount (excluding SAE connection)
- Crimp-On bezel
- Single (psi) or dual scale (psi/kPa)/(psi/bar) available
- Optional U-Clamps and front flanges
- Dry case available
- ASME B40.100 compliant (EN837-1 available on 2” (50mm) dial and up)
- CRN registered
- 5 year warranty

Applications:

- Ideal for pumps, compressors, hydraulic presses, machinery, pneumatic equipment and motors in harsh environments

Specifications	
Dial	1.5” (40mm), 2” (50mm), 2.5” (63mm), 4” (100mm), white aluminum with black and red markings
Case	AISI 304 SS
Lens	1.5” (40mm), 2” (50mm): Acrylic 2.5” (63mm), 4” (100mm): Polycarbonate
Ring	AISI 304 SS, Crimp-On
Socket	PFQ: OT 58 brass or AISI 316 SS PFQ-LF: Lead free brass
Connection	1/8”, 1/4” or 1/2” NPT or 7/16-20 SAE standard with restricted orifice
Fill Liquid	Glycerin
Bourdon Tube	1.5” (40mm), 2” (50mm): Phosphor bronze C or coil shaped for brass socket SS C or coil shaped for 316 SS socket 2.5” (63mm), 4” (100mm): Phosphor bronze or lead free phosphor bronze C or coil shaped for brass socket, AISI 316 SS C or coil shaped for 316 SS socket
Movement	OT 59 brass or SS
Pointer	Aluminum, anodized black
Welding	Brass: Silver alloy, 316SS: TIG
Over-pressure Limit	25% for pressures up to 1,450 psi (9,998 kPa), 15% for pressures over 1,450 psi (9,998 kPa)
Socket Gasket	Buna N for two-piece internal socket seal
Fill Plug	Buna N
Lens Ring Gasket	Silicone rubber
Working Pressure	Maximum 75% of full scale value
Ambient/Process Temperature	Dry: -40°F to 200°F (-40°C to 93°C) Glycerin Filled: -4°F to 150°F (-20°C to 65°C)
Accuracy	1.5” (40mm), 2” (50mm): ±2.5% of full scale value 2.5” (63mm), 4” (100mm): ±1.5% of full scale value
Enclosure Rating	IP65

Dual Scale Order Codes (products in bold are normally stock in North America)

Dial Size	1.5” (40mm)			
Connection	1/8” Bottom	1/8” Back (CB)	1/8” Bottom	1/8” Back (CB)
Movement, Socket, Tube	Brass		SS	
30” Hg Vac/kPa	-	-	PFQ1200	PFQ1220
30”/0/15 psi/kPa	-	-	-	-
30”/0/30 psi/kPa	-	-	-	-
30”/0/60 psi/kPa	-	-	-	-
30”/0/100 psi/kPa	-	-	-	-
30”/0/150 psi/kPa	-	-	-	-
30”/0/200 psi/kPa	-	-	-	-
30”/0/300 psi/kPa	-	-	-	-
0/15 psi/kPa	-	-	PFQ1201	PFQ1221
0/30 psi/kPa	PFQ1102	PFQ1122	PFQ1202	PFQ1222
0/60 psi/kPa	PFQ1103	PFQ1123	PFQ1203	PFQ1223
0/100 psi/kPa	PFQ1104	PFQ1124	PFQ1204	PFQ1224
0/160 psi/kPa	PFQ1105	PFQ1125	PFQ1205	PFQ1225
0/200 psi/kPa	PFQ1106	PFQ1126	PFQ1206	PFQ1226
0/300 psi/kPa	PFQ1107	PFQ1127	PFQ1207	PFQ1227
0/400 psi/kPa	-	-	-	-
0/600 psi/kPa	PFQ1108	PFQ1128	PFQ1208	PFQ1228
0/1,000 psi/kPa	PFQ1109	PFQ1129	PFQ1209	PFQ1229
0/1,500 psi/kPa	PFQ1110	PFQ1130	PFQ1210	PFQ1230
0/2,000 psi/kPa	PFQ1111	PFQ1131	PFQ1211	PFQ1231
0/3,000 psi/kPa	PFQ1112	PFQ1132	PFQ1212	PFQ1232
0/5,000 psi/kPa	PFQ1113	PFQ1133	PFQ1213	PFQ1233
0/6,000 psi/kPa	-	-	-	-
0/10,000 psi/kPa	-	-	-	-
0/15,000 psi/kPa	-	-	-	-
0/20,000 psi/kPa	-	-	-	-

Other ranges and connection sizes available upon request. For scale change, refer to How to Order Guide for scale codes. 1.5” (40mm) gauges are available dry (non-liquid filled) only on a special order basis. **For options, attach suffix to end of order code: i.e. PFQ1102-15DRY for DRY CASE**

Option suffix:
15DRY = Supply 1.5” (40mm) gauge dry
15UC = 1.5” (40mm) U-Clamp

PFQ, PFQ-LF

Stainless Steel Liquid Filled Gauge, Lead Free Stainless Steel Liquid Filled Gauge

Single Scale Order Codes (products in bold are normally stock in North America)

Dial Size	2" (50mm)							
Connection	1/8" Bottom	1/8" Back (CB)	1/8" Bottom	1/8" Back (CB)	1/4" Bottom	1/4" Back (CB)	1/4" Bottom	1/4" Back (CB)
Movement, Socket, Tube	Brass		SS		Brass		SS	
30" Hg Vac	PFQ2400R1	PFQ2426R1	PFQ2248R1	PFQ2309R1	PFQ2452R1	PFQ2478R1	PFQ2247R1	PFQ2246R1
30"/0/15 psi	PFQ2401R1	PFQ2427R1	PFQ2295R1	PFQ2310R1	PFQ2453R1	PFQ2479R1	PFQ2271R1	PFQ2282R1
30"/0/30 psi	PFQ2402R1	PFQ2428R1	PFQ2241R1	PFQ2311R1	PFQ2454R1	PFQ2480R1	PFQ2272R1	PFQ2283R1
30"/0/60 psi	PFQ2403R1	PFQ2429R1	PFQ2296R1	PFQ2312R1	PFQ2455R1	PFQ2481R1	PFQ2273R1	PFQ2242R1
30"/0/100 psi	PFQ2404R1	PFQ2430R1	PFQ2297R1	PFQ2313R1	PFQ2456R1	PFQ2482R1	PFQ2274R1	PFQ2284R1
30"/0/160 psi	PFQ2405R1	PFQ2431R1	PFQ2298R1	PFQ2314R1	PFQ2457R1	PFQ2483R1	PFQ2275R1	PFQ2285R1
30"/0/200 psi	PFQ2406R1	PFQ2432R1	PFQ2299R1	PFQ2315R1	PFQ2458R1	PFQ2484R1	PFQ2276R1	PFQ2286R1
30"/0/300 psi	PFQ2407R1	PFQ2433R1	PFQ2300R1	PFQ2316R1	PFQ2459R1	PFQ2485R1	PFQ2277R1	PFQ2287R1
0/15 psi	PFQ2408R1	PFQ2434R1	PFQ2218R1	PFQ2217R1	PFQ2460R1	PFQ2486R1	PFQ2215R1	PFQ2214R1
0/30 psi	PFQ2409R1	PFQ2435R1	PFQ2253R1	PFQ2252R1	PFQ2461R1	PFQ2487R1	PFQ2250R1	PFQ2249R1
0/60 psi	PFQ2410R1	PFQ2436R1	PFQ2270R1	PFQ2269R1	PFQ2462R1	PFQ2488R1	PFQ2266R1	PFQ2265R1
0/100 psi	PFQ2411R1	PFQ2437R1	PFQ2209R1	PFQ2208R1	PFQ2463R1	PFQ2489R1	PFQ2205R1	PFQ2204R1
0/160 psi	PFQ2412R1	PFQ2438R1	PFQ2206R1	PFQ2207R1	PFQ2464R1	PFQ2490R1	PFQ2220R1	PFQ2219R1
0/200 psi	PFQ2413R1	PFQ2439R1	PFQ2301R1	PFQ2951R1	PFQ2465R1	PFQ2491R1	PFQ2267R1	PFQ2268R1
0/300 psi	PFQ2414R1	PFQ2440R1	PFQ2245R1	PFQ2318R1	PFQ2466R1	PFQ2492R1	PFQ2244R1	PFQ2243R1
0/400 psi	PFQ2415R1	PFQ2441R1	PFQ2302R1	PFQ2319R1	PFQ2467R1	PFQ2493R1	PFQ2254R1	PFQ2288R1
0/600 psi	PFQ2416R1	PFQ2442R1	PFQ2264R1	PFQ2320R1	PFQ2468R1	PFQ2494R1	PFQ2278R1	PFQ2289R1
0/1,000 psi	PFQ2417R1	PFQ2443R1	PFQ2203R1	PFQ2321R1	PFQ2469R1	PFQ2495R1	PFQ2202R1	PFQ2201R1
0/1,500 psi	PFQ2418R1	PFQ2444R1	PFQ2213R1	PFQ2322R1	PFQ2470R1	PFQ2496R1	PFQ2212R1	PFQ2211R1
0/2,000 psi	PFQ2419R1	PFQ2445R1	PFQ2304R1	PFQ2323R1	PFQ2471R1	PFQ2497R1	PFQ2279R1	PFQ2290R1
0/3,000 psi	PFQ2420R1	PFQ2446R1	PFQ2305R1	PFQ2324R1	PFQ2472R1	PFQ2498R1	PFQ2280R1	PFQ2291R1
0/5,000 psi	PFQ2421R1	PFQ2447R1	PFQ2258R1	PFQ2257R1	PFQ2473R1	PFQ2499R1	PFQ2256R1	PFQ2255R1
0/6,000 psi	PFQ2422R1	PFQ2448R1	PFQ2262R1	PFQ2261R1	PFQ2474R1	PFQ2500R1	PFQ2260R1	PFQ2259R1
0/7,500 psi	PFQ2423R1	PFQ2449R1	PFQ2306R1	PFQ2325R1	PFQ2475R1	PFQ2501R1	PFQ2281R1	PFQ2292R1
0/10,000 psi	PFQ2424R1	PFQ2450R1	PFQ2307R1	PFQ2326R1	PFQ2476R1	PFQ2502R1	PFQ2200R1	PFQ2293R1
0/15,000 psi	PFQ2425R1	PFQ2451R1	PFQ2308R1	PFQ2327R1	PFQ2477R1	PFQ2503R1	PFQ2210R1	PFQ2294R1

Dial Size	2.5" (63mm)			
Connection	1/4" Bottom	1/4" Back (CB)	1/4" Bottom	1/4" Back (CB)
Movement, Socket, Tube	Brass		SS	
30" Hg Vac	PFQ801R1	PFQ900R1	PFQ106R1	PFQ147R1
30"/0/15 psi	PFQ790R1	PFQ890R1	PFQ107R1	PFQ148R1
30"/0/30 psi	PFQ798R1	PFQ898R1	PFQ108R1	PFQ149R1
30"/0/60 psi	PFQ799R1	PFQ899R1	PFQ109R1	PFQ151R1
30"/0/100 psi	PFQ791R1	PFQ891R1	PFQ110R1	PFQ156R1
30"/0/160 psi	PFQ792R1	PFQ892R1	PFQ111R1	PFQ157R1
30"/0/200 psi	PFQ794R1	PFQ894R1	PFQ112R1	PFQ158R1
30"/0/300 psi	PFQ795R1	PFQ895R1	PFQ113R1	PFQ159R1
0/15 psi	PFQ800R1	PFQ901R1	PFQ118R1	PFQ162R1
0/30 psi	PFQ802R1	PFQ902R1	PFQ119R1	PFQ163R1
0/60 psi	PFQ803R1	PFQ903R1	PFQ120R1	PFQ164R1
0/100 psi	PFQ804R1	PFQ904R1	PFQ121R1	PFQ169R1
0/160 psi	PFQ805R1	PFQ905R1	PFQ122R1	PFQ170R1
0/200 psi	PFQ806R1	PFQ906R1	PFQ123R1	PFQ171R1
0/300 psi	PFQ807R1	PFQ907R1	PFQ124R1	PFQ175R1
0/400 psi	PFQ817R1	PFQ917R1	PFQ125R1	PFQ177R1
0/600 psi	PFQ808R1	PFQ908R1	PFQ126R1	PFQ178R1
0/1,000 psi	PFQ809R1	PFQ909R1	PFQ127R1	PFQ179R1
0/1,500 psi	PFQ816R1	PFQ914R1	PFQ128R1	PFQ180R1
0/2,000 psi	PFQ810R1	PFQ910R1	PFQ129R1	PFQ181R1
0/3,000 psi	PFQ811R1	PFQ911R1	PFQ137R1	PFQ182R1
0/4,000 psi	PFQ819R1	PFQ919R1	-	-
0/5,000 psi	PFQ812R1	PFQ912R1	PFQ138R1	PFQ183R1
0/6,000 psi	PFQ814R1	PFQ915R1	PFQ139R1	PFQ184R1
0/7,500 psi	PFQ818R1	PFQ918R1	PFQ144R1	PFQ186R1
0/10,000 psi	PFQ813R1	PFQ913R1	PFQ145R1	PFQ190R1
0/15,000 psi	-	-	PFQ146R1	PFQ191R1

Other ranges and connection sizes available upon request. For scale change, refer to How to Order Guide for scale codes. Front flange for 2" (50mm) gauge is available. **For options, attach suffix to end of order code: i.e. PFQ806R1-25DRY for DRY CASE**

Option suffix:
20DRY = Supply 2" (50mm) gauge dry
2UC = 2" (50mm) U-Clamp
25BF = 2.5" (63mm) Back flange
25DRY = Supply 2.5" (63mm) gauge dry
25FF = 2.5" (63mm) Front flange
25UC = 2.5" (63mm) U-Clamp
EN = EN837-1 compliant
REST = Restrictor screw
SF25 = 2.5" (63mm) Silicone filled

Dual Scale Order Codes (products in bold are normally stock in North America)

Dial Size	2" (50mm)							
Connection	1/8" Bottom	1/8" Back (CB)	1/8" Bottom	1/8" Back (CB)	1/4" Bottom	1/4" Back (CB)	1/4" Bottom	1/4" Back (CB)
Movement, Socket, Tube	Brass		SS		Brass		SS	
30" Hg Vac/kPa	PFQ2400	PFQ2426	PFQ2248	PFQ2309	PFQ2452	PFQ2478	PFQ2247	PFQ2246
30"/0/15 psi/kPa	PFQ2401	PFQ2427	PFQ2295	PFQ2310	PFQ2453	PFQ2479	PFQ2271	PFQ2282
30"/0/30 psi/kPa	PFQ2402	PFQ2428	PFQ2241	PFQ2311	PFQ2454	PFQ2480	PFQ2272	PFQ2283
30"/0/60 psi/kPa	PFQ2403	PFQ2429	PFQ2296	PFQ2312	PFQ2455	PFQ2481	PFQ2273	PFQ2242
30"/0/100 psi/kPa	PFQ2404	PFQ2430	PFQ2297	PFQ2313	PFQ2456	PFQ2482	PFQ2274	PFQ2284
30"/0/150 psi/kPa	PFQ2405	PFQ2431	PFQ2298	PFQ2314	PFQ2457	PFQ2483	PFQ2275	PFQ2285
30"/0/200 psi/kPa	PFQ2406	PFQ2432	PFQ2299	PFQ2315	PFQ2458	PFQ2484	PFQ2276	PFQ2286
30"/0/300 psi/kPa	PFQ2407	PFQ2433	PFQ2300	PFQ2316	PFQ2459	PFQ2485	PFQ2277	PFQ2287
0/15 psi/kPa	PFQ2408	PFQ2434	PFQ2218	PFQ2217	PFQ2460	PFQ2486	PFQ2215	PFQ2214
0/30 psi/kPa	**PFQ2409**	PFQ2435	PFQ2253	PFQ2252	**PFQ2461**	PFQ2487	PFQ2250	PFQ2249
0/60 psi/kPa	PFQ2410	PFQ2436	PFQ2270	PFQ2269	PFQ2462	PFQ2488	PFQ2266	PFQ2265
0/100 psi/kPa	PFQ2411	PFQ2437	PFQ2209	PFQ2208	**PFQ2463**	PFQ2489	PFQ2205	PFQ2204
0/160 psi/kPa	PFQ2412	**PFQ2438**	PFQ2206	PFQ2207	**PFQ2464**	**PFQ2490**	**PFQ2220**	PFQ2219
0/200 psi/kPa	PFQ2413	**PFQ2439**	PFQ2301	PFQ2951	PFQ2465	PFQ2491	PFQ2267	PFQ2268
0/300 psi/kPa	PFQ2414	PFQ2440	PFQ2245	PFQ2318	PFQ2466	PFQ2492	PFQ2244	PFQ2243
0/400 psi/kPa	PFQ2415	PFQ2441	PFQ2302	PFQ2319	PFQ2467	PFQ2493	PFQ2254	PFQ2288
0/600 psi/kPa	PFQ2416	PFQ2442	PFQ2264	PFQ2320	PFQ2468	PFQ2494	PFQ2278	PFQ2289
0/1,000 psi/kPa	PFQ2417	PFQ2443	PFQ2203	PFQ2321	PFQ2469	**PFQ2495**	PFQ2202	PFQ2201
0/1,500 psi/kPa	PFQ2418	PFQ2444	PFQ2213	PFQ2322	PFQ2470	PFQ2496	PFQ2212	PFQ2211
0/2,000 psi/kPa	PFQ2419	PFQ2445	PFQ2304	PFQ2323	PFQ2471	PFQ2497	PFQ2279	PFQ2290
0/3,000 psi/kPa	PFQ2420	PFQ2446	PFQ2305	PFQ2324	PFQ2472	PFQ2498	PFQ2280	PFQ2291
0/5,000 psi/kPa	PFQ2421	PFQ2447	PFQ2258	PFQ2257	PFQ2473	PFQ2499	PFQ2256	PFQ2255
0/6,000 psi/kPa	PFQ2422	PFQ2448	PFQ2262	PFQ2261	PFQ2474	PFQ2500	PFQ2260	PFQ2259
0/7,500 psi/kPa	PFQ2423	PFQ2449	PFQ2306	PFQ2325	PFQ2475	PFQ2501	PFQ2281	PFQ2292
0/10,000 psi/kPa	PFQ2424	PFQ2450	PFQ2307	PFQ2326	PFQ2476	PFQ2502	PFQ2200	PFQ2293
0/15,000 psi/kPa	PFQ2425	PFQ2451	PFQ2308	PFQ2327	PFQ2477	PFQ2503	PFQ2210	PFQ2294

Other ranges and connection sizes available upon request. For scale change, refer to How to Order Guide for scale codes. Front flange for 2" (50mm) gauge is available. **For options, attach suffix to end of order code: i.e. PFQ2218R1-20DRY for DRY CASE**

Option suffix:
2FF = 2" (50mm) Front flange
2UC = 2" (50mm) U-Clamp
20DRY = Supply 2" gauge dry
EN = EN837-1 compliant

Dual Scale Order Codes (products in bold are normally stock in North America)

Dial Size	2.5" (63mm)			
Connection	1/4" Bottom	1/4" Back (CB)	1/4" Bottom	1/4" Back (CB)
Movement, Socket, Tube	Brass		SS	
30" Hg Vac/kPa	PFQ801	PFQ900	PFQ106	PFQ147
30"/0/15 psi/kPa	PFQ790	PFQ890	PFQ107	PFQ148
30"/0/30 psi/kPa	PFQ798	PFQ898	PFQ108	PFQ149
30"/0/60 psi/kPa	PFQ799	PFQ899	PFQ109	PFQ151
30"/0/100 psi/kPa	PFQ791	PFQ891	PFQ110	PFQ156
30"/0/150 psi/kPa	PFQ792	PFQ892	PFQ111	PFQ157
30"/0/200 psi/kPa	PFQ794	PFQ894	PFQ112	PFQ158
30"/0/300 psi/kPa	PFQ795	PFQ895	PFQ113	PFQ159
0/15 psi/kPa	PFQ800	PFQ901	PFQ118	PFQ162
0/30 psi/kPa	PFQ802	PFQ902	PFQ119	PFQ163
0/60 psi/kPa	PFQ803	PFQ903	PFQ120	PFQ164
0/100 psi/kPa	PFQ804	PFQ904	PFQ121	PFQ169
0/160 psi/kPa	PFQ805	PFQ905	PFQ122	PFQ170
0/200 psi/kPa	PFQ806	PFQ906	PFQ123	PFQ171
0/300 psi/kPa	PFQ807	PFQ907	PFQ124	PFQ175
0/400 psi/kPa	PFQ817	PFQ917	PFQ125	PFQ177
0/600 psi/kPa	PFQ808	PFQ908	PFQ126	PFQ178
0/1,000 psi/kPa	PFQ809	PFQ909	PFQ127	PFQ179
0/1,500 psi/kPa	PFQ816	PFQ914	PFQ128	PFQ180
0/2,000 psi/kPa	PFQ810	PFQ910	PFQ129	PFQ181
0/3,000 psi/kPa	PFQ811	PFQ911	PFQ137	PFQ182
0/4,000 psi/kPa	PFQ819	PFQ919	PFQ130	-
0/5,000 psi/kPa	PFQ812	PFQ912	PFQ138	PFQ183
0/6,000 psi/kPa	PFQ814	PFQ915	PFQ139	PFQ184
0/7,500 psi/kPa	PFQ818	PFQ918	PFQ144	PFQ186
0/10,000 psi/kPa	PFQ813	PFQ913	PFQ145	PFQ190
0/15,000 psi/kPa	-	-	PFQ146	PFQ191

Dial Size	2.5" (63mm)	
Connection	1/4" Bottom	1/4" Back (CB)
Movement, Socket, Tube	Brass	
30" Hg Vac/bar	PFQ801R1R11	PFQ900R1R11
30"/0/15 psi/bar	PFQ790R1R11	PFQ890R1R11
30"/0/30 psi/bar	PFQ798R1R11	PFQ898R1R11
30"/0/60 psi/bar	PFQ799R1R11	PFQ899R1R11
30"/0/100 psi/bar	PFQ791R1R11	PFQ891R1R11
30"/0/160 psi/bar	PFQ792R1R11	PFQ892R1R11
30"/0/200 psi/bar	PFQ794R1R11	PFQ894R1R11
30"/0/300 psi/bar	PFQ795R1R11	PFQ895R1R11
0/15 psi/bar	PFQ800R1R11	PFQ901R1R11
0/30 psi/bar	PFQ802R1R11	PFQ902R1R11
0/60 psi/bar	PFQ803R1R11	PFQ903R1R11
0/100 psi/bar	PFQ804R1R11	PFQ904R1R11
0/160 psi/bar	PFQ805R1R11	PFQ905R1R11
0/200 psi/bar	PFQ806R1R11	PFQ906R1R11
0/300 psi/bar	PFQ807R1R11	PFQ907R1R11
0/400 psi/bar	PFQ817R1R11	PFQ917R1R11
0/600 psi/bar	PFQ808R1R11	PFQ908R1R11
0/1,000 psi/bar	PFQ809R1R11	PFQ909R1R11
0/1,500 psi/bar	PFQ816R1R11	PFQ914R1R11
0/2,000 psi/bar	PFQ810R1R11	PFQ910R1R11
0/3,000 psi/bar	PFQ811R1R11	PFQ911R1R11
0/4,000 psi/bar	PFQ819R1R11	PFQ919R1R11
0/5,000 psi/bar	PFQ812R1R11	PFQ912R1R11
0/6,000 psi/bar	PFQ814R1R11	PFQ915R1R11
0/7,500 psi/bar	PFQ818R1R11	PFQ918R1R11
0/10,000 psi/bar	PFQ813R1R11	PFQ913R1R11

Other ranges and connection sizes available upon request. For scale change, refer to How to Order Guide for scale codes.
For options, attach suffix to end of order code: i.e. PFQ801-25DRY for DRY CASE

Option suffix:
25BF = 2.5" (63mm) Back flange
25DRY = Supply 2.5" (63mm) gauge dry
25FF = 2.5" (63mm) Front flange
25UC = 2.5" (63mm) U-Clamp
EN = EN837-1 compliant
SF25 = 2.5" (63mm) Silicone filled

Dual Scale Order Codes (products in bold are normally stock in North America)

Dial Size	2.5” (63mm)
Connection	7/16”-20 SAE Bottom
Movement, Socket, Tube	Brass
30” Hg Vac/bar	PFQ3643
30”/0/15 psi/bar	PFQ3644
30”/0/30 psi/bar	PFQ3645
30”/0/60 psi/bar	PFQ3646
30”/0/100 psi/bar	PFQ3647
30”/0/150 psi/bar	PFQ3648
30”/0/200 psi/bar	PFQ3649
30”/0/300 psi/bar	PFQ3650
0/15 psi/bar	PFQ3651
0/30 psi/bar	PFQ3652
0/60 psi/bar	PFQ3653
0/100 psi/bar	PFQ3654
0/160 psi/bar	PFQ3655
0/200 psi/bar	PFQ3656
0/300 psi/bar	PFQ3657
0/400 psi/bar	PFQ3658
0/600 psi/bar	PFQ3659
0/1,000 psi/bar	PFQ3660
0/1,500 psi/bar	PFQ3661
0/2,000 psi/bar	PFQ3662
0/3,000 psi/bar	PFQ3663
0/5,000 psi/bar	PFQ3664
0/6,000 psi/bar	PFQ3665
0/7,500 psi/bar	PFQ3666
0/10,000 psi/bar	PFQ3667
0/15,000 psi/bar	PFQ3668

PFQ-LF Order Codes (products in bold are normally stock in North America)

Dial Size	2.5” (63mm)	
Connection	1/4” Bottom	1/4” Back (CB)
Socket, Tube	Lead Free Brass	
30” Hg Vac/kPa	PFQ801LF	PFQ900LF
30”/0/15 psi/kPa	PFQ790LF	PFQ890LF
30”/0/30 psi/kPa	PFQ798LF	PFQ898LF
30”/0/60 psi/kPa	PFQ799LF	PFQ899LF
30”/0/100 psi/kPa	PFQ791LF	PFQ891LF
30”/0/150 psi/kPa	PFQ792LF	PFQ892LF
30”/0/200 psi/kPa	PFQ794LF	PFQ894LF
30”/0/300 psi/kPa	PFQ795LF	PFQ895LF
0/15 psi/kPa	PFQ800LF	PFQ901LF
0/30 psi/kPa	PFQ802LF	PFQ902LF
0/60 psi/kPa	PFQ803LF	PFQ903LF
0/100 psi/kPa	PFQ804LF	PFQ904LF
0/160 psi/kPa	PFQ805LF	PFQ905LF
0/200 psi/kPa	PFQ806LF	PFQ906LF
0/300 psi/kPa	PFQ807LF	PFQ907LF
0/400 psi/kPa	PFQ817LF	PFQ917LF
0/600 psi/kPa	PFQ808LF	PFQ908LF
0/1,000 psi/kPa	PFQ809LF	PFQ909LF
0/1,500 psi/kPa	PFQ816LF	PFQ914LF
0/2,000 psi/kPa	PFQ810LF	PFQ910LF
0/3,000 psi/kPa	PFQ811LF	PFQ911LF
0/5,000 psi/kPa	PFQ812LF	PFQ912LF
0/6,000 psi/kPa	PFQ814LF	PFQ915LF
0/7,500 psi/kPa	PFQ818LF	PFQ918LF
0/10,000 psi/kPa	PFQ813LF	PFQ913LF
0/15,000 psi/kPa	-	-

Other ranges and connection sizes available upon request. For scale change, refer to How to Order Guide for scale codes.
For options, attach suffix to end of order code: i.e. PFQ3651-25DRY for DRY CASE

Option suffix:

25BF = 2.5” (63mm) Back flange
25DRY = Supply 2.5” (63mm) gauge dry
25FF = 2.5” (63mm) Front flange
25UC = 2.5” (63mm) U-Clamp
EN = EN837-1 compliant
SF25 = 2.5” (63mm) Silicone filled

Single Scale Order Codes (products in bold are normally stock in North America)

Dial Size	4" (100mm)							
Connection	1/4" Bottom	1/4" Back (CB)	1/4" Bottom	1/4" Back (CB)	1/2" Bottom	1/2" Back (CB)	1/2" Bottom	1/2" Back (CB)
Movement, Socket, Tube	Brass		SS		Brass		SS	
30" Hg Vac	PFQ700R1	PFQ730R1	PFQ760R1	PFQ1260R1	PFQ1234R1	PFQ1285R1	PFQ1535R1	PFQ1559R1
30"/0/15 psi	PFQ701R1	PFQ731R1	PFQ761R1	PFQ1261R1	PFQ1235R1	PFQ1286R1	PFQ1536R1	PFQ1560R1
30"/0/30 psi	PFQ702R1	PFQ732R1	PFQ762R1	PFQ1262R1	PFQ1236R1	PFQ1287R1	PFQ1537R1	PFQ1561R1
30"/0/60 psi	PFQ703R1	PFQ733R1	PFQ763R1	PFQ1263R1	PFQ1237R1	PFQ1288R1	PFQ1538R1	PFQ1562R1
30"/0/100 psi	PFQ704R1	PFQ734R1	PFQ764R1	PFQ1264R1	PFQ1238R1	PFQ1289R1	PFQ1539R1	PFQ1563R1
30"/0/160 psi	PFQ705R1	PFQ735R1	PFQ765R1	PFQ1265R1	PFQ1239R1	PFQ1290R1	PFQ1540R1	PFQ1564R1
30"/0/200 psi	PFQ706R1	PFQ736R1	PFQ766R1	PFQ1266R1	PFQ1240R1	PFQ1291R1	PFQ1541R1	PFQ1565R1
30"/0/300 psi	PFQ707R1	PFQ737R1	PFQ767R1	PFQ1267R1	PFQ1241R1	PFQ1292R1	PFQ1542R1	PFQ1566R1
0/15 psi	PFQ708R1	PFQ738R1	PFQ768R1	PFQ1268R1	PFQ1242R1	PFQ1293R1	PFQ1543R1	PFQ1567R1
0/30 psi	PFQ709R1	PFQ739R1	PFQ769R1	PFQ1269R1	PFQ1243R1	PFQ1294R1	PFQ1544R1	PFQ1568R1
0/60 psi	PFQ710R1	PFQ740R1	PFQ770R1	PFQ1270R1	**PFQ1244R1**	PFQ1295R1	PFQ1545R1	PFQ1569R1
0/100 psi	PFQ711R1	PFQ741R1	**PFQ771R1**	PFQ1271R1	PFQ1245R1	PFQ1296R1	PFQ1546R1	PFQ1570R1
0/160 psi	PFQ712R1	PFQ742R1	**PFQ772R1**	PFQ1272R1	PFQ1246R1	PFQ1298R1	PFQ1547R1	PFQ1571R1
0/200 psi	**PFQ713R1**	PFQ743R1	PFQ773R1	PFQ1273R1	PFQ1247R1	PFQ1524R1	PFQ1548R1	PFQ1572R1
0/300 psi	**PFQ714R1**	PFQ744R1	**PFQ774R1**	PFQ1274R1	PFQ1248R1	PFQ1525R1	PFQ1549R1	PFQ1573R1
0/400 psi	PFQ715R1	PFQ745R1	PFQ775R1	PFQ1275R1	PFQ1249R1	PFQ1526R1	PFQ1550R1	PFQ1574R1
0/600 psi	PFQ716R1	PFQ746R1	PFQ776R1	PFQ1276R1	PFQ1250R1	PFQ1527R1	PFQ1551R1	PFQ1575R1
0/1,000 psi	PFQ724R1	PFQ192R1	PFQ1528R1	PFQ1552R1	**PFQ717R1**	PFQ747R1	PFQ777R1	PFQ1277R1
0/1,500 psi	PFQ725R1	PFQ241R1	PFQ1529R1	PFQ1553R1	**PFQ718R1**	PFQ748R1	**PFQ778R1**	PFQ1278R1
0/2,000 psi	PFQ726R1	PFQ242R1	PFQ1530R1	PFQ1554R1	**PFQ719R1**	PFQ749R1	PFQ779R1	PFQ1279R1
0/3,000 psi	PFQ727R1	PFQ243R1	PFQ1531R1	PFQ1555R1	**PFQ720R1**	PFQ750R1	PFQ780R1	PFQ1280R1
0/5,000 psi	PFQ728R1	PFQ244R1	PFQ1532R1	PFQ1556R1	**PFQ721R1**	PFQ751R1	PFQ781R1	PFQ1281R1
0/6,000 psi	PFQ346R1	PFQ246R1	-	-	PFQ784R1	PFQ785R1	PFQ789R1	PFQ1284R1
0/7,500 psi	PFQ347R1	PFQ247R1	-	-	PFQ786R1	PFQ886R1	-	-
0/10,000 psi	PFQ729R1	PFQ360R1	PFQ1533R1	PFQ1557R1	**PFQ722R1**	PFQ752R1	**PFQ782R1**	PFQ1282R1
0/15,000 psi	PFQ261R1	PFQ361R1	PFQ1534R1	PFQ1558R1	PFQ723R1	PFQ753R1	PFQ783R1	PFQ1283R1

Other ranges and connection sizes available upon request. For scale change, refer to How to Order Guide for scale codes.
For options, attach suffix to end of order code: i.e. PFQ728-DRY for DRY CASE

Option suffix:

4BF = 4" (100mm) Back flange
4FF = 4" (100mm) Front flange
4UC-P = 4" (100mm) U-Clamp (for SS movement)
4UC-Q = 4" (100mm) U-Clamp (for brass movement)
DRY = Supply gauge dry
EN = EN837-1 compliant
REST = Restrictor screw
SF4 = 4" (100mm) Silicone filled

Dual Scale Order Codes (products in bold are normally stock in North America)

Dial Size	4" (100mm)							
Connection	1/4" Bottom	1/4" Back (CB)	1/4" Bottom	1/4" Back (CB)	1/2" Bottom	1/2" Back (CB)	1/2" Bottom	1/2" Back (CB)
Movement, Socket, Tube	Brass		SS		Brass		SS	
30" Hg Vac/kPa	PFQ700	PFQ730	PFQ760	PFQ1260	PFQ1234	PFQ1285	PFQ1535	PFQ1559
30"/0/15 psi/kPa	PFQ701	PFQ731	PFQ761	PFQ1261	PFQ1235	PFQ1286	PFQ1536	PFQ1560
30"/0/30 psi/kPa	PFQ702	PFQ732	PFQ762	PFQ1262	PFQ1236	PFQ1287	PFQ1537	PFQ1561
30"/0/60 psi/kPa	PFQ703	PFQ733	PFQ763	PFQ1263	PFQ1237	PFQ1288	PFQ1538	PFQ1562
30"/0/100 psi/kPa	PFQ704	PFQ734	PFQ764	PFQ1264	PFQ1238	PFQ1289	PFQ1539	PFQ1563
30"/0/150 psi/kPa	PFQ705	PFQ735	PFQ765	PFQ1265	PFQ1239	PFQ1290	PFQ1540	PFQ1564
30"/0/200 psi/kPa	PFQ706	PFQ736	PFQ766	PFQ1266	PFQ1240	PFQ1291	PFQ1541	PFQ1565
30"/0/300 psi/kPa	PFQ707	PFQ737	PFQ767	PFQ1267	PFQ1241	PFQ1292	PFQ1542	PFQ1566
0/15 psi/kPa	PFQ708	PFQ738	PFQ768	PFQ1268	PFQ1242	PFQ1293	PFQ1543	PFQ1567
0/30 psi/kPa	PFQ709	PFQ739	PFQ769	PFQ1269	PFQ1243	PFQ1294	PFQ1544	PFQ1568
0/60 psi/kPa	PFQ710	PFQ740	PFQ770	PFQ1270	PFQ1244	PFQ1295	PFQ1545	PFQ1569
0/100 psi/kPa	PFQ711	PFQ741	PFQ771	PFQ1271	PFQ1245	PFQ1296	PFQ1546	PFQ1570
0/160 psi/kPa	PFQ712	PFQ742	PFQ772	PFQ1272	PFQ1246	PFQ1298	PFQ1547	PFQ1571
0/200 psi/kPa	PFQ713	PFQ743	PFQ773	PFQ1273	PFQ1247	PFQ1524	PFQ1548	PFQ1572
0/300 psi/kPa	PFQ714	PFQ744	PFQ774	PFQ1274	PFQ1248	PFQ1525	PFQ1549	PFQ1573
0/400 psi/kPa	PFQ715	PFQ745	PFQ775	PFQ1275	PFQ1249	PFQ1526	PFQ1550	PFQ1574
0/600 psi/kPa	PFQ716	PFQ746	PFQ776	PFQ1276	PFQ1250	PFQ1527	PFQ1551	PFQ1575
0/1,000 psi/kPa	PFQ724	PFQ192	PFQ1528	PFQ1552	PFQ717	PFQ747	PFQ777	PFQ1277
0/1,500 psi/kPa	PFQ725	PFQ241	PFQ1529	PFQ1553	PFQ718	PFQ748	PFQ778	PFQ1278
0/2,000 psi/kPa	PFQ726	PFQ242	PFQ1530	PFQ1554	PFQ719	PFQ749	PFQ779	PFQ1279
0/3,000 psi/kPa	PFQ727	PFQ243	PFQ1531	PFQ1555	PFQ720	PFQ750	PFQ780	PFQ1280
0/5,000 psi/kPa	PFQ728	PFQ244	PFQ1532	PFQ1556	PFQ721	PFQ751	PFQ781	PFQ1281
0/6,000 psi/kPa	PFQ346	PFQ246	-	-	PFQ784	PFQ785	PFQ789	PFQ1284
0/7,500 psi/kPa	PFQ347	PFQ247	-	-	-	-	-	-
0/10,000 psi/kPa	PFQ729	PFQ360	PFQ1533	PFQ1557	PFQ722	PFQ752	PFQ782	PFQ1282
0/15,000 psi/kPa	PFQ261	PFQ361	PFQ1534	PFQ1558	PFQ723	PFQ753	PFQ783	PFQ1283

Other ranges and connection sizes available upon request. For scale change, refer to How to Order Guide for scale codes.
For options, attach suffix to end of order code: i.e. PFQ721-DRY for DRY CASE

Option suffix:

4BF = 4" (100mm) Back flange
4FF = 4" (100mm) Front flange
4UC-P = 4" (100mm) U-Clamp (for SS movement)
4UC-Q = 4" (100mm) U-Clamp (for brass movement)
DRY = Supply gauge dry
EN = EN837-1 compliant
SF4 = 4" (100mm) Silicone filled

PFQ-LF Order Codes (products in bold are normally stock in North America)

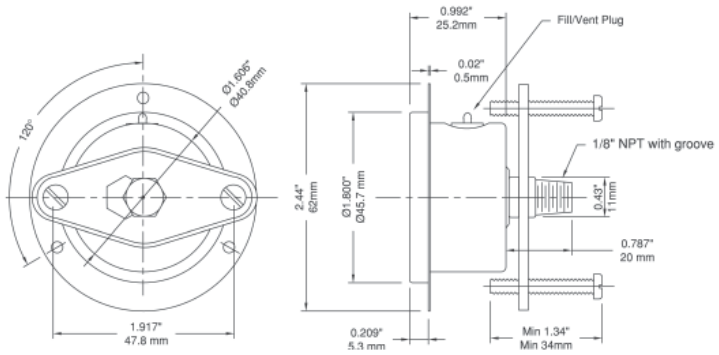
Dial Size	4" (100mm)			
Connection	1/4" Bottom	1/4" Back (CB)	1/2" Bottom	1/2" Back (CB)
Socket, Tube	Lead Free Brass			
30" Hg Vac/kPa	PFQ700LF	PFQ730LF	PFQ1234LF	PFQ1285LF
30"/0/15 psi/kPa	PFQ701LF	PFQ731LF	PFQ1235LF	PFQ1286LF
30"/0/30 psi/kPa	PFQ702LF	PFQ732LF	PFQ1236LF	PFQ1287LF
30"/0/60 psi/kPa	PFQ703LF	PFQ733LF	PFQ1237LF	PFQ1288LF
30"/0/100 psi/kPa	PFQ704LF	PFQ734LF	PFQ1238LF	PFQ1289LF
30"/0/150 psi/kPa	PFQ705LF	PFQ735LF	PFQ1239LF	PFQ1290LF
30"/0/200 psi/kPa	PFQ706LF	PFQ736LF	PFQ1240LF	PFQ1291LF
30"/0/300 psi/kPa	PFQ707LF	PFQ737LF	PFQ1241LF	PFQ1292LF
0/15 psi/kPa	PFQ708LF	PFQ738LF	PFQ1242LF	PFQ1293LF
0/30 psi/kPa	**PFQ709LF**	PFQ739LF	PFQ1243LF	PFQ1294LF
0/60 psi/kPa	PFQ710LF	PFQ740LF	PFQ1244LF	PFQ1295LF
0/100 psi/kPa	**PFQ711LF**	PFQ741LF	PFQ1245LF	PFQ1296LF
0/160 psi/kPa	**PFQ712LF**	PFQ742LF	PFQ1246LF	PFQ1298LF
0/200 psi/kPa	**PFQ713LF**	PFQ743LF	PFQ1247LF	PFQ1524LF
0/300 psi/kPa	**PFQ714LF**	PFQ744LF	PFQ1248LF	PFQ1525LF
0/400 psi/kPa	PFQ715LF	PFQ745LF	PFQ1249LF	PFQ1526LF
0/600 psi/kPa	**PFQ716LF**	PFQ746LF	PFQ1250LF	PFQ1527LF
0/1,000 psi/kPa	PFQ724LF	PFQ192LF	PFQ717LF	PFQ747LF
0/1,500 psi/kPa	PFQ725LF	PFQ241LF	PFQ718LF	PFQ748LF
0/2,000 psi/kPa	PFQ726LF	PFQ242LF	PFQ719LF	PFQ749LF
0/3,000 psi/kPa	PFQ727LF	PFQ243LF	PFQ720LF	PFQ750LF
0/5,000 psi/kPa	PFQ728LF	PFQ244LF	PFQ721LF	PFQ751LF
0/6,000 psi/kPa	PFQ346LF	PFQ246LF	PFQ784LF	PFQ785LF
0/7,500 psi/kPa	PFQ347LF	PFQ247LF	PFQ786LF	PFQ886LF
0/10,000 psi/kPa	PFQ729LF	PFQ360LF	PFQ722LF	PFQ752LF
0/15,000 psi/kPa	PFQ261LF	PFQ361LF	PFQ723LF	PFQ753LF

Other ranges and connection sizes available upon request. For scale change, refer to How to Order Guide for scale codes.
For options, attach suffix to end of order code: i.e. PFQ728LF-DRY for DRY CASE

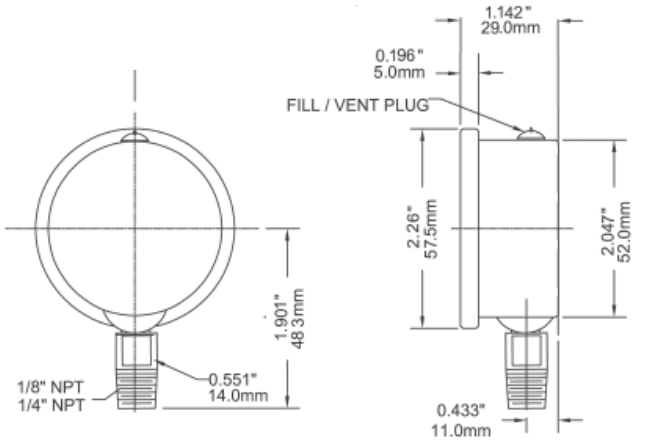
Option suffix:

4BF = 4" (100mm) Back flange
4FF = 4" (100mm) Front flange
4UC-P = 4" (100mm) U-Clamp (for SS movement)
4UC-Q = 4" (100mm) U-Clamp (for brass movement)
DRY = Supply gauge dry
EN = EN837-1 compliant
SF4 = 4" (100mm) Silicone filled

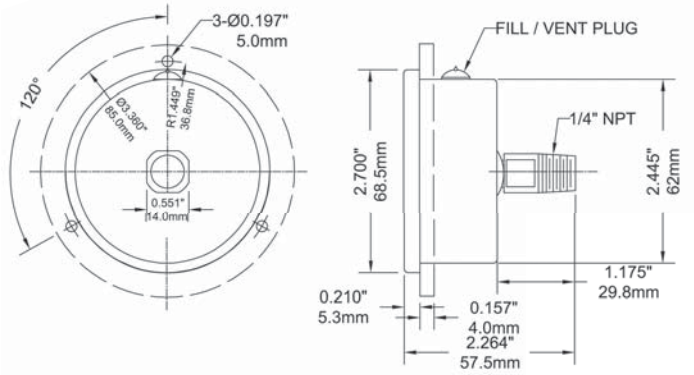
1.5” Back Connection with Front Flange and U-Clamp



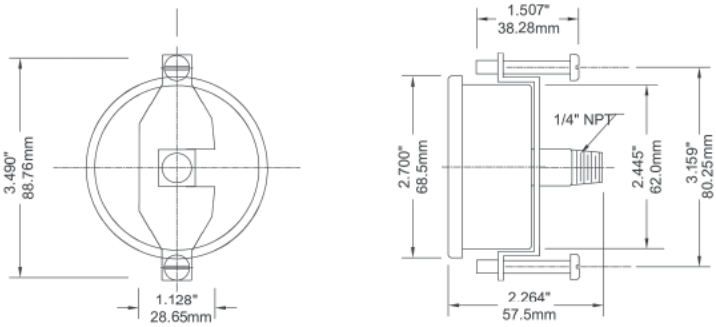
2” Bottom Connection



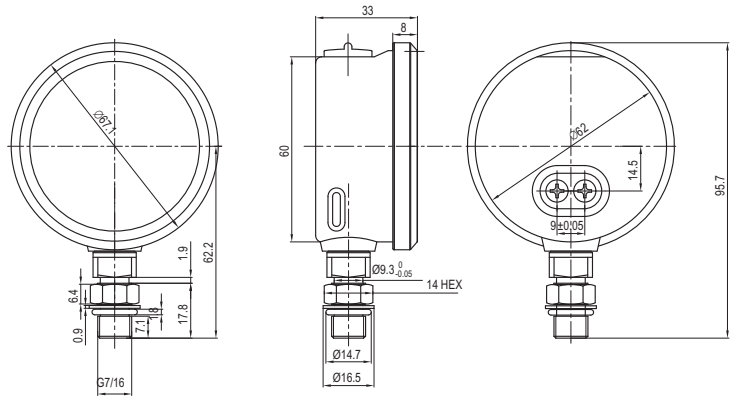
2.5” Back Connection with Front Flange



2.5” Back Connection with U-Clamp

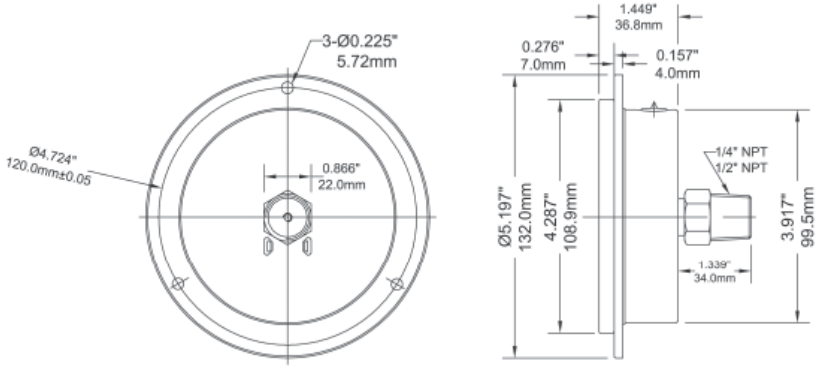


2.5” Bottom Connection SAE



Dimensions in mm

4” Back Connection with Front Flange



P9S 90 Series Gauge

Description & Features:

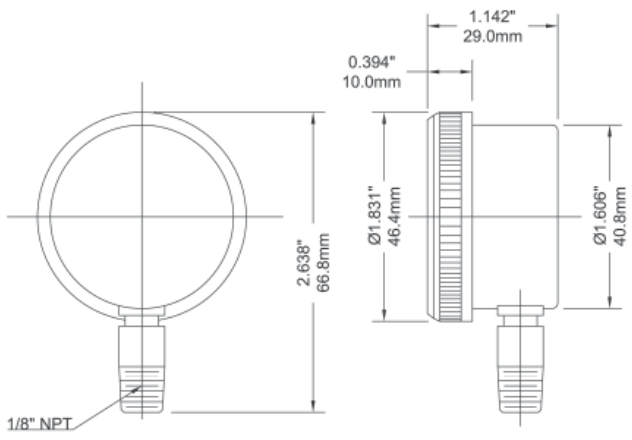
- A general-purpose gauge that is serviceable and pulsation resistant
- 1.5” (40mm) to 3.5” (90mm) dial sizes
- Dampened movement combined with a “flutterless” pointer
- Removable lens
- Zero-adjustment
- ASME B40.100 compliant
- CRN registered
- ±2-1-2% accuracy
- 5 year warranty

Applications:

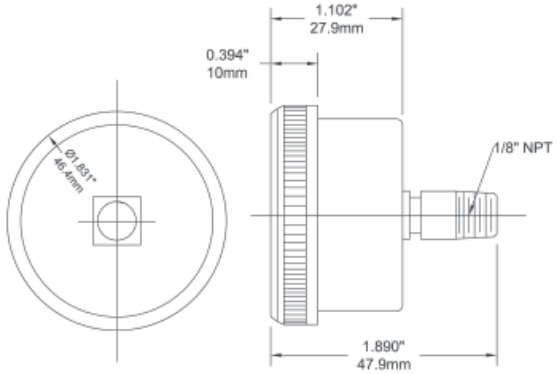
- Compressors, filters, regulators, water pumps, paint sprayers and a variety of other rapid pressure fluctuation applications

Specifications	
Dial	1.5” (40mm), 2” (50mm), 2.5” (63mm), 3.5” (90mm) white aluminum with black and red markings
Case	Steel, painted black
Lens	Acrylic, threaded
Socket	Brass
Connection	1/8” NPT or 1/4” NPT standard
Bourdon Tube	Phosphor bronze
Movement	Brass (flutterless) with zero adjustment
Pointer	Aluminum, black
Welding	<1,000 psi: 60% tin 40% lead, ≥1,000 psi: silver alloy
Over-pressure Limit	25% of full scale value
Working Pressure	Maximum 75% of full scale value
Ambient/Process Temperature	-40°F to 150°F (-40°C to 65°C)
Accuracy	±2-1-2% ANSI/ASME Grade A

1.5” Bottom Connection



1.5” Back Connection

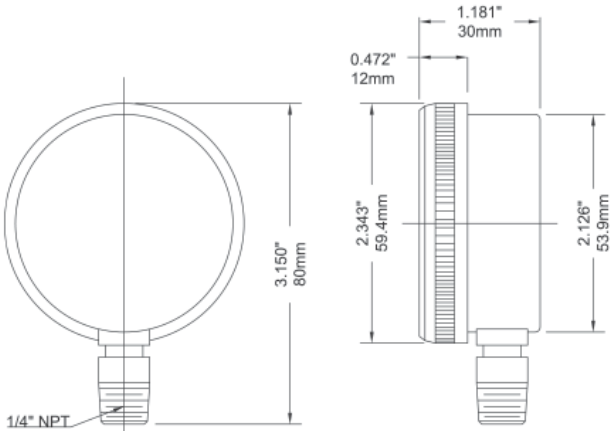


Order Codes (products in bold are normally stock in North America)

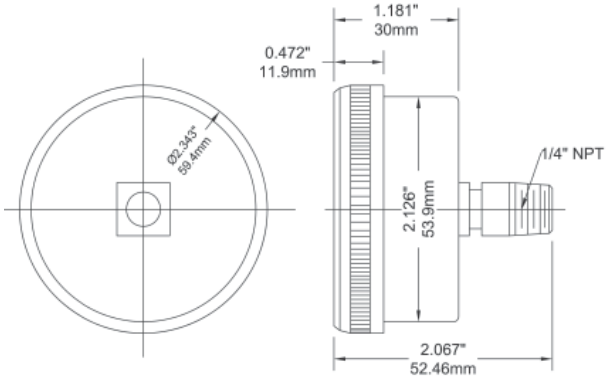
Dial Size	1.5" (40mm)		2" (50mm)				2.5" (63mm)		3.5" (90mm)	
Connection	1/8" Bottom	1/8" Back (CB)	1/8" Bottom	1/8" Back (CB)	1/4" Bottom	1/4" Back (CB)	1/4" Bottom	1/4" Back (CB)	1/4" Bottom	1/4" Back (CB)
30" Hg Vac/kPa	P9S901297	P9S901397	P9S90195	P9S901424	P9S90135	P9S901428	P9S90210	P9S901431	P9S90220	P9S901455
30"/0/15 psi/kPa	-	-	-	-	-	-	P9S90152	-	-	-
30"/0/30 psi/kPa	-	-	-	-	-	-	P9S90153	-	-	-
30"/0/60 psi/kPa	-	-	-	-	-	-	P9S90154	-	-	-
30"/0/100 psi/kPa	-	-	-	-	-	-	P9S90155	-	-	-
0/15 psi/kPa	P9S901299	P9S901399	P9S90196	P9S901425	P9S90136	P9S901429	P9S90211	P9S901436	P9S90229	P9S901464
0/30 psi/kPa	P9S901300	P9S901400	P9S90206	P9S901402	P9S90199	P9S901403	P9S90212	P9S901437	P9S90221	P9S901456
0/60 psi/kPa	P9S901301	P9S901401	P9S90207	P9S901404	P9S90201	P9S901405	P9S90213	P9S901438	P9S90222	P9S901457
0/100 psi/kPa	P9S901320	P9S901420	P9S90208	P9S901406	P9S90202	P9S901407	P9S90214	P9S901439	P9S90223	P9S901458
0/160 psi/kPa	P9S901321	P9S901421	P9S90197	P9S901408	P9S90203	P9S901409	P9S90215	P9S901440	P9S90224	P9S901459
0/200 psi/kPa	P9S901322	P9S901422	P9S90209	P9S901426	P9S90204	P9S901410	P9S90216	P9S901441	P9S90225	P9S901460
0/300 psi/kPa	P9S901323	P9S901423	P9S90198	P9S901427	P9S90205	P9S901411	P9S90217	P9S901442	P9S90226	P9S901461
0/400 psi/kPa	P9S901324	P9S901443	P9S901449	P9S901445	P9S901451	P9S901447	P9S90219	P9S901453	P9S90227	P9S901462
0/600 psi/kPa	P9S901325	P9S901444	P9S901450	P9S901446	P9S901452	P9S901448	P9S90218	P9S901454	P9S90228	P9S901463

Other ranges and connection sizes available upon request. For scale change, refer to How to Order Guide for scale codes.

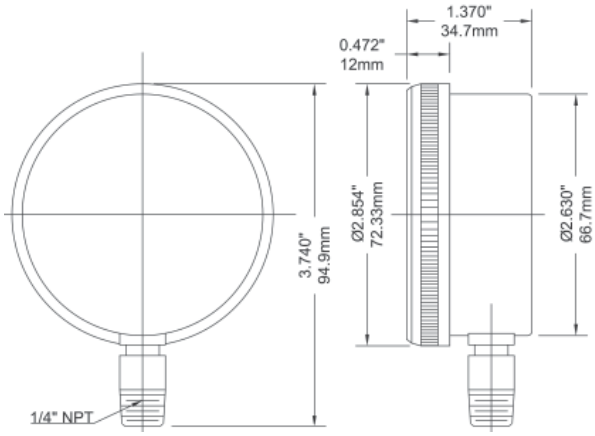
2" Bottom Connection



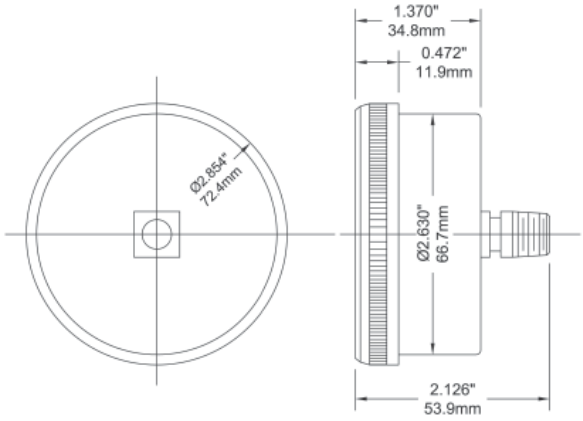
2" Back Connection



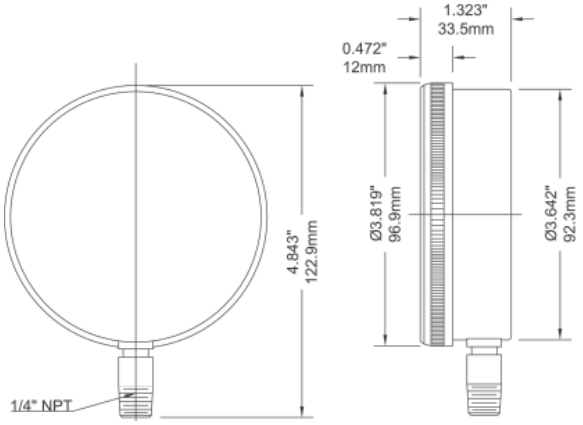
2.5” Bottom Connection



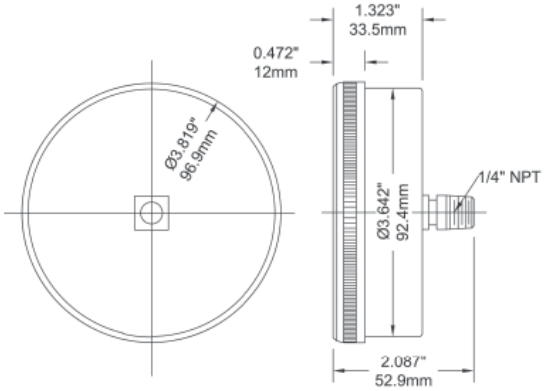
2.5” Back Connection



3.5” Bottom Connection



3.5” Back Connection



Description & Features:

- Most economical, all-purpose pressure gauge
- 1.5” (40mm) to 4” (100mm) sizes
- Friction bezel rings
- Black steel case
- Brass or lead free brass wetted parts
- ±3-2-3% accuracy
- ASME B40.100 compliant (EN837-1 available)
- CRN registered
- 5 year warranty

Applications:

- Plumbing, heating, air conditioning, pneumatic, hydraulic, water tanks, air compressors, OEM

Specifications	
Dial	1.5” (40mm), 2” (50mm), 2.5” (63mm), 4” (100mm) white aluminum with black and red markings
Case	Steel, painted black (plastic available)
Lens	1.5” (40mm), 2” (50mm), 2.5” (63mm): Acrylic 4” (100mm): Glass
Ring	1.5” (40mm), 2” (50mm): Steel, painted black 2.5” (63mm), 4” (100mm): Steel, chrome plated
Socket	PEM: Brass PEM-LF: Lead free brass
Connection	1/8” NPT or 1/4” NPT standard
Bourdon Tube	PEM: Phosphor bronze PEM-LF: Lead free phosphor bronze
Movement	Brass
Pointer	Aluminum, black
Welding	Silver alloy
Over-pressure Limit	25% of full scale value
Working Pressure	Maximum 75% of full scale value
Ambient/Process Temperature	-40°F to 150°F (-40°C to 65°C)
Accuracy	±3-2-3% ANSI/ASME Grade B
Enclosure Rating	IP52

PEM Order Codes (products in bold are normally stock in North America)

Dial Size	1.5" (40mm)		2" (50mm)					2.5" (63mm)		4" (100mm)
Connection	1/8" Bottom	1/8" Back (CB)	1/8" Bottom	1/8" Back (CB)	1/4" Bottom	1/4" Back (CB)	1/4" psi only Bottom	1/4" Bottom	1/4" Back (CB)	1/4" Bottom
Case Material	Steel						Plastic	Steel		
30" Hg Vac/kPa	PEM1297	PEM1397	PEM195	PEM1424	PEM135	PEM1428	PEM1398	PEM210	PEM1431	PEM220
30"/0/15 psi/kPa	-	-	-	-	-	-	-	PEM152	-	-
30"/0/30 psi/kPa	-	-	-	-	-	-	-	PEM153	-	-
30"/0/60 psi/kPa	-	-	-	-	-	-	-	PEM154	-	-
30"/0/100 psi/kPa	-	-	-	-	-	-	-	PEM155	-	-
0/15 psi/kPa	PEM1299	PEM1399	PEM196	PEM1425	PEM136	PEM1429	-	PEM211	PEM1436	PEM295
0/30 psi/kPa	PEM1300	PEM1400	PEM206	PEM1402	PEM199	PEM1403	PEM200	PEM212	PEM1437	PEM221
0/60 psi/kPa	PEM1301	PEM1401	PEM207	PEM1404	PEM201	PEM1405	PEM194	PEM213	PEM1438	PEM222
0/100 psi/kPa	PEM1320	PEM1420	PEM208	PEM1406	PEM202	PEM1407	-	PEM214	PEM1439	PEM223
0/160 psi/kPa	PEM1321	PEM1421	PEM197	PEM1408	PEM203	PEM1409	-	PEM215	PEM1440	PEM224
0/200 psi/kPa	PEM1322	PEM1422	PEM209	PEM1426	PEM204	PEM1410	-	PEM216	PEM1441	PEM225
0/300 psi/kPa	PEM1323	PEM1423	PEM198	PEM1427	PEM205	PEM1411	-	PEM217	PEM1442	PEM226
0/400 psi/kPa	-	-	-	-	-	PEM1414	-	PEM219	PEM3412	PEM227
0/600 psi/kPa	-	-	-	-	-	PEM1412	-	PEM218	PEM3413	-
0/1,000 psi/kPa	-	-	-	-	-	-	-	PEM290	-	-
0/3,000 psi/kPa	-	-	-	-	-	-	-	PEM291	-	-
0/5,000 psi/kPa	-	-	-	-	-	-	-	PEM292	-	-

PEM-LF Order Codes (products in bold are normally stock in North America)

Dial Size	1.5" (40mm)		2" (50mm)				2.5" (63mm)		4" (100mm)
Connection	1/8" Bottom	1/8" Back (CB)	1/8" Bottom	1/8" Back (CB)	1/4" Bottom	1/4" Back (CB)	1/4" Bottom	1/4" Back (CB)	1/4" Bottom
Case Material	Steel						Steel		
30" Hg Vac/kPa	PEM1297LF	PEM1397LF	PEM195LF	PEM1424LF	PEM135LF	PEM1428LF	PEM210LF	PEM1431LF	PEM220LF
30"/0/15 psi/kPa	-	-	-	-	-	-	PEM152LF	-	-
30"/0/30 psi/kPa	-	-	-	-	-	-	PEM153LF	-	-
30"/0/60 psi/kPa	-	-	-	-	-	-	PEM154LF	-	-
30"/0/100 psi/kPa	-	-	-	-	-	-	PEM155LF	-	-
0/15 psi/kPa	PEM1299LF	PEM1399LF	PEM196LF	PEM1425LF	PEM136LF	PEM1429LF	PEM211LF	PEM1436LF	-
0/30 psi/kPa	PEM1300LF	PEM1400LF	PEM206LF	PEM1402LF	PEM199LF	PEM1403LF	PEM212LF	PEM1437LF	PEM221LF
0/60 psi/kPa	PEM1301LF	PEM1401LF	PEM207LF	PEM1404LF	PEM201LF	PEM1405LF	PEM213LF	PEM1438LF	PEM222LF
0/100 psi/kPa	PEM1320LF	PEM1420LF	PEM208LF	PEM1406LF	PEM202LF	PEM1407LF	PEM214LF	PEM1439LF	PEM223LF
0/160 psi/kPa	PEM1321LF	PEM1421LF	PEM197LF	PEM1408LF	PEM203LF	PEM1409LF	PEM215LF	PEM1440LF	PEM224LF
0/200 psi/kPa	PEM1322LF	PEM1422LF	PEM209LF	PEM1426LF	PEM204LF	PEM1410LF	PEM216LF	PEM1441LF	PEM225LF
0/300 psi/kPa	PEM1323LF	PEM1423LF	PEM198LF	PEM1427LF	PEM205LF	PEM1411LF	PEM217LF	PEM1442LF	PEM226LF
0/400 psi/kPa	-	-	-	-	-	-	PEM219LF	-	PEM227LF
0/600 psi/kPa	-	-	-	-	-	-	PEM218LF	PEM3413LF	-
0/1,000 psi/kPa	-	-	-	-	-	-	PEM290LF	-	-
0/3,000 psi/kPa	-	-	-	-	-	-	PEM291LF	-	-
0/5,000 psi/kPa	-	-	-	-	-	-	PEM292LF	-	-

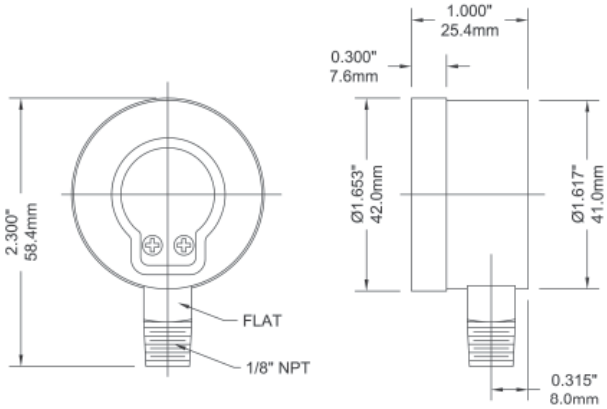
Other ranges and connection sizes available upon request. For scale change, refer to How to Order Guide for scale codes.
For options, attach suffix to end of order code: i.e. PEM1399-GL15 for 1.5" GLASS LENS.

Option suffix:

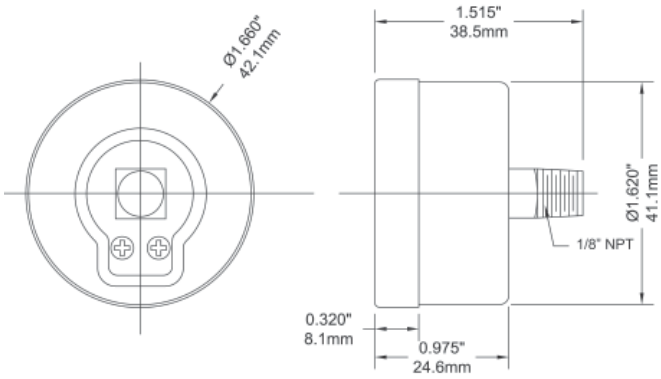
ECASE15SSBK = 1.5" (40mm) SS back case connection
ECASE15SSBTM = 1.5" (40mm) SS bottom connection
ECASE20SSBK = 2" (50mm) SS case back connection
ECASE20SSBTM = 2" (50mm) SS case bottom connection
EN = EN837-1 compliant
GL15 = Glass lens for 1.5" (40mm) dial
GL2 = Glass lens for 2" (50mm) dial
GL25 = Glass lens for 2.5" (63mm) dial

Note: For 1.5" to 2" SS internals, please see PRL Series Regulator Gauges.

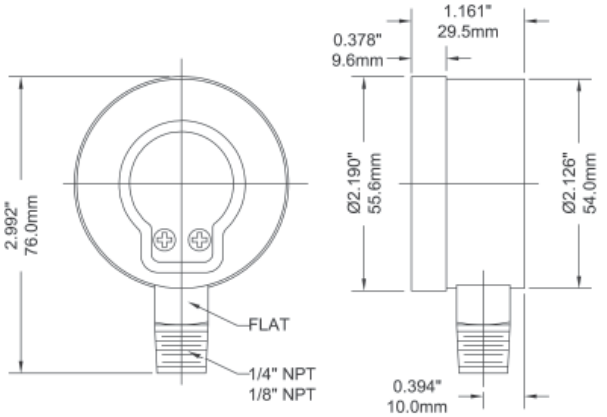
1.5” Bottom Connection



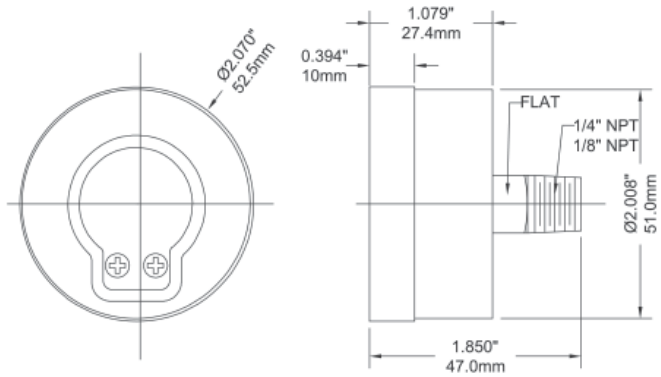
1.5” Back Connection



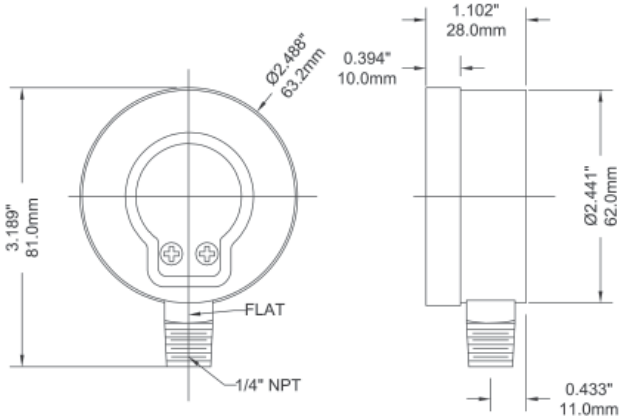
2” Bottom Connection



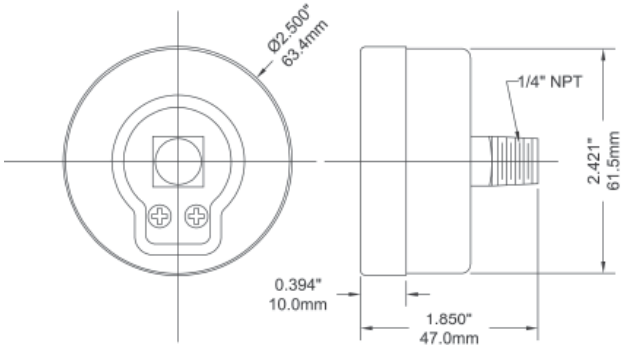
2” Back Connection



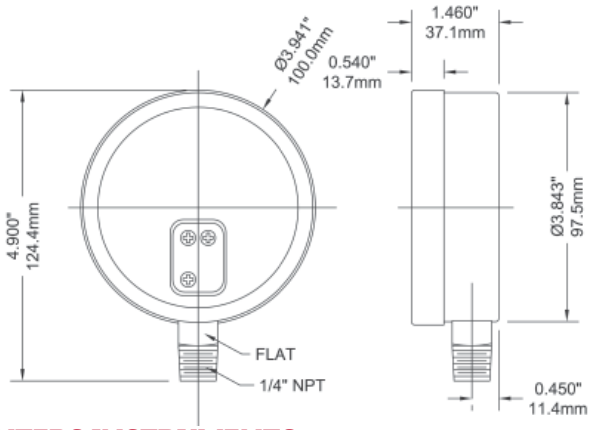
2.5” Bottom Connection



2.5” Back Connection



4” Bottom Connection



PEU Economy Panel Mounted Gauge

Description & Features:

- Most economical pressure gauge used for panels
- 1.5” (40mm) to 2.5” (63mm) dial sizes
- Black steel case
- Brass wetted parts
- Stainless steel crimp-on bezel
- Stud-style U-Clamp design for secure panel mounting
- ±3-2-3% accuracy
- Dual scale (psi/kPa)
- ASME B40.100 compliant
- CRN registered
- 5 year warranty

Applications:

- For measuring gases, air, water and oils when equipment or processes require an economical panel mounted gauge

Specifications	
Dial	1.5” (40mm), 2” (50mm), 2.5” (63mm) white aluminum with black and red markings
Case	Steel, painted black
Lens	Acrylic
Ring	SS
Socket	Brass
Connection	1/8” NPT or 1/4” NPT standard
Bourdon Tube	Phosphor bronze
Movement	Brass
Pointer	Aluminum, black
Welding	Silver alloy
Over-pressure Limit	25% of full scale value
Working Pressure	Maximum 75% of full scale value
Ambient/Process Temperature	-40°F to 150°F (-40°C to 65°C)
Accuracy	±3-2-3% ANSI/ASME Grade B
Enclosure Rating	IP52

Order Codes (products in bold are normally stock in North America)

Dial Size	**1.5” (40mm)**	**2” (50mm)**	**2” (50mm)**	**2.5” (63mm)**
Connection	**1/8”**	**1/8”**	**1/4”**	**1/4”**
30” Hg Vac/kPa	PEU1399UC	PEU1396UC	PEU1428UC	PEU1431UC
0/15 psi/kPa	PEU1398UC	PEU1397UC	PEU1429UC	PEU1436UC
0/30 psi/kPa	PEU1400UC	PEU1402UC	PEU1403UC	PEU1437UC
0/60 psi/kPa	PEU1401UC	PEU1404UC	PEU1405UC	PEU1438UC
0/100 psi/kPa	PEU1420UC	PEU1406UC	PEU1407UC	PEU1439UC
0/160 psi/kPa	PEU1421UC	PEU1408UC	PEU1409UC	PEU1440UC
0/200 psi/kPa	PEU1422UC	PEU1412UC	PEU1410UC	PEU1441UC
0/300 psi/kPa	PEU1423UC	PEU1413UC	PEU1411UC	PEU1442UC

Other ranges and connection sizes available upon request. For scale change, refer to How to Order Guide for scale codes.

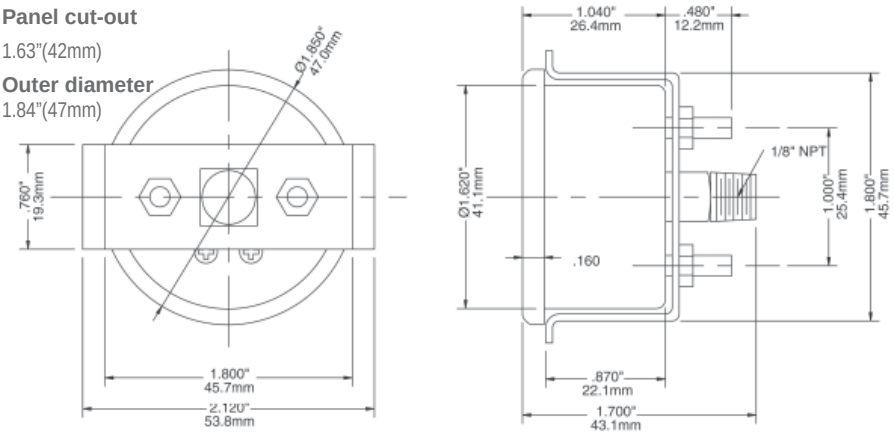
1.5” Panel Mounted

Panel cut-out

1.63”(42mm)

Outer diameter

1.84”(47mm)



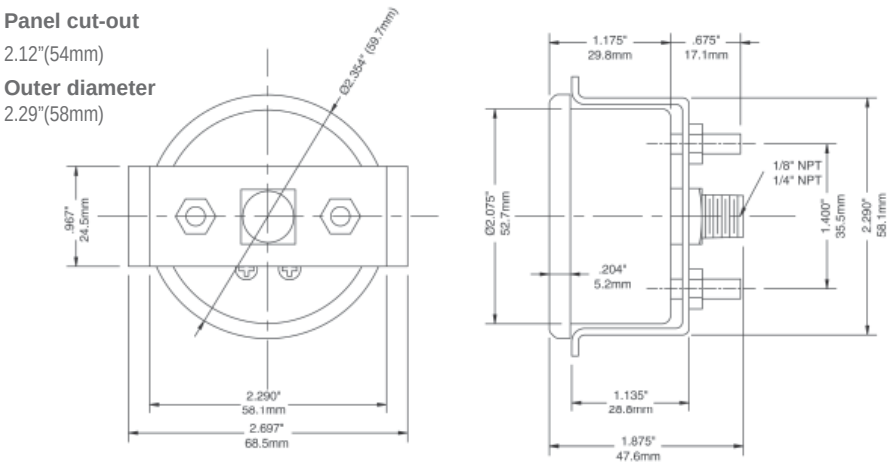
2” Panel Mounted

Panel cut-out

2.12”(54mm)

Outer diameter

2.29”(58mm)



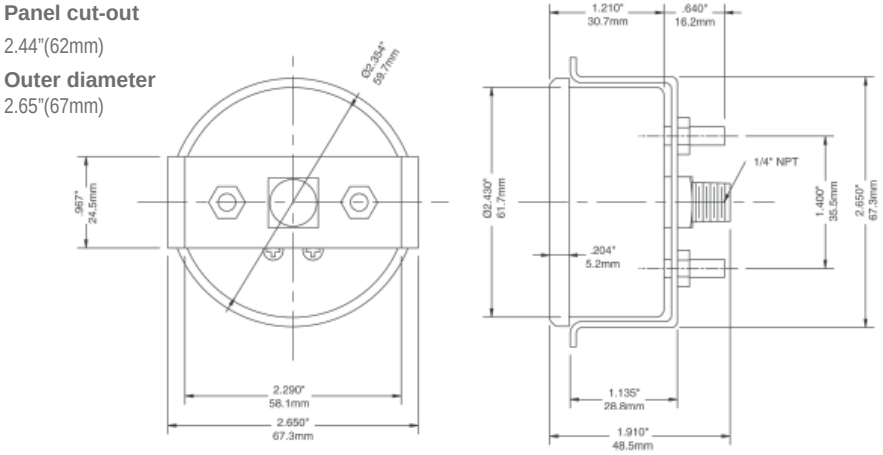
2.5” Panel Mounted

Panel cut-out

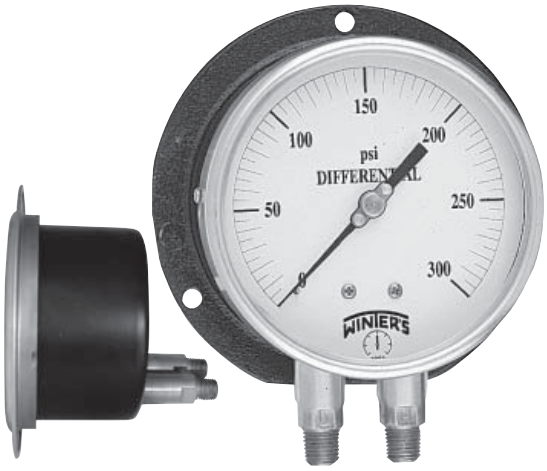
2.44”(62mm)

Outer diameter

2.65”(67mm)



PDT Differential Gauge



Description & Features:

- Brass or stainless steel wetted parts
- Both conventional and balanced scale available
- ASME B40.100 compliant
- CRN registered
- 5 year warranty

Applications:

- Single pointer to show difference from two pressure sources
- Typically used to measure pressure drops across a filter, pump or other equipment

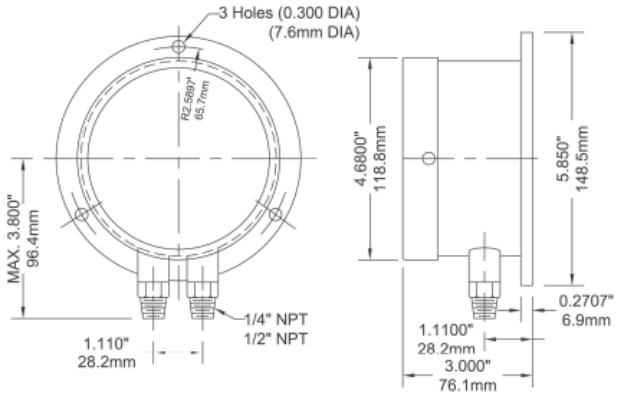
Specifications	
Dial	4.5” (115mm), 6” (150mm) white aluminum with black markings
Case	Aluminum, painted black
Front Flange	SS
Back Flange	Black steel
Lens	Glass
Ring	4.5” (115mm): SS 6“ (150mm): Aluminum
Socket	Brass or 316 SS
Connections	1/4” NPT standard
Scale	PSID only
Bourdon Tubes	Phosphor bronze or AISI 316 SS, independent, matched
Movement	Brass
Pointer	Aluminum (micrometer)
Welding	Tin/copper alloy for brass internals, TIG argonarc for SS internals
Over-pressure Limit	30% of full scale value
Working Pressure	Maximum 75% of full scale value
Ambient/Process Temperature	-40°F to 150°F (-40°C to 65°C)
Accuracy	±1% ANSI/ASME Grade 1A

Order Codes (products in italics are normally available in 3 - 5 days)

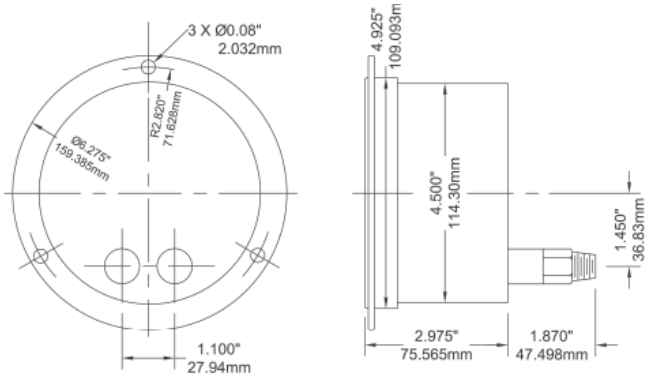
Max. Static Pressure	Dial Size	4.5" (115mm)				6" (150mm)			
	Connection	1/4" Bottom	1/4" Back (LB)	1/4" Bottom	1/4" Back (LB)	1/4" Bottom	1/4" Back (LB)	1/4" Bottom	1/4" Back (LB)
	Socket, Tube	Brass		SS		Brass		SS	
22 psi	0/15 psi	*PDT8051*	*PDT8051B*	*PDT8061*	*PDT8061B*	*PDT8071*	*PDT8071B*	*PDT8081*	*PDT8081B*
45 psi	0/30 psi	*PDT8052*	*PDT8052B*	*PDT8062*	*PDT8062B*	*PDT8072*	*PDT8072B*	*PDT8082*	*PDT8082B*
90 psi	0/60 psi	*PDT8053*	*PDT8053B*	*PDT8063*	*PDT8063B*	*PDT8073*	*PDT8073B*	*PDT8083*	*PDT8083B*
150 psi	0/100 psi	*PDT8054*	*PDT8054B*	*PDT8064*	*PDT8064B*	*PDT8074*	*PDT8074B*	*PDT8084*	*PDT8084B*
240 psi	0/160 psi	*PDT8055*	*PDT8055B*	*PDT8065*	*PDT8065B*	*PDT8075*	*PDT8075B*	*PDT8085*	*PDT8085B*
300 psi	0/200 psi	*PDT8056*	*PDT8056B*	*PDT8066*	*PDT8066B*	*PDT8076*	*PDT8076B*	*PDT8086*	*PDT8086B*
450 psi	0/300 psi	*PDT8057*	*PDT8057B*	*PDT8067*	*PDT8067B*	*PDT8077*	*PDT8077B*	*PDT8087*	*PDT8087B*
900 psi	0/600 psi	*PDT8058*	*PDT8058B*	*PDT8068*	*PDT8068B*	*PDT8078*	*PDT8078B*	*PDT8088*	*PDT8088B*

Other ranges and connection sizes available upon request. For scale change, refer to How to Order Guide for scale codes. Bi-directional or zero positioned at 12 o'clock on dial is available. Low Differential Pressure/High Static Pressure configurations are also available.

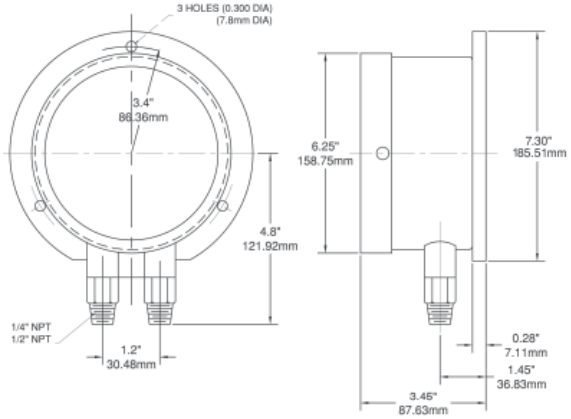
4.5" Bottom Connection



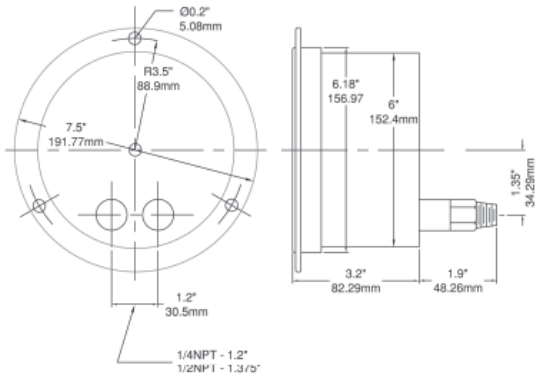
4.5" Back Connection



6" Bottom Connection



6" Back Connection



High Static Pressure Differential Gauges

Description & Features:

- Versatile high static low differential pressure gauges
- Four types of sensing elements for a large variety of ranges
- Switches available for actuation
- ASME B40.100 compliant
- 5 year warranty

Applications:

- Filtration systems
- Low pressure gas systems
- Leak detection

Specifications	Piston Gauge (PPD)	Rolling Diaphragm Gauge (PRD)	Small Convoluted Diaphragm Gauge (PSD)	Convoluted Diaphragm Gauge (PVD)
Dial	2.5” (63mm), 3.5” (90mm), 4.5” (115mm)	2.5” (63mm)	2.5” (63mm), 3.5” (90mm), 4.5” (115mm)	3.5” (90mm), 4.5” (115mm)
Case	Aluminum or engineered plastic	Engineered plastic	Aluminum or engineered plastic	Aluminum or engineered plastic
Lens	Shatter resistant acrylic (standard), safety glass (optional)	Shatter resistant acrylic (standard), safety glass (optional)	Shatter resistant acrylic (standard), safety glass (optional)	Shatter resistant acrylic (standard), safety glass (optional)
Line Connection Locations	In-line, back or bottom	In-line (only)	In-line, back, dual top & bottom or bottom	Dual top & bottom
Connections	1/4” NPTF (standard), 1/2” NPTF, 7/16”-20 SAE	1/4” NPTF (only)	1/4” NPTF (standard), 1/2” NPTF, 7/16”-20 SAE	Dual 1/4” NPTF
Wetted Parts Materials	SS piston with ceramic magnet (standard), Aluminum, Bronze or Monel® piston (optional)	SS parts with Buna N seals	SS parts with Buna N seals	SS parts with Buna N seals (standard), Hastelloy® C parts with Buna N seals (optional)
Body Material	SS, aluminum, bronze or Monel®	SS, aluminum or acetal	SS, aluminum or brass	SS, aluminum, brass, engineered plastic or Hastelloy® C
Internals/Movement	Magnetic coupling using piston & spring	Magnetic coupling with rolling diaphragm sensor	Magnetic coupling with convoluted diaphragm sensor	Magnetic coupling with convoluted diaphragm sensor
Migration of Media	Marginal	Zero	Zero	Zero
Seal	Buna N (standard), Teflon®, Viton®, neoprene	Buna N (standard), Viton®	Buna N (standard), Viton®, silicone, neoprene	Buna N (standard), Viton®, silicone, neoprene
Standard Differential Ranges	0-5 thru 110 psid (0.25-8 bar)	0-5 thru 50 psid (0.25-3 bar)	0-25 thru 100 psid (1.5-7 bar)	0-5 thru 400” H_2O (12.4 mbar-1 bar)
Maximum System Pressure	Aluminum: 3,000 psi (200 bar) Bronze, Monel®: 5,000 psi (350 bar) SS: 6,000 psi (400 bar)	Aluminum, SS: 1,000 psi (70 bar) Acetal: 500 psi (35 bar)	Aluminum, SS: 3,000 psi (200 bar) Brass: 1,500 psi (100 bar)	Aluminum, brass, SS: 500 psi (35 bar) Engineered plastic: 300 psi (20 bar) Hastelloy® C: 500 psi (35 bar)
Ambient Temperature	-40°F to 200°F (-40°C to 93°C)	-40°F to 200°F (-40°C to 93°C)	-40°F to 200°F (-40°C to 93°C)	-40°F to 200°F (-40°C to 93°C)
Accuracy	±2% of full scale value	±5% of full scale value	±2% of full scale value	0-5 thru 9.9” H_2O: ± 5% of full scale 0-10 thru 400” H_2O: ± 2% of full scale

Hastelloy® is a registered trademark of Haynes International, Inc.
Monel® is a registered trademark of Inco Alloys International
Teflon® is a registered trademark of DuPont Corporation
Viton® is a registered trademark of DuPont Performance Elastomers

Piston Type (PPD)

- Most suitable for general purpose applications including filters, pumps and chillers. Uses a piston as a sensor to separate high & low pressure in response to pressure differentiation.
- Standard Differential Range: 0/5 thru 110 psid (0.25/8 bar)
- Maximum System Pressure Aluminum: 3,000 psi (200 bar)
- Maximum System Pressure Bronze, Monel®: 3,000 psi (200 bar)
- Maximum System Pressure SS: 6,000 psi (400 bar)
- Accuracy ±2% full scale ascending

Rolling Diaphragm Gauge (PRD)

- Operates on rolling diaphragm as a sensor, which assures complete separation of the high and low pressure ports. Suitable for use on dissimilar fluids, wet gas and process fluids with particulates present. Used in high line pressure and differential pressure ranges up to 50 psid.
- Standard Differential Range: 0/5 thru 50 psid (0.25/3 bar)
- Maximum System Pressure Aluminum, SS: 1,000 psi (70 bar)
- Maximum System Pressure Acetal: 500 psi (35 bar)
- Accuracy ±5% full scale ascending

Small Convoluted Diaphragm Gauge (PSD)

- Operates on a convoluted diaphragm as a sensor which separates high and low pressure ports. Ideally suited for use on dissimilar fluids and wet gas or fluids with high concentration of particles. Suitable for use with a diaphragm/chemical seal.
- Standard Differential Range: 0/25 thru 100 psid (1.5/7 bar)
- Maximum System Pressure Aluminum, SS: 3,000 psi (200 bar)
- Maximum System Pressure Brass: 1,500 psi (100 bar)
- Accuracy ±2% full scale ascending

Convoluted Diaphragm Gauge (PVD)

- Operates on a convoluted diaphragm sensor for low range flow, liquid and vacuum applications. Used in tank level, horizontal or vertical flow applications, filtering of very low pressure gases.
- Standard Differential Range: 0/5 thru 400" H_2O (12.4 mbar/1 bar)
- Maximum System Pressure Aluminum, brass, SS: 500 psi (35 bar)
- Maximum System Pressure Engineered plastic: 300 psi (20 bar)
- Maximum System Pressure Hastelloy® C: 500 psi (35 bar)
- Accuracy 0/5 thru 9.9" H_2O ±5%, 0/10 thru 400" H_2O ±2%

Note: Technical drawings are available upon request

DPG Digital Pressure Gauge

Description & Features:

- Simple 2 button operation
- Reset to zero feature
- Backlight turns on when on/off button is pressed
- Option for display to remain continuously on
- Continuous peak pressure indication option
- 316L welded diaphragm seal
- Rubber boot is standard
- ASME B40.100 compliant
- ±1% accuracy (±0.5% optional for gauges up to 5,000 psi)
- 1 year warranty

Applications:

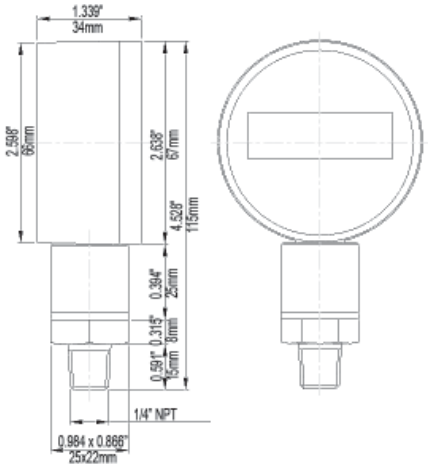
- Ideal for commercial and industrial application in both test measurement and general purpose installations.

Specifications	
Case Size	2.5” (63mm)
Case Material	ABS
Rubber Boot	Silicone rubber
LCD Display	2” x 3/4” (48mm x 16mm)
Connection	1/4” NPT 304SS
Sensor	316L welded, Piezo
Operating Life	1 million cycles
Power Supply	2 x AAA battery (1.5V)
Battery Life	2 yrs (auto shut-off mode)
Power Mode	Auto or manual shut-off
Display Digits	4 digits to 5,000 psi 5 digits for 10,000 psi and 15,000 psi
Pressure Unit Selection	psi, mH_2O, mmHg, mbar, kPa ranges ≤ 100 psi psi, bar, kg/cm^2, MPa, atm ranges ≥ 160 psi
Response Time	≤ 3 Hz display refresh rate
Proof / Burst Pressure	200% / 300% FS
Operating / Storage Temperature	14ºF to 122ºF (-10ºC to 50ºC) -4ºF to 167ºF (-20ºC to 75ºC)
Accuracy	±1% (±0.5% optional for gauges up to 5,000 psi)
Enclosure Rating	IP60

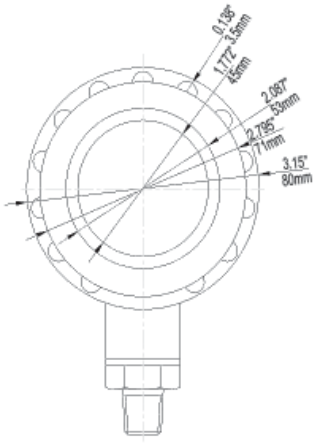
Order Codes (products in bold are normally stock in North America)

Dial Size	2.5” (63mm)
Connection	1/4” Bottom
Socket	SS
-15 psi Vac	DPG210
-15/0/15 psi	DPG203
-15/0/30 psi	DPG204
-15/0/60 psi	DPG205
-15/0/100 psi	DPG206
-15/0/150 psi	DPG207
-15/0/200 psi	DPG208
-15/0/300 psi	DPG209
0/15 psi	DPG211
0/30 psi	DPG212
0/60 psi	DPG213
0/100 psi	DPG214
0/160 psi	DPG215
0/200 psi	DPG216
0/300 psi	DPG217
0/600 psi	DPG218
0/1,000 psi	DPG219
0/1,500 psi	DPG220
0/2,000 psi	DPG221
0/3,000 psi	DPG222
0/5,000 psi	DPG223
0/10,000 psi	DPG224
0/15,000 psi	DPG225

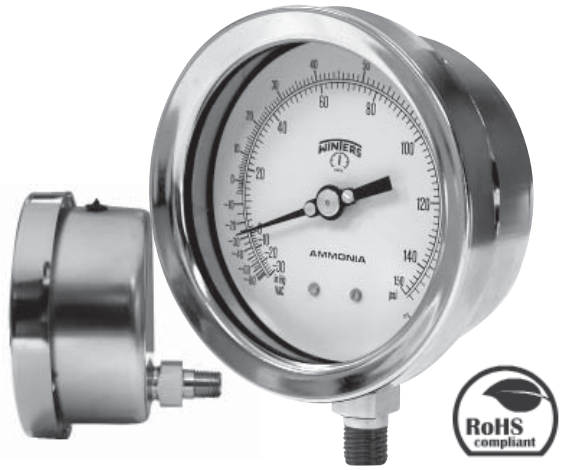
Option suffix:
5 = ±0.5% Accuracy (available on gauges up to 5,000 psi)



DPG SERIES
without rubber cover



DPG SERIES
with rubber cover



RoHS compliant

Note: RoHS applies to SS internals only

Description & Features:

- Wide variety to measure pressure and temperature of ammonia systems
- ±0.5% to ±3-2-3% accuracy available
- 2.5” (63mm) to 10” (250mm) dial sizes
- ASME B40.100 compliant
- CRN registered
- 5 year warranty

Applications:

- Used to display pressure and temperature on closed refrigeration systems

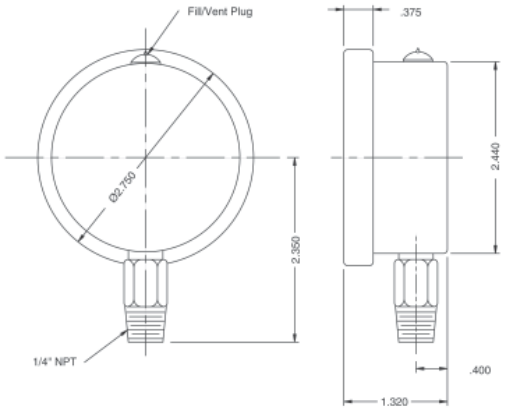
Specifications	Accuracy: ±0.5% to ±1%	Accuracy: ±1.5%	Accuracy: ±3-2-3%
Dial	4” (100mm), 6” (150mm), 8.5” (215mm), 10” (250mm): White aluminum with black and red markings	2.5” (63mm), 3.5” (90mm), 4” (100mm): White aluminum with black and red markings	2.5” (63mm), 4” (100mm): White aluminum with black and red markings
Case	4” (100mm), 6” (150mm): AISI 304 SS 8.5” (215mm), 10” (250mm): Aluminum case	2.5” (63mm), 4” (100mm): AISI 304 SS 3.5” (90mm): Steel, painted black	2.5” (63mm), 4” (100mm): Steel, painted black
Lens	Polycarbonate	Polycarbonate	Polycarbonate
Ring	4” (100mm), 6” (150mm): 304 SS 8.5” (215mm), 10” (250mm): Aluminum	2.5” (63mm), 4” (100mm): 304 SS 3.5” (90mm): Steel painted black	2.5” (63mm), 4” (100mm): Steel painted black
Socket	316L SS	316L SS	2.5” (63mm): Steel 4” (100mm): Nickel plated steel
Connection	1/4” NPT	1/4” NPT	1/4” NPT
Bourdon Tube	316L SS, drawn seamless	316L SS, drawn seamless	316 SS
Movement	304 SS	304 SS	304 SS
Pointer	Aluminum, anodized black, micrometer adjustable	Aluminum, anodized black	Aluminum, anodized black
Welding	TIG	TIG	TIG
Over-pressure Limit	30% of full scale value	30% of full scale value	30% of full scale value
Working Pressure	Maximum 75% of full scale value	Maximum 75% of full scale value	Maximum 75% of full scale value
Ambient/Process Temperature	Dry: -40°F to 150°F (-40°C to 65°C) Glycerin filled: -4°F to 150°F (-20°C to 65°C)	Dry: -40°F to 150°F (-40°C to 65°C) Glycerin filled: -4°F to 150°F (-20°C to 65°C)	Dry: -40°F to 150°F (-40°C to 65°C)
Accuracy	4” (100mm), 6” (150mm): ±1% ANSI/ASME Grade 1A 8.5” (215mm), 10” (250mm): ±0.5% ANSI/ASME Grade 2A	±1.5% of full scale value	±3-2-3% ANSI/ASME Grade B
Enclosure Rating	2.5” (63mm), 4” (100mm), 6” (150mm): IP65 8.5” (215mm), 10” (250mm): IP52	IP65	IP52

Order Codes (products in bold are normally stock in North America)

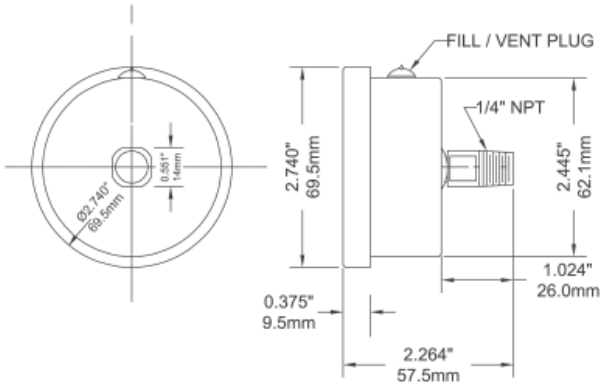
	Accuracy: ±0.5% to ±1%		Accuracy: ±1.5%		Accuracy: ±3-2-3%	
Dial Size	**30/0/150 psi/°F**	**30/0/300 psi/°F**	**30/0/150 psi/°F**	**30/0/300 psi/°F**	**30/0/150 psi°/F**	**30/0/300 psi/°F**
2.5” (63mm) Bottom	-	-	PAM1750	PAM1751	PAM1699	PAM1700
2.5” (63mm) Back (CB)	-	-	PAM1752	PAM1753	-	-
3.5” (90mm) Bottom	-	-	PAM1717	PAM1818	-	-
4” (100mm) Bottom	PAM1705	PAM1706	PAM1701	PAM1702	PAM1695	PAM1696
4” (100mm) Back (LB)	PAM1708	PAM1709	-	-	-	-
4” (100mm) Back (CB)	-	-	PAM1703	PAM1704	PAM1697	PAM1698
6” (150mm) Bottom	PAM1710	PAM1711	-	-	-	-
8.5” (215mm) Bottom	PAM1712	PAM1713	-	-	-	-
10” (250mm) Bottom	PAM1714	PAM1715	-	-	-	-

Other ranges and connection sizes available upon request. For scale change, refer to How to Order Guide for scale codes. Glycerin fill available (except on 8.5” (215mm), 10” (250mm) dials and gauges with a ±3-2-3% accuracy). Front/back flange and u-clamp available.

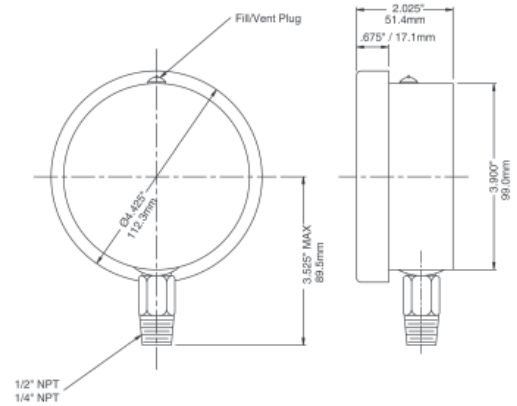
2.5” Bottom Connection



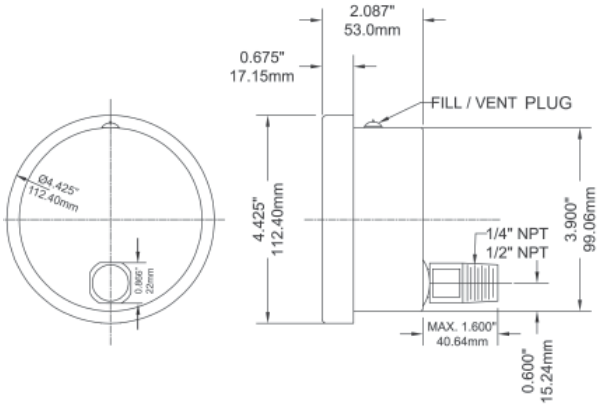
2.5” Back Connection



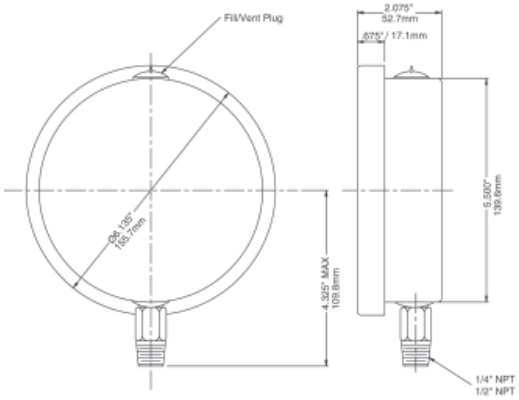
4” Bottom Connection



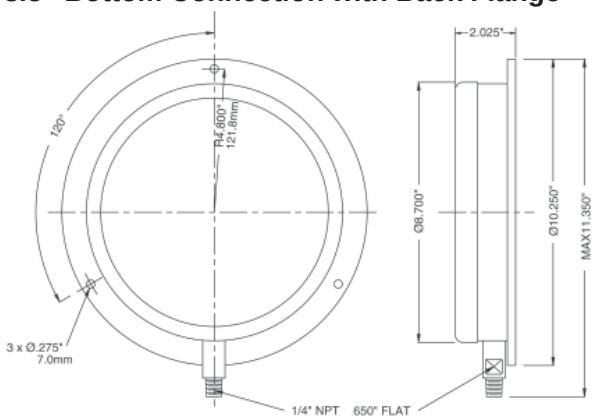
4” Back Connection



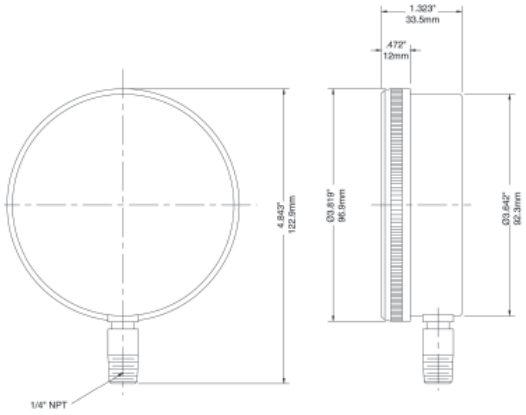
6” Bottom Connection



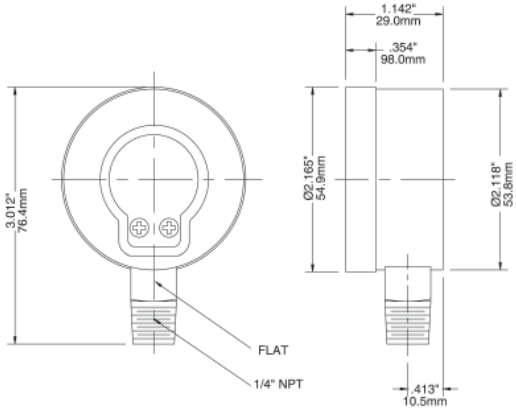
8.5” Bottom Connection with Back Flange



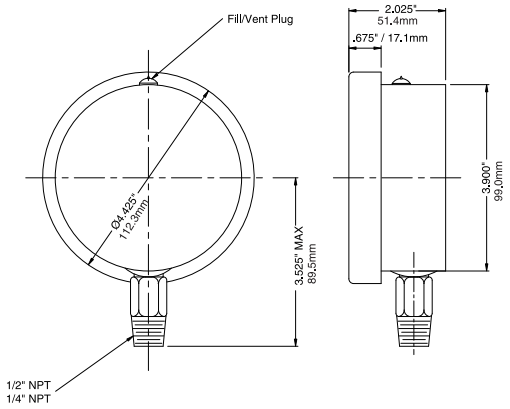
PAM with Accuracy ±1.5%
3.5” Bottom Connection



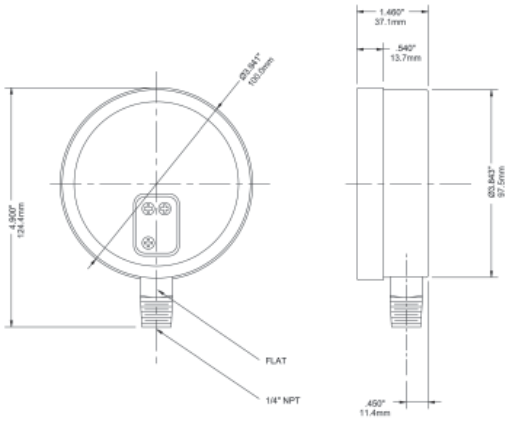
PAM with Accuracy ±3-2-3%
2.5” Bottom Connection



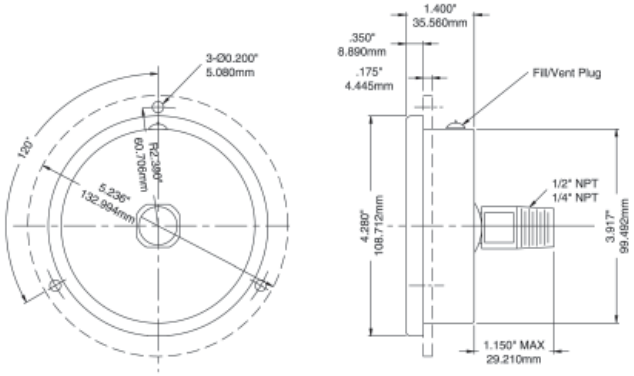
4” Bottom Connection



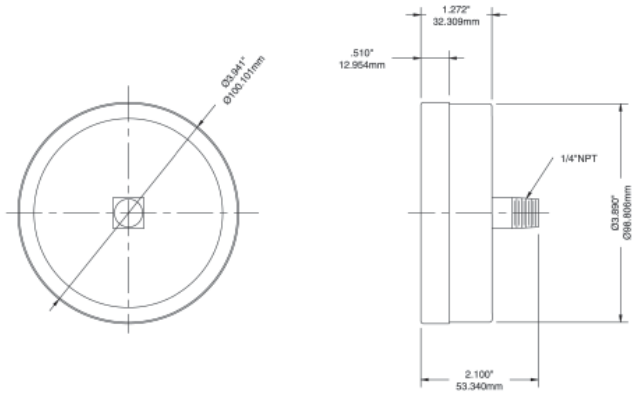
4” Bottom Connection



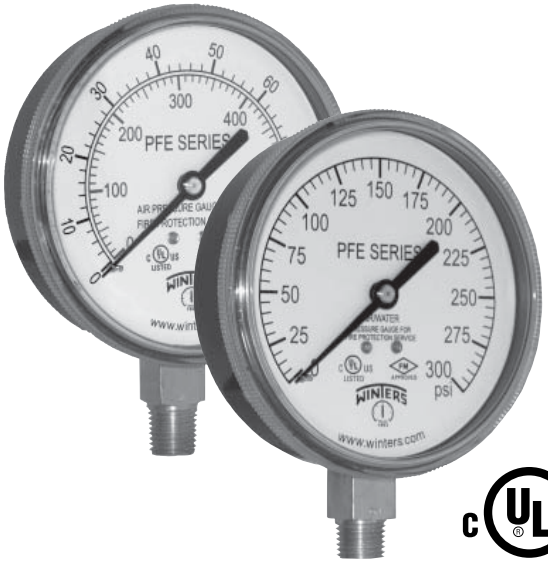
4” Back Connection



4” Back Connection



PFE Sprinkler Gauge



Description & Features:

- Specially designed for fire sprinkler systems
- Suitable for air and water media
- Corrosion resistant case
- Dual scales (psi/kpa, psi/bar, psi/kg/cm²) and single scale (psi) pressure ratings
- Approved by Factory Mutual (FM) and listed by Underwriter Laboratory (UL-393), USA and Canada
- Internal pointer over-travel stop
- ASME B40.100 compliant
- CRN registered
- 5 year warranty

Applications:

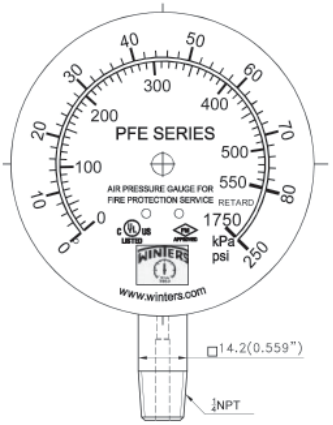
- Ideally suited for fire sprinkler systems and fire fighting equipment

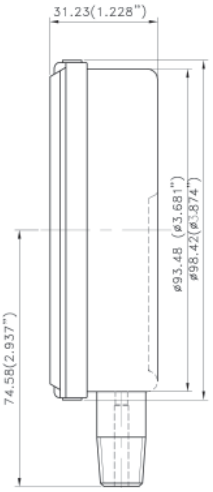
c UL us FM APPROVED

Specifications	
Dial	3.5” (90mm), white aluminum with black and red markings
Case	Black plastic
Lens	Polycarbonate, threaded
Socket	Brass
Connection	1/4” NPT standard, bottom
Bourdon Tube	Phosphor bronze
Movement	Brass
Pointer	Aluminum, black
Welding	Silver Alloy
Working Pressure	Maximum 75% of full scale value
Ambient/Process Temperature	-40°F to 150°F (-40°C to 65°C)
Accuracy	±3-2-3% ASME Grade B
Enclosure Rating	IP52

Order Codes (products in bold are normally stock in North America)

Product	Air	Water	Air/Water
0/80/retard/250 psi	PFE3932R1	-	-
0/300 psi	-	PFE3933R1	PFE3935R1
0/80/retard/250 psi/kPa	PFE3932	-	-
0/300 psi/kPa	-	PFE3933	PFE3935





Description & Features:

- 2.5” (63mm) to 6” (150mm) durable gauges
- 2.5” (63mm) dial has a blue or red coloured case for easy identification
- Dual scale (psi/°F)
- Flutterless movement on the 2.5” (63mm)
- Chlorofluorocarbon (CFC) temperature scales (R-12, R-22 & R-502)
- Brass internals
- 1/4” NPT standard
- ASME B40.100 compliant
- CRN registered
- 5 year warranty

Applications:

- Refrigeration equipment and refrigeration recovery equipment

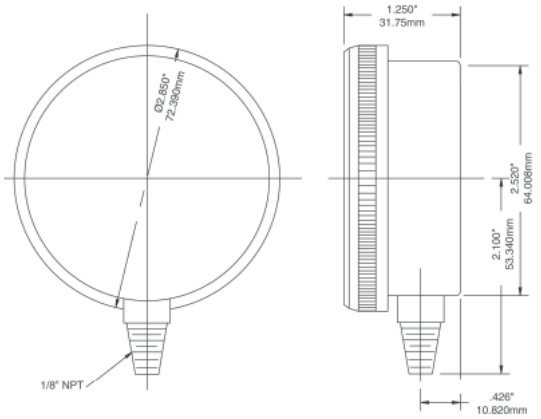
Specifications	
Dial	2.5” (63mm), 4” (100mm), 6” (150mm): White aluminum
Case	2.5” (63mm): Plastic, colour coded, blue for low pressure and red for high pressure 4” (100mm), 6” (150mm): Steel, painted black
Lens	2,5” (63mm): Plexiglass, threaded 4” (100mm), 6” (150mm): Glass
Ring	2.5” (63mm): SS, crimped 4” (100mm): Brass, polished 6” (150mm): Steel, painted black
Connection	1/8” NPT or 1/4” NPT standard
Restrictor Screw	Standard
Recalibrator Screw	Standard
Bourdon Tube	2.5” (63mm): Phosphor bronze, vibration free (flutterless movement) 4” (100mm), 6” (150mm): Phosphor bronze
Pointer	Aluminum, anodized black
Welding	#50 tin solder
Over-pressure Limit	25% of full scale value
Scale	psi/ºF (R-12/R-22/R-502)
Working Pressure	Maximum 75% of full scale value
Ambient/Process Temperature	-40°F to 158°F (-40°C to 70°C)
Accuracy	2.5” (63mm): ±2% of full scale value 4” (100mm), 6” (150mm): ±1% ANSI/ASME Grade 1A
Enclosure Rating	IP52

Order Codes

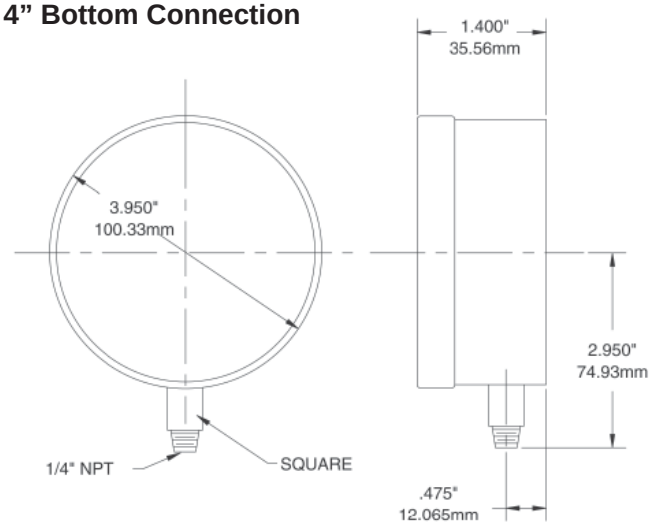
Dial Size	2.5” (63mm)		4” (100mm)		6” (150mm)	
Case Material	Plastic		Steel			
Connection	1/8” Bottom	1/8” Back	1/4” Bottom	1/4” Back	1/4” Bottom	1/4” Back
30”/0/120 psi (retard 250)	PFG1730	-	PFG1734	-	PFG1738	-
30”/0/300 psi	PFG1731	-	PFG1735	-	PFG1739	-
0/500 psi	PFG1732	-	PFG1736	-	PFG1740	-

Other ranges and connection sizes available upon request. For scale change, refer to How to Order Guide for scale codes.
Blister packaging available.

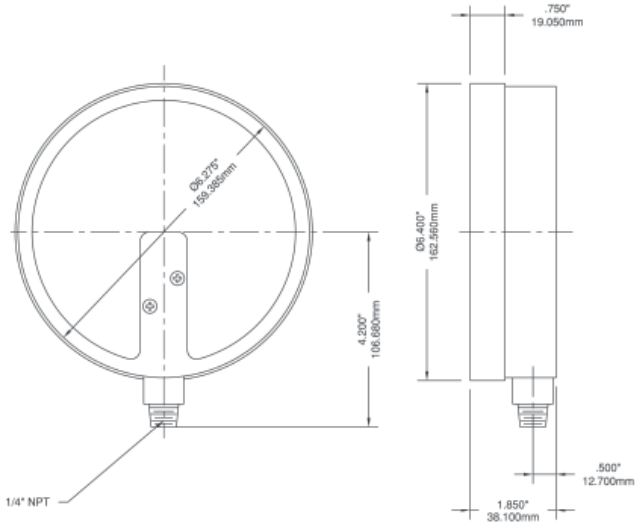
2.5” Bottom Connection



4” Bottom Connection



6” Bottom Connection



1. Bottom Connection
2. Back Connection

Description & Features:

- Highly accurate reading of low pressures
- Brass or stainless steel wetted parts
- Ranges from 15" H_2O/oz to 10 psi
- Overpressure protection on some models (OP)
- ASME B40.100 compliant
- CRN registered
- 5 year warranty

Applications:

- Suitable for measuring gaseous media both corrosive and non-corrosive
- Used to measure natural gas pressure as well as air flow indication and leak detection
- Vacuum pumps, air compressors, air filters, gas burners, vacuum ovens, suction regulators and respirators

Specifications	Stainless Steel Internals	Brass Internals
Dial	2.5" (63mm), 4" (100mm), 4.5" (115mm) and 6" (150mm), white aluminum with black and red markings	2.5" (63mm), 4" (100mm), 4.5" (115mm) and 6" (150mm), white aluminum with black and red markings
Case	2.5" (63mm), 4" (100mm): AISI 304 SS 4.5" (115mm), 6" (150mm): Aluminum, painted black	2.5" (63mm), 4" (100mm): Steel, painted black 4.5" (115mm), 6" (150mm): Cast aluminum, painted black
Lens	2.5" (63mm), 4" (100mm): Polycarbonate 4.5" (115mm), 6" (150mm): Glass	2.5" (63mm), 4" (100mm): Polycarbonate 4.5" (115mm), 6" (150mm): Glass
Ring	2.5" (63mm), 4" (100mm): No ring 4.5" (115mm), 6" (150mm): Aluminum	2.5" (63mm): No ring 4" (100mm): Steel 4.5" (115mm), 6" (150mm): Aluminum
Socket	AISI 316 SS	Brass
Connection	1/4" NPT standard	1/4" NPT standard
Diaphragm Element	AISI 316 SS	Phosphor bronze
Movement	AISI 316 SS	2.5" (63mm): Engineering plastic upper and lower plate with brass pinion and sector; 4" (100mm), 4.5" (115mm), 6" (150mm): Brass
Pointer	Aluminum, anodized black	Aluminum, anodized black
Welding	TIG	Solder/brazed
Working Pressure	75% of full scale value	60% of full scale value (fluctuating) 75% of full scale value (static)
Over-pressure Limit	30% of full scale value	30% of full scale value
Ambient/Process Temperature	-40°F to 150°F (-40°C to 65°C)	-40°F to 150°F (-40°C to 65°C)
Accuracy	±1.6% of full scale	±3-2-3% ANSI/ASME Grade B
Enclosure Rating	IP52	IP52

Order Codes (products in bold are normally stock in North America)

Dial Size	2.5" (63mm)			4" (100mm)				4.5" (115mm)			
Case Material	Steel		SS	Steel			SS	Aluminum			
Connection	1/4" Bottom	1/4" Back (CB)	1/4" Bottom	1/4" Bottom	1/4" Back (CB)	1/4" Back (CB)	1/4" Bottom	1/4" Bottom	1/4" Back (CB)	1/4" Bottom	1/4" Back (CB)
Capsule, Movement, Socket	Brass		SS	Brass		SS		Brass		SS	
0/15" water/vac	PLP300V	PLP340V	PLP350V	PLP310V	PLP4230V	PLP4240V	PLP4200V	PLP4250V	PLP4290V	PLP4260V	PLP4300V
0/32" water/vac	PLP301V	PLP341V	PLP351V	PLP311V	PLP4231V	PLP4241V	PLP4201V	PLP4251V	PLP4291V	PLP4261V	PLP4301V
0/55" water/vac	PLP302V	PLP342V	PLP352V	PLP312V	PLP4232V	PLP4242V	PLP4202V	PLP4252V	PLP4292V	PLP4262V	PLP4302V
0/100" water/vac	PLP304V	PLP343V	PLP353V	PLP313V	PLP4233V	PLP4243V	PLP4203V	PLP4253V	PLP4293V	PLP4263V	PLP4303V
0/200" water/vac	PLP303V	-	PLP356V	-	-	-	-	-	-	-	-
0/15" water/oz	PLP300	PLP340	PLP350	PLP310	PLP4230	PLP4240	PLP4200	PLP4250	PLP4290	PLP4260	PLP4300
0/32" water/oz	PLP301	PLP341	PLP351	PLP311	PLP4231	PLP4241	PLP4201	PLP4251	PLP4291	PLP4261	PLP4301
0/55" water/oz	PLP302	PLP342	PLP352	PLP312	PLP4232	PLP4242	PLP4202	PLP4252	PLP4292	PLP4262	PLP4302
0/100" water/oz	PLP304	PLP343	PLP353	PLP313	PLP4233	PLP4243	PLP4203	PLP4253	PLP4293	PLP4263	PLP4303
0/200" water/oz	PLP303	PLP346	PLP356	PLP316	PLP4236	PLP4246	PLP4206	PLP4256	PLP4296	PLP4266	PLP4306
0/5 psi/kPa	PLP305	PLP344	PLP354	PLP314	PLP4234	PLP4244	PLP4204	PLP4254	PLP4294	PLP4264	PLP4304
0/10 psi/kPa	PLP306	PLP345	PLP355	PLP315	PLP4235	PLP4245	PLP4205	PLP4255	PLP4295	PLP4265	PLP4305

Dial Size	6" (150mm)			
Case Material	Aluminum			
Connection	1/4" Bottom	1/4" Back (CB)	1/4" Bottom	1/4" Back (CB)
Capsule, Movement, Socket	Brass		SS	
0/15" water/vac	PLP4310V	-	PLP4320V	-
0/32" water/vac	PLP4311V	-	PLP4321V	-
0/55" water/vac	PLP4312V	-	PLP4322V	-
0/100" water/vac	PLP4313V	-	PLP4323V	-
0/200" water/vac	-	-	-	-
0/15" water/oz	PLP4310	-	PLP4320	PLP4360
0/32" water/oz	PLP4311	PLP4351	PLP4321	PLP4361
0/55" water/oz	PLP4312	-	PLP4322	-
0/100" water/oz	PLP4313	PLP4353	PLP4323	PLP4363
0/200" water/oz	PLP4316	-	PLP4326	-
0/5 psi/kPa	PLP4314	PLP4354	PLP4324	PLP4364
0/10 psi/kPa	PLP4315	PLP4355	PLP4325	PLP4365

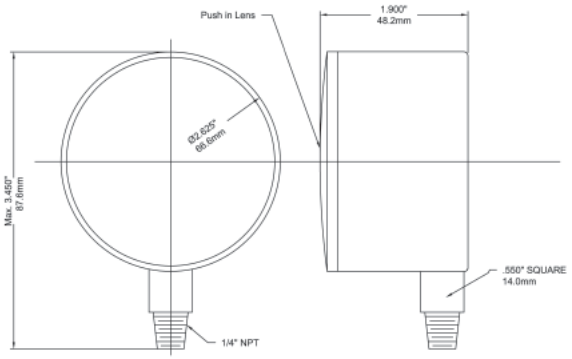
Dial Size	2.5" (63mm)
Case Material	Steel
Connection	1/4" Bottom
Capsule, Movement, Socket	Brass w/Overpressure protection
0/5 psi/kPa	PLP305OP
0/8 psi/kPa	PLP307OP
0/10 psi/kPa	PLP306OP

Other ranges and connection sizes available upon request. For scale change, refer to How to Order Guide for scale codes. **For options, attach suffix to end of order code: i.e. PLP340-UC for U-CLAMP**

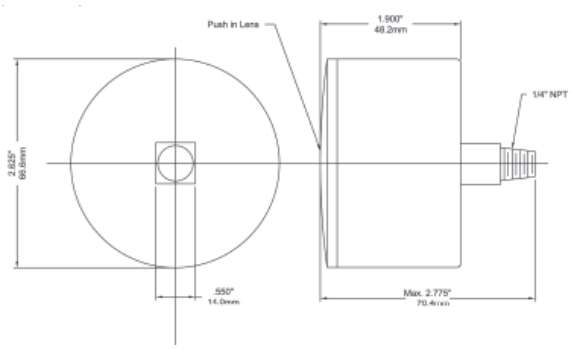
Option suffix:

LPBF = Back flange (all sizes except 2.5" (63mm))
LPFF = 4.5" (115mm) Front flange
LPFF6 = 6" (150mm) Front flange
UC = 2.5" (63mm) U-clamp

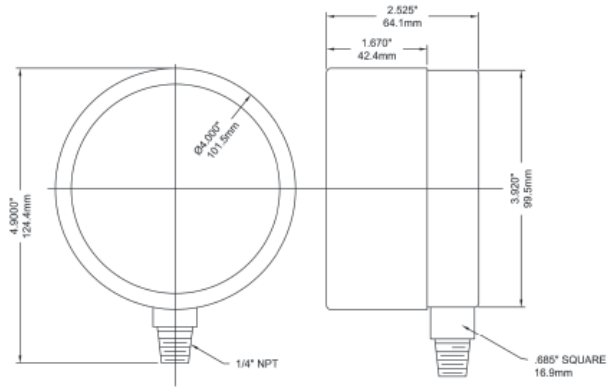
2.5" Bottom Connection Brass



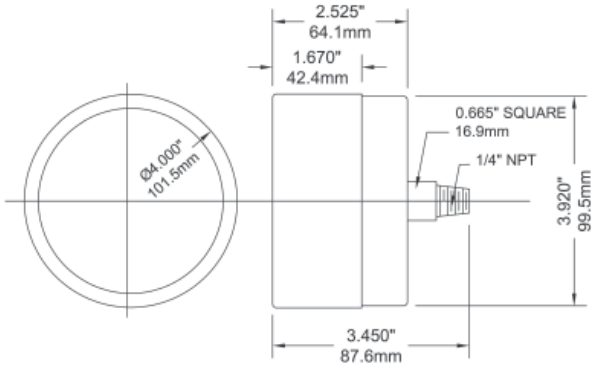
2.5" Back Connection Brass



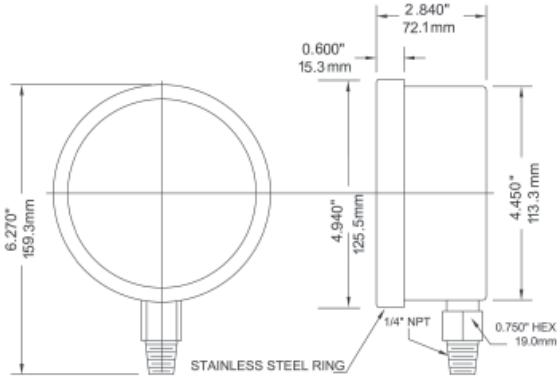
4” Bottom Connection Brass



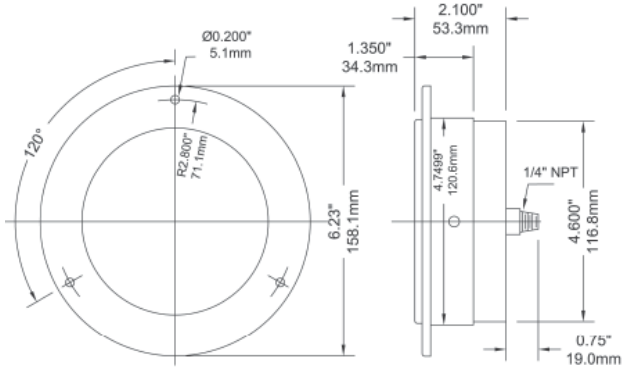
4” Back Connection Brass



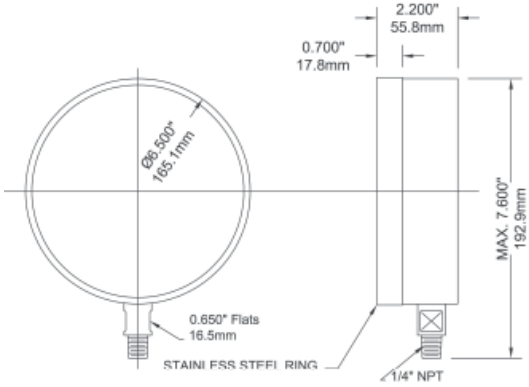
4.5” Bottom Connection Stainless Steel



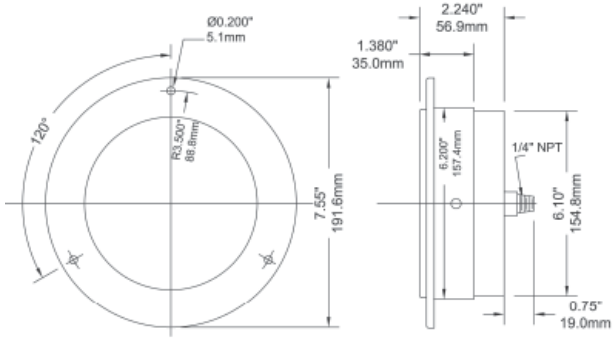
4.5” Back Connection Stainless Steel with Front Flange



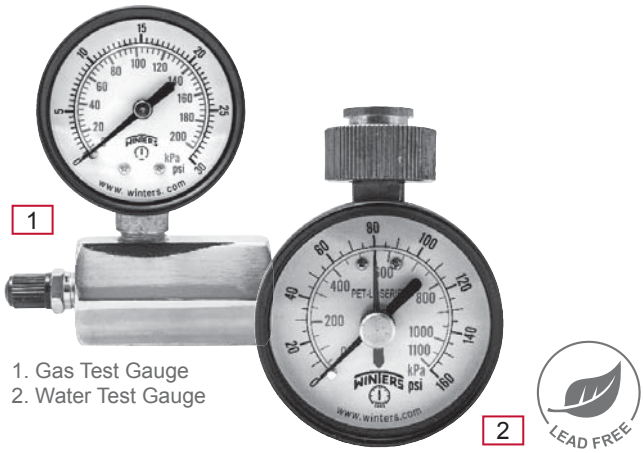
6” Bottom Connection Stainless Steel



6” Back Connection Stainless Steel with Front Flange



PET, PET-LF
Economy Test Gauge, Lead Free Economy Test Gauge



1. Gas Test Gauge
2. Water Test Gauge

Description & Features:

- Economical pressure gauge and valve body assembly used for pressure testing
- Bleed port and plated housing on the gas test assembly
- Swivel hose adaptor on the Water Test Gauge
- Black steel case
- Brass or lead free brass wetted parts
- Dual scale (PSI/kPa)
- ±3-2-3% accuracy
- ASME B40.100 compliant
- CRN registered
- 5 year warranty

Applications:

- Residential & commercial pressure testing of natural gas, air and water lines

Specifications	
Dial	2” (50mm), 2.5” (63mm) white aluminum with black and red markings
Case	Steel painted black
Lens	PETG: Polycarbonate PETM, PETM-LF, PETW, PETW-LF: Acrylic
Ring	Steel, painted black
Bourdon Tube	PET: Phosphor bronze PET-LF: Lead free phosphor bronze
Movement	Brass
Pointer	Aluminum, black
Connection	PETG: 3/4” NPTF PETM, PETM-LF, PETW, PETW-LF: 3/4” female swivel hose connection
Maximum Pointer	Available on Water Test Gauge only
Welding	#50 tin solder
Ambient/Process Temperature	-40°F to 150°F (-40°C to 65°C)
Gas Test	-40°F to 150°F (-40°C to 65°C)
Water Test	32°F to 150°F (0°C to 65°C)
Working Pressure	Maximum 75% of full scale value
Accuracy	±3-2-3% ANSI/ASME Grade B
Enclosure Rating	IP52

PET Order Codes (products in bold are normally stock in North America)

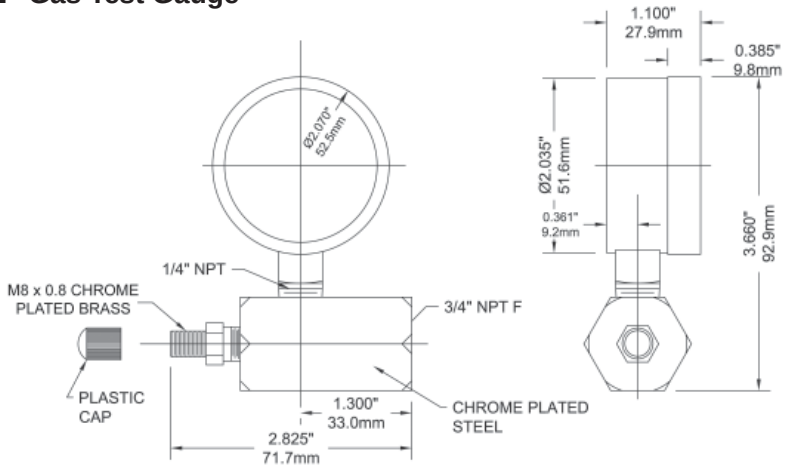
Product	Gas Test Gauge	Water Test Gauge	Maximum Pointer Water Test Gauge
Dial Size	**2” (50mm)**	**2.5” (63mm)**	**2.5” (63mm)**
Connection	**Adapts to 3/4” NPTF**	**3/4” Female Swivel Hose Connection**	**3/4” Female Swivel Hose Connection**
0/15 psi	PETG201	-	-
0/30 psi/kPa	PETG202	-	-
0/60 psi/kPa	PETG203	-	-
0/100 psi/kPa	PETG204	-	-
0/160 psi/kPa	PETG205	PETW213	PETM213
0/300 psi/kPa	-	PETW217	PETM217

PET-LF Order Codes (products in bold are normally stock in North America)

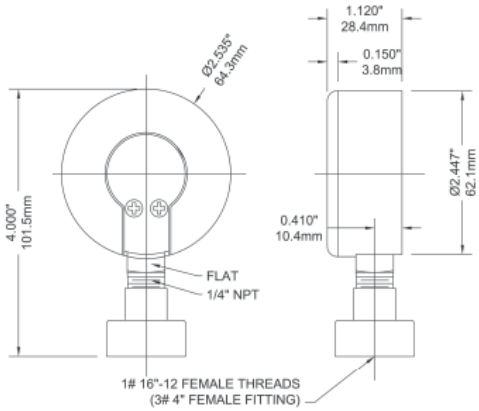
Product	Water Test Gauge	Maximum Pointer Water Test Gauge
Dial Size	**2.5” (63mm)**	**2.5” (63mm)**
Connection	**3/4” Female Swivel Hose Connection**	**3/4” Female Swivel Hose Connection**
0/160 psi/kPa	PETW213LF	PETM213LF
0/300 psi/kPa	PETW217LF	PETM217LF

Other ranges and connection sizes available upon request. For scale change, refer to How to Order Guide for scale codes.

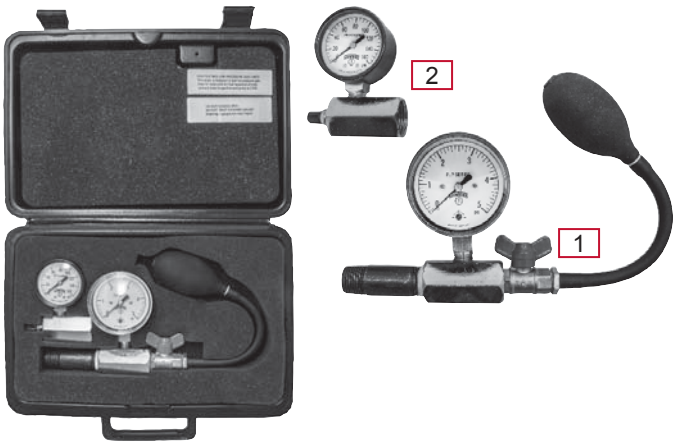
2” Gas Test Gauge



2.5” Water Test Gauge



PGWT Low Pressure Gas and Water Test Kit



Description & Features:

- Low and high pressure gauge kit in a protective plastic blow molded case
- Re-zero with external recalibration screw
- Plastic blow molded case for added durability
- Sleek design featuring secure latch
- Pump and fitting for simplified and quick connections
- ASME B40.100 compliant
- CRN registered
- 5 year warranty

Applications:

- Portable leak and loss of pressure detection unit for gas and water lines

Specifications	Gas Test Gauge (1)	Water Test Gauge (2)
Dial	2.5” (63mm) white aluminum with black markings	2” (50mm) white aluminum with black markings
Case/Ring	Steel, painted black with steel ring	Steel, painted black
Lens	Polycarbonate snap in	Polycarbonate
Connection	Rubber hand pump with hose and mini ball valve with handle and 1/2” NPTF x 1/4” NPTF test block and 1/2” NPTM x 1/2” NPTM nipple	3/4” NPTF x M8x0.8 test block with cap
Pressure Range	0/5 psi	0/160 psi
Movement	Engineered plastic upper and lower plate with brass pinion and sector	Brass
Pointer	Aluminum, anodized black	Aluminum, black
Ambient Temperature	-40ºF to 150ºF (-40ºC to 65ºC)	-40ºF to 150ºF (-40ºC to 65ºC)
Accuracy	±3-2-3% ANSI/ASME Grade B	±3-2-3% ANSI/ASME Grade B
Enclosure Rating	IP52	IP52
Case	Plastic blow molded (11.875” x 18”)	

Order Codes (products in bold are normally stock in North America)

Kit	Additional Hand Pump
PGWT0100	PHPT0100

Description & Features:

- Low pressure gauge kit in a protective plastic blow molded case
- Re-zero with external recalibration screw
- Plastic blow molded case for added durability
- Sleek design featuring secure latch
- Pump and fittings for simplified and quick connections
- ASME B40.100 compliant
- CRN registered
- 5 year warranty

Applications:

- Portable leak and loss of pressure detection unit for gas lines

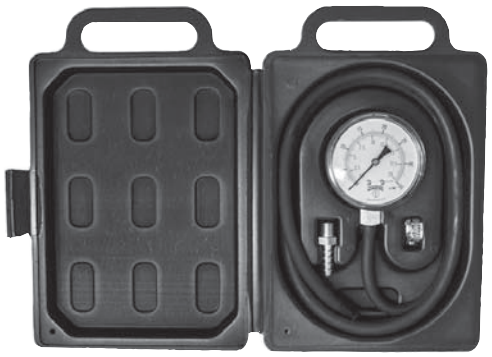
Gauge Specifications	
Dial	2.5” (63mm) white aluminum with black markings
Case/Ring	Steel, painted black with steel ring
Lens	Polycarbonate snap in
Connection	Rubber hand pump with hose and mini ball valve with handle and 1/2” NPTF x 1/4” NPTF test block and 1/2” NPTM x 1/2” NPTM nipple, 1/2” NPTF x 3/4” NPTM adapter and 3/4” NPTF x 1” NPTM adapter
Movement	Engineered plastic upper and lower plate with brass pinion and sector
Pointer	Aluminum, anodized black
Ambient Temperature	-40ºF to 150ºF (-40ºC to 65ºC)
Accuracy	±3-2-3% ANSI/ASME Grade B
Enclosure Rating	IP52
Case	Plastic blow molded (11.875” x 18”)

Case and Accessory Specifications	
Hand Pump and Hose	10” rubber hose with hand pump
Mini Ball Valve	SMV series valve with forged brass body 1/4” NPTF x 1/4” NPTM
Test Block	Chrome plated steel
Accessories	Pressure fitting with easy to install clamp
Nipple	Carbon steel 1/2” NPTM
Fittings	Carbon steel 1/2” NPTF x 3/4” NPTM and 3/4” NPTF x 1” NPTM

Order Codes (products in bold are normally stock in North America)

Pressure Range	Code
0/5 psi	PLPT0005

PLT Low Pressure Test Kit



Description & Features:

- Low pressure gauge built into protective case for ease in use and durability
- Sensitive diaphragm gauge available in 3 pressure ranges
- Re-zero with external recalibration screw (PLT35 only)
- Easier to use than a manometer
- Plastic blow molded case for added durability
- Sleek design featuring secure latch
- Facilitates safe handling
- ASME B40.100 compliant
- CRN registered
- 5 year warranty

Applications:

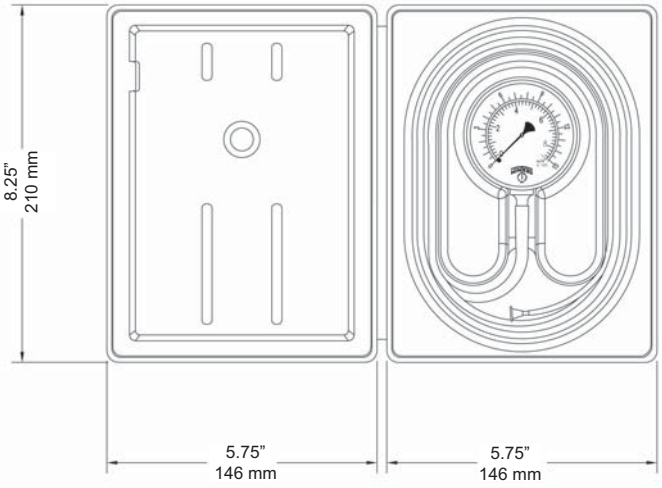
- Test kit for low pressure gas installations

Gauge Specifications	
Dial	2.5" (63mm), white aluminum with red and black markings
Case/Ring	Steel, painted black
Lens	Polycarbonate
Connection	Brass hose barb (1/4") (gear clamp included)
Diaphragm Element	Phosphor bronze
Movement	Engineering plastic upper and lower plate with brass pinion and sector, with zero adjustment*
Ambient Temperature	-40°F to 150°F (-40°C to 65°C)
Accuracy	±3-2-3% ANSI/ASME Grade B
Enclosure Rating	IP52

Case and Accessory Specifications	
Tube Nipple	Rubber: 0.256" (6.5mm) ID x 0.472" (12mm) OD x 1.339" (34mm) 1/4" NPTM x 1/4" hose barb
Case Material	Plastic blow molded: 5.75" x 8.25" (146mm x 210mm)
Hose Tube	Rubber: 3' (91cm) in length; 0.197" (5mm) ID x 0.315" (8mm) OD
Accessory	Easy to install clamp

Order Codes (products in bold are normally stock in North America)

Pressure Range	Code
0/15" water / 0/8 oz/in^2	PLT15
0/35" water / 0/20 oz/in^2	PLT35
0/100" water / 0/58 oz/in^2	PLT100



*Zero adjustment available on PLT35 only

Kit Contents
1. Gauge
2. Gauge Adaptor
3. Bimetal Pocket Thermometer 0°F to 250°F (-17°C to 121°C)
4. Bimetal Pocket Thermometer -40°F to 160°F (-40°C to 71°C)
5. Carrying Case

Description & Features:

- A portable kit with durable carrying case to protect the test instruments between uses and test locations
- Includes two thermometers for high or low temperature tests
- Pressure gauge includes secondary adjustable set pointer to assist the operator in pressure test evaluations
- Hardened stainless steel gauge adaptor probe for test plug insertion
- Eliminates the need for costly, permanently installed pressure gauges or recording devices
- Multi-scale (psi/ft H_2O/kPa/meters H_2O) pressure gauge dial face for acceptance in a variety of applications
- CRN registered
- 5 year warranty

Applications:

- To determine pressure or temperature levels where test plugs are installed in the process
- Used at start-up or periodic testing of pipelines or pressure vessels
- Chilled and hot water systems, refrigeration and hydronics, pneumatics, prototype equipment, new building construction, building maintenance

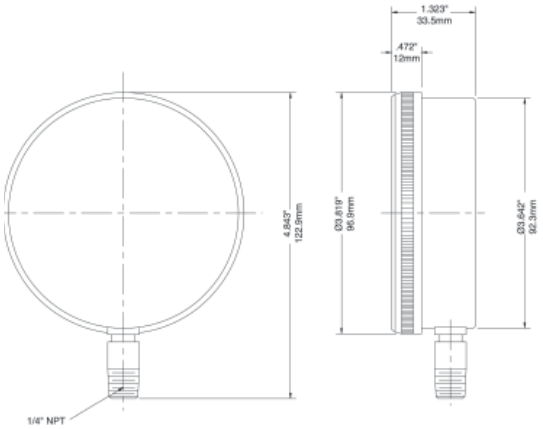
Specifications	
Case	Black plastic with custom cut foam inserts for parts
Pressure Gauge	3.5” (90mm) dial, brass wetted, 0-100 psi/Ft H_2O/kPa/meters H_2O, 1/4” NPT bottom with attached gauge adaptor ±2-1-2% ANSI/ASME Grade A, red stationary pointer
Gauge Adaptor (picture #2)	1.75” (45mm) x 0.125” (3mm) SS probe with 1/4” NPTF swivel gauge fitting
Thermometer (picture #3)	1” (25mm) dial, 5” (127mm) x 0.142” (4mm) stem, includes plastic sheath ±1% accuracy Range: 0°F to 250°F (-17°C to 121°C)
Thermometer (picture #4)	1” (25mm) dial, 5” (127mm) x 0.142” (4mm) stem, includes plastic sheath ±1% accuracy Range: -40°F to 160°F (-40°C to 71°C)

Order Codes (products in italics are normally available in 3-5 days)

Kit Code
PTK1500

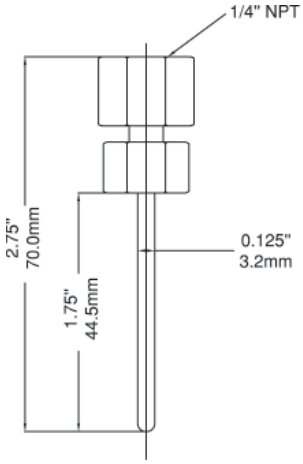
Code	Specifications Pressure Gauge
P9S90223R99STAT	3.5", 1/4 NPT bottom, 0/100 psi

Note: Contact Winters for gauges under 500 psi

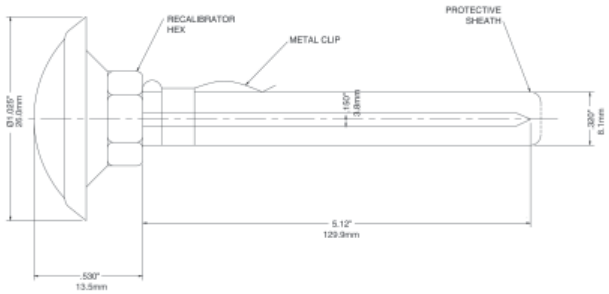


Code	Specifications Gauge Adaptor
STP003	2.75" x 1.75" x 0.125" probe

Optional Adaptor: STP004 = 2.25" x 1.75" x 0.125" probe



Bimetal Pocket Thermometer		
Product Code	**Temperature Range**	**Specifications**
TBM10050B15	-40°F to 160°F only	1" dial, 5" stem
TBM10050B19	0°F to 250°F only	1" dial, 5" stem



Optional Pocket Thermometers:
TBM10050B14 = -40° to 120°F (F only)
TBM10050B17 = 0° to 200°F (F only)
TBM10050B22 = 50° to 550°F (F only)
TBM10050B4 = -40° to 160°F (Dual scale)
TBM10050B8 = 0° to 250°F (Dual scale)
TBM10050B11 = 50° to 550°F (Dual scale)
TBM10050B12 = 150 to 750°F (Dual scale)
TBM10050B31 = -20° to 120°C (C only)
TBM10050B33 = 0° to 200°C (C only)

Description & Features:

- Developed for OEM applications
- Compact stainless steel construction with ceramic sensor
- Available ranges include Vac up to 8,700 psi (600 bar)
- Wide range of mechanical and electrical connections
- Zero span adjustment option available
- ±0.5% accuracy (±1% for pressures ≤ 45 psi)
- IP65 and IP67 enclosure ratings
- CE approved
- 1 year warranty

Applications:

- Suitable for a variety of applications including pump and compressor monitoring, refrigeration and HVAC

Specifications	
Output Signal	Standard 2-wire: 4-20 mA / Vs = 12-30 Vdc Optional 3-wire: 0.5-4.5 Vdc / Vs = 10-30 Vdc / Vac
Accuracy	±0.5% FSO (±1% FSO for pressures ≤ 45 psi (3 bar))
Response Time	<10 ms
Insulation	>100 MΩ @ 50V
Permissible Temperatures	Operating: -40°F to 212°F (-40°C to 100°C) (185°F (85°C) maximum zero span) Compensating: 14°F to 176°F (-10°C to 80°C) (158°F (70°C) maximum zero span)
Pressure Port/Housing	304 SS
Wetted Parts	Seals: NBR Diaphragm: Ceramic
Current Consumption	2-wire: 25 mA max 3-wire voltage: 5 mA (short-circuit current 20 mA)
EMC	EMI: EN50081-1/-2 EMS: EN50082-2
Stability	Vibration: 10 g / 5 Hz to 200 Hz Shock: 20 g / 11 ms
Operation Life	2 M cycles
Approval	CE

Order Codes

Range	Over-pressure	Burst Pressure*	Code
30" Hg Vac	15 psi	30 psi	LE130VC
30"/0/30 psi	45 psi	90 psi	LE10030
30"/0/60 psi	75 psi	150 psi	LE10060
30"/0/100 psi	150 psi	300 psi	LE10100
30"/0/150 psi	225 psi	450 psi	LE10150
0/15 psi	23 psi	45 psi	LE115
0/25 psi	38 psi	75 psi	LE125
0/50 psi	75 psi	150 psi	LE150
0/60 psi	90 psi	180 psi	LE160
0/100 psi	150 psi	300 psi	LE1100
0/150 psi	225 psi	450 psi	LE1150
0/200 psi	300 psi	600 psi	LE1200
0/300 psi	450 psi	900 psi	LE1300
0/500 psi	750 psi	1,500 psi	LE1500
0/1,000 psi	1,500 psi	3,000 psi	LE11000
0/2,000 psi	3,000 psi	6,000 psi	LE12000
0/3,000 psi	4,500 psi	9,000 psi	LE13000
0/5,000 psi	7,500 psi	15,000 psi	LE15000
0/5,800 psi	8,700 psi	17,400 psi	LE16000
0/7,250 psi	10,875 psi	21,750 psi	LE17500
0/8,700 psi	13,050 psi	26,100 psi	LE18500

Range	Over-pressure	Burst Pressure*	Code
-1/0 bar	1 bar	2 bar	LE130VCR11
-1/3 bar	4.5 bar	9 bar	LE10030R11
-1/4 bar	6 bar	12 bar	LE10060R11
-1/6 bar	9 bar	18 bar	LE10100R11
-1/10 bar	15 bar	30 bar	LE10150R11
0/1 bar	2 bar	3 bar	LE115R11
0/1.6 bar	2 bar	5 bar	LE125R11
0/2.5 bar	4 bar	8 bar	LE150R11
0/4 bar	6 bar	12 bar	LE160R11
0/6 bar	9 bar	18 bar	LE1100R11
0/10 bar	15 bar	30 bar	LE1150R11
0/16 bar	24 bar	48 bar	LE1200R11
0/25 bar	38 bar	75 bar	LE1300R11
0/40 bar	60 bar	120 bar	LE1500R11
0/60 bar	90 bar	180 bar	LE11000R11
0/100 bar	150 bar	300 bar	LE12000R11
0/160 bar	240 bar	480 bar	LE13000R11
0/250 bar	375 bar	750 bar	LE15000R11
0/300 bar	450 bar	900 bar	LE15500R11
0/400 bar	600 bar	1,200 bar	LE16000R11
0/500 bar	750 bar	1,500 bar	LE17500R11
0/600 bar	900 bar	1,800 bar	LE18500R11

Other connections available upon request. **For options, attach suffix to end of order code: i.e. LE1150-SP for ZERO SPAN.**

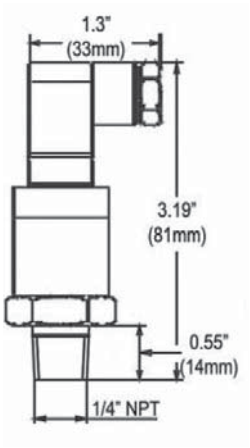
Option suffix:

SP = Zero span

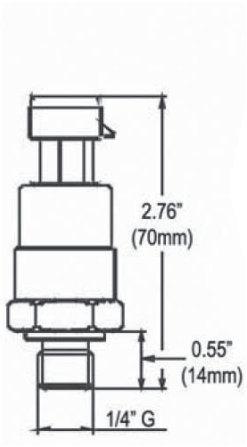
*LE1 Zero span burst pressure = 2.5 x rated pressure

Electrical Connection*

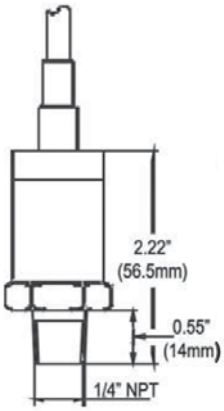
Micro



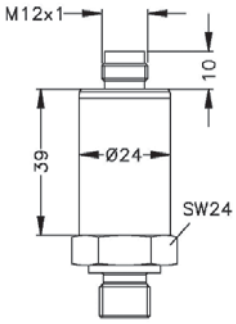
Packard



Cable Leads

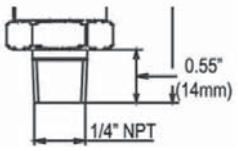


M12

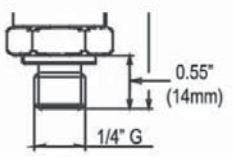


Mechanical Connection

Standard

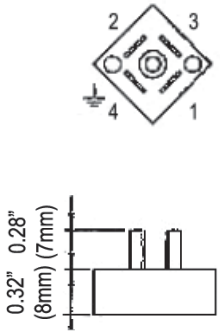


Optional

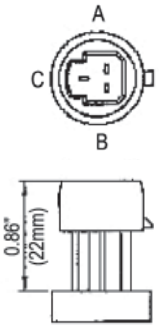


Wiring Diagram

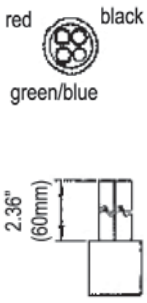
Micro



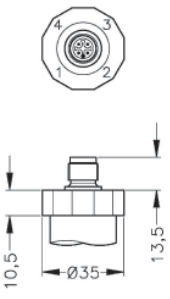
Packard



Cable Leads



M12



* See LE1 zero span drawing online for dimensions and connection options

Micro			Packard			Cable Leads			M12	
Pin #:	2-wire (current):	3-wire (voltage):	Pin #:	2-wire (current):	3-wire (voltage):	Cable Colours:	2-wire (current):	3-wire (voltage):	Pin #:	Electrical Connection
1	Vcc	Vcc	A	No Connection	Ground	Red	Vcc	Vcc	1	Supply+
2	Iout	Ground	B	Vcc	Vcc	Green/Blue	Iout	Vout	2	Supply-
3	No Connection	Vout	C	Iout	Vout	Black	No Connection	Ground	3	Signal+ (for 3-wire)
4	Shield	Shield	-	-	-	Yellow	Shield	Shield	4	Shield

Description & Features:

- Developed for use in general industry and OEM applications, where versatility and economy are requirements
- Compact stainless steel construction with ceramic sensor
- Available ranges include in/Hg up to 5,000 psi
- Wide range of mechanical and electrical connections
- ±0.5% accuracy
- NEMA 4X / IP65 and IP67
- CE, CSA and RoHS compliant
- Approved for outdoor use
- Customizable
- 1 year warranty

Applications:

- Suitable for all process and automation control, hydraulics and pneumatic sensing, pump and compressor monitoring, refrigeration and HVAC

Specifications	
Output Signal	Standard 2-wire: 4-20 mA / Vs = 8-32 Vdc Optional 3-wire: 0-10 V / Vs = 14-30 Vdc Optional 3-wire ratiometric: Vsig = 0.5-4.5 Vs / Vs = 5 ± 0.5 Vdc
Accuracy	±0.5% FSO
Permissible Load	2-wire: Rmax = [(Vs - Vs min) / 0.02] Ohm 3-wire: Rmin = 10 kOhm
Influence Effects	Supply: 0.05% FSO / 10 V Load: 0.05% FSO / kOhm
Response Time	2-wire: <10 ms 3-wire: <3 ms
Measuring Rate	1 kHz
Thermal Error	<±0.5% FSO / 10K
Permissible Temperatures	Medium: -13°F to 257°F (-25°C to 125°C) Electronics environment: -13°F to 185°F (-25°C to 85°C) Storage: -40°F to 185°F (-40°C to 85°C)
Short-circuit Protection	Permanent 3-wire ratiometric: None
Reverse Polarity Protection	No damage. No function.
Electromagnetic Protection	Emission and immunity according to EN 61326
Stability	Vibration: 10 g, 25 Hz to 2 kHz according to DIN EN 60068-2-6 Shock: 500 g / 1 ms according to DIN EN 60068-2-27
Pollution Degree	4, electrical equipment for outdoor use
Pressure Port / Housing	304 SS
Wetted Parts	Seals: FKM (Viton® standard). Diaphragm: Ceramic Al_2O_3 96%
Weight	120 g
Current Consumption	2-wire: 25 mA max 3-wire voltage: 5 mA (short-circuit current 20 mA) 3-wire ratiometric: 1.5 mA
Long-term Stability	<±0.3% FSO/yr at reference conditions
Operation Life	>100 x 10^6 cycles
CE Conformity	EMC directive: 2004/108/EC Pressure equipment directive: 97/23/EC (module A). Valid for devices with max permissible overpressure > 3,000 psi

Viton® is a registered trademark of DuPont Performance Elastomers

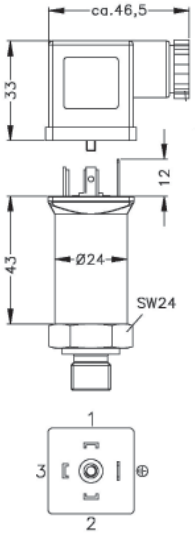
Order Codes (products in bold are normally stock in North America)

Range	Over-pressure	Burst Pressure	Code
30" Hg Vac	15 psi	44 psi	LE330VC
0/15 psi	15 psi	44 psi	LE315
0/25 psi	58 psi	102 psi	LE325
0/50 psi	58 psi	102 psi	LE350
0/60 psi	145 psi	218 psi	LE360
0/100 psi	145 psi	218 psi	LE3100
0/150 psi	290 psi	508 psi	LE3150
0/200 psi	580 psi	1,015 psi	LE3200
0/300 psi	580 psi	1,015 psi	LE3300
0/500 psi	1,450 psi	2,176 psi	LE3500
0/1,000 psi	1,450 psi	2,176 psi	LE31000
0/2,000 psi	2,901 psi	3,626 psi	LE32000
0/3,000 psi	5,802 psi	6,527 psi	LE33000
0/5,000 psi	5,802 psi	6,527 psi	LE35000

Note: Other connections available upon request

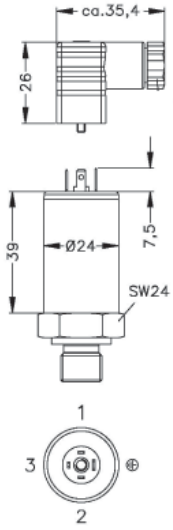
Electrical Connection

Standard

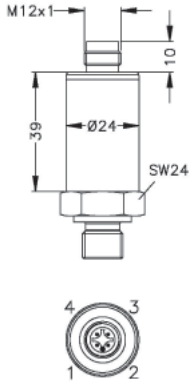


ISO 4400
(IP 65)

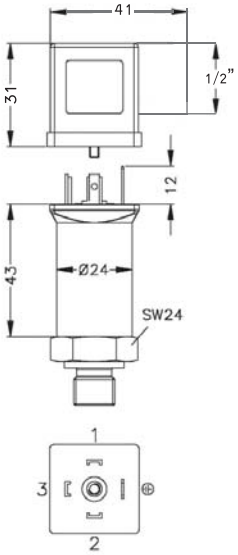
Optional



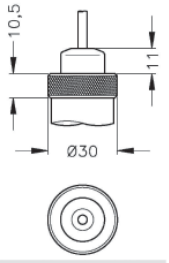
Micro, contact
distance 9.4 mm (IP 65)



M12x1, 4-pin
(IP 67)



DIN 43650 A
1/2" NPTF conduit fitting

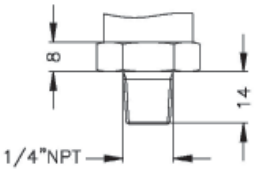


Cable outlet (IP 68) [5]

5 Different cable types/lengths available

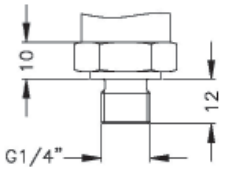
Mechanical Connection

Standard



1/4" NPT

Optional



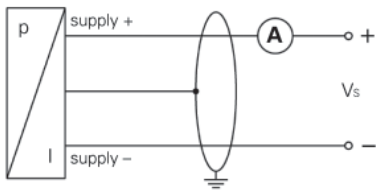
G1/4" DIN 3852

Note: Measurements are in mm

Wiring Diagram

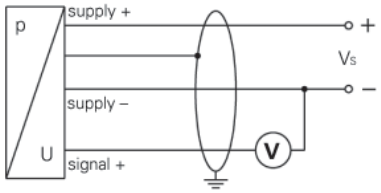
Standard

2-wire-system (current)

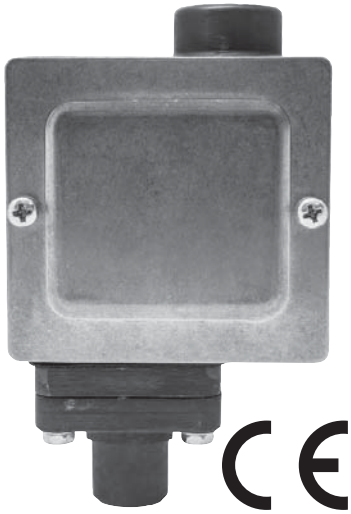


Optional

3-wire-system (voltage)



Pin Configuration				
Electrical Connection	ISO 4400	Micro (contact distance 9.4mm)	M12x1 (4 pin), plastic	Cable Colours (DIN 47100)
Supply+	1	1	1	White
Supply-	2	2	2	Brown
Signal+ (for 3-wire)	3	3	3	Green
Shield	Ground pin	Ground pin	4	Green/yellow



Description & Features:

- Piston-type pressure switch
- Vac to 500 psi pressure range
- SPDT switch
- Fixed or adjustable deadband
- Simple set point adjustment
- Anodized aluminum construction with Buna N wetted parts
- ±2% of the adjustable range accuracy
- NEMA 4, IP65 enclosure rating (NEMA 4X optional)
- UL, CSA approved and PED compliant
- CRN registered
- 1 year warranty

Applications:

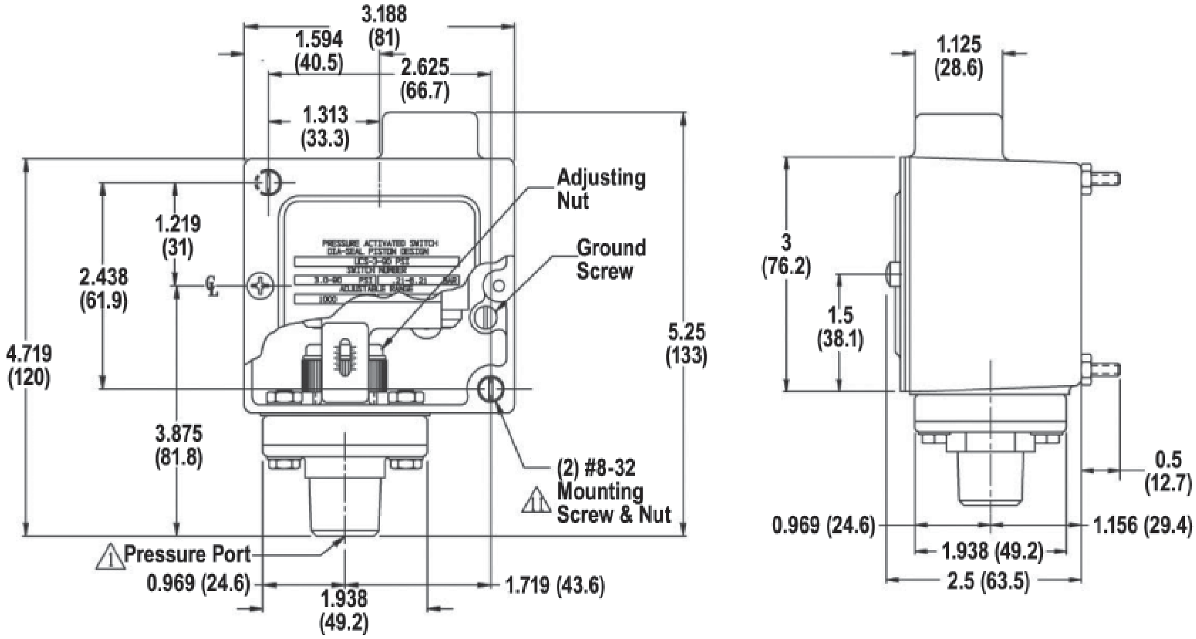
- Suitable for pump and compressor monitoring, HVAC systems and general industrial applications

Specifications	
Housing Material	Anodized aluminum
Accuracy	±2% of the adjustable range
Pressure Connection	1/4” NPTF
Electrical Connection	1/2” NPTF conduit connection with screw terminals
Wetted Parts	Aluminum and Buna N (Teflon® O-ring or Viton® diaphragm optional)
Set Point Adjustment	Self locking adjustment nut
Deadband	Fixed or adjustable
Contact Rating	10 amps @ 125/250 Vac 3 amps @ 480 Vac
No. of Contacts	One, SPDT
Ambient/Process Temperature	-20°F to 165°F (-29°C to 74°C)
Enclosure Rating	NEMA 4, IP65 (NEMA 4X optional)
Approvals	UL, CSA, CRN, PED 97/23/EC compliant
Weight	1.5 lbs (680 grams)

Order Codes

Adjustable Range psi (bar)		Approximate Deadband (Actuation value) psi (bar)	Proof Pressure psi (bar)	NEMA 4 Code	NEMA 4X Code
Min	Max				
0.5" Hg	30" Hg	0.3-2.5" Hg	30 (2)	2WPSH030VF	2WPSH030VFFX
0.5 (0.03)	15 (1)	0.1-1.2 (0.01-0.08)	1,000 (69)	2WPSH0015F	2WPSH0015FFX
3 (0.2)	90 (6)	0.5-8 (0.03-0.5)	1,000 (69)	2WPSH0090F	2WPSH0090FFX
10 (0.7)	250 (17)	1-20 (0.07-1.3)	1,000 (69)	2WPSH0250F	2WPSH0250FFX
25 (1.7)	500 (34)	4-28 (0.3-1.9)	1,000 (69)	2WPSH0500F	2WPSH0500FFX
1” Hg	30” Hg	Contact Winters for Values	30 (2)	2WPSH030VA	2WPSH030VAFX
1 (0.07)	15 (1)		1,000 (69)	2WPSH0015A	2WPSH0015AFX
6 (0.4)	90 (6)		1,000 (69)	2WPSH0090A	2WPSH0090AFX
15 (1)	250 (17)		1,000 (69)	2WPSH0250A	2WPSH0250AFX
35 (2.4)	500 (34)		1,000 (69)	2WPSH0500A	2WPSH0500AFX

Viton® is a registered trademark of DuPont Performance Elastomers
Teflon® is a registered trademark of DuPont Corporation



Series Number (how to order)

2 W P S - □ □ - □ □ □ □ - □ □ □ - □ - □ □ □ □

Description	Adjustable Range psi (bar) Min	Adjustable Range psi (bar) Max	Deadband (*Actuation Value based on CC*)	Code
SERIES				2 W P S
SWITCH				
10 amps @ 125/250 VAC; 3 amps @ 480 VAC (standard)				H
15 amps @ 125/250/480 VAC; 0.05 amps @ 125 VDC; 0.03 amps @ 250 VDC ADJUSTABLE DEADBAND				R
10 amps @ 125/250/480 VAC; 2 amps @ 600 VAC; 0.4 amps @ 125 VDC; 0.2 amps @ 250 VDC MANUAL RESET (NON UL)				G
1 amp @ 125 VAC; gold contact				G H
PRESSURE RANGES PSI (BAR)				
Fixed Deadband	0.5" Hg	30" Hg	0.3-2.5" Hg	0 3 0 V
	0.5 (0.03)	15 (1)	0.1-1.2 (0.01-0.08)	0 0 1 5
	3 (0.2)	90 (6)	0.5-8 (0.03-0.5)	0 0 9 0
	10 (0.7)	250 (17)	1-20 (0.07-1.3)	0 2 5 0
	25 (1.7)	500 (34)	4-28 (0.3-1.9)	0 5 0 0
Adjustable Deadband	1" Hg	30" Hg	Contact Winters for Values	0 3 0 V
	1 (0.07)	15 (1)		0 0 1 5
	6 (0.4)	90 (6)		0 0 9 0
	15 (1)	250 (17)		0 2 5 0
	35 (2.4)	500 (34)		0 5 0 0
	Special Range			? ? ? ?
PRESSURE CONNECTION				
1/4" NPT Female (standard)				N 4
1/8" int & 1/2" ext NPT				N 2
Nickel plated fitting				F 2
Brass fitting 1/8" int & 1/2" ext NPT				B R 2
Brass fitting 1/4" NPT				B R 4
WETTED PARTS				
Buna-N				B
Teflon				T
Viton diaphragm				V
OPTIONS				
NEMA 4X enclosure				F X
Manual reset (must select class G limit switch)				R D
Factory preset (consult factory)				S ? ? ?

Catalogue Page	Series	Dial Size								Scale Size					Case Material					Wetted Parts		Connection Size			Accuracy						
		≤2"	2.5"	3"	3.5"	4"	4.5"	5"	≥6"	4.5"	5"	6"	8"	9"	Steel	SS	Aluminum	Valox®	Plastic	Brass	SS	1/4" NPT	1/2" NPT	3/4" NPT	1% (Grade A)	2% (Grade B)	2.5% (Grade B)	3% (Grade B)	With thermowell	RoHS compliant	Lead Free Option
82	TAG HVAC Gold Case Thermometer									x		x					x			x	x		x			x			x		
84	TAS/TAS-LF Industrial/Lead Free Industrial 5" Thermometer										x								x	x			x			x			x	x	x
86	TBM Bi-Metal Thermometer	x		x		x		x	x							x					x	x	x		x				x	
91	TBT HVAC Bi-Metal Thermometer				x										x					x			x			x					
92	TCT Clamp-On Thermometer		x												x													x			
93	THR HVAC Remote Reading Thermometer	x	x													x				x						x					
95	TIM/TIM-LF Industrial/Lead Free Industrial 9" Thermometer													x			x	x		x				x	x				x	x	x
97	TMT Surface Magnet Thermometer	x													x											x					
98	TRR Gas or Vapour Remote Reading Thermometer		x		x	x	x		x						x	x	x			x	x		x	x	x	x				x	
104	TSD Industrial Solar Digital									x									x	x				x	x				x	x	
106	TSW/TSW-LF Hot Water/Lead Free Hot Water Thermometer	x	x										x		x		x			x			x		x				x		x
108	TTD Tridicator		x	x											x					x		x	x					x			

Valox® is a registered trademark of the General Electric Company

TAG HVAC Gold Case Thermometer

Description & Features:

- Available in 4.5” (115mm) or 6” (150mm) scales
- Brass socket 1/2” NPT is standard (stainless steel optional)
- Available in either a straight model (bottom connection) or 90° angle model (back connection)
- ASME B40.200 and ASTM E2511 compliant
- 5 year warranty

Applications:

- Heating, plumbing, air conditioning and ventilation applications

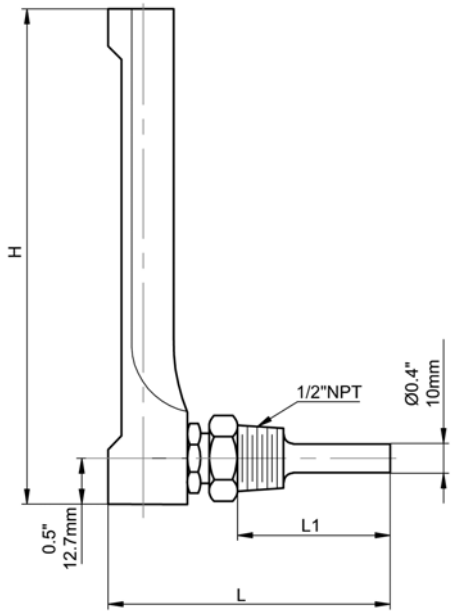
Specifications	
Scale	Aluminum, black markings
Case	4.5” (115 mm), 6” (150 mm) aluminum, anodized gold
Tube	Glass, cushioned
Liquid Filling	Organic liquid (red)
Stem	Brass (SS optional)
Connection	1/2” NPT (1/2” BSP optional)
Swivel Nut	Brass (SS optional; swivel and stem one unit)
Ambient/Process Temperature	-40°F to 400°F (-40°C to 204°C)
Operating Temperature	Maximum 80% of full scale value recommended
Accuracy	±2% of full scale
Enclosure Rating	IP65

Order Codes (products in bold are normally stock in North America)

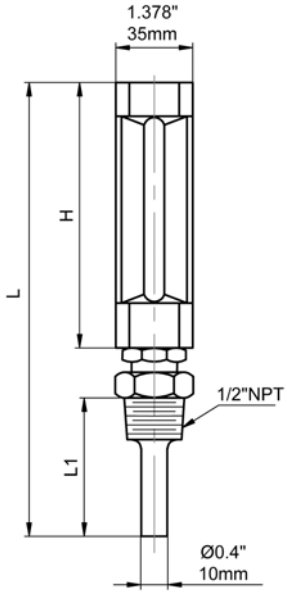
	Straight		Angle	
Range	**4.5” (110mm)**	**6” (150mm)**	**4.5” (110mm)**	**6” (150mm)**
-40°F to 110°F & -40°C to 40°C	TAG130AG4	TAG130AG6	TAG140AG4	TAG140AG6
20°F to 180°F & -5°C to 80°C	TAG131AG4	TAG131AG6	TAG141AG4	TAG141AG6
30°F to 240°F & 0°C to 115°C	TAG132AG4	TAG132AG6	TAG150AG4	TAG150AG6
30°F to 300°F & 0°C to 150°C	TAG134AG4	TAG134AG6	TAG143AG4	TAG143AG6
50°F to 400°F & 10°C to 200°C	TAG133AG4	TAG133AG6	TAG142AG4	TAG142AG6

Other ranges and connection sizes available upon request. 304 SS thermowell available upon request.

Angle



Straight



Dimensions

Case Height (H)	Stem Length (L1)	L (Angle)	L (Straight)
4.5" (114mm)	2" (50.8mm)	3.69" (93.7mm)	7.17" (182.1mm)
6" (152.4mm)			8.67" (220.2mm)

TAS, TAS-LF

Industrial 5” Thermometer, Lead Free Industrial 5” Thermometer

Description & Features:

- An all-purpose, economical thermometer with a vertical sensing tube and case
- Separable brass, lead free brass or stainless steel thermowell
- Impact resistant ABS case
- Red liquid-in glass
- Dual scale (°F & °C)
- Straight or angle connection
- 1/2” NPT process connection
- ASME B40.200 and ASTM E2511 compliant
- 5 year warranty

Applications:

- Hot water lines, boilers, heating, ventilation and air conditioning

LEAD FREE

RoHS compliant

Note: RoHS applies only to SS thermowell

Specifications	
Scale	Aluminum, painted white with black markings
Case	5” (127mm) black ABS
Lens	Glass
Tube	Glass, cushioned
Sensing Liquid	Kerosene, tinted red
Stem	Brass
Thermowell	TAS: Brass 1/2” NPT standard, (3/4” and SS optional) TAS-LF: Lead free brass 1/2” NPT (3/4” optional)
Operating Pressure	Maximum 710 psi (4,895 kPa)
Ambient Temperature	-40°F to 122°F (-40°C to 50°C)
Process Temperature	-40°F to 400°F (-40°C to 204°C)
Accuracy	±2% of full scale
Enclosure Rating	IP50

TAS Order Codes (products in bold are normally stock in North America)

Range	Straight	Angle
-40°F to 110°F & -40°C to 40°C	TAS130	TAS140
20°F to 180°F & -5°C to 80°C	TAS131	TAS141
30°F to 240°F & 0°C to 115°C	TAS132	TAS150
30°F to 300°F & 0°C to 150°C	TAS134	TAS143
50°F to 400°F & 10°C to 200°C	TAS133	TAS142

Thermowell

Connection	Material	Code
1/2“ NPT - Standard (Included with thermometer)	Brass	TAS62
1/2“ NPT - Optional	304 SS	TAS62-1
3/4“ NPT - Optional	Brass	TAS64
3/4“ NPT - Optional	304 SS	TAS64-1

TAS-LF Order Codes (products in bold are normally stock in North America)

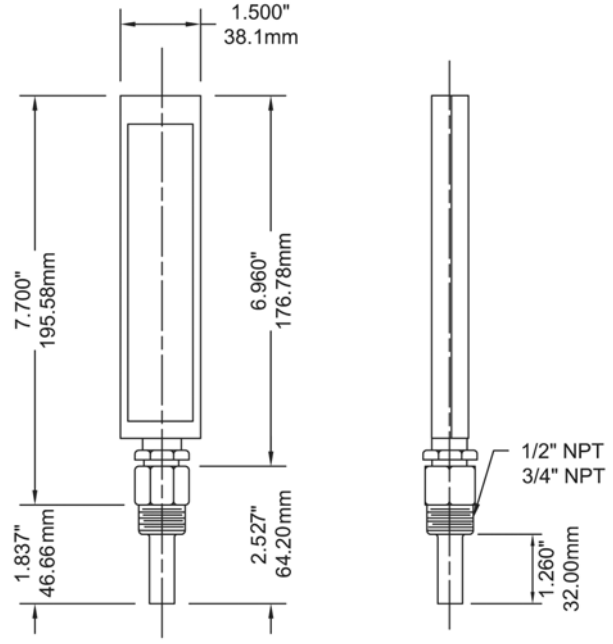
Range	Straight	Angle
-40°F to 110°F & -40°C to 40°C	TAS130LF	TAS140LF
20°F to 180°F & -5°C to 80°C	TAS131LF	TAS141LF
30°F to 240°F & 0°C to 115°C	TAS132LF	TAS150LF
30°F to 300°F & 0°C to 150°C	TAS134LF	TAS143LF
50°F to 400°F & 10°C to 200°C	TAS133LF	TAS142LF

Thermowell (products in bold are normally stock in North America)

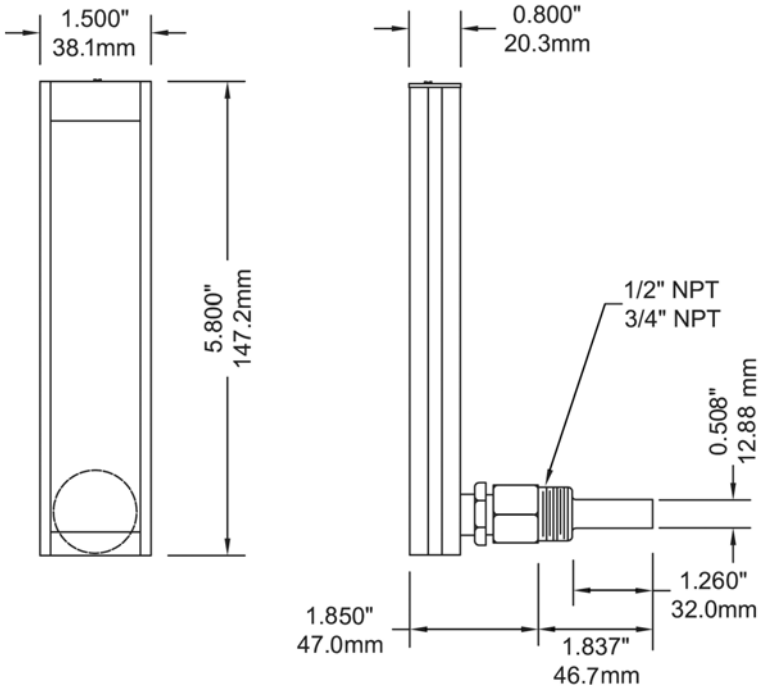
Connection	Material	Code
1/2“ NPT - Standard (Included with thermometer)	Brass	TAS62LF
3/4“ NPT - Optional	Brass	TAS64LF

Other ranges and connection sizes available upon request. 304 SS thermowell available upon request. Plastic lens available upon request. 3/4” NPT connection available upon request.

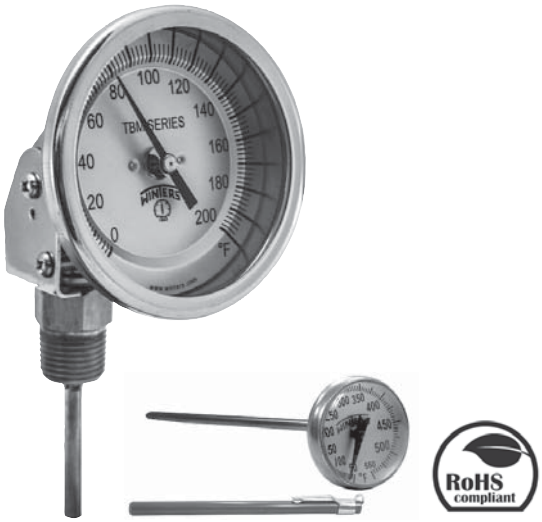
Straight



Angle



TBM Bi-Metal Thermometer



Description & Features:

- A general purpose, versatile 1” (25mm) to 6” (150mm) dial, 304 stainless steel thermometer
- Bi-metallic sensing element for reliable readings
- Back, bottom or adjustable angle connection
- Welded stem length from 2.5” (63mm) and up
- ±1% accuracy
- Anti-parallax dial that reduces operator reading errors (3” (75mm)-6” (150mm))
- Recalibrator screw is standard on all dial sizes
- ASME B40.200 compliant
- 5 year warranty

Applications:

- Industrial process, heating and air conditioning, ventilation and wastewater

Specifications	
Dial	1” (25mm), 2” (50mm): Aluminum with black markings, flat dial 3” (75mm), 4” (100mm), 5” (127mm), 6” (150mm): Aluminum with black markings, anti-parallax dial
Case	AISI 304 SS
Stem	AISI 304 SS welded to socket, centre back, bottom or adjustable angle configurations (316 SS optional*) 1” (25mm), 2” (50mm) dial: Centre back connection only
Recalibrator Screw	Standard
Lens	1” (25mm): Polycarbonate Others: Glass standard, hermetically sealed
Ring	AISI 304 SS
Connection	1” (25mm): None 2” (50mm): 1/4” NPT standard 3” (75mm), 4” (100mm), 5” (127mm), 6” (150mm): 1/2” NPT standard
Sensing Element	Bi-metallic coil
Pointer	Aluminum, painted black
Maximum Operating Pressure	125 psi (861 kPa)
Operating Temperature	75% of full scale value (recommended maximum)
Ambient Temperature	-58°F to 248°F (-50°C to 120°C)
Accuracy	±1% of full scale
Enclosure Rating	2” (50mm) to 6” (150mm): IP68

*Contact Winters for 316 SS requirements
Note: The use of a thermowell is recommended to protect the thermometer in corrosive or pressure applications, as well as to maintain a closed system during its removal from the process

Order Codes (products in bold are normally stock in North America)

1" (25mm) Dial, Fixed Centre Back	
Temperature Range	5" Stem Length Code
-40°F to 160°F	**TBM10050B15**

2" (50mm) Dial, Fixed Centre Back		
Temperature Range	2.5" Stem Length Code	4" Stem Length Code
-40°F to 120°F&C	**TBM20025B2**	-
0°F to 200°F&C	**TBM20025B6**	-
0°F to 250°F&C	**TBM20025B8**	**TBM20040B8**
50°F to 300°F&C	**TBM20025B9**	-
50°F to 400°F&C	**TBM20025B10**	-

3" (75mm) Dial, Fixed Centre Back				
Temperature Range	2.5" Stem Length Code	4" Stem Length Code	6" Stem Length Code	9" Stem Length Code
-40°F to 120°F&C	**TBM30025B2**	**TBM30040B2**	**TBM30060B2**	-
0°F to 140°F&C	**TBM30025B3**	-	-	-
-40°F to 160°F&C	**TBM30025B4**	-	**TBM30060B4**	-
0°F to 200°F&C	**TBM30025B6**	**TBM30040B6**	**TBM30060B6**	-
20°F to 240°F&C	**TBM30025B7**	**TBM30040B7**	**TBM30060B7**	-
0°F to 250°F&C	**TBM30025B8**	**TBM30040B8**	**TBM30060B8**	**TBM30090B8**
50°F to 300°F&C	**TBM30025B9**	**TBM30040B9**	**TBM30060B9**	**TBM30090B9**
50°F to 400°F&C	**TBM30025B10**	**TBM30040B10**	**TBM30060B10**	-
50°F to 500°F&C	**TBM30025B11**	**TBM30040B11**	**TBM30060B11**	**TBM30090B11**
150°F to 750°F&C	-	-	**TBM30060B12**	-
200°F to 1,000°F&C	-	-	**TBM30060B13**	-
0°F to 250°F	-	**TBM30040B19**	-	-

3" (75mm) Dial, Bottom		
Temperature Range	2.5" Stem Length Code	4" Stem Length Code
20°F to 240°F&C	**TBM31025B7**	**TBM31040B7**
0°F to 200°F	**TBM31025B17**	-

3" (75mm) Dial, Adjustable Angle		
Temperature Range	2.5" Stem Length Code	4" Stem Length Code
0°F to 200°F&C	**TBM32025B6**	-
0°F to 250°F&C	**TBM32025B8**	**TBM32040B8**

5" (127mm) Dial, Fixed Centre Back				
Temperature Range	2.5" Stem Length Code	4" Stem Length Code	6" Stem Length Code	9" Stem Length Code
-40°F to 120°F&C	**TBM50025B2**	-	-	**TBM50090B2**
0°F to 250°F&C	-	**TBM50040B8**	-	-
50°F to 300°F&C	**TBM50025B9**	**TBM50040B9**	**TBM50060B9**	-

5" (127mm) Dial, Adjustable Angle			
Temperature Range	2.5" Stem Length Code	4" Stem Length Code	6" Stem Length Code
0°F to 140°F&C	**TBM52025B3**	-	-
0°F to 250°F&C	**TBM52025B8**	**TBM52040B8**	**TBM52060B8**

TBM Bi-Metal Thermometer

Order Codes: To order, specify the code for each dial/stem length and the range: i.e. TBM20025 - B26

Dial Size	Stem Length	Fixed Centre Back	Bottom	Adjustable Angle
1" (25mm) pocket thermometer	5" (127mm)	TBM10050	-	-
2" (50mm) lab thermometer	8" (200mm)	TBM20080	-	-
2" (50mm)	2.5" (63mm)	TBM20025	-	-
	4" (100mm)	TBM20040	-	-
	6" (150mm)	TBM20060	-	-
	9" (230mm)	TBM20090	-	-
	12" (300mm)	TBM20120	-	-
	15" (370mm)	TBM20150	-	-
3" (75mm)	2.5" (63mm)	TBM30025	TBM31025	TBM32025
	4" (100mm)	TBM30040	TBM31040	TBM32040
	6" (150mm)	TBM30060	TBM31060	TBM32060
	9" (230mm)	TBM30090	TBM31090	TBM32090
	12" (300mm)	TBM30120	TBM31120	TBM32120
	15" (370mm)	TBM30150	TBM31150	TBM32150
4" (100mm)	2.5" (63mm)	TBM40025	TBM41025	TBM42025
	4" (100mm)	TBM40040	TBM41040	TBM42040
	6" (150mm)	TBM40060	TBM41060	TBM42060
	9" (230mm)	TBM40090	TBM41090	TBM42090
	12" (300mm)	TBM40120	TBM41120	TBM42120
	15" (370mm)	TBM40150	TBM41150	TBM42150
5" (127mm)	2.5" (63mm)	TBM50025	TBM51025	TBM52025
	4" (100mm)	TBM50040	TBM51040	TBM52040
	6" (150mm)	TBM50060	TBM51060	TBM52060
	9" (230mm)	TBM50090	TBM51090	TBM52090
	12" (300mm)	TBM50120	TBM51120	TBM52120
	15" (370mm)	TBM50150	TBM51150	TBM52150
6" (150mm)	2.5" (63mm)	TBM60025	TBM61025	TBM62025
	4" (100mm)	TBM60040	TBM61040	TBM62040
	6" (150mm)	TBM60060	TBM61060	TBM62060
	9" (230mm)	TBM60090	TBM61090	TBM62090
	12" (300mm)	TBM60120	TBM61120	TBM62120
	15" (370mm)	TBM60150	TBM61150	TBM62150

°F & °C (Dual)	Code	°F only	Code	°C only	Code	°C & °F (Dual)	Code
-100°F to 150°F & -70°C to 70°C	B1	-40°F to 120°F	B14	-80°C to 50°C	B26	-30°C to 70°C & -20°F to 150°F	B75
-40°F to 120°F & -40°C to 50°C	B2	-40°F to 160°F	B15	-50°C to 50°C	B27	0°C to 120°C & 30°F to 250°F	B76
0°F to 140°F & -20°C to 60°C	B3	0°F to 140°F	B16	0°C to 50°C	B28	0°C to 300°C & 30°F to 570°F	B77
-40°F to 160°F & -40°C to 70°C	B4	0°F to 200°F	B17	-50°C to 100°C	B29	0°C to 200°C & 30°F to 400°F	B79
25°F to 125°F & - 5°C to 50°C	B5	20°F to 240°F	B18	0°C to 100°C	B30	0°C to 250°C & 30°F to 480°F	B80
0°F to 200°F & -20°C to 90°C	B6	0°F to 250°F	B19	-20°C to 120°C	B31	0°C to 50°C & 30°F to 120°F	B81
20°F to 240°F & - 5°C to 115°C	B7	50°F to 300°F	B20	0°C to 150°C	B32	-20°C to 60°C & -4°F to 140°F	B85
0°F to 250°F & -20°C to 120°C	B8	50°F to 400°F	B21	0°C to 200°C	B33	-	-
50°F to 300°F & 10°C to 150°C	B9	50°F to 550°F	B22	0°C to 300°C	B34	-	-
50°F to 400°F & 10°C to 200°C	B10	150°F to 750°F	B23	0°C to 450°C	B35	-	-
50°F to 500°F & 10°C to 260°C	B11	0°F to 800°F	B24	100°C to 550°C	B36	-	-
150°F to 750°F & 70°C to 400°C	B12	200°F to 1,000°F	B25	0°C to 500°C	B39	-	-
200°F to 1,000°F & 100°C to 550°C	B13	14°F to 140°F	B38	-10°C to 60°C	B40	-	-
14°F to 140°F & -10°C to 60°C	B37	-	-	100°C to 400°C	B41	-	-
32°F to 212°F & 0°C to 100°C	B52	-	-	100°C to 540°C	B42	-	-
32°F to 140°F & 0°C to 60°C	B84	-	-	-30°C to 70°C	B45	-	-
-60°F to 300°F & -50°C to 150°C	B86	-	-	20°C to 120°C	B46	-	-
-	-	-	-	-30°C to 170°C	B47	-	-
-	-	-	-	0°C to 120°C	B48	-	-
-	-	-	-	0°C to 400°C	B49	-	-
-	-	-	-	0°C to 250°C	B50	-	-
-	-	-	-	20°C to 60°C	B51	-	-
-	-	-	-	0°C to 60°C	B82	-	-

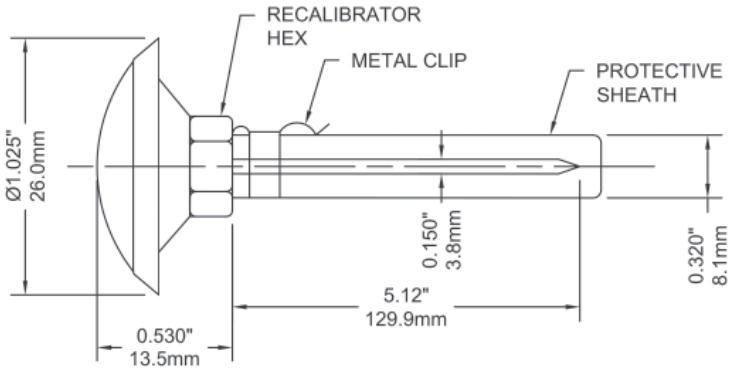
Other ranges, stem lengths and connection sizes available upon request. For glycerin fill, maximum temperature limit is 300°F (150°C). Silicone fill available.

Option suffix for above order code only:

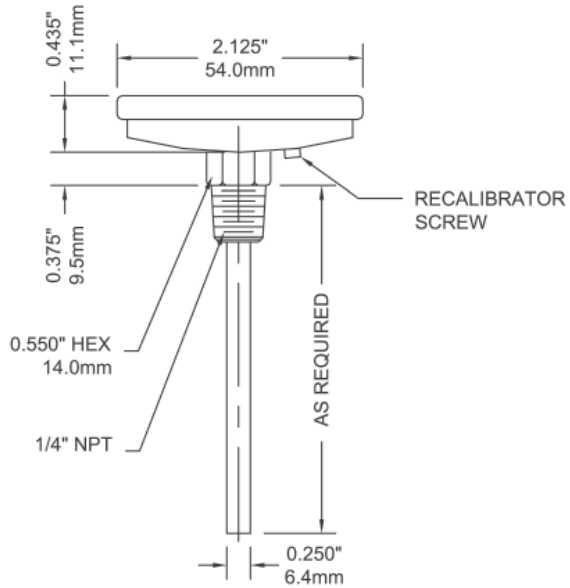
AP3 = 3" (75mm) acrylic lens
AP4 = 4" (100mm) acrylic lens
AP5 = 5" (127mm) acrylic lens
AP6 = 6" (150mm) acrylic lens
BG3 = 3" (75mm) glycerin filling
BG4 = 4" (100mm) glycerin filling
BG5 = 5" (127mm) glycerin filling
BG6 = 6" (150mm) glycerin filling
DUCT = Aluminum duct flange
SCK = Socket conversion kit
SPG3 = 3" (75mm) Shatterproof glass lens
SPG4 = 4" (100mm) Shatterproof glass lens
SPG5 = 5" (127mm) Shatterproof glass lens
SPG6= 6" (150mm) Shatterproof glass lens

Note: The use of a thermowell is recommended to protect the thermometer from corrosive or damaging environments, as well as to maintain a closed system during its removal from the process

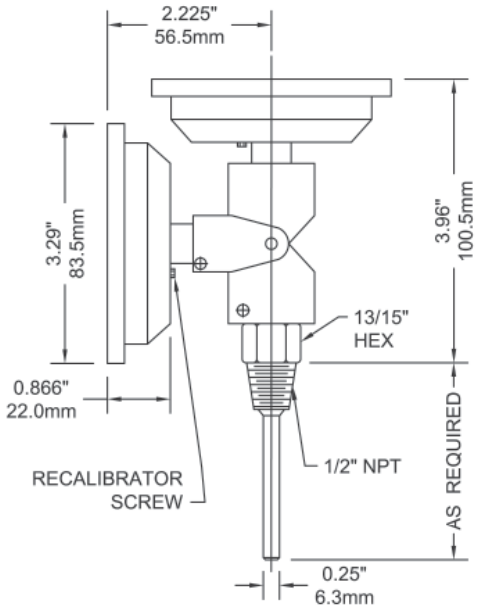
1” Back Connection



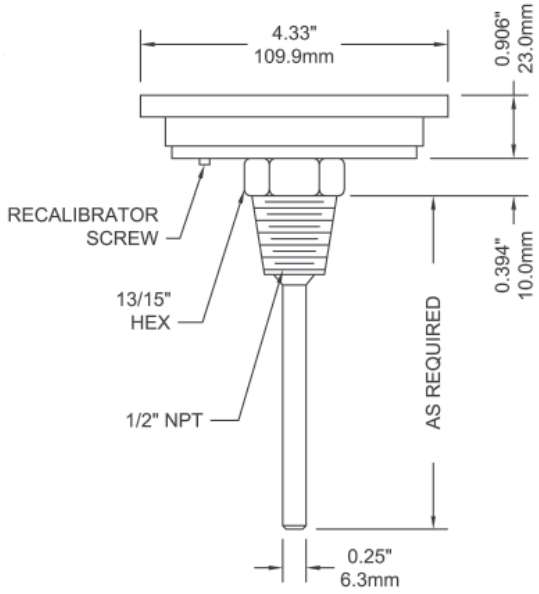
2” Back Connection



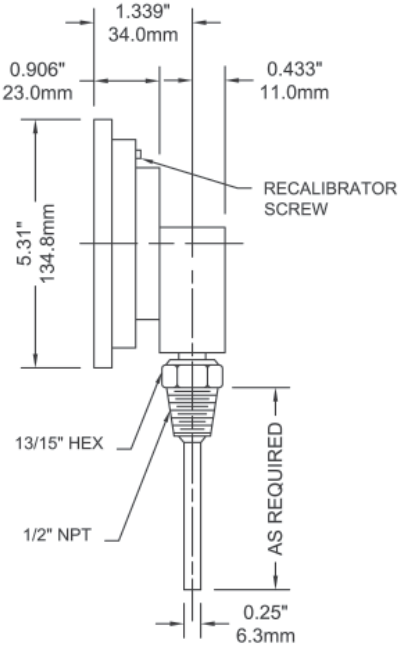
3” Adjustable Angle Connection



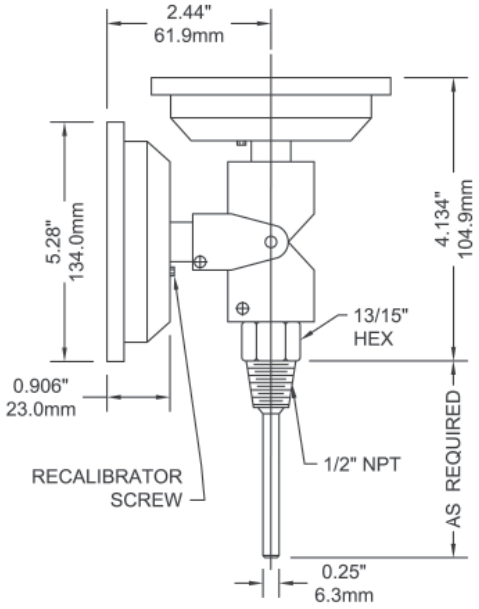
4” Back Connection



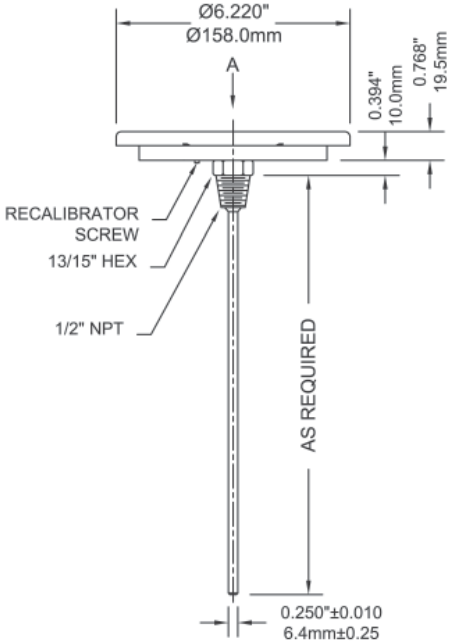
5” Bottom Connection



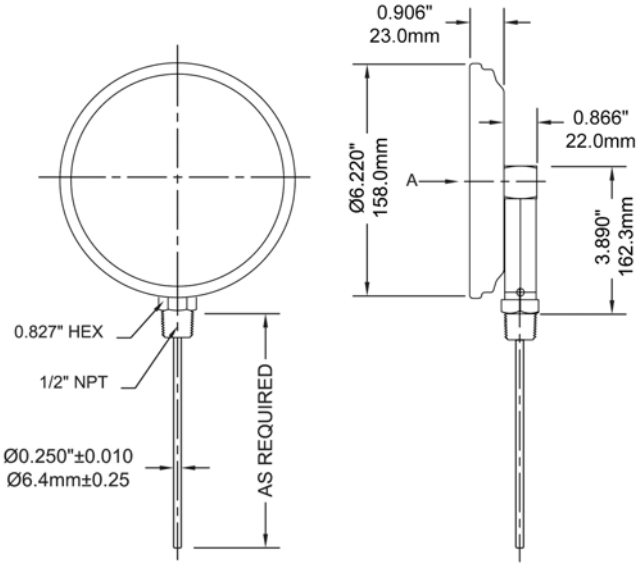
5” Adjustable Angle Connection

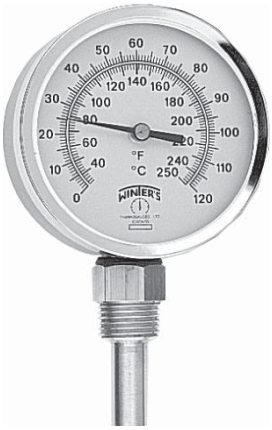


6” Back Connection



6” Bottom Connection





Description & Features:

- A durable and accurate thermometer with a rigid connection
- Separable thermowell
- Rugged steel case
- Bi-metallic element
- Dual scale (°F & °C)
- Back or bottom connected
- 1/2” NPT process connection
- ASME B40.200 compliant
- 5 year warranty

Applications:

- Hot water lines, boilers and hydronic heating

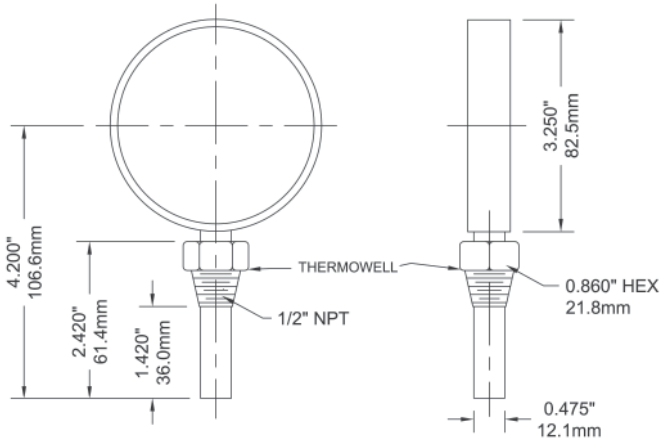
Specifications	
Dial	3.5” (90mm), aluminum with black markings
Case	Steel
Lens	Glass
Ring	Steel, chrome plated
Stem	Brass
Thermowell	Brass, 1/2” NPT (standard), separable
Sensing Element	Bi-metallic coil
Pointer	Aluminum, painted black
Over Range Enclosure Rating	±25% of full scale value
Reset	Standard
Ambient Temperature	-22°F to 158°F (-30°C to 70°C)
Process Temperature	-22°F to 250°F (-30°C to 120°C)
Accuracy	±2% of full scale
Enclosure Rating	IP50

Order Codes (products in bold are normally stock in North America)

Range	Bottom	Back
30°F to 250°F & 0°C to 121°C	TBT165	TBT160
0°F to 120°F	-	TBT161

Other ranges and connection sizes available upon request.

Bottom Connection



TCT Clamp-On Thermometer

Description & Features:

- Provides an economical and accurate method to measure surface temperatures on a 1/2” (12.5mm) to 4” (100mm) pipe
- Clamp-on design with steel spring
- Dual scale (°F & °C)
- 3 ranges available
- Easy to install
- ASME B40.200 compliant
- 5 year warranty

Applications:

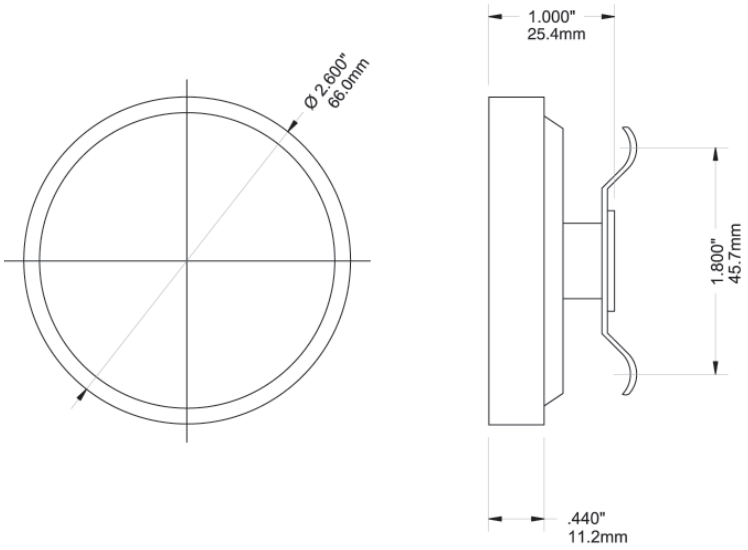
- To measure surface temperature on pipe in the heating, ventilation, air conditioning, wastewater, industrial process markets

Specifications	
Dial	2.5” (63mm) aluminum with black markings
Case	Mild steel
Lens	Plexiglass
Ring	Steel, chrome plated
Sensing Element	Bi-metallic coil
Pointer	Aluminum, painted black
Over-Range Enclosure Rating	25% of full scale value
Ambient/Process Temperature	-40°F to 390°F (-40°C to 200°C)
Accuracy	±3% of full scale
Enclosure Rating	IP52

Order Codes (products in bold are normally stock in North America)

Range	Code
-40°F to 110°F & -40°C to 40°C	TCT166
30°F to 250°F & 0°C to 120°C	TCT167
30°F to 390°F & 0°C to 200°C	TCT168

Other ranges and connection sizes available upon request.



Description & Features:

- An economical thermometer for remote reading applications
- Stainless steel case
- Vapour actuated
- Panel mounted (Front Flange or U-Clamp)
- Dual scale (°F & °C)
- 9’ capillary length
- ASME B40.200 compliant
- 5 year warranty

Applications:

- Freezers, walk-in refrigeration units, food storage cabinets, heating and ventilation. Widely specified in the HVAC, commercial and mechanical industry segments

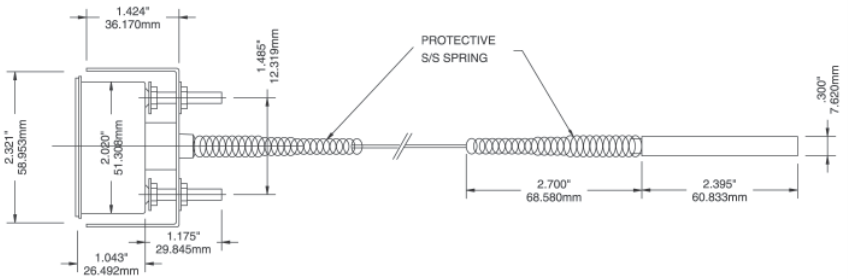
Specifications	
Dial	Aluminum, painted white with black markings
Case	SS front flange, SS U-Clamp case
Lens	Plexiglass
Bourdon Tube	Phosphor bronze
Movement	Brass
Pointer	Aluminum, painted black
Welding	Silver alloy
Capillary	9’ (3m) nickel plated brass
Protective Spring	SS
Bulb	Nickel plated brass
Operating Temperature	Recommended maximum 75% of full scale value
Accuracy	±2.5% of full scale
Enclosure Rating	IP52

Order Codes

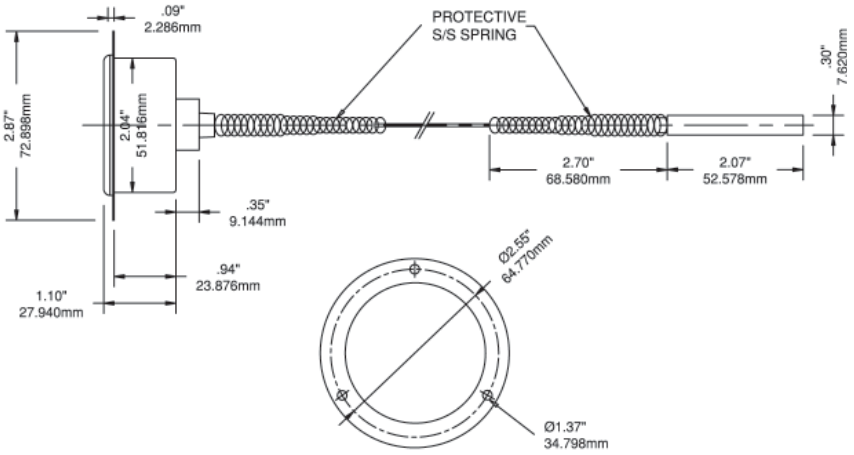
Dial Size	Panel Cut-out	Case Style	Range	Code
2” (50mm)	2.05” (52mm)	Front Flange	-40°F to 60°F & -40°C to 15°C	THR2214090R4
2” (50mm)			-20°F to 120°F & -30°C to 50°C	THR2214090R5
2” (50mm)		U-Clamp	-40°F to 60°F & -40°C to 15°C	THR2514090R4
2” (50mm)			-20°F to 120°F & -30°C to 50°C	THR2514090R5
2.5” (63mm)	2.55” (64mm)	Front Flange	-40°F to 60°F & -40°C to 15°C	THR3214090R4
2.5” (63mm)			-20°F to 120°F & -30°C to 50°C	THR3214090R5
2.5” (63mm)		U-Clamp	-40°F to 60°F & -40°C to 15°C	THR3514090R4
2.5” (63mm)			-20°F to 120°F & -30°C to 50°C	THR3514090R5

Other ranges and connection sizes available upon request.

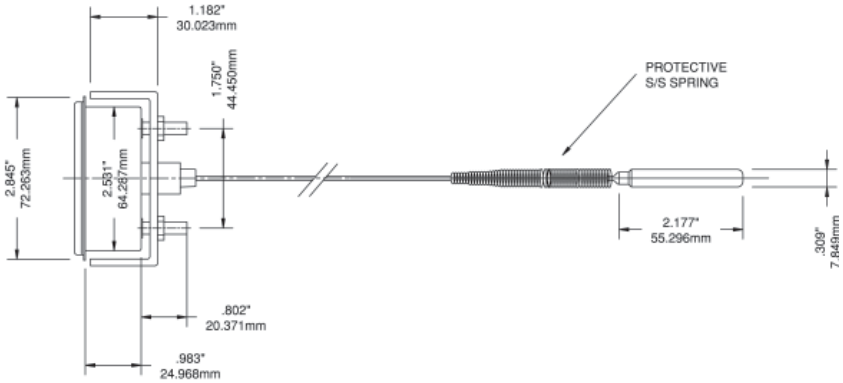
2” with U-Clamp



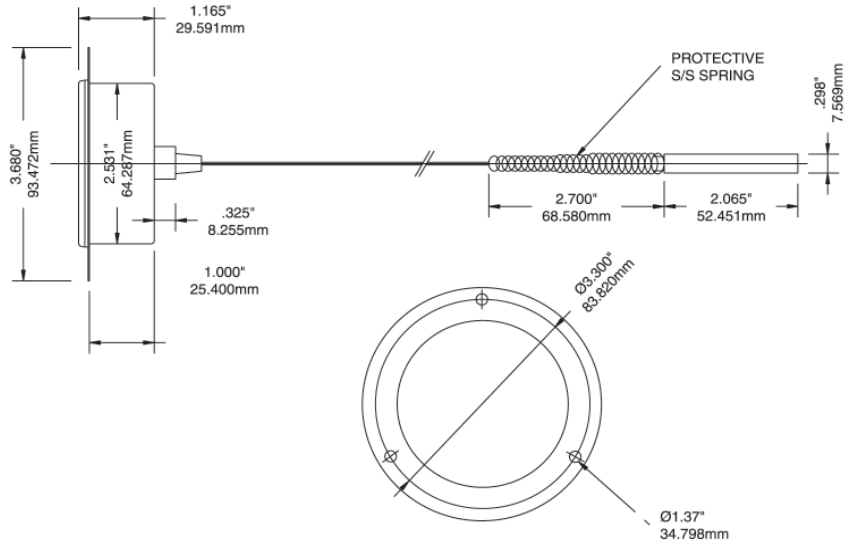
2” with Front Flange



2.5” with U-Clamp



2.5” with Front Flange



Description & Features:

- Widely specified in the industrial and commercial plumbing trade
- Includes a separable brass or lead free brass thermowell
- 3.5” (90mm) and 6” (150mm) stem
- Available in aluminum or Valox® (9”) case
- Organic filled tube (magnifying)
- Dual scale (°F & °C)
- Adjustable angle connection and 360° case rotation for easy installation
- Graphite filled bulb chamber for maximum heat conduction
- ASME B40.200 and ASTM E2511 compliant
- CAN/CGSB-14.4-M88 compliant
- ±1% accuracy
- 5 year warranty

Applications:

- New construction, plumbing, water lines, boilers, heating, ventilation and air conditioning

LEAD FREE

RoHS compliant

Note: RoHS applies only to 304 SS and 316 SS thermowells

Specifications	
Scale	9” (230mm) aluminum or Valox® case, impact resistant
Lens	Glass
Connection	3/4” NPT with thermowell 1 1/4” - 18 UNF swivel nut (no thermowell)
Scales	Aluminum, painted white with black markings
Bulb Chamber	Tapered cast aluminum with graphite fill
Tube and Sensing Liquid	Glass (magnifying), organic fluid
Adjustment	Fully adjustable
Thermowell	TIM: 3/4” Brass, separable socket (SS optional) TIM-LF: 3/4” Lead free brass, separable socket
Accuracy	±1%
Enclosure Rating	IP54

Note: For an Industrial Thermowell, please refer to the Industrial Thermowell product page

TIM Order Codes (products in bold are normally stock in North America)

	Aluminum Case		Valox® Case	
Stem	**3.5” (90mm)**	**6” (150mm)**	**3.5” (90mm)**	**6” (150mm)**
-40°F to 110°F & -40°C to 40°C	TIM101A	TIM101-6A	TIM101	TIM101-6
0°F to 120°F & -15°C to 50°C	TIM102A	TIM102-6A	TIM102	TIM102-6
0°F to 160°F & -15°C to 70°C	TIM103A	TIM103-6A	TIM103	TIM103-6
30°F to 180°F & 0°C to 80°C	TIM104A	TIM104-6A	TIM104	TIM104-6
30°F to 240°F & 0°C to 115°C	TIM100A	TIM100-6A	TIM100	TIM100-6
30°F to 300°F & 0°C to 150°C	TIM105A	TIM105-6A	TIM105	TIM105-6

Other ranges and connection sizes available upon request. Duct flange available upon request. Union connection available upon request.

Valox® is a registered trademark of the General Electric Company

Industrial 9” Thermometer, Lead Free Industrial 9” Thermometer

TIM-LF Order Codes (products in bold are normally stock in North America)

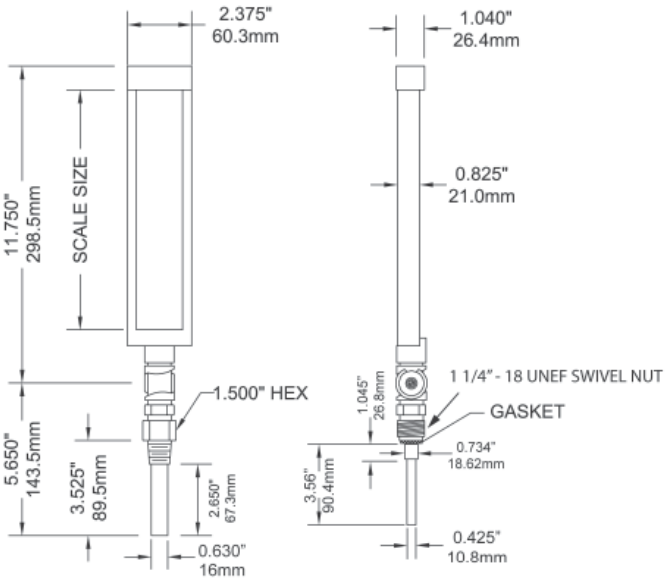
	Aluminum Case		Valox® Case	
Stem	**3.5” (90mm)**	**6” (150mm)**	**3.5” (90mm)**	**6” (150mm)**
-40°F to 110°F & -40°C to 40°C	TIM101ALF	TIM101-6ALF	TIM101LF	TIM101-6LF
0°F to 120°F & -15°C to 50°C	TIM102ALF	TIM102-6ALF	TIM102LF	TIM102-6LF
0°F to 160°F & -15°C to 70°C	TIM103ALF	TIM103-6ALF	TIM103LF	TIM103-6LF
30°F to 180°F & 0°C to 80°C	TIM104ALF	TIM104-6ALF	TIM104LF	TIM104-6LF
30°F to 240°F & 0°C to 115°C	TIM100ALF	TIM100-6ALF	TIM100LF	TIM100-6LF
30°F to 300°F & 0°C to 150°C	TIM105ALF	TIM105-6ALF	TIM105LF	TIM105-6LF

Other ranges available upon request.
Valox® is a registered trademark of the General Electric Company

TIW-LF Thermowell Order Codes (products in bold are normally stock in North America)

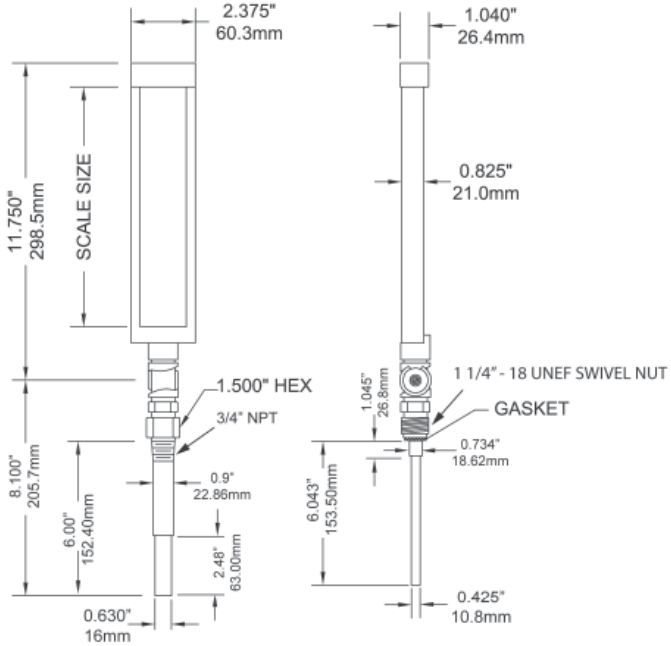
Stem Length	Overall Length	Material	Insertion Length	3/4” NPT Connection
3.5” Without Lagging	4.25" (108mm)	Lead Free Brass	2.5” (63mm)	TIW01LF
6” Without Lagging	6.75" (172mm)	Lead Free Brass	5” (127mm)	TIW04LF

3.5” Stem



With Socket Without Socket

6” Stem



With Socket Without Socket

Description & Features:

- Provides an economical and accurate method for measuring the temperature on a flat metallic surface
- 2” (50mm) dial
- Dual scale (°F & °C)
- 3 ranges available
- Easy to install
- ASME B40.200 compliant
- 5 year warranty

Applications:

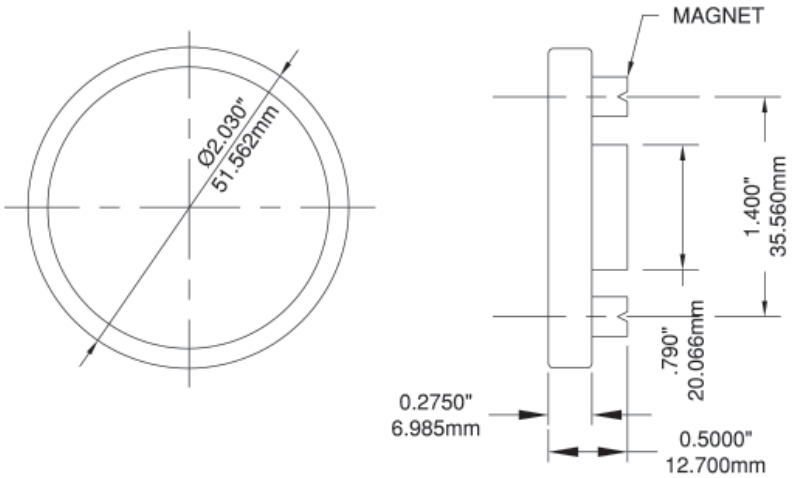
- Ductwork or motor housings

Specifications	
Dial	2” (50mm) aluminum with black and red markings
Case	Steel, painted black
Lens	Glass
Sensing Element	Bi-metallic coil
Pointer	Aluminum, painted black
Ambient/Process Temperature	Recommended maximum 75% of full scale value
Accuracy	±2% of full scale
Enclosure Rating	IP52

Order Codes (products in bold are normally stock in North America)

Range	Code
0°F to 250°F & -20°C to 120°C	TMT7412
0°F to 500°F & -15°C to 260°C	TMT7410
50°F to 750°F & 10°C to 400°C	TMT7409

Other ranges and connection sizes available upon request.



TRR Gas or Vapour Remote Reading Thermometer

Note: RoHS applies only with SS bulb, SS capillary and SS thermowell

Description & Features:

- Versatile, heavy duty gas or vapour thermometer for remote reading
- Many varieties are available from stock; special requests are built to order
- Brass or stainless steel capillary and bulbs
- Plain, sliding union or thermowell connection
- Capillary lengths over 5' available
- 1/2" bulb diameter
- Panel or direct mount
- Gas: ±1% accuracy; Vapour: ±2% accuracy
- ASME B40.200 compliant
- 5 year warranty

Applications:

- For remote temperature sensing

Specifications	
Dial	2.5" (63mm), 3.5" (90mm), 4" (100mm), 4.5" (115mm), 6" (150mm), 8.5" (215mm)
Case/Ring	2.5" (63mm): 316 SS 3.5" (90mm), 4" (100mm): Steel, painted black Others: Aluminum, painted black
Lens	2.5" (63mm) to 6" (150mm): Glass Others: Polycarbonate
Connection	Plain, Brass or 316 SS sliding union, Brass or 316 SS thermowell
Sensing Fill	Gas or vapour
Movement	Gas: 304 SS Vapour: Brass
Pointer	Aluminum, painted black
Accuracy	Gas: ±1% of full scale value Vapour: ±2% of full scale value
Bulb	6" (150mm), 1/2" diameter standard Custom sizes available

Selection Notes

Gas-filled Systems
- For industrial applications requiring accurate and uniform response over the entire range. Scale is linear
- The capillary should be located in an area that has an ambient temperature of approximately 74°F (23°C). If the temperature around the capillary is significantly higher than 74°F (23°C), the thermometer will show a reading that is higher than actual process temperature. If the capillary ambient temperature is significantly lower than 74°F (23°C), the reading will be lower than the actual process temperature

Vapour-filled Systems
- Have non-linear scales and provide economical but reliable service for most industrial applications
- To ensure accurate readings, the operating temperature should fall in the 2/3 of the scale
- Thermometer may show a temperature offset to actual temperature value when the bulb and thermometer are installed at different elevations. To avoid this, install the bulb and thermometer at the same elevation wherever possible. Offset errors only occur when the thermometer's ambient temperature is higher than the bulb temperature

Capillary Protection
- Is recommended to protect the capillary from physical damage
- Copper braided armour is used in conjunction with brass bulb
- Stainless steel armour shall be used in conjunction with 316 SS bulb

Note: Winters recommends using a stainless steel bulb and capillary for all process temperatures above 500°F (260°C)

Gas-filled Systems - Order Codes (products in bold are normally in stock)

Dial Size	2.5" (63mm)				3.5" (90mm)	
Bulb and Capillary Material	SS					
Capillary Length and Connection	5' Bottom	5' Back	10' Bottom	10' Back	5' Back	10' Back
30°F to 240°F&C	-	TRR12253050G18	-	TRR12253100G18	TRR12353050G18	TRR12353100G18
40°F to 220°F&C	TRR11253050G19	TRR12253050G19	TRR11253100G19	TRR12253100G19	TRR12353050G19	TRR12353100G19
80°F to 300°F&C	TRR11253050G20	TRR12253050G20	TRR11253100G20	TRR12253100G20	TRR12353050G20	TRR12353100G20
100°F to 400°F&C	TRR11253050G21	TRR12253050G21	TRR11253100G21	TRR12253100G21	TRR12353050G21	TRR12353100G21
100°F to 500°F&C	TRR11253050G22	-	TRR11253100G22	-	-	-

Dial Size	4" (100mm)			
Bulb and Capillary Material	SS			
Capillary Length and Connection	5' Bottom	5' Back	10' Bottom	10' Back
30°F to 240°F&C	-	TRR12403050G18	-	TRR12403100G18
40°F to 220°F&C	TRR11403050G19	TRR12403050G19	TRR11403100G19	TRR12403100G19
80°F to 300°F&C	TRR11403050G20	TRR12403050G20	TRR11403100G20	TRR12403100G20
100°F to 400°F&C	TRR11403050G21	TRR12403050G21	TRR11403100G21	TRR12403100G21
100°F to 500°F&C	TRR11403050G22	-	TRR11403100G22	-

Dial Size	4.5" (115mm)			
Bulb and Capillary Material	SS			
Capillary Length and Connection	5' Bottom	5' Back	10' Bottom	10' Back
30°F to 240°F&C	-	TRR12453050G18	-	TRR12453100G18
40°F to 220°F&C	TRR11453050G19	TRR12453050G19	TRR11453100G19	TRR12453100G19
80°F to 300°F&C	TRR11453050G20	TRR12453050G20	TRR11453100G20	TRR12453100G20
100°F to 400°F&C	TRR11453050G21	TRR12453050G21	TRR11453100G21	TRR12453100G21
100°F to 500°F&C	TRR11453050G22	-	TRR11453100G22	-

Gas-filled Systems - Order Codes (products in bold are normally in stock)

Dial Size	6" (150mm)			
Bulb and Capillary Material	SS			
Capillary Length and Connection	5' Bottom	5' Back	10' Bottom	10' Back
30°F to 240°F&C	-	TRR12603050G18	-	TRR12603100G18
40°F to 220°F&C	TRR11603050G19	TRR12603050G19	TRR11603100G19	TRR12603100G19
80°F to 300°F&C	TRR11603050G20	TRR12603050G20	TRR11603100G20	TRR12603100G20
100°F to 400°F&C	TRR11603050G21	TRR12603050G21	TRR11603100G21	TRR12603100G21
100°F to 500°F&C	TRR11603050G22	-	TRR11603100G22	-

Vapour-filled Systems - Order Codes (products in bold are normally in stock)

Dial Size	2.5" (63mm)				3.5" (90mm)	
Bulb and Capillary Material	Brass and Copper					
Capillary Length and Connection	5' Bottom	5' Back	10' Bottom	10' Back	5' Back	10' Back
-40°F to 110°F&C	TRR31251050V9	-	-	-	-	-
0°F to 180°F&C	TRR31251050V11	TRR32251050V11	TRR31251100V11	-	TRR32351050V11	TRR32351100V11
20°F to 220°F&C	-	TRR32251050V12	TRR31251100V12	-	TRR32351050V12	-
50°F to 250°F&C	TRR31251050V13	-	TRR31251100V13	TRR32251100V13	TRR32351050V13	TRR32351100V13
100°F to 350°F&C	TRR31251050V15	TRR32251050V15	TRR31251100V15	TRR32251100V15	TRR32351050V15	TRR32351100V15

Dial Size	4" (100mm)			
Bulb and Capillary Material	Brass and Copper			
Capillary Length and Connection	5' Bottom	5' Back	10' Bottom	10' Back
0°F to 180°F&C	TRR31401050V11	TRR32401050V11	TRR31401100V11	TRR32401100V11
20°F to 220°F&C	TRR31401050V12	TRR32401050V12	TRR31401100V12	TRR32401100V12
50°F to 250°F&C	TRR31401050V13	TRR32401050V13	TRR31401100V13	TRR32401100V13
100°F to 350°F&C	TRR31401050V15	TRR32401050V15	TRR31401100V15	TRR32401100V15

Dial Size	4.5" (115mm)			
Bulb and Capillary Material	Brass and Copper			
Capillary Length and Connection	5' Bottom	5' Back	10' Bottom	10' Back
0°F to 180°F&C	TRR31451050V11	TRR32451050V11	TRR31451100V11	TRR32451100V11
20°F to 220°F&C	TRR31451050V12	TRR32451050V12	TRR31451100V12	TRR32451100V12
50°F to 250°F&C	TRR31451050V13	TRR32451050V13	TRR31451100V13	TRR32451100V13
100°F to 350°F&C	TRR31451050V15	TRR32451050V15	TRR31451100V15	TRR32451100V15

Dial Size	6" (150mm)			
Bulb and Capillary Material	Brass and Copper			
Capillary Length and Connection	5' Bottom	5' Back	10' Bottom	10' Back
0°F to 180°F&C	TRR31601050V11	TRR32601050V11	TRR31601100V11	TRR32601100V11
20°F to 220°F&C	TRR31601050V12	TRR32601050V12	TRR31601100V12	TRR32601100V12
50°F to 250°F&C	TRR31601050V13	TRR32601050V13	TRR31601100V13	TRR32601100V13
100°F to 350°F&C	TRR31601050V15	TRR32601050V15	TRR31601100V15	TRR32601100V15

Built-to-Order Codes

Specify the code for each section and the range:
e.g. TRR3 - 2 - 35 - 1 - 05 - 1 - 50/250°F
(Section I - II - III - IV - V - VI - range)

TRR's are made to order in 4-6 weeks. For stocked TRR's see the previous page

Section	Code	Description Type
I	TRR1	Gas Remote Reading
	TRR2	Gas Direct Reading
	TRR3	Vapour Remote Reading
	TRR4	Vapour Direct Reading
II	Case Type, Connection	
	1	Bottom connection, back flange
	2	Back connection, front flange
	3	Back connection, back flange
	4	Vari-angle connection, (Direct reading only)
III	Dial Size	
	25	2.5" (63mm)
	35	3.5" (90mm) Back connection only
	40	4" (100mm)
	45	4.5" (115mm)
	60	6" (150mm)
	85	8.5" (215mm)

Section	Code	Description Bulb and Capillary			
		Bulb Dimensions	Bulb Material	Capillary Material	Capillary Protection
IV	1	6" (150mm) OAL, 1/2" OD	Brass	Copper	Copper Dbl Braided
	2	6" (150mm) OAL, 1/2" OD	316 SS	316 SS	None
	3	6" (150mm) OAL, 1/2" OD	316 SS	316 SS	SS Armour
V	Capillary Length (ft)				
	05	05			
	10	10			
	30	30			
	XX	XX			
VI	Connection				
	0	None			
	1	1/2" NPT brass sliding union			
	2	1/2" NPT SS sliding union			
	3	3/4" NPT brass sliding union			
	4	3/4" NPT SS sliding union			
	5	1/2" NPT brass thermowell			
	6	1/2" NPT SS thermowell			
	7	3/4" NPT brass thermowell			
	8	3/4" NPT SS thermowell			
	Z	Custom connection			

Ranges	°F only	°F & °C	°C only
Gas Ranges	-40°F to 110°F	-40°F to 110°F & -40°C to 40°C	-40°C to 40°C
	-20°F to 120°F	-20°F to 120°F & -28°C to 48°C	-28°C to 48°C
	30°F to 150°F	30°F to 150°F & 0°C to 65°C	0°C to 65°C
	0°F to 180°F	0°F to 180°F & -20°C to 80°C	-20°C to 80°C
	30°F to 240°F	30°F to 240°F & 0°C to 115°C	0°C to 115°C
	40°F to 220°F	40°F to 220°F & 5°C to 105°C	5°C to 105°C
	80°F to 300°F	80°F to 300°F & 30°C to 150°C	30°C to 150°C
	100°F to 400°F*	100°F to 400°F* & 40°C to 200°C*	40°C to 200°C
	100°F to 500°F*	100°F to 500°F* & 40°C to 260°C*	40°C to 260°C
	0°F to 600°F*	0°F to 600°F* & -20°C to 320°C*	-20°C to 320°C
	200°F to 1,000°F*	200°F to 1,000°F* & 90°C to 540°C*	90°C to 540°C
Vapour Ranges	-40°F to 110°F	-40°F to 110°F & -40°C to 40°C	-40°C to 40°C
	0°F to 100°F	0°F to 100°F & -20°C to 38°C	-20°C to 38°C
	0°F to 180°F	0°F to 180°F & -20°C to 80°C	-20°C to 80°C
	20°F to 220°F	20°F to 220°F & 0°C to 100°C	0°C to 100°C
	50°F to 250°F	50°F to 250°F & 10°C to 120°C	10°C to 120°C
	100°F to 350°F	100°F to 350°F & 40°C to 175°C	40°C to 175°C
	200°F to 450°F	200°F to 450°F & 100°C to 230°C	100°C to 230°C

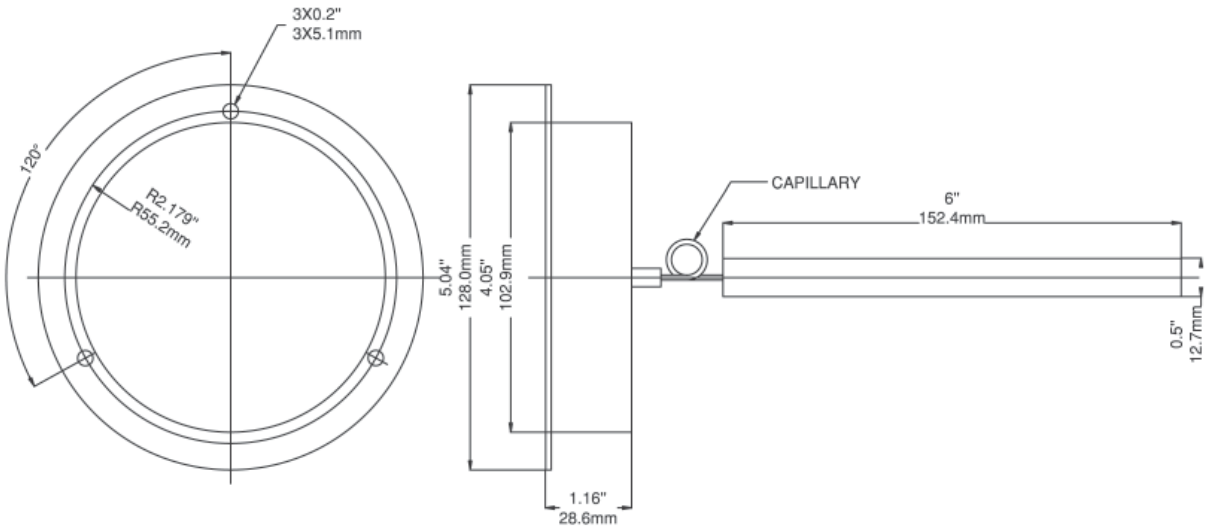
*Ranges require stainless steel capillary and bulb

Please contact us for:

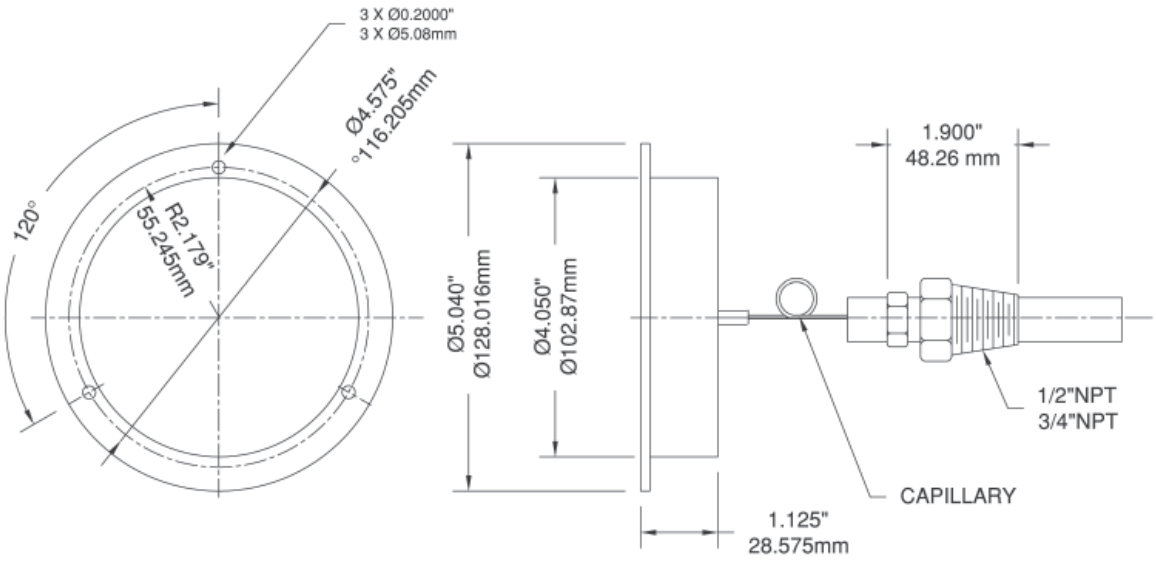
Duct flanges, sliding union, various bulb dimensions, averaging bulb (gas only), other ranges, stainless steel 4" (100mm) and 6" (150mm) cases and capillary available on gas remote/direct reading models

Note: The use of a thermowell is recommended to protect the thermometer in corrosive or pressure applications, as well as to maintain a closed system during its removal from the process.

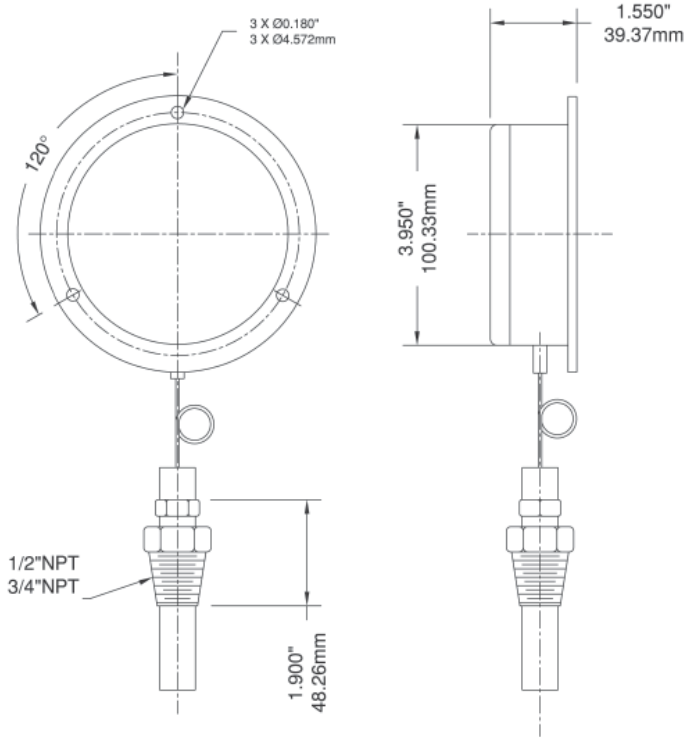
4” Back Connection, Front Flange, Plain Bulb



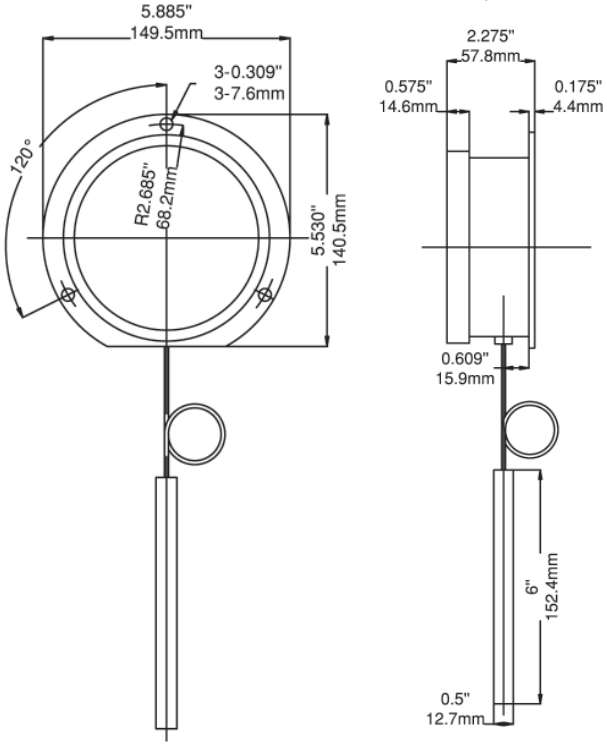
4” Back Connection, Front Flange, Sliding Union



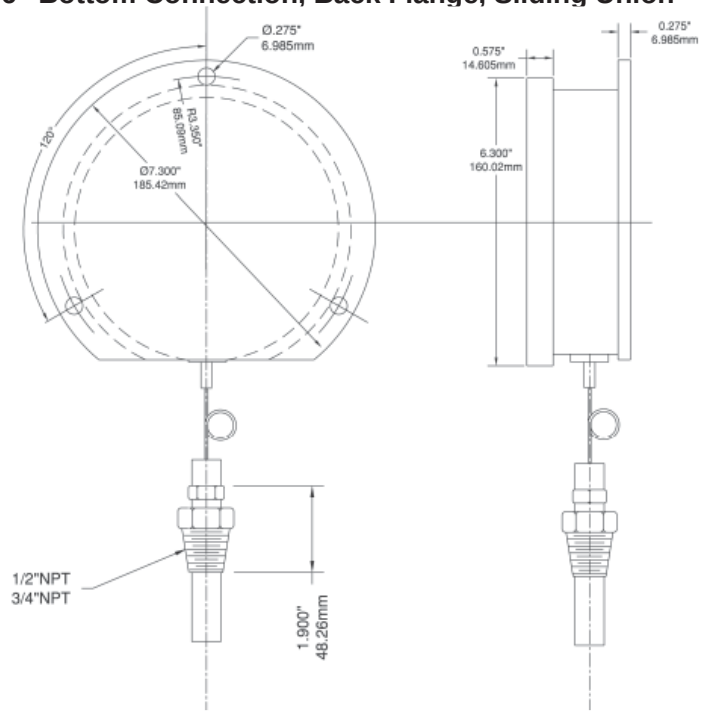
4” Bottom Connection, Back Flange, Sliding Union



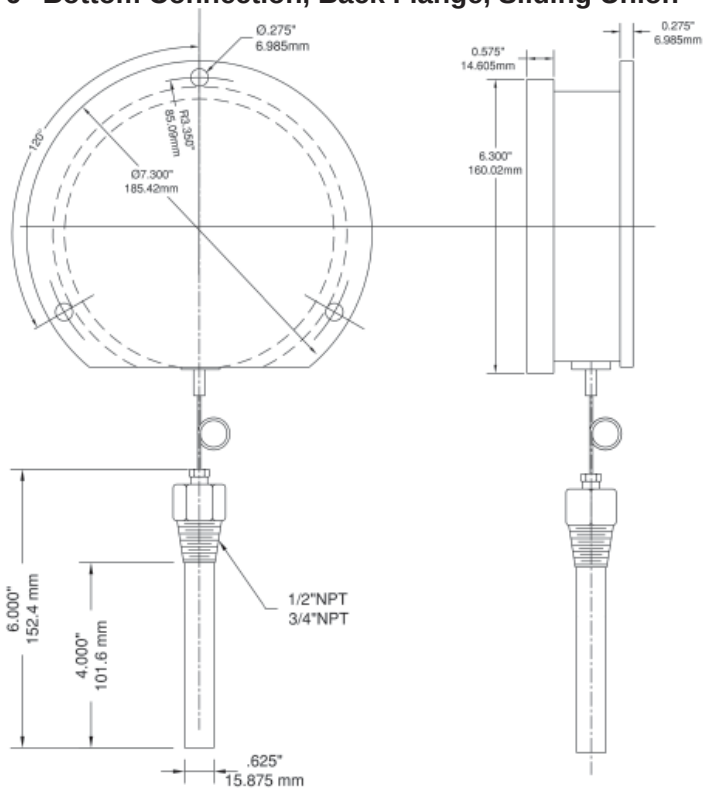
4.5” Bottom Connection. Back Flange. Plain Bulb



6” Bottom Connection, Back Flange, Sliding Union



6” Bottom Connection, Back Flange, Sliding Union



TSD Industrial Solar Digital Thermometer

Note: RoHS applies only with SS TIW thermowell

Description & Features:

- A versatile thermometer that provides a solar powered digital read out commonly used in the industrial and commercial plumbing trade
- Low light compatible (16 Lux minimum)
- Includes a separable thermowell
- Durable ABS case
- Switchable temperature scale (°F or °C)
- Adjustable angle connection for easy installation
- ±1% accuracy
- ASME B40.200 compliant
- 5 year warranty

Applications:

- New construction, plumbing, water lines, boilers, heating, ventilation and air conditioning

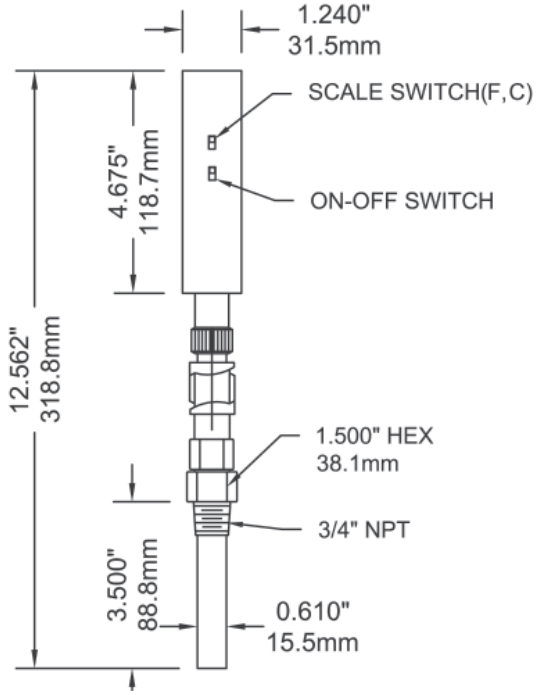
Specifications	
Display	2.55” x 4.67” (63.7mm x 116.7mm) solar powered display
Housing	High impact ABS plastic housing with aluminum movable parts
Lux Rating	16 Lux
Sensing Element	Liquid
Stem Length	3.5” (90mm), 6” (150mm)
Connection / Thermowell	3/4” NPT, with brass thermowell standard, (SS optional) 1-1/4” UNF swivel nut (without thermowell)
Temperature Range	-50°F to 320°F (-45°C to 160°C)
Read Interval	Every 6 seconds
Ambient Temperature	14°F to 150°F (-10°C to 65°C)
Process Temperature	-50°F to 320°F (-45°C to 160°C)
Accuracy	±1%
Enclosure Rating	NEMA 5 / IP54

Order Codes (products in bold are normally stock in North America)

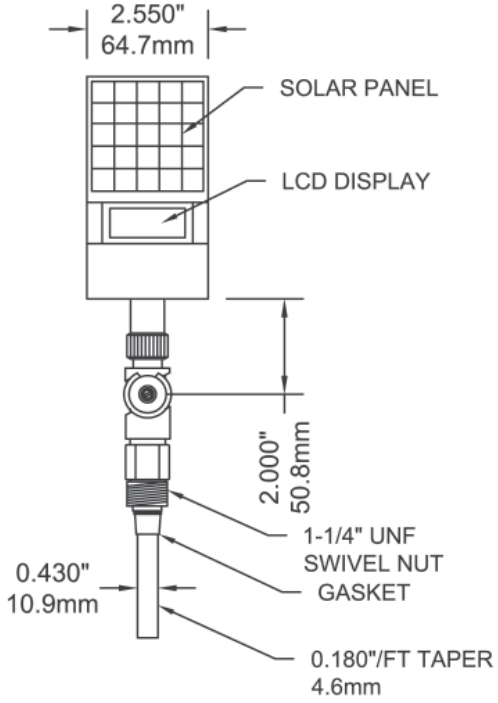
Stem/Ranges	Code (Includes Thermowell)
3.5” (90mm) Stem (-50°F to 320°F or -45°C to 160°C)	TSD9ITSD
6” (150mm) Stem (-50°F to 320°F or -45°C to 160°C)	TSD9ITSD6

Other ranges and connection sizes available upon request. Duct flange and union connection available upon request. 6” (150mm) stem available. For an Industrial Thermowell, please refer to the Industrial Thermowell product page.

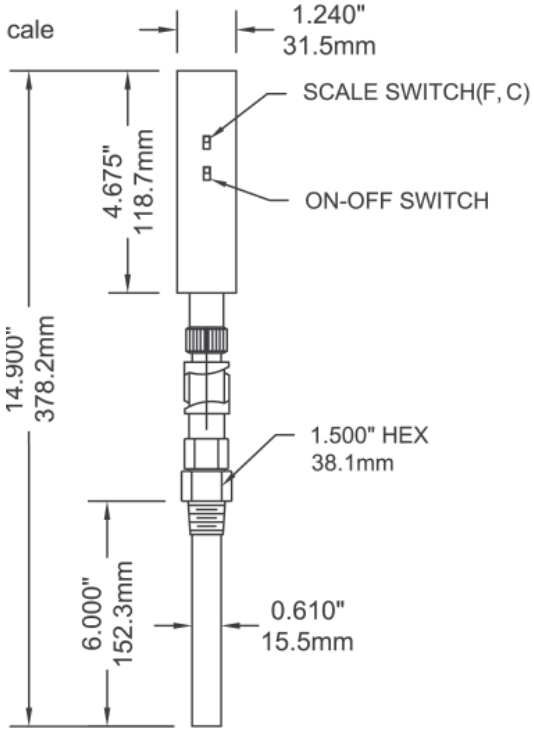
3.5” Stem with Thermowell



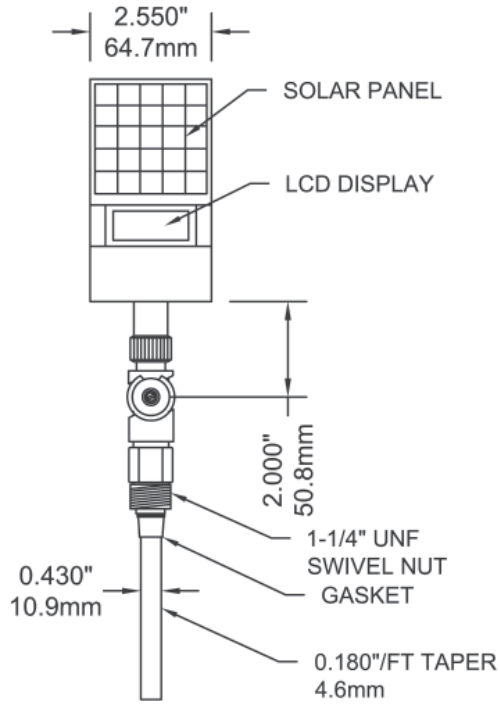
3.5” Stem without Thermowell



6” Stem with Thermowell



6” Stem without Thermowell



TSW, TSW-LF

Hot Water Thermometer, Lead Free Hot Water Thermometer

Dial Type

Scale Type

Description & Features:

- An economical and accurate way to measure air or water temperatures
- Separable brass or lead free brass thermowell
- Bi-metallic element (dial type only)
- Dual scale (°F & °C)
- Dial type or vertical scale type
- Easy to install
- 1/2” NPT process connection
- ASME B40.200 compliant
- 5 year warranty

Applications:

- Hot water lines, boilers and hydronic heating

Dial Type Specifications	
Dial	2” (50mm), 2.5” (63mm) aluminum, painted white with black and red markings
Case	Aluminum
Lens	Glass
Ring	Steel, chrome plated
Thermowell	TSW: Brass (HPB59-1), 1/2” NPT standard, separable TSW-LF: Lead free brass, 1/2” NPT standard, separable
Stem	Brass
Sensing Element	Bi-metallic element
Pointer	Aluminum, painted black
Recalibrator	Standard
Accuracy	±1%

Scale Type Specifications	
Scale/Case	8” (200mm) scale with steel case, painted white with black markings
Tube	#N-16 glass
Sensing Liquid	Organic fluid
Thermowell	TSW: Brass (HPB59-1), 1/2” NPT standard, separable TSW-LF: Lead free brass, 1/2” NPT standard, separable
Accuracy	±1%

TSW Dial Order Codes (products in bold are normally stock in North America)

Dial	Range	Connection	Code
2” (50mm)	30°F to 250°F & 0°C to 120°C	1/2” NPT centre back	TSW174-2
2.5” (63mm)	30°F to 250°F & 0°C to 120°C	1/2” NPT centre back	TSW174
		3/4” Sweatwell	TSW174-SW

Other ranges, stem lengths, dial and connection sizes available upon request.

TSW Scale Order Codes (products in bold are normally stock in North America)

Scale	Range	Connection	Code
8” (200mm)	40°F to 280°F & 5°C to 135°C	Straight	TSW172
		Angle	TSW173

Other ranges and connection sizes available upon request.

TSW-LF Dial Order Codes (products in bold are normally stock in North America)

Dial	Range	Connection	Code
2" (50mm)	30°F to 250°F & 0°C to 120°C	1/2" NPT centre back	TSW174-2LF
2.5" (63mm)	30°F to 250°F & 0°C to 120°C	1/2" NPT centre back	TSW174LF
		3/4" Sweatwell	TSW174-SWLF

Other ranges, stem lengths, dial and connection sizes available upon request.

TSW-LF Scale Order Codes (products in bold are normally stock in North America)

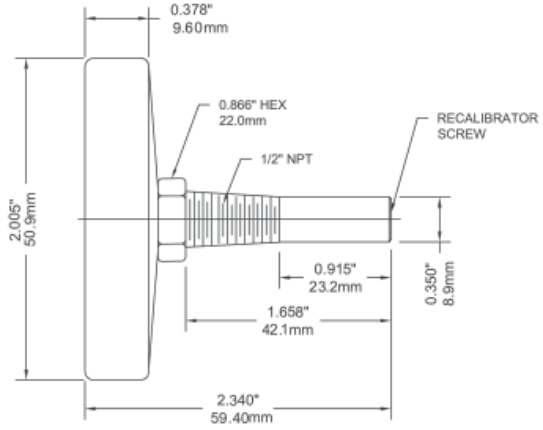
Scale	Range	Connection	Code
8" (200mm)	40°F to 280°F & 5°C to 135°C	Straight	TSW172LF
		Angle	TSW173LF

Other ranges and connection sizes available upon request.

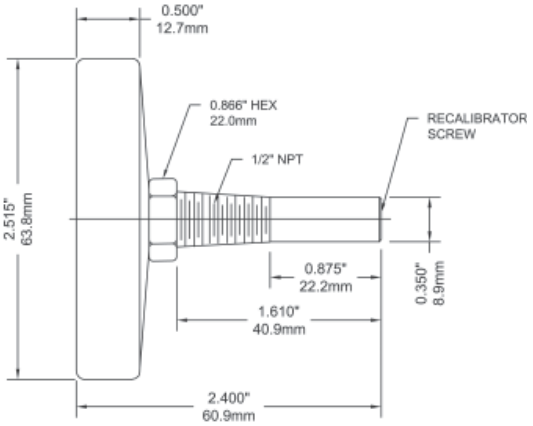
Thermowell Order Codes (products in bold are normally stock in North America)

Connection	Material	Code
1/2" NPT (for TSW174-2)	Lead Free Brass	TSW45LF
1/2" NPT (for TSW174)	Lead Free Brass	TSW65LF
1/2" NPT (for TSW174-SW)	Lead Free Brass	TSW85LF
1/2" NPT (for TSW172 & TSW173)	Lead Free Brass	TSW25LF

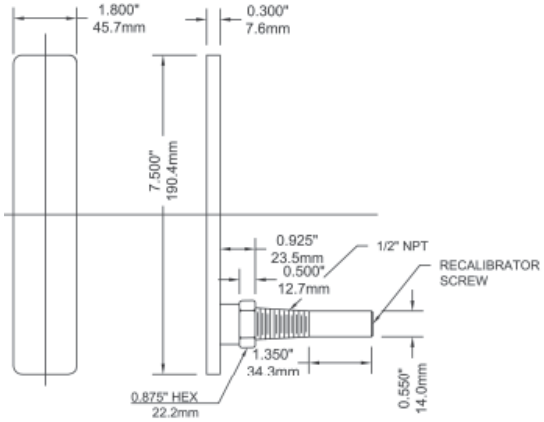
2" Dial Type



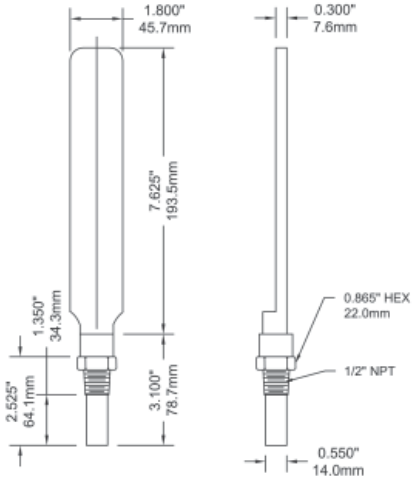
2.5" Dial Type



Scale Type



Back Connection



Bottom Connection

TTD Tridicator

Optional Thermowell

Description & Features:

- Measures both pressure and temperature on the same dial
- 2.5” (63mm) and 3” (75mm) dials
- Dual scale (°F & °C)
- Back or bottom connection
- Brass wetted parts
- 1” (25mm), 2” (50mm) and 2.5” (63mm) stems
- Multiple pressure and temperature ranges available
- Ranges are compliant to industry standard ASME Boiler Code Section IV HG-612
- 5 year warranty

Applications:

- Hot water and steam pressure for boilers

Specifications	
Dial	2.5” (63mm), 3” (75mm) aluminum, painted white
Case	Steel, painted black
Lens	2.5” (63mm): Acrylic, threaded 3” (75mm): Glass
Ring	3” (75mm): Chrome
Stem	Brass
Socket	Brass
Tube	Phosphor bronze
Movement	Brass and phosphor bronze
Sensing Element	Temperature: Bi-metallic coil Pressure: Bourdon tube
Pointer	Aluminum, anodized black
Welding	Tin-alloy solder
Pressure Limit	75% of full scale range
Ambient Temperature	23°F to 122°F (-5°C to 50°C)
Process Temperature	75% of full scale range
Accuracy	Pressure: ±3-2-3% Temperature: ±3% of full scale
Enclosure Rating	IP50

Order Codes (products in bold are normally stock in North America)

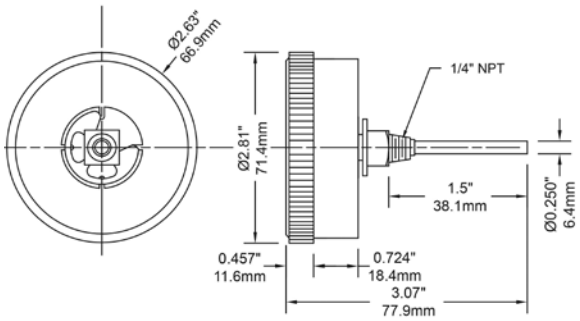
Range	Dial	Connection	Stem Length	Code
0-75psi/kPa, 70°F to 320°F & 20°C to 160°C	2.5” (63mm)	1/4” NPT, Back	1” (25mm)	TTD410
0-75psi/kPa, 70°F to 320°F & 20°C to 160°C	2.5” (63mm)	1/4” NPT, Extension Back	2” (50mm)	TTD401
0-75psi/kPa, 70°F to 320°F & 20°C to 160°C	2.5” (63mm)	1/4” NPT, Back	2” (50mm)	TTD404
0-75psi/kPa, 70°F to 320°F & 20°C to 160°C	3” (75mm)	1/2” NPT, Bottom	2.5” (63mm)	TTD403
0-75psi/kPa, 70°F to 320°F & 20°C to 160°C	3” (75mm)	1/2” NPT, Back	2.5” (63mm)	TTD402
0-100psi/kPa, 70°F to 320°F & 20°C to 160°C	3” (75mm)	1/2” NPT, Bottom	2.5” (63mm)	TTD409
0-100psi/kPa, 70°F to 320°F & 20°C to 160°C	3” (75mm)	1/2” NPT, Back	2.5” (63mm)	TTD408
0-200psi/kPa, 70°F to 320°F & 20°C to 160°C	3” (75mm)	1/2” NPT, Bottom	2.5” (63mm)	TTD405
0-200psi/kPa, 70°F to 320°F & 20°C to 160°C	3” (75mm)	1/2” NPT, Back	2.5” (63mm)	TTD407
0-250psi/kPa, 70°F to 320°F & 20°C to 160°C	3” (75mm)	1/2” NPT, Bottom	2.5” (63mm)	TTD399
0-250psi/kPa, 70°F to 320°F & 20°C to 160°C	3” (75mm)	1/2” NPT, Back	2.5” (63mm)	TTD398

Other ranges, stem lengths, dial and connection sizes available upon request.

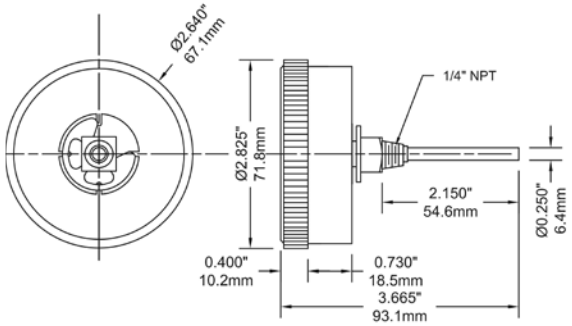
Option suffix:

TST025 = 1/4” brass thermowell
TST050 = 1/2” brass thermowell

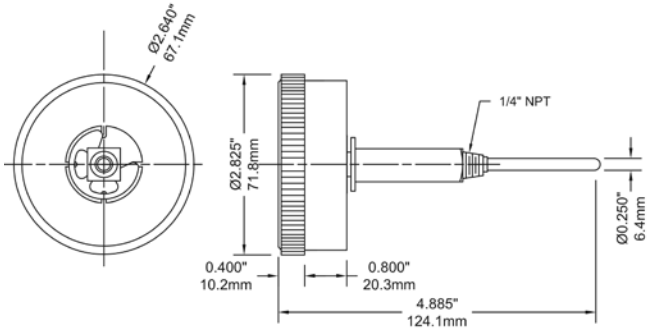
2.5” Back Connection, 1” Stem



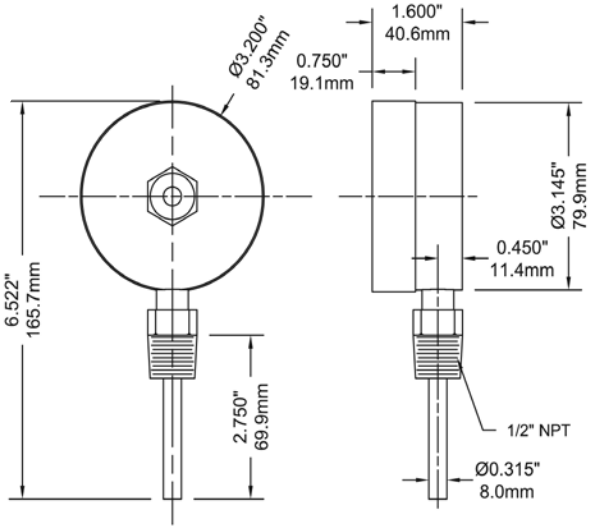
2.5” Back Connection



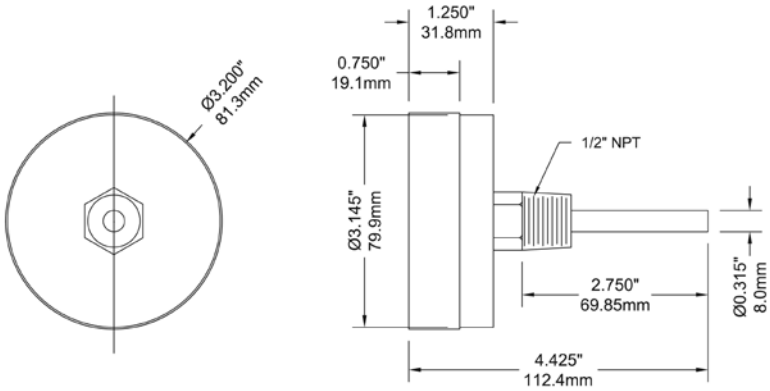
2.5” Extension Back Connection



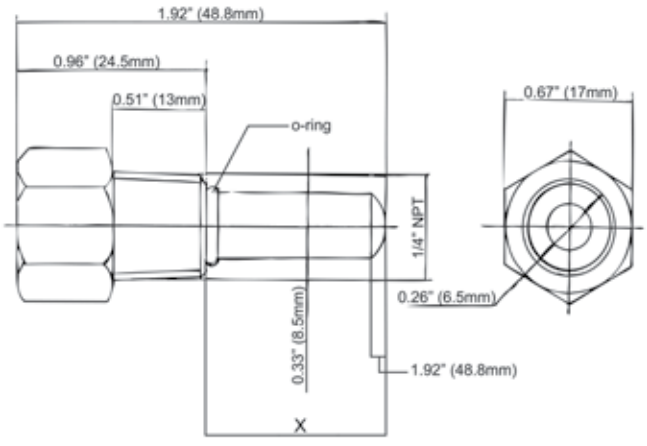
3” Bottom Connection



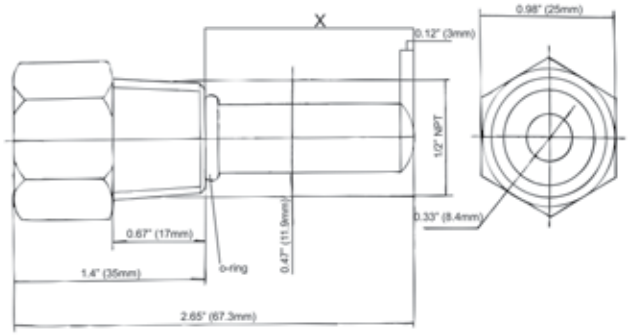
3” Back Connection



1/4” TST025



1/2” TST050



TBR Bi-Metal Threaded Thermowell

RoHS compliant

RoHS applies only to 304 SS and 316 SS thermowells

Description & Features:

- Available in a wide range of materials for use on most applications
- Standard “stepped construction” offering is complemented by an array of custom thermowells including: straight, tapered, sanitary and flanged configurations
- CRN registered
- 1 year warranty

Applications:

- Allows for the creation of a “sealed system”, whereby the thermometer can be removed from the application without the need for shutting down or draining the system
- To protect the thermometer from possible exposure to the process media

Specifications	
Thermometer Connection	1/2” NPTF connection standard Other thread sizes are available upon request
Process Connection	3/4”, 1/2” or 1” NPT connection standard Other thread sizes are available upon request
Bore	0.260” (6.5mm) bore standard
Construction	Stepped construction standard Tapered construction available upon request
Material	Brass, 304 SS, 316 SS standard Other materials available upon request

Material	Pressure - Temperature Rating (PSI)						
	70°F (21°C)	200°F (93°C)	400°F (204°C)	600°F (316°C)	800°F (427°C)	1,000°F (538°C)	1,200°F (649°C)
Brass	5,000	4,200	1,000	-	-	-	-
304 SS	7,000	6,200	5,600	5,400	5,200	4,500	1,650
316 SS	7,000	7,000	6,400	6,200	6,100	5,100	2,500

Note: For process media velocities above 10m/s (30 feet/s) contact Winters

Order Codes (Thermowells without lag. Products in bold are normally stock in North America)

Stem Length A	NPT Connection P	Material	Code	Standard Insertion Length U	Shank Diameter
2.5" (63mm)	1/2"	Brass	TBR2550	1-3/8" (35mm)	1/2" (12.5mm
		304 SS	TBR2550-1		
		316 SS	TBR2550-2		
	3/4"	Brass	TBR25		
		304 SS	TBR25-1		
		316 SS	TBR25-2		
4" (100mm)	1/2"	Brass	TBR3550	2.5" (63mm)	1/2" (12.5mm)
		304 SS	TBR3550-1		
		316 SS	TBR3550-2		
	3/4"	Brass	TBR35		
		304 SS	TBR35-1		
		316 SS	TBR35-2		
	1"	Brass	TBR35100		
		304 SS	TBR35100-1		
		316 SS	TBR35100-2		
6" (150mm)	1/2"	Brass	TBR650	4.5" (115mm)	5/8" (16mm)
		304 SS	TBR650-1		
		316 SS	TBR650-2		
	3/4"	Brass	TBR6		3/4" (19mm)
		304 SS	TBR6-1		
		316 SS	TBR6-2		
	1"	Brass	TBR6100		7/8" (22mm)
		304 SS	TBR6100-1		
		316 SS	TBR6100-2		
9" (229mm)	1/2"	Brass	TBR950	7.5" (190mm)	5/8" (16mm)
		304 SS	TBR950-1		
		316 SS	TBR950-2		
	3/4"	Brass	TBR9		3/4" (19mm)
		304 SS	TBR9-1		
		316 SS	TBR9-2		
	1"	Brass	TBR9100		7/8" (22mm)
		304 SS	TBR9100-1		
		316 SS	TBR9100-2		
12" (305mm)	1/2"	Brass	TBR1250	10.5" (266mm)	5/8" (16mm)
		304 SS	TBR1250-1		
		316 SS	TBR1250-2		
	3/4"	Brass	TBR12		3/4" (19mm)
		304 SS	TBR12-1		
		316 SS	TBR12-2		
	1"	Brass	TBR12100		7/8" (22mm)
		304 SS	TBR12100-1		
		316 SS	TBR12100-2		
15" (370mm)	3/4"	Brass	TBR15	13" (330mm)	3/4" (19mm)
		304 SS	TBR15-1		
		316 SS	TBR15-2		

Order Codes (Thermowells with lag.)

Stem Length A	NPT Connection P	Material	Code	Standard Insertion Length U	Lag Length T	Shank Diameter
6" (150mm)	1/2"	Brass	TBRN650	2.5" (63mm)	2" (50mm)	1/2" (12.5mm)
		304 SS	TBRN650-1			
		316 SS	TBRN650-2			
	3/4"	Brass	TBRN6			
		304 SS	TBRN6-1			
		316 SS	TBRN6-2			
	1"	Brass	TBRN6100			
		304 SS	TBRN6100-1			
		316 SS	TBRN6100-2			
9" (229mm)	1/2"	Brass	TBRN950	4.5" (115mm)	3" (75mm)	5/8" (16mm)
		304 SS	TBRN950-1			
		316 SS	TBRN950-2			
	3/4"	Brass	TBRN9			3/4" (19mm)
		304 SS	TBRN9-1			
		316 SS	TBRN9-2			
	1"	Brass	TBRN9100			7/8" (22mm)
		304 SS	TBRN9100-1			
		316 SS	TBRN9100-2			
12" (305mm)	1/2"	Brass	TBRN1250	7.5" (190mm)		5/8" (16mm)
		304 SS	TBRN1250-1			
		316 SS	TBRN1250-2			
	3/4"	Brass	TBRN12			3/4" (19mm)
		304 SS	TBRN12-1			
		316 SS	TBRN12-2			
	1"	Brass	TBRN1210			7/8" (22mm)
		304 SS	TBRN1210-1			
		316 SS	TBRN1210-2			

Other configurations available. 1/4" NPT thermometer connection available. BSP threads available upon request. Tapered construction available upon request. Other lengths available up to 48" (welded construction only). Other materials such as Monel®, Inconel®, Hastelloy® C and Titanium are available upon request.

Note: Standard well is stepped as shown to 0.5" OD except U=2.5". Straight shank supplied as an option. Specify additional lagging extensions as needed

Option suffix:
SCK = Socket Conversion Kit
W60 = Brass cap and chain (1/2")
W60-1 = Stainless steel cap and chain (1/2")

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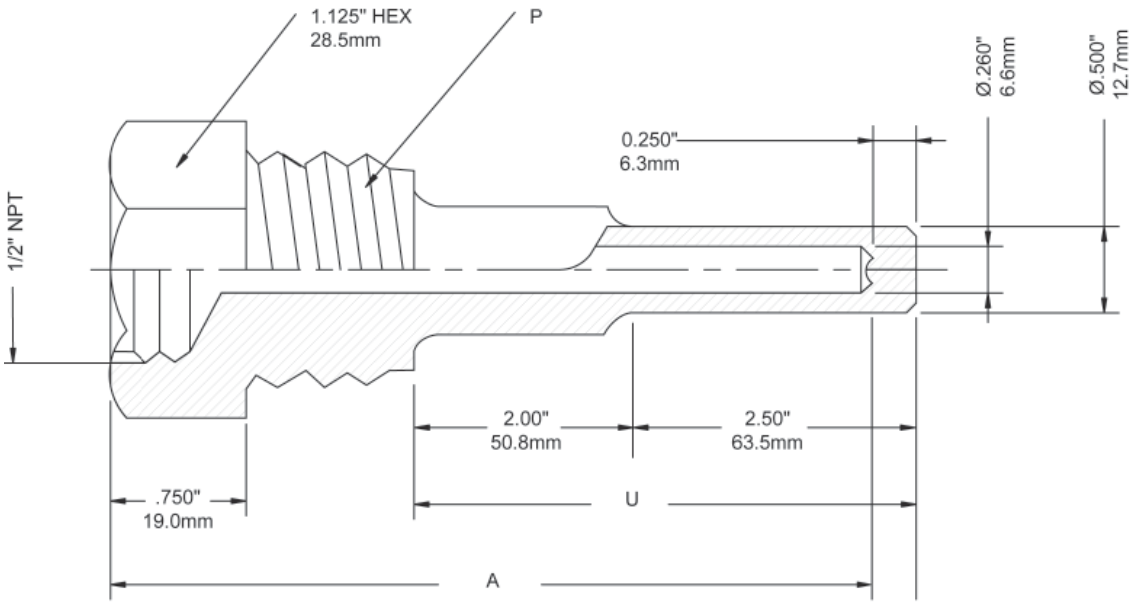
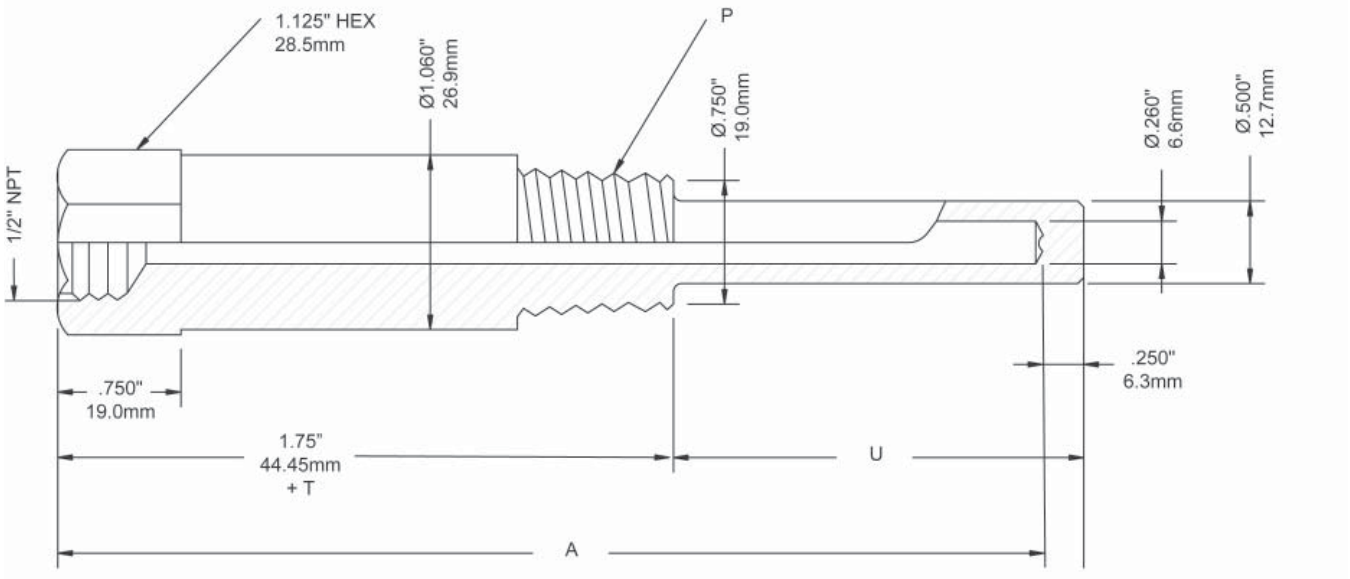
Inconel® is a registered trademark of Special Metals Corporation
Monel® is a registered trademark of Inco Alloys International

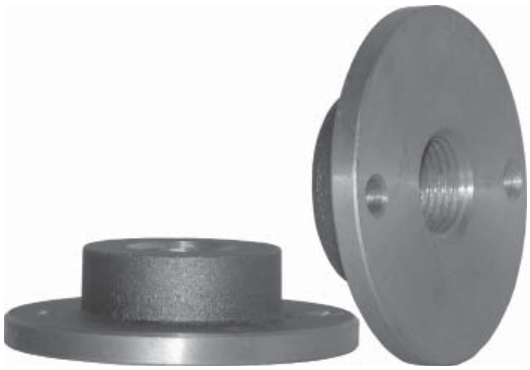
Standard Thermowell without lag



Standard Thermowell with lag



TDF Duct Flange



Description & Features:

- Ideal for ventilation installations
- Lightweight aluminum construction for durable mounting
- Instrument connections available for both TIM and TBM thermometers
- 304 SS and 316 SS options available

Applications:

- Specially designed for heating and air conditioning ventilation systems in residential and commercial buildings and industrial plants

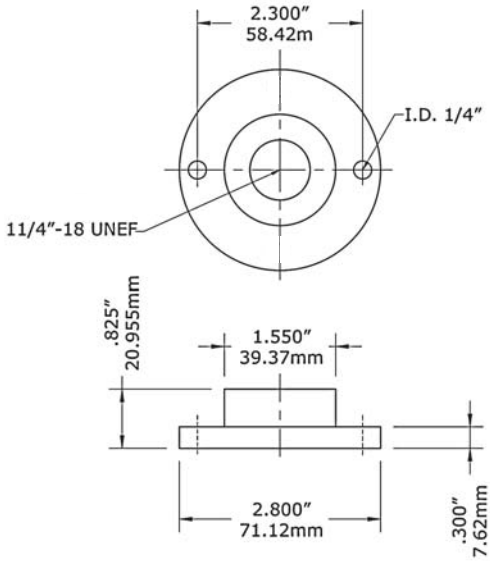
Specifications	
Material	Aluminum
Thermometer Connection	1-1/4”-18 UNEF or 1/2” NPTF

Order Codes

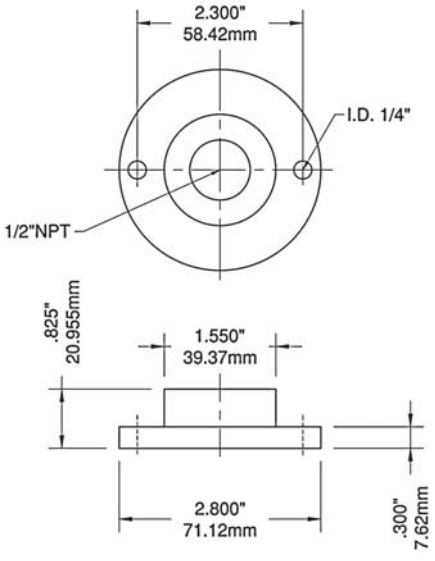
Thermometer	Thermometer Connection	Thermometer	Code
TIM Series	1-1/4”-18 UNEF	2 hole	TDF100
TBM Series	1/2” NPT		TDF200

3 or 4 hole options available.

TDF100



TDF200



Description & Features:

- Designed for use with all 9” (230mm) industrial thermometers to create a “sealed system”
- Allows the easy replacement of thermometers without the need to shut down or drain the system
- CAN/CGSB-14.4-M88 compliant
- CRN registered
- 1 year warranty

Applications:

- HVAC, pipes, chill water and hot water lines

LEAD FREE

RoHS compliant

Note: RoHS applies only to 304 SS and 316 SS thermowells

Specifications	
Material	TIW: Brass, AISI 304 SS, AISI 316 SS TIW-LF: Lead free brass
Bore Diameter	7/16” tapered
Form	Stepped standard, straight available
Thermometer Connection	1-1/4” UNF
Process Connection	3/4” NPTM standard

TIW Thermowell Order Codes (products in bold are normally stock in North America)

Stem Length	Overall Length	Material	Insertion Length	Lagging Extension	1/2” NPT Connection	3/4” NPT Connection
3.5” Without Lagging	4.25" (108mm)	Brass	2.5” (63mm)	-	-	TIW01
		304 SS			-	TIW01-1
		316 SS			-	TIW01-2
3.5” With Lagging	4.25" (108mm)	Brass	1.75” (44mm)	1” (25mm)	TIW02	TIW03
		304 SS			TIW02-1	TIW03-1
		316 SS			TIW02-2	TIW03-2
6” Without Lagging	6.75" (172mm)	Brass	5” (127mm)	-	-	TIW04
		304 SS			-	TIW04-1
		316 SS			-	TIW04-2
6” With Lagging	6.75" (172mm)	Brass	2.5” (63mm)	2.5” (63mm)	-	TIW07
		304 SS			-	TIW07-1
		316 SS			-	TIW07-2

TIW-LF Thermowell Order Codes (products in bold are normally stock in North America)

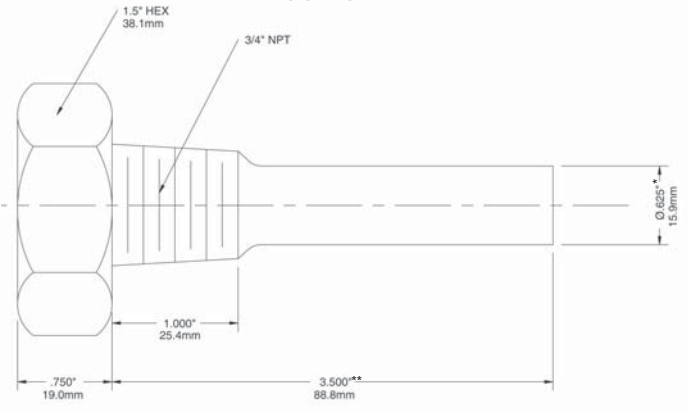
Stem Length	Overall Length	Material	Insertion Length	Lagging Extension	3/4” NPT Connection
3.5” Without Lagging	4.25" (108mm)	Lead Free Brass	2.5” (63mm)	-	TIW01LF
3.5” With Lagging		Lead Free Brass	1.75” (44mm)	1” (25mm)	TIW03LF
6” Without Lagging	6.75" (172mm)	Lead Free Brass	5” (127mm)	-	TIW04LF
6” With Lagging		Lead Free Brass	2.5” (63mm)	2.5” (63mm)	TIW07LF

Other configurations available. Other threads available upon request. Longer thermowells available upon request.
Other materials such as Monel®, Inconel®, Hastelloy® C and Titanium are available upon request.

Option suffix:
W61 = Brass cap and chain (1.25“ UNF)
W61-1 = SS cap and chain (1.25” UNF)

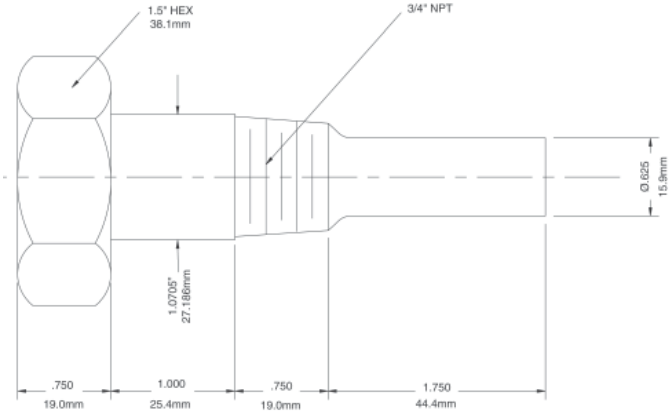
Hastelloy® is a registered trademark of Haynes International, Inc.
Inconel® is a registered trademark of Special Metals Corporation
Monel® is a registered trademark of Inco Alloys International

3.5” Stem Without Lagging

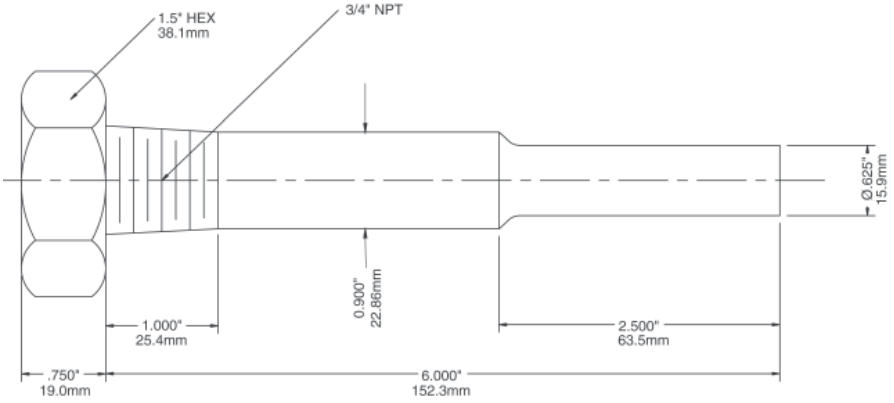


Note: * TIW01 0.85” (21.6mm)
**TIW01 3.57” (90.7mm)

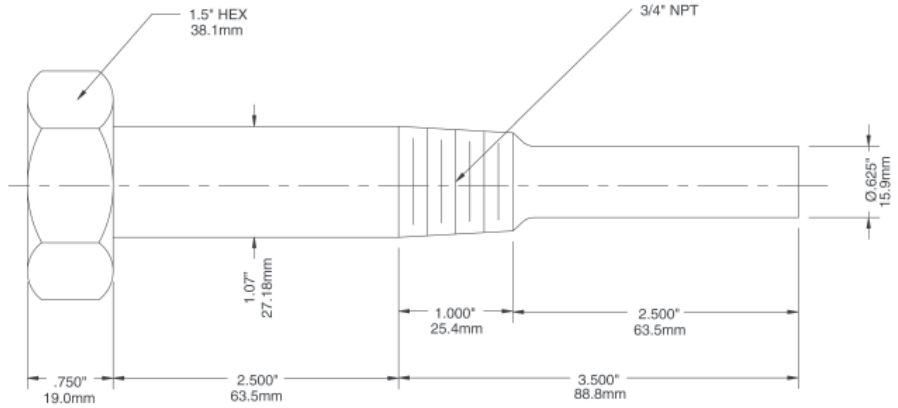
3.5” Stem With Lagging



6” Stem Without Lagging



6” Stem With Lagging



Description & Features:

- Spring loaded allowing TST to stay open when tridicator is installed. Once tridicator is removed thermowell closes preventing media from exiting the system
- Minimizes system downtime with quick instrument replacement
- CRN registered
- Up to 250 psi pressure rating (matching TTD Tridicator)
- 1 year warranty

Applications:

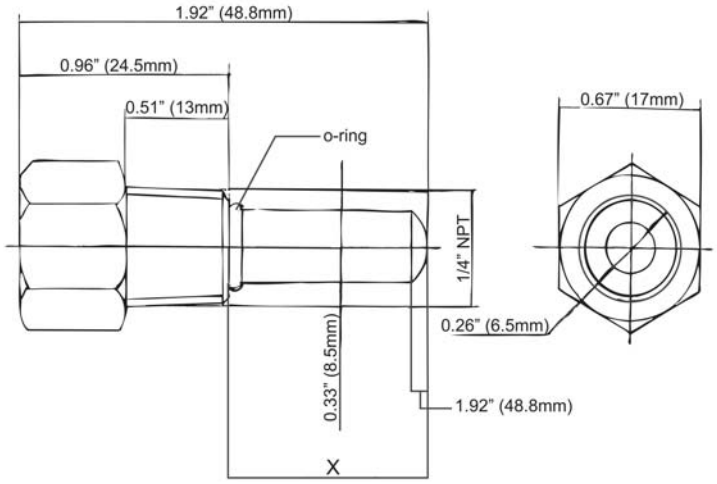
- Boilers and hydronic heating systems

Specifications	
Material	Brass
Tridicator Connection	1/4” or 1/2” NPTM standard

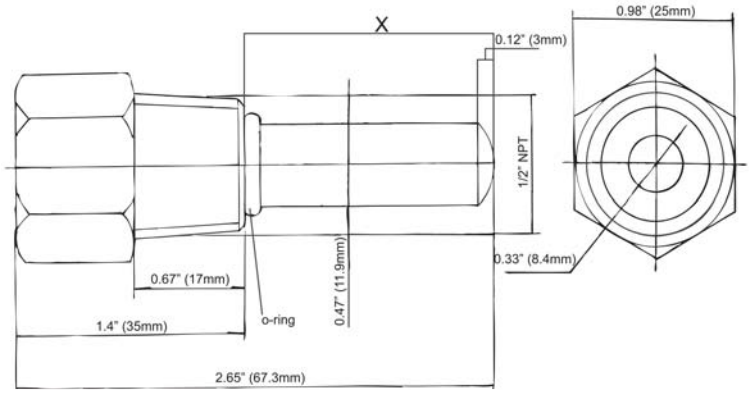
Order Codes

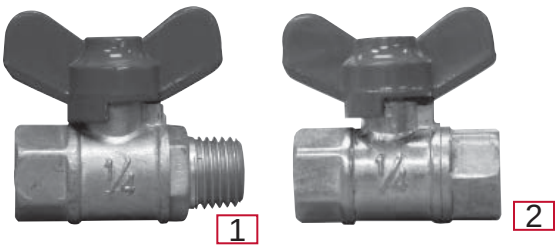
Stem Length	Maximum Extension (X)	Instrument & Pipe NPT Connection	Code
1.92” (48.8mm)	1.3" (33.8mm)	1/4”	TST025
2.65” (67.3mm)	1.6" (41.5mm)	1/2”	TST050

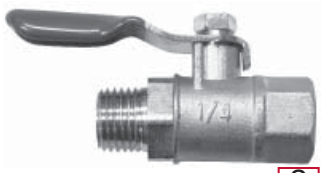
1/4” TST025



1/2” TST050







1. T-Handle Mini Ball Valve (FxM)
2. T-Handle Mini Ball Valve (FxF)
3. Lever Handle Mini Ball Valve (MXF)

Description & Features:

- An economical isolation valve for pressure gauges and transmitters
- Brass or lead free brass wetted parts
- ASME B1.20.1 compliant
- CRN registered
- 1 year warranty

Applications:

- Provides flow control for non-corrosive applications

Specifications	
Body	SMV: #59-1 forged brass SMV-LF: Lead free forged brass
Ball	SS
Gaskets	Teflon®
Handle	Steel, plated, plastic covered
Process Temperature	-9°F to 212°F (-23°C to 100°C)
Maximum Operating Pressure	400 psi (2,758 kPa)
Connection	1/4" NPTF x 1/4" NPTM 1/4" NPTF x 1/4" NPTF

SMV Order Codes (products in bold are normally stock in North America)

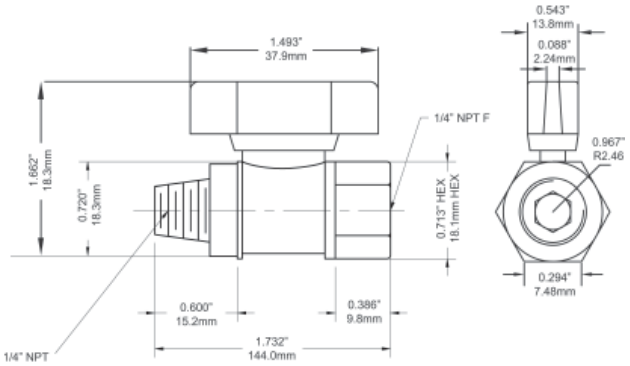
Connection	T-Handle	Lever Handle
F x M	SMV532	SMV500
F x F	SMV533	-

SMV-LF Order Codes (products in bold are normally stock in North America)

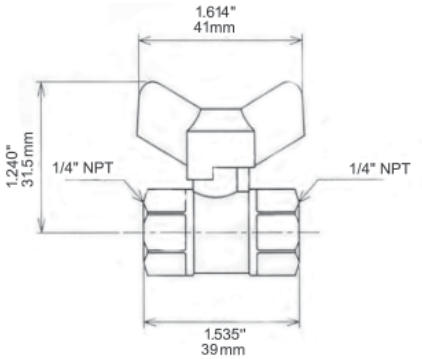
Connection	T-Handle	Lever Handle
F x M	SMV532LF	SMV500LF
F x F	SMV533LF	-

Other sizes and materials available upon request.

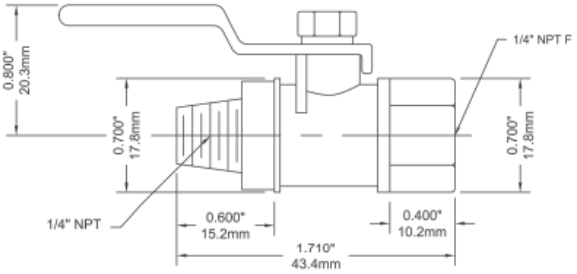
T-Handle Mini Ball Valve (M x F)



T-Handle Mini Ball Valve (F x F)



Lever Handle Mini Ball Valve (M x F)



Teflon® is a registered trademark of DuPont Corporation

Description & Features:

- An isolation valve for pressure gauges and transmitters
- For mild applications, this valve can be used to throttle pulsation. Please see NVA Stainless Steel Needle Valve for more demanding applications
- Brass or lead free brass wetted parts
- ASME B1.20.1 compliant
- CRN registered
- 1 year warranty

Applications:

- Provides precision flow control for any non-corrosive application up to 400 psi (2,758 kPa)

Specifications	
Body	SMV: #59-1 forged brass SMV-LF: Lead free forged brass
Handle	ABS plastic, dyed red
O-ring	Rubber
Shaft	SNV: #59-1 brass SNV-LF: Lead free brass
Nut	SNV: #59-1 brass SNV-LF: Lead free brass
Ambient/Process Temperature	-9°F to 212°F (-23°C to 100°C)
Maximum Operating Pressure	400 psi (2,758 kPa)
Connection	1/4" NPTF

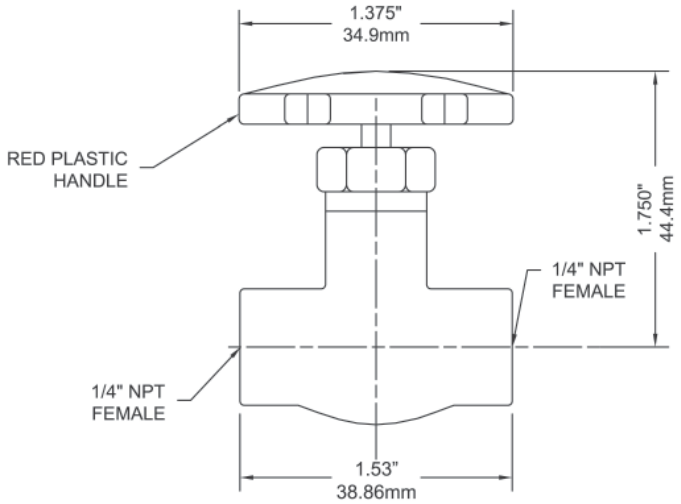
SNV Order Codes (products in bold are normally stock in North America)

Code
SNV510

SNV-LF Order Codes (products in bold are normally stock in North America)

Code
SNV510LF

Other sizes and materials available upon request.



SSN, SSN-LF
Snubber, Lead Free Snubber

Description & Features:

- Incorporates a sintered, porous 316 stainless steel snubbing element with a large surface area to ensure long term effectiveness
- Available in the three standard viscosity classifications of heavy oil, water and air
- Brass, lead free brass or stainless steel housings can be specified depending upon pressure media and operating pressure
- ASME B40.100 compliant
- CRN registered
- 1 year warranty

Applications:

- To significantly lessen the damaging effects of pulsation on gauges, transducers, transmitters, manometers and pressure switches

LEAD FREE

RoHS compliant

Note: RoHS applies only to 316 SS version

Specifications	SS	Brass
Operating Temperature	-320°F to 1,500°F (-195°C to 815°C)	-65°F to 650°F (-53°C to 343°C)
Operating Pressure	Maximum 20,000 psi (137,900 kPa)	Maximum 10,000 psi (68,950 kPa)
Burst Pressure	60,000 psi (413,700 kPa)	30,000 psi (206,850 kPa)
Housing	316 SS	SSN: Brass SSN-LF: Lead free brass
Snubbing Element	Sintered, porous type 316 SS	Sintered, porous type 316 SS
Retainer	300 series SS	300 series SS

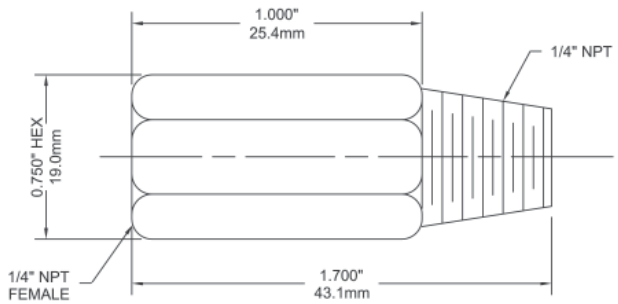
SSN Order Codes (products in bold are normally stock in North America)

Model	Heavy Oil	Water	Air
1/4" Brass	SSN517	SSN515	SSN516
1/4" SS	SSN520	SSN518	SSN519
1/2" Brass	SSN514	SSN512	SSN513
1/2" SS	SSN531	SSN529	SSN530

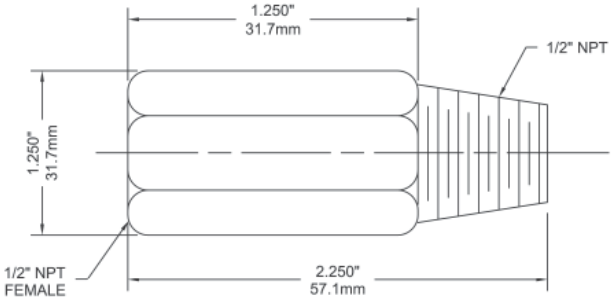
SSN-LF Order Codes (products in bold are normally stock in North America)

Model	Water
1/4" Brass	SSN515LF
1/2" Brass	SSN512LF

1/4" Snubber



1/2" Snubber



Accessories

Note: RoHS applies only to 304 SS and 316 SS syphons

Description & Features:

- On steam service, the syphon will prevent hot steam from entering a pressure gauge, diaphragm seal or transmitter
- Available in brass/steel for non-corrosive applications and stainless steel for corrosive applications
- CRN registered
- 1 year warranty

Applications:

- Recommended for applications involving temperatures above 100°F (37°C)

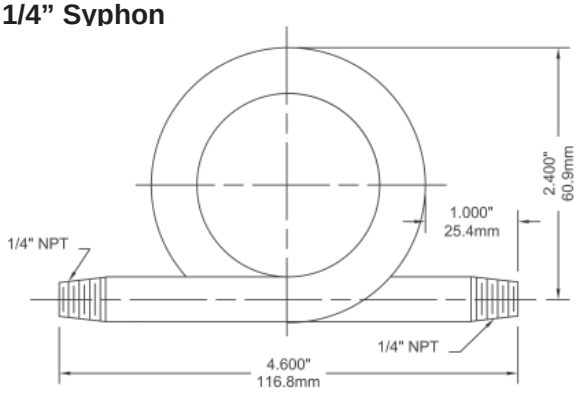
Specifications	
Material	Schedule 40 brass, schedule 40, 80 carbon steel, 304 SS or 316 SS (all types seamless)
Style	180° coil
Connection	1/4” NPTM x 1/4” NPTM or 1/2” NPTM x 1/2” NPTM
Maximum Operating Pressure	Schedule 40: Brass, carbon steel, 304 SS, 316 SS suitable up to 500 psi at 680°F (360°C) Schedule 80: Carbon steel, 304 SS, 316 SS suitable up to 1,650 psi at 630°F (332°C)

Order Codes (products in bold are normally stock in North America)

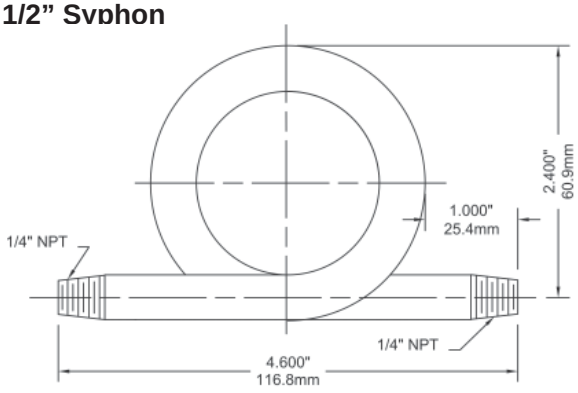
Material	1/4” NPT	1/2” NPT
Schedule 40 Brass	SSP545	SSP559
Schedule 40 Carbon Steel	SSP525	SSP555
Schedule 40 304 SS	SSP535	SSP585
Schedule 40 316 SS	SSP554	SSP557
Schedule 80 Carbon Steel	SSP556	SSP2715
Schedule 80 304 SS	SSP595	SSP2716
Schedule 80 316 SS	-	SSP2719

Note: Schedule 80 316 SS and extra-extra strong schedule available

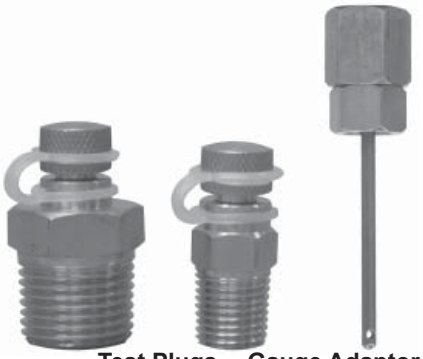
1/4” Syphon



1/2” Syphon



STP, STP-LF | Test Plug, Lead Free Test Plug



Test Plugs Gauge Adaptor Plug

Description & Features:

- Facilitates quick pressure and temperature readings at recommended test points within process
- Test plugs are available in brass or lead free brass wetted parts
- Gauge adapters ship with protective aluminum sleeve
- ASME B1.20.1 compliant
- CRN registered
- 1 year warranty

Applications:

- Mainly used in plumbing, heating, ventilation and air conditioning installations.

Specifications	
Body	STP: Brass STP-LF: Lead free brass
Diaphragm/Core	NBR (Buna N)
Temperature Rating	-40°F to 302°F (-40°C to 150°C)
Maximum Pressure Rating	1,000 psi (6,895 kPa)
Connection	1/4" NPT or 1/2" NPT

STP Order Codes (products in bold are normally stock in North America)

Brass Test Plug	
1/4" NPTM	STP001
1/2" NPTM	STP002

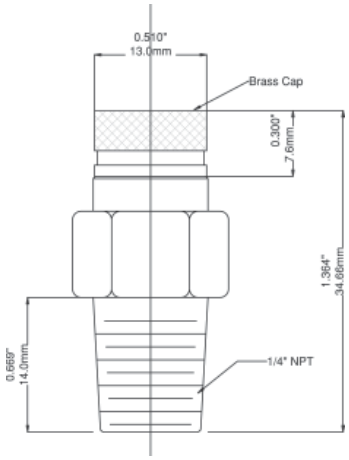
Gauge Adaptor	
2.75 OAL x 1.75" x 0.125" probe	STP003
2.25 OAL x 1.75" x 0.125" probe	STP004

STP-LF Order Codes (products in bold are normally stock in North America)

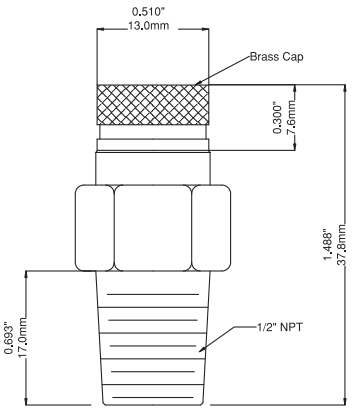
Lead Free Brass Test Plug	
1/4" NPTM	STP001LF
1/2" NPTM	STP002LF

Other sizes and materials available upon request.

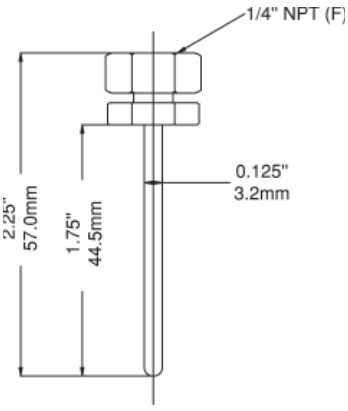
1/4" Test Plug



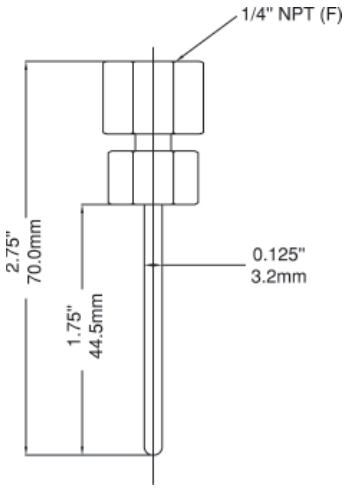
1/2" Test Plug



Gauge Adaptor 2.25"



Gauge Adaptor 2.75"



Accessories

3A

The objective of the 3A Sanitary Standards Committee is to formulate standards and accepted practices for equipment and systems used to process milk and milk products. Such standards are developed through all levels of sanitarians, equipment manufacturers and equipment users so those standards are acceptable to those involved in the sanitary aspects of dairy and related industries. The 3A Symbol Administrative Council authorizes manufacturers to display the 3A symbol on processing equipment that is in compliance with 3A Sanitary Standards.

CSA

The Canadian Standards Association (CSA) includes Canadian consumers, manufacturers, labour, government, and other regulatory agencies among its actively participating influences. The various groups work together to generate standard requirements (CSA standards) that demonstrate product quality, enhance market acceptability and improve quality and safety control procedures in manufacturing and construction for the Canadian marketplace. The standards generated by CSA are the cornerstones for determining a product's eligibility for certification in hazardous locations in Canada. CSA also performs product evaluation, testing and ongoing inspection to these standards and also to American and European standards through new inter-laboratory agreements.

CE

Having a CE marking is a declaration that Winters' product conforms to a specific Directive adopted by the EEA (European Economic Area), and is a requirement if the product is to be sold into any of the countries in this 18 member group. CE is an abbreviation for the "Conformité Européenne", meaning European Conformance. Unlike dangerous location approvals, CE markings are granted to products that conform to Directives which were developed using IEC and Cenelec standards. The Directives that affect transmitters are the EMC (Electromagnetic Compatibility) and LVD (Low Voltage) Directives. These state that the products must meet specific electromagnetic emission and immunity, as well as electrostatic discharge standards.

RoHS

The Restriction of Hazardous Substances Directive restricts the use of six hazardous materials in the manufacturing of electronic and electrical equipment. These materials are: lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls and polybrominated diphenyl ether. Bring "RoHS compliant" is commonly interpreted as bring "lead-free", or having under 0.1% of lead in the material.

Winters Approvals / Certifying Agencies

ISO

ISO 9001:2008

Winters is a ISO 9001:2008 Corporation. ISO 9001:2008 requires an organization to demonstrate its ability to consistently provide products that meet customer and regulatory requirements, and enhance customer satisfaction through effective application of the system, including processes for continual improvement of the system and the assurance of conformity.

UL/ULC

Underwriters Laboratories and Underwriters Laboratories of Canada maintain a high commitment to public safety and dedication to exceed customer expectations through continual improvement in the delivery of quality services. The organizations develop and publish standards, classifications and specifications for products having a bearing on fire, accident or property hazards. If a product carries the UL mark, it means that UL found the product meeting UL's safety requirements. These requirements are based primarily on UL's own published Standards for Safety.

NACE

NACE

The National Association of Corrosion Engineers recommends practices such as methods of selection, design, installation, maintenance or operation of material or systems where corrosion is a factor. Some recommended practices focus on details of construction of a corrosion control system, methods of treating the surface of materials to reduce corrosion, requirements for using devices to reduce corrosion, and procedures for increasing the effectiveness, safety and economic benefits of an installation or system.

SIL 2

SIL, or Safety Integrity Level, defines the risk-reduction level or performance in a function. In general, there are four levels of SIL: 4 being the most dependable and 1 providing the least risk protection. SIL levels are determined based on quantitative as well as qualitative factors.

Ingress Protection (IP) Ratings

The **IP** Code indicates the **degree of protection** provided by enclosures for electrical equipment (i.e. IP65 = No dust entry and protected against low pressure jet of water).

The first numeral indicates protection of persons against access to dangerous parts and protection of internal equipment against the ingress of solid foreign objects.

X	Protection unspecified (untested)
0	No special protection provided
1	Protection of hand against accidental access to dangerous parts, and protection of equipment against objects larger than 50mm
2	Protection of fingers against access to dangerous parts, and protection of equipment against objects larger than 12mm
3	Protection against objects larger than 2.5mm (e.g. tools, wires)
4	Protection against objects larger than 1mm (e.g. line tools, wires)
5	Protection against entry of dust in sufficient quantity to interfere with satisfactory operation of equipment
6	Complete protection against entry of dust

The second numeral indicates protection of internal equipment against harmful ingress of water.

X	Protection unspecified (untested)
0	No special protection provided
1	Protection against drops of water falling vertically
2	Protection against drops of water falling vertically when the object is tilted by up to 15 degrees from its normal position (in any direction)
3	Protection against spraying water at up to 60 degrees from the vertical
4	Protection against splashing and spraying water from all practicable directions
5	Protection against a low pressure jet of water from all practicable directions
6	Protection against heavy seas or a strong jet of water from all practicable directions
6D	Protection against driving rain at angles down to horizontal
7	Protection against immersion
8	Protection against submersion (tests subject to agreement, but no less severe than numeral 7)

Pressure Switch Reference

Hazardous Location Definitions

Class I	Locations in which flammable gases or vapours are or may be present in the air in quantities sufficient to produce explosive or ignitable mixtures.
Class II	Locations which are hazardous because of the presence of combustible dust.
Class III	Locations which are hazardous because of the presence of easily ignitable fibers or flyings, but in which such fibers or flyings are not likely to be suspended in air in quantities sufficient to produce ignitable mixtures.
Division 1	Locations in which hazardous concentrations in the air exist continuously, intermittently, or periodically under normal operating conditions.
Division 2	Locations in which hazardous materials are handled, processed, or used, but where such materials are normally within closed containers or closed systems from which they can escape only in case of accidental rupture or breakdown.
Group A	Atmospheres containing acetylene.
Group B	Atmospheres containing hydrogen, or gases or vapours of equivalent hazard, such as manufactured gas.
Group C	Atmospheres containing ethyl-ether vapours, ethylene, or cyclo-propane.
Group D	Atmospheres containing gasoline, hexane, naphtha, benzine, butane, propane, alcohol, benzol, lacquer solvent vapours, or natural gas.
Group E	Atmospheres containing metal dust, including aluminum, magnesium and their commercial alloys and other metals of similar hazardous characteristics.
Group F	Atmospheres containing carbon black, coal or coke dust.
Group G	Atmospheres containing flour, starch or grain dust.

Hazardous Location Definitions - International

The International Electrotechnical Commission (IEC) classifies hazardous locations by Zone and Group. Zone is similar to the term “Division” in that it defines the likelihood of hazard:

Zone 0	An area in which an explosive gas/air mixture is constantly present or present for long periods of time.
Zone 1	An area in which an explosive gas/air mixture is likely to occur during normal operation (Similar to Division 1).
Zone 2	An area in which an explosive/air mixture is not likely to occur but if so, only for short periods of time (Similar to Division 2).

NEMA Enclosure Ratings

Certain Winters products (i.e. pressure transmitters and pressure switches) can be classified per the National Electrical Manufacturer's Association Enclosure (NEMA) classifications. NEMA is a non-profit trade organization composed of manufacturers of electrical power apparatus. NEMA created voluntary standards for electrical enclosures. These classifications describe the environment in which the product can be used due to the protection the enclosure provides. ("Enclosure" includes electrical and mechanical connections and external adjustments). Among others, NEMA classifies enclosures based on the effects of external icing, corrosion and rusting, or contamination from oil and coolants.

Pressure switches, transmitters and other electronic products may also be classified according to the voluntary standards set by NEMA for electrical enclosures.

Type	Seal	Indoor/Outdoor	Description
1	General Purpose	Indoor	Protection against ingress of solid foreign objects (falling dirt)
2	Drip-proof	Indoor	Protection against ingress of solid foreign objects (falling dirt); and protection against ingress of water (dripping and light splashing)
3	Dust-tight/rain-tight	Outdoor	Protection against ingress of solid foreign objects (falling dirt and windblown dust); protection against ingress of water (rain, sleet, snow); and that will be undamaged by the external formation of ice on the enclosure
3R	Dust-tight/rain-tight	Outdoor	Protection against ingress of solid foreign objects (falling dirt); protection against ingress of water (rain, sleet, snow); and that will be undamaged by the external formation of ice on the enclosure
4	Water-tight/dust-tight	Indoor/Outdoor	Protection against ingress of solid foreign objects (falling dirt and windblown dust); protection against ingress of water (rain, sleet, snow, splashing water, and hose directed water); and that will be undamaged by the external formation of ice on the enclosure
4X	Water-tight/dust-tight	Indoor/Outdoor	Protection against ingress of solid foreign objects (windblown dust); protection against the ingress of water (rain, sleet, snow, splashing water, and hose directed water); protection against corrosion; and that will be undamaged by the external formation of ice on the enclosure
5	Dust-tight	Indoor	Protection against ingress of solid foreign objects (falling dirt and settling airborne dust, lint, fibers, and flyings); protection against ingress of water (dripping and light splashing)
6	Water-tight/dust-tight	Indoor/Outdoor	Protection against ingress of solid foreign objects (falling dirt); protection against ingress of water (hose directed water and the entry of water during occasional temporary submersion at a limited depth); and that will be undamaged by the external formation of ice on the enclosure
6P	Water-tight/dust-tight	Indoor/Outdoor	Protection against ingress of solid foreign objects (falling dirt); protection against ingress of water (hose directed water and the entry of water during prolonged submersion at a limited depth); that provides an additional level of protection against corrosion and that will be undamaged by the external formation of ice on the enclosure
7	Explosion proof/Class I Groups A, B, C, D	Indoor Hazardous	Enclosures constructed for indoor use in hazardous (classified) locations classified as Class I, Division 1, Groups A, B, C, or D as defined in NFPA 70
8	Explosion proof/Class I	Indoor/Outdoor	Enclosures constructed for either indoor or outdoor use in hazardous (classified) locations classified as Class I, Division 1, Groups A, B, C, and D as defined in NFPA 70
9	Explosion Proof/Class II Groups E or G	Indoor Hazardous	Enclosures constructed for indoor use in hazardous (classified) locations classified as Class II, Division 1, Groups E, F, or G as defined in NFPA 70
11	Oil-tight/Corrosion	Indoor	Protection from corrosive effects of gases and liquid dripping, seepage and external condensation or corrosive, oil immersion
12	Oil-tight/Dust-tight	Indoor	Protection against ingress of solid foreign objects (falling dirt and circulating dust, lint, fibers, and flyings); protection against ingress of water (dripping and light splashing)
13	Oil-tight/Dust-tight	Indoor	Protection against ingress of solid foreign objects (falling dirt and circulating dust, lint, fibers, and flyings); protection against ingress of water (dripping and light splashing); protection against the spraying, splashing, and seepage of oil and non-corrosive coolants

CRN (Canadian Registration Number)

The Canadian Registration Number (CRN) is a number issued by each province/territory in Canada to the design of boilers, pressure vessels or fittings. Industrial instrumentation such as pressure gauges, thermometers and related accessories all fall under this jurisdiction. The CRN identifies that the design has been accepted and registered for use in that province/territory.

Provinces	Pressure Gauges	Diaphragm Seals D15, D20, D30, D40 & D70 (ALL 316 SS/316L SS only)	Thermowells	Cooling Towers	Mini Ball Valves	Needle Valves	Syphons, Snubbers and Test Plugs	Transmitters/ Switches
ON	0F6751.5ADD4	0F6751.5ADD4 0F6751.5ADD5	0F6751.5ADD4	0F6751.5ADD4	0C6751.5R2	0C18567.5	0F6751.5ADD4	0F17528.5
QC	0F6751.56ADD4	0F6751.56ADD4 0F6751.56ADD5	0F6751.56ADD4	0F6751.56ADD4	0C6751.56R2		0F6751.56ADD4	0F17528.56
BC	0F6751.51ADD4	0F6751.51ADD4 0F6751.51ADD5	0F6751.51ADD4	0F6751.51ADD4		0C18567.51	0F6751.51ADD4	0F17528.51
AB	0F06751.52	0F06751.52	0F06751.52	0F06751.52	0C06751.52	0C18567.52	0F06751.52	0F17528.52
MB	0F6751.56ADD4	0F6751.56ADD4 0F6751.56ADD5	0F6751.56ADD4	0F6751.56ADD4	0C6751.56R2		0F6751.56ADD4	0F17528.54
SK	0F6751.56ADD4	0F6751.56ADD4 0F6751.56ADD5	0F6751.56ADD4	0F6751.56ADD4	0C6751.56R2		0F6751.56ADD4	0F17528.56
NB	0F6751.57ADD4	0F6751.57ADD4 0F6751.57ADD5	0F6751.57ADD4	0F6751.57ADD4	0C6751.57REV2	0C18567.57	0F6751.57ADD4	0F17528.57
NS	0F6751.58ADD4	0F6751.58ADD4 0F6751.58ADD5	0F6751.58ADD4	0F6751.58ADD4	0C6751.58REV2	0C18567.58	0F6751.58ADD4	0F17528.58
PE	0F6751.59ADD4	0F6751.59ADD4 0F6751.50ADD5	0F6751.59ADD4	0F6751.59ADD4	0C6751.59REV2	0C18567.59	0F6751.59ADD4	0F17528.59
NL	0F6751.50ADD4	0F6751.50ADD4 0F6751.50ADD5	0F6751.50ADD4	0F6751.50ADD4	0C6751.50REV2	0C18567.50	0F6751.50ADD4	0F17528.50
YT	0F6751.5YADD4	0F6751.5YADD4 0F6751.5YADD5	0F6751.5YADD4	0F6751.5YADD4	0C6751.5YREV2	0C18567.5Y	0F6751.5YADD4	0F17528.5Y
NT	0F6751.5TADD4	0F6751.5TADD4 0F6751.5TADD5	0F6751.5TADD4	0F6751.5TADD4	0C6751.5TREV2	0C18567.5T	0F6751.5TADD4	0F17528.5T
NU	0F6751.5NADD4	0F6751.5NADD4 0F6751.5NADD5	0F6751.5NADD4	0F6751.5NADD4	0C6751.5NREV2	0C18567.5N	0F6751.5NADD4	0F17528.5N

OTHER APPROVALS/STANDARDS THAT WINTERS ADHERES TO

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05/15
MKT757