REOTEMP®

INSTRUMENTS

Measuring your world since 1965™

PRESSURE PRODUCTS

VISIT OUR WEBSITE

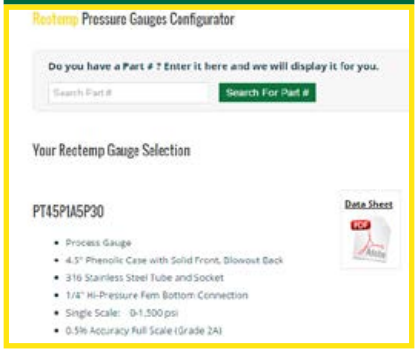
REOTEMP.COM

ONLINE PRODUCT CONFIGURATORS

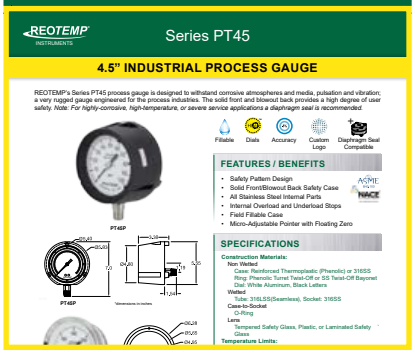
Pressure Gauges | Bimetal Thermometers | Dual Mode Thermometers | Thermocouples & RTDs
Thermowells | MS8 Seal Gauges | Differential Gauges | Sanitary RTDs | Sanitary Gauges

LIST PRICING

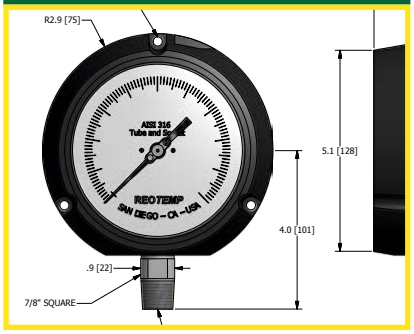
PART NUMBERS



DATA SHEETS



3D DRAWINGS



- LEAD TIME
- 3D MODELS
- CHECK STOCK
- 2D DRAWINGS
- E-MAIL QUOTES
- PRODUCT PHOTOS

"The configurator is awesome! Never worked with something so easy and user friendly and able to send pdf's of the quote. I like this!"

REOTEMP Distributor, Southeastern U.S.

"Love the Configurator, so easy to use and quick!"

REOTEMP Distributor, Southern U.S.

REOTEMP is a globally recognized ISO 9001-2008 manufacturer of temperature and pressure instrumentation. REOTEMP sells through a mature distribution network that reaches all 50 states and 30 countries worldwide. We provide bimetal thermometers, pressure gauges, diaphragm seals, RTDs, thermocouples, pressure transmitters, compost thermometers, and related accessories to a variety of process markets worldwide.

Our reputation is built on high quality products, quick standard lead times, and exceptional customer support. We're dedicated to providing our customers with complete satisfaction, from the first phone call to the design and quality of the instrument they receive. REOTEMP provides both standard and application specific products and is ready and willing to find a solution to all of your temperature and pressure needs.

CONTACT INFORMATION

San Diego Facility
10656 Roselle St.
San Diego, CA 92121
United States

Houston Facility
8787 West Road, Suite 140
Houston, TX 77064
United States

Phone
U.S. (800) 648-7737
Int'l +1 (858) 784-0710
Fax (858) 784-0720

Online
sales@reotemp.com
www.reotemp.com

REOTEMP® INSTRUMENTS

Table of Contents

Pressure Gauges

Diaphragm Seals

Table of Contents

REOTEMP® INSTRUMENTS

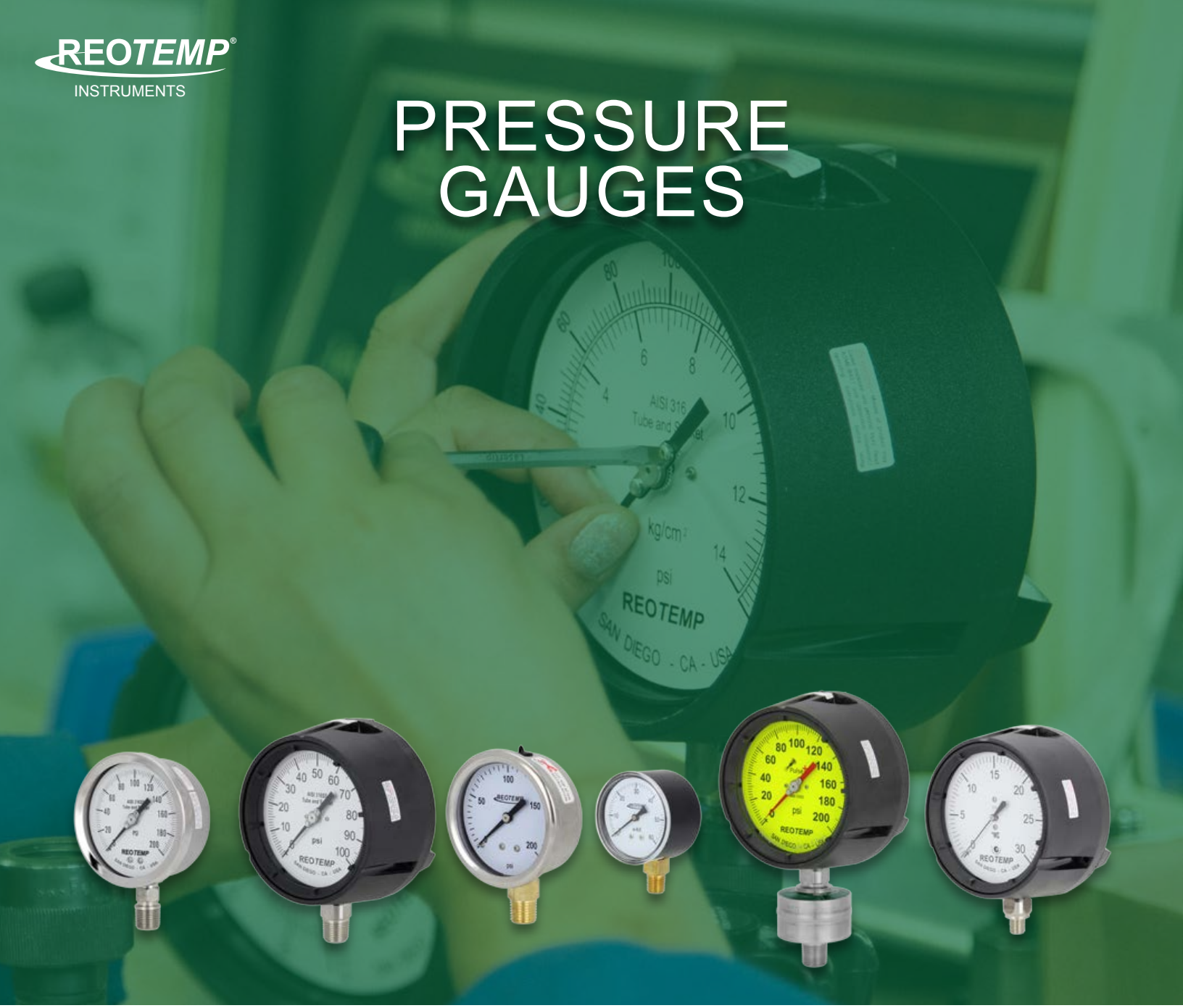
Instrument Valves & Manifolds

Transmitters

Switches & Accessories

REOTEMP®
INSTRUMENTS

PRESSURE GAUGES



REOTEMP Pressure Gauges, manufactured under ISO 9001 quality standards, are offered in a wide variety of sizes, ranges, and configurations to meet the demands of any application. From the most rugged process gauges to the cost effective general purpose gauge, you can count on REOTEMP pressure gauges for long and reliable service.

All pressure gauge components should be selected after consideration of the pressure, temperature, media characteristics, and environmental factors. Misapplication or improper installation can cause gauge failure, which can result in damage to other equipment or personal injury. We suggest that users of pressure gauges become familiar with ASME B40.100 which is available at www.asme.org.

To ensure safety, accuracy, and gauge life, good practice requires the consideration of the following factors when selecting a pressure gauge:

1. Pressure Range

REOTEMP gauges can measure pressures from full vacuum to 30,000 psi and gauge and differential pressures as low at 10 inches of water column. Generally, a range of twice the working pressure is recommended with a maximum working pressure not to exceed 75% of scale. If pulsation occurs or media temperature is elevated, then working pressure should be at or below 50% of scale.

Most bourdon tube and capsule gauges can see momentary spikes of 130% of scale without permanent damage to the gauge (see data sheets for specific max working pressure). Information on gauge burst pressure is available under the "Resources" tab at www.reotemp.com

2. Process Media

All pressure gauge wetted components should be selected to suit the characteristics of the fluid being measured. Consider the following process media characteristics:

Temperature – Specific temperature limits are stated on the gauge data sheets. For media temperatures beyond the gauge limits a diaphragm seal or cooling element should be considered. For steam service a pigtail siphon should be used.

Corrosion – All wetted materials of the pressure gauge are noted on the data sheet. If the process fluid is not compatible with those materials then another gauge should be selected or a diaphragm seal should be installed.

Clogging – The pressure gauge socket and bourdon tube have small orifices that will clog in the presence of solids or high viscosity fluids. A diaphragm seal is recommended for these applications.

Pulsation – A mechanical pressure gauge is uniquely susceptible to the damaging effects of pulsation in a process. Most REOTEMP pressure gauges have restrictor screws (throttle plugs) installed in order to dampen some pulsation. Snubbers can be used to further dampen some types of pulsation. A diaphragm seal with the PulsePlus™ feature is recommended for severe applications.

3. Environmental Factors

The case style, material, and design of the pressure gauge should be selected to suit the environment of the gauge installation. The environmental factors to consider include:

Vibration – Mechanical pressure gauge components are highly susceptible to vibration. Liquid filling of the case is recommended in most applications where vibration exists. In cases of severe vibration the gauge may need to be remotely mounted using flexible capillary tubing with or without a diaphragm seal.

Ambient Temperatures – Most REOTEMP pressure gauges are rated for normal ambient temperatures for outdoor installations in most parts of the globe (-40 to 140°F). If the gauge is liquid filled, care should be taken in selecting the right fill fluid for the ambient conditions.

Moisture and Corrosion – The presence of moisture, wash-down chemicals, salt water, and other environmental factors should be considered when selecting case style and material. In high humidity environments, liquid filling the case will avoid condensation buildup on the inside of the lens.

4. Accuracy

REOTEMP pressure gauges are available in accuracies ranging from 0.25% (ASME Grade 3A) to +/- 3/2/3% (ASME Grade B). As a general rule, 1% or better gauges are used in critical process and require more costly components and larger dial sizes. All REOTEMP pressure gauges are calibrated to the stated accuracy at the time of manufacture; further certification and logging of point data can be provided on NIST traceable reference equipment.

5. Connection Size and Mounting Method

Most REOTEMP gauges come standard with ¼" or ½" Male NPT process connections. Many other connection types are available including BSP, coned high pressure fittings, SAE, tube stub, VCR, and more.

The following mounting methods are most common for pressure gauges:

- **Bottom Mount** (stem mount)
- **Rear Mount** (lower back or center back connection based on model)
- **Wall Mount** (includes a back flange attached to the gauge)
- **Panel Mount** (includes a front flange or u-clamp attached to the gauge)

6. Dial Selection

REOTEMP pressure gauges are available in dial sizes ranging from 1.5" to 6". Typically, space consideration, accuracy, and readability are the driving factors behind dial size selection. For pressure gauges being installed into low-light or difficult to read environments, a Hi-Vis™ dial is recommended. Color bands, dual scales, tag numbers, and custom text are other options when selecting a pressure gauge for a specific application.

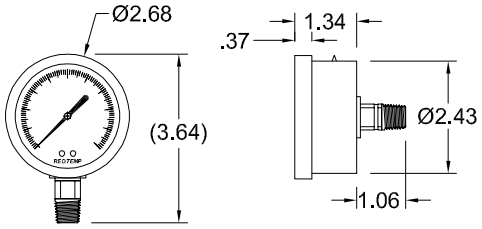
HEAVY-DUTY REPAIRABLE STAINLESS GAUGE

REOTEMP's Series PR gauge offers rugged, all-welded stainless steel construction ideal for heavy-duty industrial applications. The stainless steel case, tube and socket are welded together for superior case sealing and gauge integrity. The twist-off bayonet ring offers easy-access for field repair and calibration services. Liquid filling (at the factory or in the field) is recommended for applications involving vibration.

Fillable | Dials | Custom Logo | Diaphragm Seal Compatible

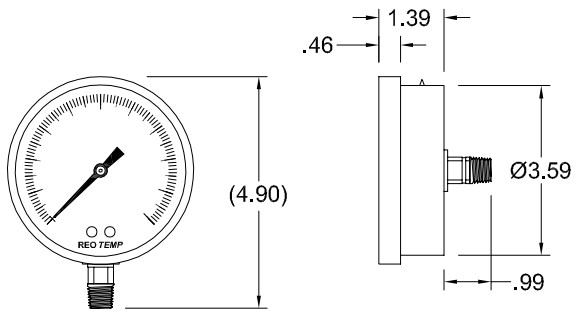
PR25

PR35



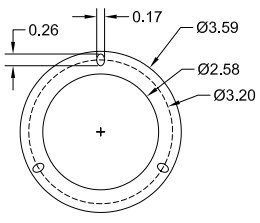
PR25

*dimensions in inches

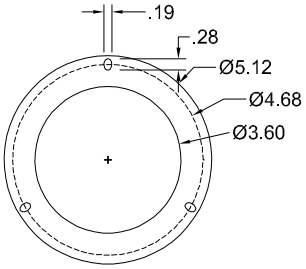


PR35

*dimensions in inches



PR25 Mounting Flange



PR35 Mounting Flange

FEATURES / BENEFITS

- All-Welded Stainless Steel Construction
- Removable Bayonet Ring with Adjustable Pointer
- Field Fillable Case, NEMA4/IP65
- Rugged, Long-Lasting Design

ASME B40.100 NACE

SPECIFICATIONS

Construction Materials:

Non Wetted
- Case: 304SS
- Ring: 304SS, Twist-Off Bayonet
- Dial: White Aluminum, Black Letters

Wetted
- Tube: 316LSS, Seamless
- Socket: 316SS

Case-to-Socket
- Welded

Lens
- Tempered Safety Glass, Plastic, or Laminated Safety Glass

Temperature Limits:

Ambient: -40°F — 150°F

Process: -40°F — 250°F

Process Temperature Limits When Assembled with a Diaphragm Seal
-60°F — 400°F

Direct Mount
-100°F — 750°F

Remote Mount or Cooling Tower

*Exact temperature limits will depend on diaphragm seal & fill fluid.

Accuracy: 2 - 1 - 2%, ASME Grade A
(2% up, 4% down for 10,000 psi and higher).

Fillable: Yes

Restrictor Screw: Yes, removable

Weight: 2.5" = 0.4 lbs (0.6 lbs filled)
3.5" = 0.7 lbs (1.0 lbs filled)

Maximum Working Pressure:
Stable = 100%
Momentary = 130% of scale

HEAVY-DUTY REPAIRABLE STAINLESS GAUGE

Visit reotemp.com

✓ Check Stock ✓ Get Price
✓ Configure Part # ✓ Download PDF Data Sheets

HOW TO ORDER: Choose options to build a part number. For example: PR25S1A4P18-D-P-MP

PR25	S	1	A	4	P18	-D	-P	-MP
DIAL SIZE	CASE TYPE	TUBE & SOCKET	MOUNT TYPE	CONNECTION	RANGE CODE	CASE FILL	LENS	OPTIONS
PR25 = 2.5" **PR35** = 3.5"	**S** = 304SS ***T** = 316SS	**1** = 316SS ***3** = Monel	**A** = Bottom **B** = Bottom/Rear Flange **C** = Center Back **D** = Center Back "U" Clamp **E** = Center Back/Front Flange	**4** = 1/4" NPT ***8** = 1/8" NPT **2** = 1/2" NPT (PR35 ONLY) ***M** = 1/4" Tube Fitting	*See Master Range Code Sheet on Page 45* *Common Ranges* **P01** = -30 inHg-0 psi **P03** = -30 inHg-0-30 psi **P16** = 0-30 psi **P18** = 0-100 psi **P20** = 0-200 psi **P21** = 0-300 psi **P25** = 0-1,000 psi **P34** = 0-5,000 psi *Available Ranges* ■ Vac to 15,000 PSI ■ Gauge Pressure, Vac or Compound ■ Lowest Range = 10 psi	**-D** = Dry **-G** = Glycerin **-S** = Silicone **-W** = Glycerin/ Water (65/35)	**-T** = Tempered Safety Glass (std. on 3.5") **-P** = Plastic (std. on 2.5") **-S** = Laminated Safety Glass	**-MP** = Max. Pointer (Available on 2.5" ONLY) **-C3** = 3 Point Calibaration Certificate **-R1** = 1% Full Scale Accuracy **-HV** = Hi-Vis™ Dial **-NC** = NACE Compliance Certificate **-PM** = Positive Material Identification Certification

*Non-standard Configuration

Diaphragm Seal Suitability Guide

For applications where a diaphragm seal is required, the following diaphragm seal model types are most commonly assembled and filled to Series PR25/35 pressure gauges. This matrix identifies which diaphragm seal is appropriate based on the specified pressure range. Please reference the diaphragm seal data sheet and seal fill fluid guide for additional application considerations including max pressure, temperature limits, and material compatibility.

Diaphragm Seal Model		Total Gauge Span* (in psi)							
		15	30	45	60	75	100	160	200 +
Mini Seals	MS4	T	T	T					
	MS6	T							
	MS8								
Threaded Flush	1/2"	X	S	S	T	T	T	T	
	3/4"	X	T	T	T	T	T		
	1"	T	T	T					
	1.5"								
Offline	W5								
	T5								
Sanitary	3/4" TC	X	S	S	T	T	T	T	
	1.5" TC	T	T						
	2" TC								

*Total gauge span is additive of negative and positive pressures.

Example: -15 - 0 - 30 psi = 45 psi span

- Assembly will function correctly with minimal accuracy degradation.
- T: Assembly will function correctly given stable temperature.
- S: Assembly is highly sensitive to orientation and temperature variance. REOTEMP cannot guarantee a stated accuracy.
- X: Assembly will not work. The diaphragm does not displace enough fill fluid to drive the pressure gauge.

PR25S1A4P18-D-P
MS4G4F4XS-DTD-AS

HEAVY-DUTY REPAIRABLE STAINLESS GAUGE

REOTEMP's Series PR gauge offers rugged, all-welded stainless steel construction ideal for heavy-duty industrial applications. The stainless steel case, tube and socket are welded together for superior case sealing and gauge integrity. The twist-off bayonet ring offers easy-access for field repair and calibration services. Liquid filling (at the factory or in the field) is recommened for applications involving vibration. For high-corrosive, high-temp, or severe service applications, a diaphragm seal is recommended.

PR40

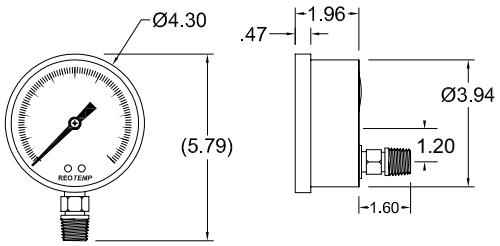
PR60

Fillable | Dials | Accuracy | Custom Logo | Diaphragm Seal Compatible

FEATURES / BENEFITS

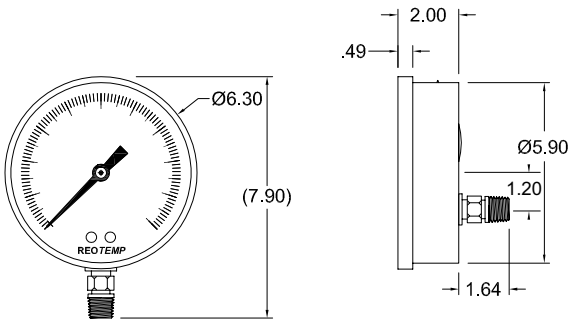
- All-Welded Stainless Steel Construction
- Removable Bayonet Ring, Micro Adjustable Pointer
- Field Fillable Case, NEMA 4/IP65
- Internal Overload and Underload Stops, Floating Zero
- Safety Blow-out Relief

ASME B40.100 NACE



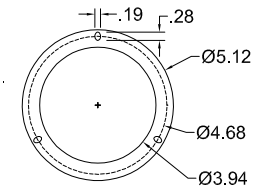
PR40

*dimensions in inches

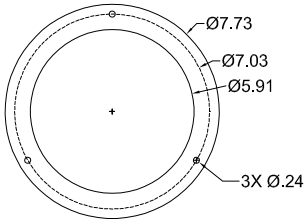


PR60

*dimensions in inches



PR40 Mounting Flange



PR60 Mounting Flange

SPECIFICATIONS

Construction Materials:

Non Wetted
- Case: 304SS
- Ring: 304SS, Twist-Off Bayonet
- Dial: White Aluminum, Black Letters

Wetted
- Tube: 316LSS, Seamless
- Socket: 316SS

Case-to-Socket
- Welded

Lens
- Tempered Safety Glass (std), Plastic, or Laminated Safety Glass

Temperature Limits:

Ambient: -40°F — 150°F

Process: -40°F — 250°F

Process Temperature Limits When Assembled with a Diaphragm Seal

-60°F — 400°F (Direct Mount)

-100°F — 750°F (Remote Mount or Cooling Tower)

*Exact temperature limits will depend on diaphragm seal & fill fluid.

Accuracy: 1%, ASME Grade 1A
(10K to 20K ; 2% Upscale, 4% Downscale)

Fillable: Yes

Restrictor Screw: Yes

Weight: 4" = 1.3 lbs (2.0 lbs filled), 6" = 2.1 lbs (4.2 lbs filled)

Maximum Working Pressure: Stable = 100%
Momentary = 130% of scale

HEAVY-DUTY REPAIRABLE STAINLESS GAUGE

Visit reotemp.com

- ✓ Check Stock
- ✓ Get Price
- ✓ Configure Part #
- ✓ Download PDF Data Sheets

HOW TO ORDER: Choose options to build a part number. For example: PR40S1A4P01-D-T-HV

PR40 S 1 A 4 P01 -D -T -HV

DIAL SIZE
PR40 = 4"
PR60 = 6"

CASE TYPE
S = 304SS
***T** = 316SS

TUBE & SOCKET
1 = 316SS
***3** = Monel

MOUNT TYPE
A = Bottom
B = Bottom/Rear Flange
C = Lower Back
D = Lower Back "U" Clamp
E = Lower Back/Front Flange
F = Lower Back/Rear Flange

CONNECTION
4 = 1/4" NPT
2 = 1/2" NPT
5 = 1/4" Female High Pressure (9/16" - 18 UNF)

RANGE CODE
See Master Range Code Sheet on Page 45

Common Ranges
P01 = -30 inHg-0 psi
P03 = -30 inHg-0-30 psi
P16 = 0-30 psi
P18 = 0-100 psi
P20 = 0-200 psi
P21 = 0-300 psi
P25 = 0-1,000 psi
P34 = 0-5,000 psi

Available Ranges
- Vac to 20,000 psi
- Gauge Pressure, Vacuum, or Compound
- Lowest Range = 10 psi

Available Units:
- psi (std)
- bar
- kPa
- kg/cm²
- ft H_2O
- & more

CASE FILL
-D = Dry
-G = Glycerin
-S = Silicone
-W = Glycerin/Water (65/35)

LENS
-T = Tempered Safety Glass (std)
-P = Plastic
-S = Laminated Safety Glass

OPTIONS
-HV = Hi-Vis™ Dial
-C3 = 3 pt. Calibration Certificate
-OX = Cleaned for O_2 Service
-TS = Stainless Steel Tag
-MP = Max. Pointer
-EC = Electrical Contacts (4" Case Only)
-P6 = Pointer Stop at 6 O'clock
-R2 = .5% Full Scale Accuracy
-NC = NACE Compliance Certificate
-PM = Positive Material Identification Certification

Diaphragm Seal Suitability Guide

*Non-standard Configuration

For applications where a diaphragm seal is required, the following diaphragm seal model types are most commonly assembled and filled to Series PR40/60 pressure gauges. This matrix identifies which diaphragm seal is appropriate based on the specified pressure range. Please reference the diaphragm seal data sheet and seal fill fluid guide for additional application considerations including max pressure, temperature limits, and material compatibility.

Diaphragm Seal Model		Total Gauge Span* (in psi)						
		15	30	45	60	75	100	160+
Mini Seals	MS6	X	S	T	T	T		
	MS8	T	T	T				
Threaded Flush	1"	X	X	X	S	T	T	
	1.5"	T	T	T	T			
Offline	W5	S	T	T				
	W6	T						
	T5/V5							
Sanitary	1.5" TC	X	X	X	T	T	T	
	2" TC	S	T	T				

*Total gauge span is additive of negative and positive pressures.

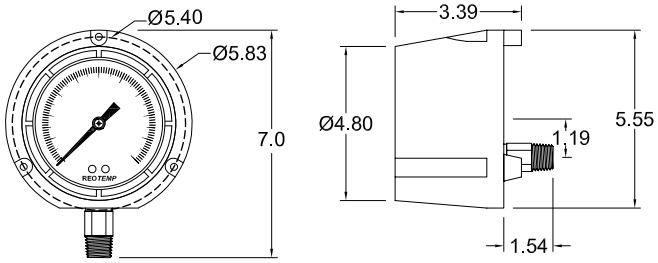
Example: -15 - 0 - 30 psi = 45 psi span

- Assembly will function correctly with minimal accuracy degradation.
- T: Assembly will function correctly given stable temperature.
- S: Assembly is highly sensitive to orientation and temperature variance. REOTEMP cannot guarantee a stated accuracy.
- X: Assembly will not work. The diaphragm does not displace enough fill fluid to drive the pressure gauge.

4.5” INDUSTRIAL PROCESS GAUGE

REOTEMP’s Series PT45 process gauge is designed to withstand corrosive atmospheres and media, pulsation and vibration; a very rugged gauge engineered for the process industries. The solid front and blowout back provides a high degree of user safety. *Note: For highly-corrosive, high-temperature, or severe service applications a diaphragm seal is recommended.*

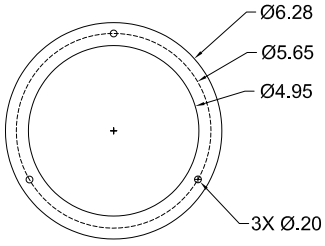
PT45P



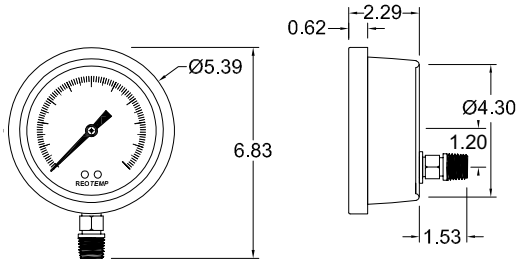
PT45P

*dimensions in inches

PT45T



PT45T Mounting Flange



PT45T

*dimensions in inches

Fillable | Dials | Accuracy | Custom Logo | Diaphragm Seal Compatible

FEATURES / BENEFITS

- Safety Pattern Design
- Solid Front/Blowout Back Safety Case
- All Stainless Steel Internal Parts
- Internal Overload and Underload Stops
- Field Fillable Case
- Micro-Adjustable Pointer with Floating Zero

ASME B40.100 NACE

SPECIFICATIONS

Construction Materials:

Non Wetted
- Case: Reinforced Thermoplastic (Phenolic) or 316SS
- Ring: Phenolic Turret Twist-Off or SS Twist-Off Bayonet
- Dial: White Aluminum, Black Letters

Wetted
- Tube: 316LSS(Seamless), Socket: 316SS

Case-to-Socket
- O-Ring

Lens
- Tempered Safety Glass, Plastic, or Laminated Safety Glass

Temperature Limits:

Ambient: -40°F — 150°F

Process: -40°F — 250°F

Process Temperature Limits When Assembled with a Diaphragm Seal

Direct Mount: -60°F — 400°F

Remote Mount or Cooling Tower: -100°F — 750°F

*Exact temperature limits will depend on diaphragm seal & fill fluid.

Accuracy: ±0.5%, Grade 2A
(10k - 20k psi = 1% upscale, 2% downscale)

Fillable: Yes

Restrictor Screw: Yes, removable

Weight: Phenolic (Dry) = 2.5 lbs
Phenolic (Filled) = 3.5 lbs
SS (Dry) = 2 lbs
SS (Filled) = 3 lbs

Maximum Working Pressure:
Stable = 100%
Momentary = 130% of scale

4.5” INDUSTRIAL PROCESS GAUGE

Visit reotemp.com

✓ Check Stock ✓ Get Price
✓ Configure Part # ✓ Download PDF Data Sheets

HOW TO ORDER: Choose options to build a part number. For example: PT45P1A2P21-D-T-HV

PT45	P	1	A	2	P21	-D	-T	-HV
DIAL SIZE	CASE TYPE	TUBE & SOCKET	MOUNT TYPE	CONNECTION	RANGE CODE	CASE FILL	LENS	OPTIONS

DIAL SIZE
PT45 = 4.5”

CASE TYPE
P = Fiberglass Reinforced Thermo-plastic
T = 316SS, Bayonet Ring

TUBE & SOCKET
1 = 316SS
*3 = Monel

MOUNT TYPE
A = Bottom
C = Lower Back
E = Lower Back / Front Flange (316SS case Only)

CONNECTION
2 = 1/2” NPT
4 = 1/4” NPT
5 = 1/4” Female High Pressure (9/16” - 18 UNF)
3 = 3/4” NPT

RANGE CODE
See Master Range Code Sheet on Page 45

Common Ranges
P01 = -30 inHg-0 psi
P03 = -30 inHg-0-30 psi
P16 = 0-30 psi
P18 = 0-100 psi
P20 = 0-200 psi
P21 = 0-300 psi
P25 = 0-1,000 psi
P34 = 0-5,000 psi

Available Ranges
- Vac to 20,000 psi
- Gauge Pressure, Vacuum, or Compound
- Lowest Range = 10 psi

Available Units
- psi
- bar
- kPa
- kg/cm²
- ftH$_2$0
- & more

CASE FILL
-D = Dry
-G = Glycerin
-T = Dry, Teflon Coated Movement
-W = Glycerin/ Water (65/35)
-S = Silicone

LENS
-T = Tempered Safety Glass (std)
-P = Plastic
-S = Laminated Safety Glass

OPTIONS
-HV = Hi-Vis™ Dial
-C3 = 3 pt. Calibration Certificate
-OX = Cleaned for O$_2$ Service
-TS = Stainless Steel Tag
-MP = Max. Pointer
-EC = Electrical Contacts**
-P6 = Pointer Stop at 6 O’clock
-FM = Flush Mount Ring for Phenolic Case
-NC = NACE Compliance Certificate
-PM = Positive Material Identification Certification

*Non-standard Configuration
**Phenolic Case Only

Diaphragm Seal Suitability Guide

For applications where a diaphragm seal is required, the following diaphragm seal model types are most commonly assembled and filled to Series PT45 pressure gauges. This matrix identifies which diaphragm seal is appropriate based on the specified pressure range. Please reference the diaphragm seal data sheet and seal fill fluid guide for additional application considerations including max pressure, temperature limits, and material compatibility.

Diaphragm Seal Model		Total Gauge Span* (in psi)						
		15	30	45	60	75	100	160+
Mini Seals	MS6	X	S	T	T	T		
	MS8	S	T	T				
Threaded Flush	1”	X	X	X	S	S	T	
	1.5”	S	S	T	T			
Offline	W5	S	T	T				
	W6	T						
	T5	S	T					
	V5							

*Total gauge span is additive of negative and positive pressures.

Example: -15 - 0 - 30 psi = 45 psi span

- Assembly will function correctly with minimal accuracy degradation.
- T — Assembly will function correctly given stable temperature.
- S — Assembly is highly sensitive to orientation and temperature variance. REOTEMP cannot guarantee a stated accuracy.
- X — Assembly will not work. The diaphragm does not displace enough fill fluid to drive the pressure gauge.

PT45P1A2L21-D-T
W51522SSS-TTDTD-AS

ALL-WELDED PROCESS SEAL GAUGE

REOTEMP's All-Welded Pressure Seal Gauge offers superior diaphragm seal safety and performance at an economical price. Combined with a gauge or transmitter, the tamper-resistant all-welded diaphragm seal reduces potential leak points, making it ideal for installations where process integrity and worker safety are paramount. Combined with PulsePlus™ protection, the Series MS8 can potentially triple the life of your gauge or transmitter.

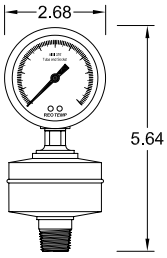
MS8P2 MS8P4 MS8PT

Fillable Dials Custom Logo

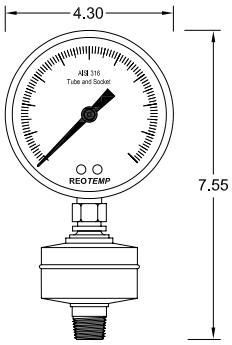
FEATURES / BENEFITS

- Increases the Life of the Gauge by Up to 3x
- Reduce/Eliminate Fugitive Emissions
- Available Up to 5,000 psi
- Eliminate Potential Leak Points
- Tamper Resistant
- Compliant to NACE MR0175, MR0103

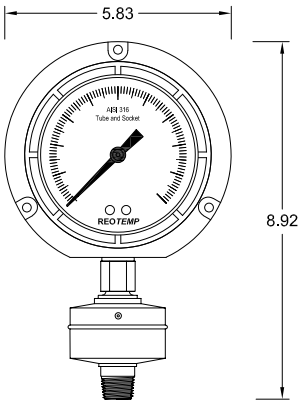
ASME B40.100 NACE



MS8P2



MS8P4



MS8PT

All drawings depict a 1/2" NPT Male process connection. See online configurator for specific assembly drawings.

SPECIFICATIONS

Construction Materials:

Non Wetted

Upper Housing: 316 Stainless Steel

Wetted

Diaphragm, Lower and Process Connection: 316LSS or Hast. C-276

Gasket: None

Temperature Limits:

Ambient

See Pressure Gauge Data Sheet

Process

Direct Mount: -40°F to 400°F

w/ Cooling Tower: -100°F to 700°F

w/ Capillary Mount: -100°F to 700°F

Note: seal fill selection may further restrict temperature limits.

Accuracy: With appropriate pressure range, seal gauge accuracy is gauge accuracy plus 0.5%. (Subject to thermal error. Consult factory with questions.)

Weight: 0.6 lbs (seal only)

Diaphragm Seal Max Working Pressure (at 100°F):

		316SS	Hast. C-276
Male	1/4" NPT	5,000 psi	1,500 psi
	1/2" NPT	5,000 psi	1,500 psi
	3/4" NPT	2,000 psi	n/a
	1" NPT	1,000 psi	n/a
Female	1/4" NPT	2,500 psi	n/a
	1/2" NPT	2,500 psi	n/a

Note: Max. working pressure is lesser of proof pressure and 130% of gauge range.

ALL-WELDED PROCESS SEAL GAUGE

Visit reotemp.com

✓ Check Stock ✓ Get Price
✓ Configure Part # ✓ Download PDF Data Sheets

HOW TO ORDER: Choose options to build a part number. For example: MS8PTAM3XP01-SDDDASPGT-HV

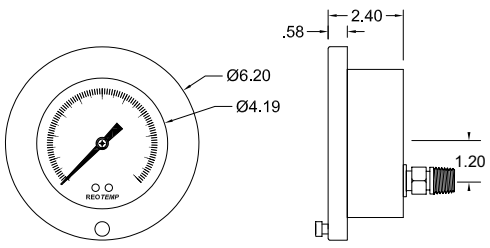
MS8PT	A	M3	X	P01	-S
PRESSURE INSTRUMENT	**GAUGE MOUNT**	**PROCESS CONNECTION**	**FLUSH CONNECTION**	**PRESSURE RANGE**	**WETTED MATERIAL**
Solid Front/ Blowout Back Process Gauges **MS8PT** = 4.5" Phenolic Process **MS8PS** = 4.5" Stainless Safety Gauge *Industrial All Stainless Steel Gauges* **MS8P6** = 6" SS **MS8P4** = 4" SS **MS8P3** = 3.5" SS **MS8P2** = 2.5" SS *Hinged-Ring Process Gauge* **MS8PI** = 4.5" Aluminum Case, SS internals	**A** = Bottom **C** = Back (4", 4.5", 6") Lower Back (2.5", 3.5") Center Back **E** = Back/ Front Flange (Panel Mount) (4", 4.5", 6") Lower Back (2.5", 3.5") Center Back	**M2** = 1/2" male NPT **M4** = 1/4" male NPT **M3** = 3/4" male NPT **M1** = 1" male NPT **F2** = 1/2" female NPT **F4** = 1/4" female NPT **F3** = 3/4" female NPT	**X** = No Flush **F** = Single 1/4" Flush (Ships with Plug Installed)	*See Master Range Code Sheet on Page 45* *Common Ranges* **P03** = -30"inHg/0/30 psi **P15** = 15 psi **P16** = 30 psi **P17** = 60 psi **P18** = 100 psi **P20** = 200 psi **P21** = 300 psi **P22** = 400 psi **P23** = 600 psi **P25** = 1,000 psi **P31** = 2,000 psi **P32** = 3,000 psi **P34** = 5,000 psi *Available Ranges* ■ 15 psi to 6,000 psi ■ Gauge Pressure, Vacuum, or Compound *Standard Units* ■ psi ■ psi/bar Note: Minimum Span for 4" Gauges and Greater is 30 psi	**-S** = 316L SS **-H** = Hast. C-276 (1/4" and 1/2" Male NPT Only, No Flush)

DDD	AS	P	G	T	-HV
SEAL MOUNTING	**SEAL FILL**	**PULSATION PROTECTION**	**CASE FILL**	**LENS**	**OPTIONS**
DDD = Direct **RTR** = Cooling Tower **B??** = Armored 316 SS Capillary (5-40 ft.) **W??** = PVC Coated Armored 316 SS Capillary Note: ?? = Length in feet (e.g. 05 = 5 feet) Note: Capillary connection is welded unless otherwise specified.	*See Page 58 for Complete Fill Guide* **AS** = Silicone DC200 **AG** = Glycerin **C1** = Fomblin **BH** = Silicone DC704	**X** = None **P** = Pulse Plus™ (Pulsation Protection)	**D** = Dry **G** = Glycerin **W** = Glycerin Water (65/35) **S** = Silicone Note: MS8PI is not fillable.	**T** = Tempered Safety Glass **S** = Laminated Safety Glass **P** = Plastic	**-HV** = Hi-Vis™ Dial **-C3** = 3 Point Calibration Certificate **-TS** = Stainless Steel Tag **-OX** = Cleaned for O_2 Service **-CN** = NACE Certificate **-PM** = Positive Material Identification Certification *See Pages 50 & 78 for Additional Options*

HINGE-FRONT INDUSTRIAL PROCESS GAUGE

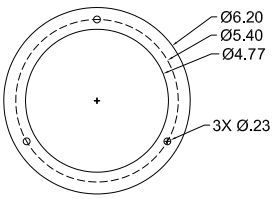
REOTEMP's Series PI45 process gauge is designed to withstand corrosive atmospheres and media, ideal for panel builders in the heavy-industrial markets. The hinge-front case allows for easy access to the gauge dial while still panel mounted.

PI

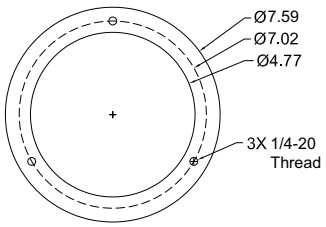


PI45

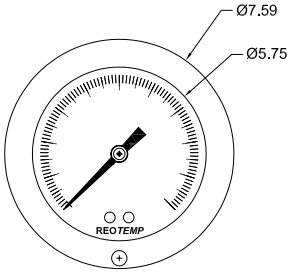
*dimensions in inches



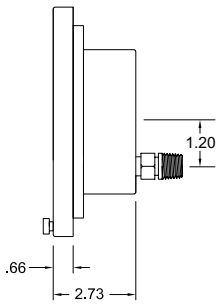
Integrated PI45 Mounting Flange



Integrated PI60 Mounting Flange



PI60



*dimensions in inches

Dials | Accuracy | Custom Logo | Diaphragm Seal Compatible

FEATURES / BENEFITS

- All Stainless Steel Internal Parts
- Internal Overload and Underload Stops
- Micro-Adjustable Pointer with Floating Zero
- Hinge-front Case for Easy Recalibration

ASME B40.100 NACE

SPECIFICATIONS

Construction Materials:

Non Wetted
- Case: Black Painted Aluminum
- Ring: Black Painted Aluminum
- Dial: Aluminum

Wetted
- Tube: 316LSS, Seamless
- Socket: 316SS

Case-to-Socket
- O-Ring, Vented

Lens
- Tempered Safety Glass (std)
- Plastic (optional)
- Laminated Safety Glass (optional)

Temperature Limits:

Ambient
-40°F — 150°F

Process
-40°F — 250°F

Process Temperature Limits When Assembled with a Diaphragm Seal
-60°F — 400°F

Direct Mount
-100°F — 750°F

Remote Mount or Cooling Tower

*Exact temperature limits will depend on diaphragm seal & fill fluid.

Accuracy: ±0.5%, ASME Grade 2A,
(10k-20k psi, 1% upscale and 3% downscale)

Fillable: No

Restrictor Screw: Yes

Weight: 2.5lbs

Maximum Working Pressure:
Stable = 100%
Momentary = 130% of scale

HINGE-FRONT INDUSTRIAL PROCESS GAUGE

Visit reotemp.com

- ✓ Check Stock
- ✓ Get Price
- ✓ Configure Part #
- ✓ Download PDF Data Sheets

HOW TO ORDER: Choose options to build a part number. For example: PI45H1E2P16-D-P-HV

PI45	H	1	E	2	P16	-D	-P	-HV
DIAL SIZE	CASE TYPE	TUBE & SOCKET	MOUNT TYPE	CONNECTION	RANGE CODE	CASE FILL	LENS	OPTIONS

PI45 = 4.5”
***PI60** = 6”

H = Black Painted Aluminum, Hinge- Front

1 = 316SS
***3** = Monel

E =  Lower Back/Front Flange

2 = 1/2” NPT
4 = 1/4” NPT

See Master Range Code Sheet on Page 45

Common Ranges
P01 = -30 inHg-0 psi
P03 = -30 inHg-0-30 psi
P16 = 0-30 psi
P18 = 0-100 psi
P20 = 0-200 psi
P21 = 0-300 psi
P25 = 0-1,000 psi
P34 = 0-5,000 psi

Available Ranges
- Vac to 20,000 psi
- Gauge Pressure, Vacuum, or Compound
- Lowest Range = 10 psi

Available Units
- psi
- bar
- kPa
- kg/cm^2
- ft$H_2$0
- & more

Case is Not Fillable

-D = Dry

-P = Plastic

-HV = Hi-Vis™ Dial
-C3 = 3 pt. Calibration Certificate
-OX = Cleaned for O_2 Service
-NC = NACE Compliance Certificate
-PM = Positive Material Identification Certification

*Non-standard configuration

Diaphragm Seal Suitability Guide

For applications where a diaphragm seal is required, the following diaphragm seal model types are most commonly assembled and filled to Series PI45 pressure gauges. This matrix identifies which diaphragm seal is appropriate based on the specified pressure range. Please reference the diaphragm seal data sheet and seal fill fluid guide for additional application considerations including max pressure, temperature limits, and material compatibility.

Diaphragm Seal Model		Total Gauge Span* (in psi)						
		15	30	45	60	75	100	160+
Mini Seals	MS6	X	S	T	T	T		
	MS8	S	T	T				
Threaded Flush	1”	X	X	X	S	S	T	
	1.5”	S	S	T	T			
Offline	W5	S	T	T				
	W6	T						
	T5	S	T					
	V5							

*Total gauge span is additive of negative and positive pressures.

Example: -15 - 0 - 30 psi = 45 psi span

- Assembly will function correctly with minimal accuracy degradation.
- T — Assembly will function correctly given stable temperature.
- S — Assembly is highly sensitive to orientation and temperature variance. REOTEMP cannot guarantee a stated accuracy.
- X — Assembly will not work. The diaphragm does not displace enough fill fluid to drive the pressure gauge.

ALL STAINLESS STEEL LOW PRESSURE GAUGE

REOTEMP's Series PC low pressure gauges offer accurate and reliable measurements of gaseous media. Offered with stainless steel internals, the Series PC is designed to withstand corrosive media and ensure a long-lasting instrument.

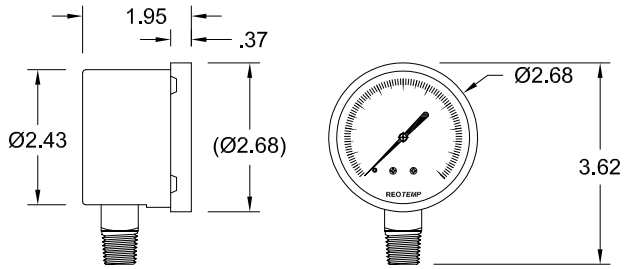
PC25S1 PC40S1 PC60S1

Dials Custom Logo Diaphragm Seal Compatible

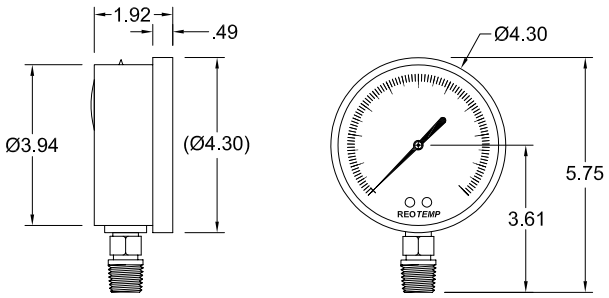
FEATURES / BENEFITS

- Sensitive Diaphragm/Capsule Mechanism
- All-Welded 316 Stainless Steel Capsule and Socket
- Easy-Access Zero Reset Screw on Dial

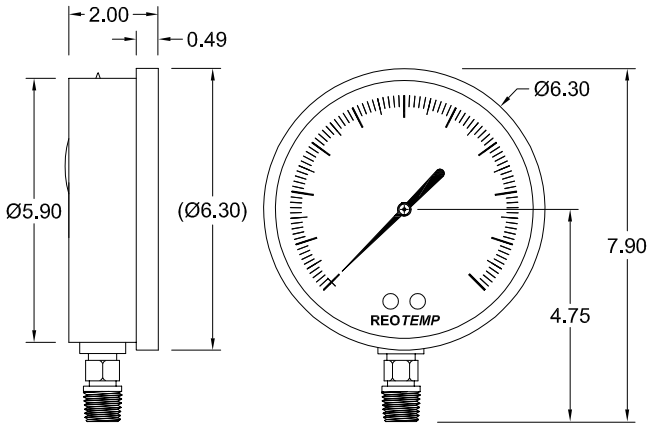
ASME B40.100 NACE



PC25S1 *dimensions in inches



PC40S1 *dimensions in inches



PC60S1 *dimensions in inches

SPECIFICATIONS

Construction Materials:

Non Wetted
- Case: 304SS
- Ring: 304SS, Bayonet Twist-Off
- Dial: White Aluminum, Black Letters

Wetted
- Capsule: 316LSS
- Socket: 316SS

Case-to-Socket
- Screw Connection
- Vented Case

Lens
- Tempered Safety Glass (Standard), Plastic, or Laminated Safety Glass

Temperature Limits:

Ambient
-40°F — 150°F

Process
-40°F — 200°F

Process Temperature Limits When Assembled with a Diaphragm Seal

-60°F — 350°F
Direct Mount

-100°F — 750°F
Remote Mount or Cooling Tower

*Exact temperature limits will depend on diaphragm seal & fill fluid.

Accuracy: 2-1.6-2%
Fillable: No
Restrictor Screw: Yes
Weight: 2.5" = 0.5 lbs
4" = 1.1 lbs
6" = 2.1 lbs
Maximum Working Pressure:
Stable = 100%
Momentary = 130% of scale

ALL STAINLESS STEEL LOW PRESSURE GAUGE

Visit reotemp.com

✓ Check Stock ✓ Get Price
✓ Configure Part # ✓ Download PDF Data Sheets

HOW TO ORDER: Choose options to build a part number. For example: PC40S1A2P52-D-T-HV

PC40	S	1	A	2	P52	-D	-T	-HV
DIAL SIZE	CASE TYPE	CAPSULE & SOCKET	MOUNT TYPE	CONNECTION	RANGE CODE	CASE FILL	LENS	OPTIONS

DIAL SIZE

PC25 = 2.5”

PC40 = 4”
PC60 = 6”

CASE TYPE

S = 304SS Case & Bezel w/ Removable Bayonet, Zero Correction on Dial

CAPSULE & SOCKET

1 = 316SS

MOUNT TYPE

A = Bottom
B = Bottom/Rear Flange
***C** = Center Back
***D** = Center Back “U” Clamp
***E** = Center Back/Front Flange

A = Bottom
B = Bottom/Rear Flange
***C** = Lower Back
***E** = Lower Back/Front Flange

CONNECTION

4 = 1/4” NPT

4 = 1/4” NPT
2 = 1/2” NPT

RANGE CODE

See Master Range Code Sheet on Page 46

Common Ranges
P50 = 0-10 in H_2O
P51 = 0-15 in H_2O
P52 = 0-30 in H_2O
P53 = 0-60 in H_2O
P54 = 0-100 in H_2O
P55 = 0-160 in H_2O
P56 = 0-200 in H_2O

Available Ranges
- 10” to 300” Water Column
- Gauge Pressure, Vacuum, or Compound

Standard Units
- in H_2O

Available Units
- kPa
- mbar
- psi
- mmH_2O
- inHg
- mmHg
- oz/in^2
- & more

CASE FILL

Case is Not Fillable

-D = Dry

LENS

-T = Tempered Safety Glass (std)
-P = Plastic
-S = Laminated Safety Glass

OPTIONS

-HV = Hi-Vis™ Dial
-OX = Cleaned for O_2 Service
-C3 = 3 pt. Calibration Certificate
-TS = Stainless Steel Tag
-NC = NACE Compliance Certificate
-PM = Positive Material Identification Certification
-R5 = 1.5% Full Scale Accuracy (Not Available on Compound Ranges)

*Non-standard configuration

Diaphragm Seal Suitability Guide

Low pressure capsule gauges are very sensitive and require diaphragm seals with high fluid displacement. If a diaphragm seal is required to isolate the process fluid from the pressure gauge, the following seal model types are available for the Series PC.

Diaphragm Seal Model

High Displacement

Total Gauge Span* (in H_2O)

	10”	15”	20”	30”	40”	60”	100”	160”	200”	300”
W6	X	X	X	X	X	X	S	S	T	T
W7	X	X	X	S	S	T	T	T		
V5	X	S	S	T	T	T	T	T		
T6	X	X	X	X	X	S	S	S	S	S

*Total gauge span is additive of negative and positive pressures.

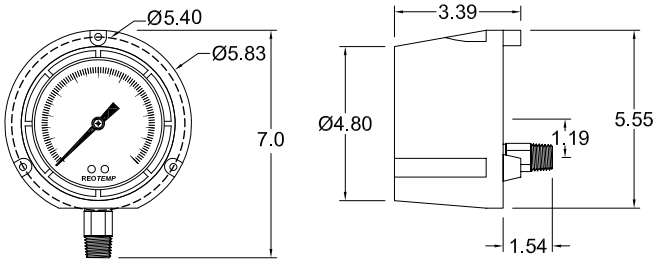
Example: -15 - 0 - 30 psi = 45 psi span

- Assembly will function correctly with minimal accuracy degradation.
- T — Assembly will function correctly given stable temperature.
- S — Assembly is highly sensitive to orientation and temperature variance. REOTEMP cannot guarantee a stated accuracy.
- X — Assembly will not work. The diaphragm does not displace enough fill fluid to drive the pressure gauge.

4.5” LOW PRESSURE CAPSULE GAUGE

REOTEMP’s Series PC45 low pressure capsule gauges offer accurate and reliable measurements of gaseous media. Offered with stainless steel internals, they are designed to withstand corrosive media and ensure a long-lasting instrument.

PC45



PC45 *dimensions in inches

Dials

Custom Logo

Diaphragm Seal Compatible

FEATURES / BENEFITS

- Sensitive Diaphragm/Capsule Mechanism
- Safety Blowout Back
- Easy-Access Zero Reset on Dial

ASME B40.100

NACE

SPECIFICATIONS

Construction Materials:

Non Wetted
- Case: Reinforced Thermoplastic, Phenolic
- Ring: Phenolic, Twist-Off
- Dial: Aluminum

Wetted
- Capsule: 316L SS
- Socket: 316SS

Case-to-Socket
- O-ring
- Vented Case

Lens
- Tempered Safety Glass, Plastic, or Laminated Safety Glass

Temperature Limits:

Ambient: -40°F to 150°F

Process: -40°F to 200°F

Process Temperature Limits When Assembled with a Diaphragm Seal

Direct Mount: -60°F to 350°F

Remote Mount or Cooling Tower: -100°F to 750°F

*Exact temperature limits will depend on diaphragm seal & fill fluid.

Accuracy: 2-1.6-2% Full Scale
Fillable: No
Restrictor Screw: Yes
Weight: 2.3 lbs
Maximum Working Pressure:
Stable = 100%
Momentary = 130% of scale

4.5” LOW PRESSURE CAPSULE GAUGE

Visit reotemp.com

✓ Check Stock ✓ Get Price
✓ Configure Part # ✓ Download PDF Data Sheets

HOW TO ORDER: Choose options to build a part number. For example: PC45P1A4P53-D-T-HV

PC45	P	1	A	4	P53	-D	-T	-HV
DIAL SIZE	CASE TYPE	CAPSULE & SOCKET	MOUNT TYPE	CONNECTION	RANGE CODE	CASE FILL	LENS	OPTIONS

PC45 = 4.5”

P = Fiberglass Reinforced Thermoplastic

Wetted
1 = 316SS

A = Bottom
***C** = Lower Back

4 = 1/4” NPT
2 = 1/2” NPT

See Master Range Code Sheet on Page 46

Common Ranges
P50 = 0-10 in H_2O
P51 = 0-15 in H_2O
P52 = 0-30 in H_2O
P53 = 0-60 in H_2O
P54 = 0-100 in H_2O
P55 = 0-160 in H_2O
P56 = 0-200 in H_2O

Available Ranges
- 10” to 300” Water Column
- Gauge Pressure, Vacuum, or Compound

Standard Units
- in H_2O

Available Units
- kPa
- mbar
- psi
- mmH_2O
- inHg
- mmHg
- oz/in^2
- & more

Case is not fillable.
-D = Dry

-T = Tempered Safety Glass (std)
-P = Plastic
-S = Laminated Safety Glass

-HV = Hi-Vis™ Dial
-C3 = 3pt. Calibration Certificate
-TS =Stainless Steel Tag
-FM =Flush Mount Ring for Panel Mounting
-NC = NACE Compliance Certificate
-PM = Positive Material Identification Certification
-R5 = 1.5% Full Scale Accuracy (Not Available on Compound Ranges)

*Non-standard configuration

Diaphragm Seal Suitability Guide

Low pressure capsule gauges are very sensitive and require diaphragm seals with high fluid displacement. If a diaphragm seal is required to isolate the process fluid from the pressure gauge, the following seal model types are available for the Series PC.

Diaphragm Seal Model

High Displacement

Total Gauge Span* (in H_2O)

	10”	15”	20”	30”	40”	60”	100”	160”	200”	300”
W6	X	X	X	X	X	X	S	S	T	T
W7	X	X	X	S	S	T	T	T		
V5	X	S	S	T	T	T	T	T		
T6	X	X	X	X	X	S	S	S	S	S

*Total gauge span is additive of negative and positive pressures.

Example: -15 - 0 - 30 psi = 45 psi span

- Assembly will function correctly with minimal accuracy degradation.
- T — Assembly will function correctly given stable temperature.
- S — Assembly is highly sensitive to orientation and temperature variance. REOTEMP cannot guarantee a stated accuracy.
- X — Assembly will not work. The diaphragm does not displace enough fill fluid to drive the pressure gauge.

2.5” GENERAL PURPOSE LOW PRESSURE GAUGE

REOTEMP’s Series PC25N2/S2 brass gauges are designed for use in low pressure applications with dry gasses that are compatible with copper alloy. Examples include: exhaust systems and blowers.

PC25N2

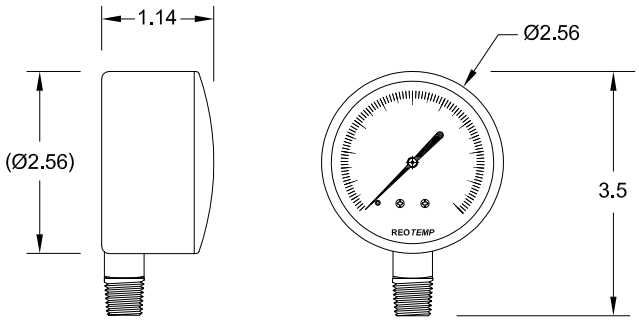
PC25S2

Custom Logo

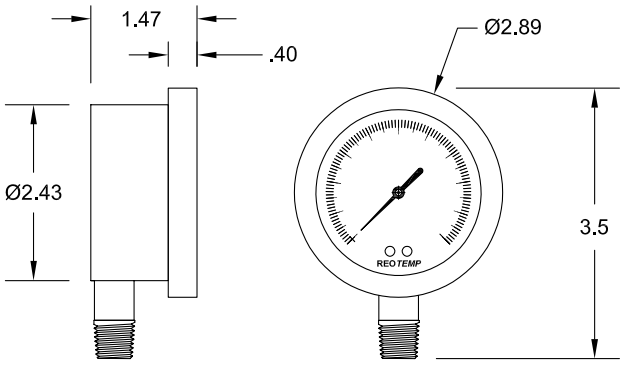
FEATURES / BENEFITS

- Sensitive Diaphragm/Capsule Mechanism
- Black Steel or Stainless Steel Case
- Easy-Access Zero Reset on Dial
- Economical Design for Non-Severe Service

ASME B40.100



PC25N2 *dimensions in inches



PC25S2 *dimensions in inches

SPECIFICATIONS

Construction Materials:

Non Wetted
- Case: Black Painted Steel or 304SS
- Ring: Snap-In Plastic or 304SS
- Dial: White Aluminum, Black Letters

Wetted
- Capsule: Copper Alloy
- Socket: Copper Alloy

Case-to-Socket
- Screw Connection

Lens
- Plastic (Standard on “N” case, optional on “S” case)
- Glass (Standard on “S” case, not available on “N” case)

Temperature Limits:

Ambient: -40°F — 140°F

Process: -40°F — 140°F

Process Temperature Limits When Assembled with a Diaphragm Seal

Cannot Be Mounted to a Diaphragm Seal

Accuracy: 3 - 2 - 3%, ASME Grade B
Fillable: No
Restrictor Screw: No
Weight: PC25N = .25 lbs, PC25S = .4 lbs
Maximum Working Pressure:
Stable = 100%
Momentary = 110% of scale

2.5” GENERAL PURPOSE LOW PRESSURE GAUGE

Visit reotemp.com

✓ Check Stock ✓ Get Price
✓ Configure Part # ✓ Download PDF Data Sheets

HOW TO ORDER: Choose options to build a part number. For example: PC25N2A4P53-D-P-TS

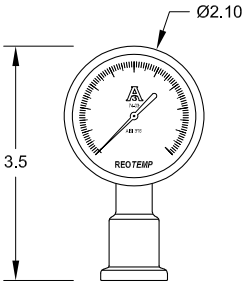
PC25	N	2	A	4	P53	-D	-P	-TS
DIAL SIZE	CASE	CAPSULE & SOCKET	MOUNT TYPE	CONNECTION	RANGE CODE	CASE FILL	LENS	OPTIONS
PC25 = 2.5”	**N** = Black Steel w/ Snap-In Plastic Window Zero Correction **S** = 304 SS Case & Bezel w/ Removable Bayonet; Zero Correction on Dial	**2** = Copper Alloy	**A** = Bottom ***B** = Bottom/ Rear Flange **C** = Center Back ***D** = Center Back “U” Clamp ***E** = Center Back/ Front Flange	**4** = 1/4” NPT	*See Master Range Code Sheet on Page 46* *Common Ranges* **P51** = 0-15 in H_2O **P52** = 0-30 in H_2O **P53** = 0-60 in H_2O **P54** = 0-100 in H_2O **P55** = 0-160 in H_2O **P56** = 0-200 in H_2O **I55** = 0-5 psi *Available Ranges* ■ 15” to 300” Water Column ■ Gauge Pressure, Vacuum, or Compound *Standard Units* ■ in H_2O *Available Units* ■ kPa ■ inHg ■ mbar ■ mmHg ■ psi ■ oz/in² ■ mmH_2O ■ & more	*Case is Not Fillable* **-D** = Dry	**-P** = Plastic[1] **-G** = Glass[2]	**-TS** = Stainless Steel Tag **-C3** = 3 pt. Calibration Certificate

*Non-standard configuration
[1]Standard on "N" Case
[2]Standard for “S” Case but Not Available on “N” Case

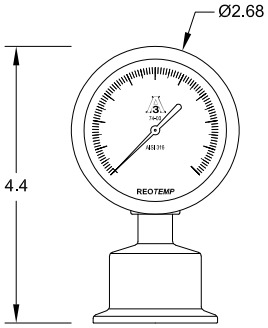
SANITARY PRESSURE GAUGE

REOTEMP SG sanitary gauges are specially designed to meet the demanding safety requirements of the food, dairy, beverage, pharmaceutical, and biotech applications. They come standard with 3-A certification.

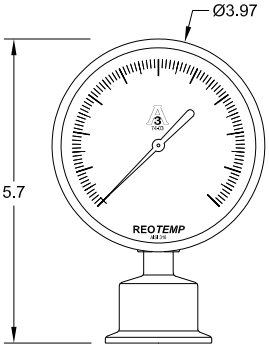
SG



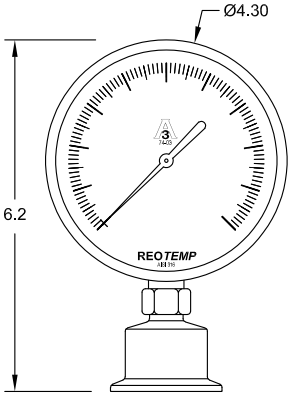
SG20ATC75
2” Gauge with 3/4” Tri-Clamp



SG25ATC15
2.5” Gauge with 1.5” Tri-Clamp



SG35ATC15
3.5” Gauge with 1.5” Tri-Clamp



SG40ATC15
4” Gauge with 1.5” Tri-Clamp

For specific assembly drawings see online configurator.

Certified Fillable Custom Logo Dials

FEATURES / BENEFITS

ASME B40.100

- Quick Connect Tri-Clamp® Design
- Fast Removal and Installation of Instruments, to Allow Flushing or Changing the Process Media
- Ideal for Clean-in-Place, or Equipment Washdown
- Designed to Meet 3-A Sanitary Standards
- Comes Standard with 3-A Certification
- All Welded 316SS Tube, Socket, Seal, and Diaphragm

SPECIFICATIONS

Construction Materials:
Non Wetted
Case: 304SS
Dial: White Aluminum, Black Letters
Wetted
Body: 316SS
Internal Parts: 316SS
Wetted Surface Finish: 18-24 Ra

Temperature Limits:
Ambient
-40°F — 130°F
Process
-40°F — 200°F

Accuracy:
1.5" Tri-Clamp and Larger
+/-1.5% for 100 psi and Above
+/-2% for Vacuum, Compound and <100 psi
3/4" Tri-Clamp
+/-2.5% Upscale
+/-4% Downscale

Fillable: Yes, All Models Except SG20

Maximum Working Pressure:
Stable = 100% of Scale
Momentary = 130% of Scale

SANITARY PRESSURE GAUGE

Visit reotemp.com

✓ Check Stock ✓ Get Price
✓ Configure Part # ✓ Download PDF Data Sheets

HOW TO ORDER: Choose options to build a part number. For example: SG25ATC20P18-D-P-AG-PP

SG25	A	TC	20	P18	-D	-P	-AG	-PP

MODEL	CONNECTION LOCATION	CONNECTION TYPE	CLAMP SIZE	PRESSURE RANGE	CASE FILL	LENS	SEAL FILL FLUID	OPTIONS
SG20 = 2" Dial Sanitary Gauge **SG25** = 2.5" Dial Sanitary Gauge **SG35** = 3" Dial Sanitary Gauge **SG40** = 4" Dial Sanitary Gauge	**A** = Bottom Connection **C** = Back Connection (Center Back Mount, Except 4" Dial is Lower Back Mount) **L** = Left Side Connection **R** = Right Side Connection **T** = Top Connection	**TC** = Tri-Clamp **CI** = I-Line	**75** = 3/4" **15** = 1.5" **20** = 2" **25** = 2.5" **30** = 3"	*See Master Range Code Sheet on Page 45* *Common Ranges* **P01** = -30inHg-0 psi **P03** = -30inHg-0-30 psi **P16** = 0-30 psi **P18** = 0-100 psi **P20** = 0-200 psi **P21** = 0-300 psi *Available Ranges* ■ Vac to 1,000 psi ■ Gauge Pressure, Vacuum, or Compound ■ Lowest Range = 15 psi *Available Units:* ■ psi (std) ■ bar ■ kPa ■ kg/cm^2 ■ ft H_2O ■ & more	**-D** = Dry **-G** = USP Glycerin **-W** = Glycerin/ Water (65/35) **-S** = Silicone *SG20 is Not Fillable*	**-P** = Plastic **-F** = Polysulfone* **-S** = Laminated Safety Glass* **-T** = Tempered Safety Glass* *Not Available on SG20	*See Page 58 for Complete Fill Guide* **-AG** = USP Glycerin **-BN** = Neobee M20 **-BS** = Food-grade Silicone	**-PP** = Pulse Plus™ (Pulsation Protection) **-EP** = Electropolish Diaphragm **-HC** = Hastelloy C-276 Wetted Parts **-TS** = SS Tag (1-10 Characters) **-HV** = Hi-Vis™ Dial **-MP** = Max Pointer (SG25 or SG40 Only) **-C3** = 3 Point Calibration Cert *See Pages 50 & 78 for Additional Options*

Diaphragm Seal Suitability Guide

For applications where a diaphragm seal is required, the following diaphragm seal model types are most commonly assembled and filled to Series PR25/35 pressure gauges. This matrix identifies which diaphragm seal is appropriate based on the specified pressure range. Please reference the diaphragm seal data sheet and seal fill fluid guide for additional application considerations including max pressure, temperature limits, and material compatibility.

Total Gauge Span* (in psi)

	Tri-Clamp	15	30	45	60	75	100	160	200 +
SG20	3/4"	X	S	S	T	T			
	1.5"	T							
	2"								
SG25	3/4"	X	S	S	T	T	T	T	
	1.5"	T	T						
	2"								
SG35	3/4"	X	S	S	T	T	T	T	
	1.5"	T	T						
	2"								
SG40	3/4"	X	X	X	X	X	X	X	X
	1.5"	X	X	X	T	T	T		
	2"	S	T	T					
	2.5"	T							

*Total gauge span is additive of negative and positive pressures.

Example: -15 - 0 - 30 psi = 45 psi span

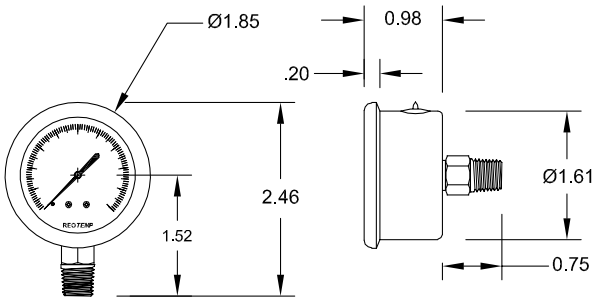
- Assembly will function correctly with minimal accuracy degradation.
- T: Assembly will function correctly given stable temperature.
- S: Assembly is highly sensitive to orientation and temperature variance. REOTEMP cannot guarantee a stated accuracy.
- X: Assembly will not work. The diaphragm does not displace enough fill fluid to drive the pressure gauge.

INDUSTRIAL STAINLESS STEEL GAUGE

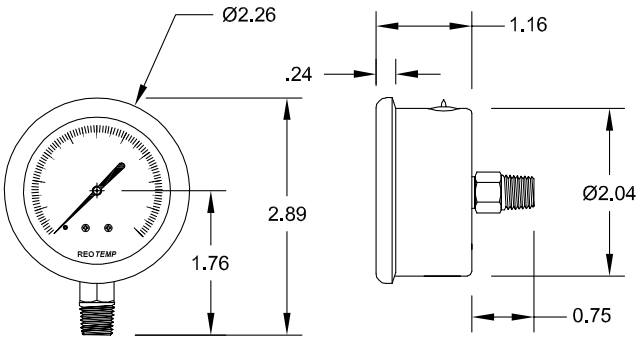
REOTEMP's Series PM feature a stainless steel case, tube and socket, making the gauges resistant to corrosion from both environment and media. Liquid filling is recommended for severe service. The economical and attractive crimp ring design, along with a variety of convenient panel mounting adapters, make this popular gauge the right choice for many applications.

PM15C1A

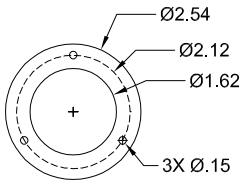
PM15C1C



PM15 *dimensions in inches



PM20 *dimensions in inches



For PM20 mounting flange details, please contact REOTEMP customer service.

PM15 Mounting Flange

Fillable

FEATURES / BENEFITS

- Stainless Steel Case and Crimped Ring
- Stainless Steel Wetted Parts
- Glycerin Filled or Dry/Fillable
- Compact Design for Space-Limited Installation

ASME B40.100

SPECIFICATIONS

Construction Materials:

Non Wetted
- Case: 304SS
- Ring: 304SS
- Dial: White Aluminium, Black Letters

Wetted
- Tube: 316SS
- Socket: 316SS

Case-to-Socket
- Screw Connection

Lens
- Plastic (std.) or Glass (optional)

Temperature Limits:

Ambient: -40°F — 140°F

Process: -40°F — 150°F

Process Temperature Limits When Assembled with a Diaphragm Seal

Cannot Be Mounted to a Diaphragm Seal

Accuracy: 3 - 2 - 3%, ASME Grade B
Fillable: Yes
Restrictor Screw: Built-in, Non-Removable
Weight: 1.5" = 0.15 lbs (0.25 lbs filled)
2" = 0.30 lbs (0.4 lbs filled)
Maximum Working Pressure:
Stable = 100%
Momentary = 110% of scale

INDUSTRIAL STAINLESS STEEL GAUGE

Visit reotemp.com

- ✓ Check Stock
- ✓ Get Price
- ✓ Configure Part #
- ✓ Download PDF Data Sheets

HOW TO ORDER: Choose options to build a part number. For example: PM15C1A8P16-G-P-TS

PM15	C	1	A	8	P16	-G	-P	-TS
DIAL SIZE	CASE TYPE	TUBE & SOCKET	MOUNT TYPE	CONNECTION	RANGE CODE	CASE FILL	LENS	OPTIONS
PM15 = 1.5” **PM20** = 2”	**C** = 304SS, Crimped Ring	**1** = 316SS	**A** =  Bottom **C** =  Center Back **D** =  Center Back “U” Clamp **E** =  Center Back/ Front Flange	**8** = 1/8” NPT **4** = 1/4” NPT	*See Master Range Code Sheet on Page 45* *Common Ranges* **P16** = 0-30 psi **P17** = 0-60 psi **P18** = 0-100 psi **P19** = 0-160 psi **P20** = 0-200 psi **P21** = 0-300 psi **P23** = 0-600 psi **P25** = 0-1,000 psi *Available Ranges* ■ Gauge Pressure, Vacuum, or Compound ■ Vac. to 6,000 PSI	**-D** = Dry **-G** = Glycerin **-W** = Glycerin/ Water (65/35)	**-P** = Plastic ***-G** = Glass	**-TS** = Stainless Steel Tag

*Non-standard configuration

INDUSTRIAL STAINLESS STEEL GAUGE

REOTEMP's Series PM feature a stainless steel case, tube and socket, making the gauges resistant to corrosion from both environment and media. Liquid filling is recommended for severe service. The economical and attractive crimp ring design, along with a variety of convenient panel mounting adapters, make this popular gauge the right choice for many applications.

PM25 PM40

Fillable Custom Logo

FEATURES / BENEFITS

ASME B40.100

- Economical Gauge with Stainless Steel Case and Internals
- Case is Easy to Fill in the Field
- Ideal for Both Indoor and Outdoor Applications

SPECIFICATIONS

Construction Materials:

Non Wetted
- Case: 304SS
- Ring: 304SS
- Dial: White Aluminum, Black Letters

Wetted
- Tube: 316SS
- Socket: 316SS

Case-to-Socket
- Screw Connection

Lens
- Plastic

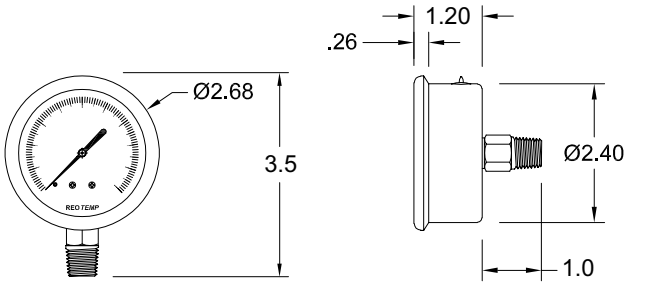
Temperature Limits:

Ambient: -40°F — 150°F

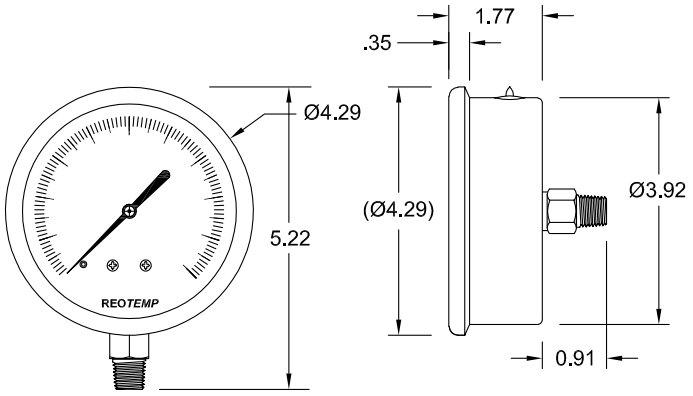
Process: -40°F — 150°F

Process Temperature Limits When Assembled with a Diaphragm Seal
Not Recommended for Diaphragm Seal Mounting
See PR Model Gauges for Diaphragm Seal Mounting

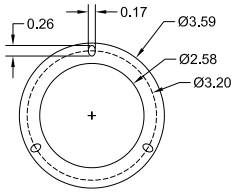
Accuracy: 2 - 1.6 - 2%, ASME Grade B+
Fillable: Yes
Restrictor Screw: Built-in, Non-removable
Weight: 2.5" = 0.3 lbs (0.45 lbs filled)
4" = 0.8 lbs (1.4 lbs filled)
Maximum Working Pressure:
Stable = 100%
Momentary = 110% of scale



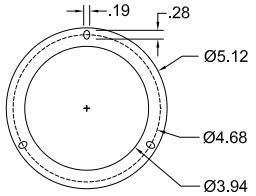
PM25 *dimensions in inches



PM40 *dimensions in inches



PM25 MOUNTING FLANGE



PM40 MOUNTING FLANGE

INDUSTRIAL STAINLESS STEEL GAUGE

Visit reotemp.com

- ✓ Check Stock
- ✓ Get Price
- ✓ Configure Part #
- ✓ Download PDF Data Sheets

HOW TO ORDER: Choose options to build a part number. For example: PM25C1A4P18-G-P-TS

PM25	C	1	A	4	P18	-G	-P	-TS
DIAL SIZE	CASE TYPE	TUBE & SOCKET	MOUNT TYPE	CONNECTION	RANGE CODE	CASE FILL	LENS	OPTIONS
PM25 = 2.5” **PM40** = 4”	**C** = 304SS Case w/ Crimped Ring	**1** = 316SS	**A** =  Bottom **B** =  Bottom/Rear Flange [1]**C** =  Center Back [1]**D** =  Center Back “U” Clamp [1]**E** =  Center Back/Front Flange	**4** = 1/4” NPT **2** = 1/2” NPT (Not available on PM25)	*See Master Range Code Sheet on Page 45* *Common Ranges* **P16** = 0-30 psi **P17** = 0-60 psi **P18** = 0-100 psi **P19** = 0-160 psi **P20** = 0-200 psi **P21** = 0-300 psi **P23** = 0-600 psi **P25** = 0-1,000 psi *Available Ranges* ■ Gauge Pressure, Vacuum, or Compound ■ Vac to 10,000 psi	**-D** = Dry **-G** = Glycerin **-W** = Glycerin/ Water (65/35)	**-P** = Plastic ***-G** = Glass	**-TS** = Stainless Steel Tag

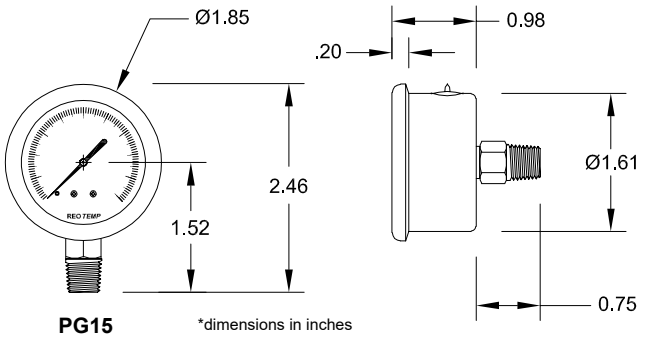
*Non-standard configuration
[1]Non-standard configuration for PM40

INDUSTRIAL STAINLESS/BRASS GAUGE

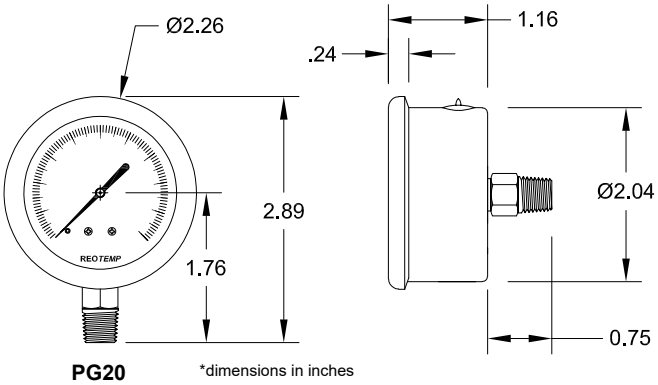
REOTEMP's Series PG gauges are an economical choice where ambient corrosion and vibration are of concern. The stainless steel case and ring offer excellent corrosion resistance, and is fillable for vibration or pulsation applications. It is suitable for all fluids compatible with copper alloys.

PG15C2A

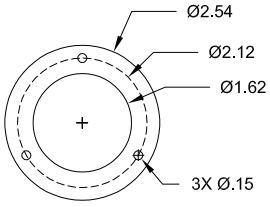
PG15C2C



PG15 *dimensions in inches



PG20 *dimensions in inches



PG15 Mounting Flange

For PG20 mounting flange details, please contact REOTEMP customer service.

Fillable Custom Logo

FEATURES / BENEFITS

- Stainless Steel Case
- Copper Alloy Wetted Parts
- Glycerin Filled or Dry/Fillable
- Convenient Panel Mounting Adapters

ASME B40.100

SPECIFICATIONS

Construction Materials:

Non Wetted
- Case: 304SS
- Ring: 304SS
- Dial: White Aluminum, Black Letters

Wetted
- Tube: Copper Alloy
- Socket: Copper Alloy

Case-to-Socket
- Screw Connection

Lens
- Plastic (std)
- Glass (optional)

Temperature Limits:

Ambient: -40°F — 140°F

Process: -40°F — 140°F

Process Temperature Limits When Assembled with a Diaphragm Seal

Cannot Be Mounted to a Diaphragm Seal

Accuracy: 3 - 2 - 3%, ASME Grade B
Fillable: Yes
Restrictor Screw: Built-In, Non-Removable
Weight 1.5" = 0.15 lbs (0.25 lbs filled)
2" = 0.3 lbs (0.4 lbs filled)
Maximum Working Pressure:
Stable = 100%
Momentary = 110% of scale

INDUSTRIAL STAINLESS/BRASS GAUGE

Visit reotemp.com

- ✓ Check Stock
- ✓ Get Price
- ✓ Configure Part #
- ✓ Download PDF Data Sheets

HOW TO ORDER: Choose options to build a part number. For example: PG15C2A4P18-G-P-TS

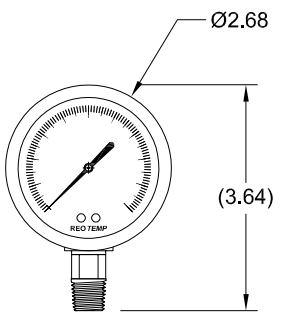
PG15	C	2	A	4	P18	-G	-P	-TS
DIAL SIZE	**CASE TYPE**	**TUBE & SOCKET**	**MOUNT TYPE**	**CONNECTION**	**RANGE CODE**	**CASE FILL**	**LENS**	**OPTIONS**
PG15 = 1.5” **PG20** = 2”	**C** = 304SS Crimped Ring	**2** = Copper Alloy	**A** = Bottom **C** = Center Back **D** = Center Back “U” Clamp **E** = Center Back/ Front Flange	**8** = 1/8” NPT **4** = 1/4” NPT	*See Master Range Code Sheet on Page 45* *Common Ranges* **P16** = 0-30 psi **P17** = 0-60 psi **P18** = 0-100 psi **P19** = 0-160 psi **P20** = 0-200 psi **P21** = 0-300 psi **P23** = 0-600 psi **P25** = 0-1,000 psi *Available Ranges* ■ Gauge Pressure, Vacuum, or Compound ■ Vac to 6,000 psi	**-D** = Dry **-G** = Glycerin **-W** = Glycerin/ Water (65/35) *Note: This model cannot be filled with Silicone.*	**-P** = Plastic ***-G** = Glass	**-TS** = Stainless Steel Tag

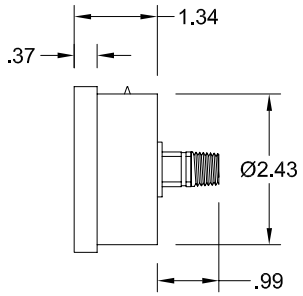
*Non-standard configuration

INDUSTRIAL STAINLESS/BRASS GAUGE

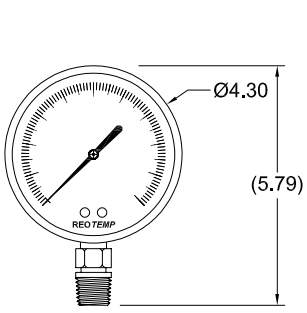
REOTEMP's Series PG gauges are an economical choice where ambient corrosion and vibration are of concern. The stainless steel case and ring offer excellent corrosion resistance, and is fillable for applications with vibration. It is suitable for all fluids compatible with copper alloys.

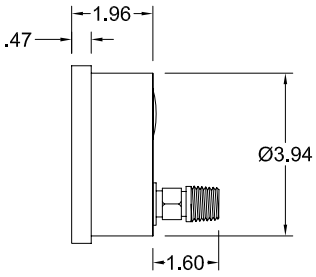
PG25C2 PG40C2



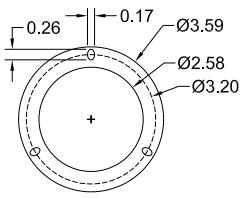


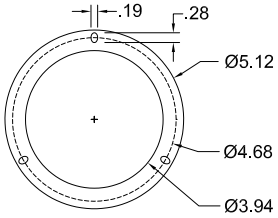
PG25C2 *dimensions in inches





PG40C2 *dimensions in inches





2.5" MOUNTING FLANGE 4" MOUNTING FLANGE

Fillable Custom Logo

FEATURES / BENEFITS

- Stainless Steel Case
- Copper Alloy Wetted Parts
- Field Fillable Case
- Convenient Panel Mounting Adapters

ASME B40.100

SPECIFICATIONS

Construction Materials:

Non Wetted
- Case: 304SS
- Ring: 304SS
- Dial: White Aluminum, Black Letters

Wetted
- Tube: Copper Alloy
- Socket: Copper Alloy

Case-to-Socket
- Screw Connection

Lens
- Plastic (std)
- Glass (optional)

Temperature Limits:

Ambient
-40°F — 140°F

Process
-40°F — 140°F

Process Temperature Limits When Assembled with a Diaphragm Seal

Cannot Be Mounted to a Diaphragm Seal

Accuracy: 2.5" = 3 - 2 - 3%, ASME Grade B
4" = 2 - 1 - 2%, ASME Grade A

Fillable: Yes

Restrictor Screw: Built-In, Non-Removable

Weight: 2.5" = 0.25 lbs (0.4 lbs filled)
4" = 0.6 lbs (1.2 lbs filled)

Maximum Working Pressure
Stable = 100%
Momentary = 110% of scale

INDUSTRIAL STAINLESS/BRASS GAUGE

Visit reotemp.com

- ✓ Check Stock
- ✓ Get Price
- ✓ Configure Part #
- ✓ Download PDF Data Sheets

HOW TO ORDER: Choose options to build a part number. For example: PG25C2A4P18-D-P-TS

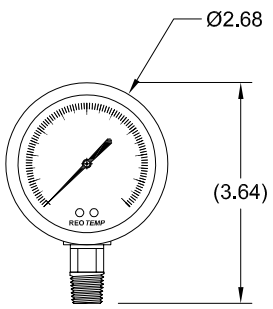
PG25	C	2	A	4	P18	-D	-P	-TS
DIAL SIZE	CASE TYPE	TUBE & SOCKET	MOUNT TYPE	CONNECTION	RANGE CODE	CASE FILL	LENS	OPTIONS
PG25 = 2.5" **PG40** = 4"	**C** = 304SS Crimped Ring	**2** = Copper Alloy	**A** = Bottom **B** = Bottom/Rear Flange **C** = Center Back **D** = Center Back "U" Clamp **E** = Center Back/Front Flange	**4** = 1/4" NPT ***2** = 1/2" NPT	*See Master Range Code Sheet on Page 45* *Common Ranges* **P16** = 0-30 psi **P17** = 0-60 psi **P18** = 0-100 psi **P19** = 0-160 psi **P20** = 0-200 psi **P21** = 0-300 psi **P23** = 0-600 psi **P25** = 0-1,000 psi *Available Ranges* ■ Gauge Pressure, Vacuum, or Compound ■ Vac to 6,000 psi	**-D** = Dry **-G** = Glycerin **-W** = Glycerin/ Water (65/35) *Note: This model cannot be filled with Silicone.*	**-P** = Plastic ***-G** = Glass	**-TS** = Stainless Steel Tag

*Non-standard configuration

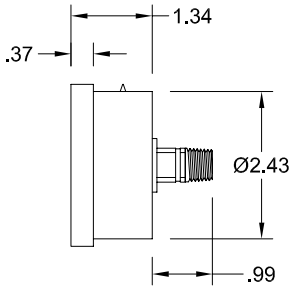
REPAIRABLE STAINLESS/BRASS GAUGE

REOTEMP's Series PG gauges are an economical choice where ambient corrosion and vibration are of concern. The stainless steel case and ring offer excellent corrosion resistance, and are fillable for applications with vibration. The PG25/40S is suitable for all fluids compatible with copper alloys.

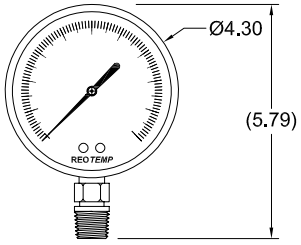
PG25S PG40S



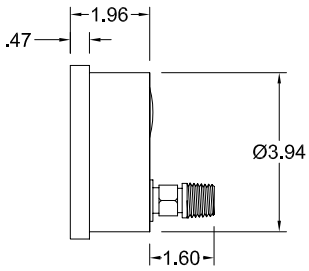
PG25S



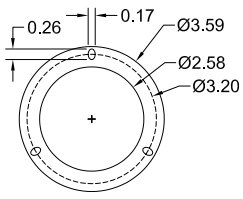
*dimensions in inches



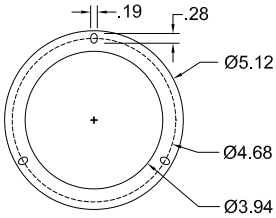
PG40S



*dimensions in inches



2.5" MOUNTING FLANGE



4" MOUNTING FLANGE

Fillable Dials Custom Logo Diaphragm Seal Compatible

FEATURES / BENEFITS

- Stainless Steel Case
- Copper Alloy Wetted Parts
- Glycerin Filled or Dry/Fillable
- Removable Bayonet, Adjustable Pointer

ASME B40.100

SPECIFICATIONS

Construction Materials:

Non Wetted
- Case: 304SS
- Ring: 304SS
- Dial: White Aluminum, Black Letters

Wetted
- Tube: Copper Alloy
- Socket: Copper Alloy

Case-to-Socket:
- Screw Connection

Lens
- Tempered Safety Glass (Std.), Plastic, or Laminated Safety Glass

Temperature Limits:

Ambient: -40°F — 140°F

Process: -40°F — 150°F

Process Temperature Limits When Assembled with a Diaphragm Seal
Not Recommended for Diaphragm Seal Mounting
See PR Model Gauges for Diaphragm Seal Mounting

Accuracy: 2.5" = 2 - 1 - 2%, ASME Grade A
4" = 1%, ASME Grade 1A

Fillable: Yes

Restrictor Screw: Yes, Removable

Weight: 2.5" = 0.4 lbs (0.6 lbs filled)
4" = 1.3 lbs (2 lbs filled)

Maximum Working Pressure:
Stable = 100%
Momentary = 130% of scale

REPAIRABLE STAINLESS/BRASS GAUGE

Visit reotemp.com

- ✓ Check Stock
- ✓ Get Price
- ✓ Configure Part #
- ✓ Download PDF Data Sheets

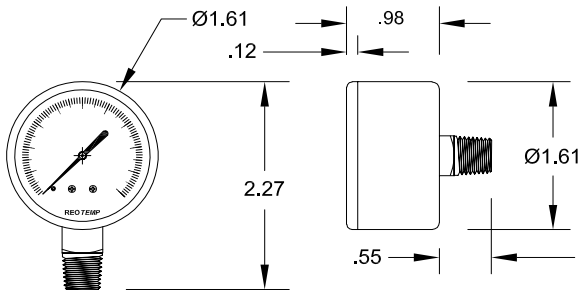
HOW TO ORDER: Choose options to build a part number. For example: PG25S2A4P18-D-T-HV

PG25	S	2	A	4	P18	-D	-T	-HV
DIAL SIZE	**CASE TYPE**	**TUBE & SOCKET**	**MOUNT TYPE**	**CONNECTION**	**RANGE CODE**	**CASE FILL**	**LENS**	**OPTIONS**
PG25 = 2.5" **PG35**= 3.5" **PG40** = 4"	**S** = 304SS Case w/ Twist-Off Bayonet Ring	**2** = Copper Alloy	**A** =  Bottom **B** =  Bottom/Rear Flange **C** =  Center Back **D** =  Center Back "U" Clamp **E** =  Center Back/ Front Flange	**4** = 1/4" NPT **2** = 1/2" NPT (Not available on PG25 or PG35)	*See Master Range Code Sheet on Page 45* *Common Ranges* **P03** = -30 in HG-0-30 psi **P16** = 0-30 psi **P17** = 0-60 psi **P18** = 0-100 psi **P20** = 0-200 psi **P21** = 0-300 psi **P23** = 0-600 psi *Available Ranges* ■ Vac to 6,000 psi ■ Gauge Pressure, Vacuum, or Compound *Standard Units* ■ psi ■ psi/bar *Available Units* ■ kPa ■ ft H_2O ■ bar ■ kg/cm^2 ■ psi ■ Dual Scales ■ & more	**-D** = Dry **-G** = Glycerin **-W** = Glycerin/ Water (65/35) *Note: This model cannot be filled with Silicone.*	**-T** = Tempered Safety Glass (Standard) **-P** = Plastic **-S** = Laminated Safety Glass	**-HV** = Hi-Vis™ Dial **-OX** = Cleaned for O_2 Service **-C3** = 3 pt. Calibration Certificate **-TS** = Stainless Steel Tag **-PM** = Positive Material Identification Certification

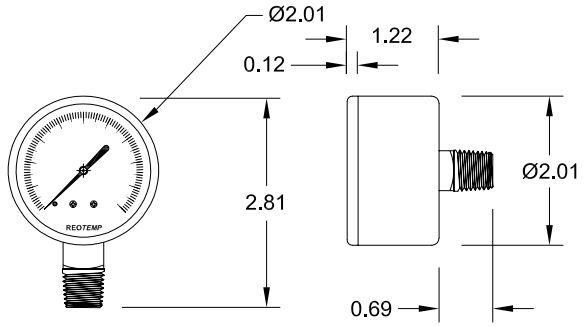
GENERAL PURPOSE GAUGE

REOTEMP's Series PD offers a wide variety of economical gauges for applications where ambient or process corrosion are not of concern. It is suitable for non-vibrating applications.

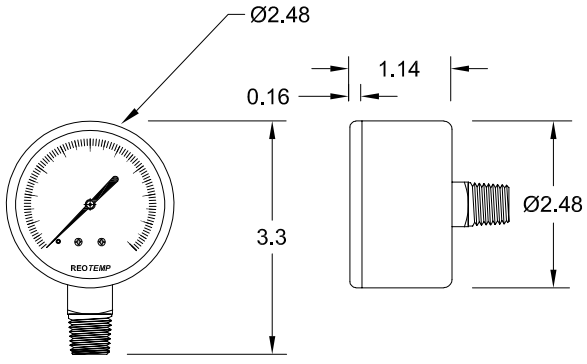
PD15 PD20 PD25



PD15 *dimensions in inches



PD20 *dimensions in inches



PD25 *dimensions in inches

FEATURES / BENEFITS

- Standard Black Steel Case with Snap-In Lens
- Copper Alloy Wetted Parts
- Cost Effective Design

ASME B40.100

SPECIFICATIONS

Construction Materials:

Non Wetted
- Case: Black Painted Steel or Stainless Steel
- Ring: Snap-In Lens or Push-On Bezel
- Dial: White Aluminum, Black Letters

Wetted
- Tube: Copper Alloy
- Socket: Copper Alloy

Case-to-Socket
- Screw Connection

Lens
- Plastic Snap-In
- Glass Push-On Bezel

Temperature Limits:

Ambient: -40°F ● 140°F

Process: -40°F ● 140°F

Process Temperature Limits When Assembled with a Diaphragm Seal

Cannot Be Mounted to a Diaphragm Seal

Accuracy: 3 - 2 - 3%, ASME Grade B
Fillable: No
Restrictor Screw: No
Weight: 1.5" = 0.1 lbs
2" = 0.2 lbs
2.5" = 0.25 lbs
Maximum Working Pressure:
Stable = 100%
Momentary = 110% of scale

GENERAL PURPOSE GAUGE

Visit reotemp.com

- ✓ Check Stock
- ✓ Get Price
- ✓ Configure Part #
- ✓ Download PDF Data Sheets

HOW TO ORDER: Choose options to build a part number. For example: PD15N2A8P18-D-P-TP

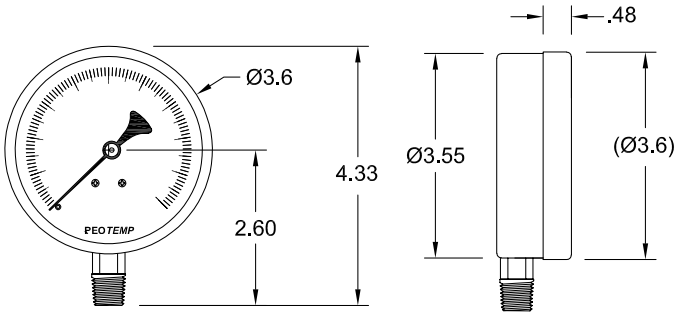
PD15	N	2	A	8	P16	-D	-P	-TP
DIAL SIZE	**CASE TYPE**	**TUBE & SOCKET**	**MOUNT TYPE**	**CONNECTION**	**RANGE CODE**	**CASE FILL**	**LENS**	**OPTIONS**
PD15 = 1.5” **PD20** = 2” **PD25** = 2.5”	**N** = Black Steel Case, Snap-in Plastic Lens ***X** = SS Case, Snap-in Plastic Lens ***B** = Black Steel Case, Push-On Bezel with Glass Window ***Z** = SS Case, Push-On Bezel with Glass Window	**2** = Copper Alloy **1** = 316SS (Only available on 2” Dial w/ “Z” case)	**A** =  Bottom ***B** =  Bottom/Rear Flange **C** =  Center Back ***D** =  Center Back “U” Clamp ***E** =  Center Back/Front Flange	**8** = 1/8” NPT **4** = 1/4” NPT[1]	*See Master Range Code Sheet on Page 45* *Common Ranges* **P16** = 0-30 psi **P17** = 0-60 psi **P18** = 0-100 psi **P19** = 0-160 psi *Available Ranges* ■ Vac to 6,000 psi ■ Gauge Pressure, Vacuum, or Compound	*Case is Not Fillable* **-D** = Dry	**-P** = Plastic (N & X case) **-G** = Glass (B & Z case)	**-TP** = Paper Tag **-CS** = Calibration Sticker **-TS** = Stainless Steel Tag

*Non-standard configuration
[1]Non-standard on PD15

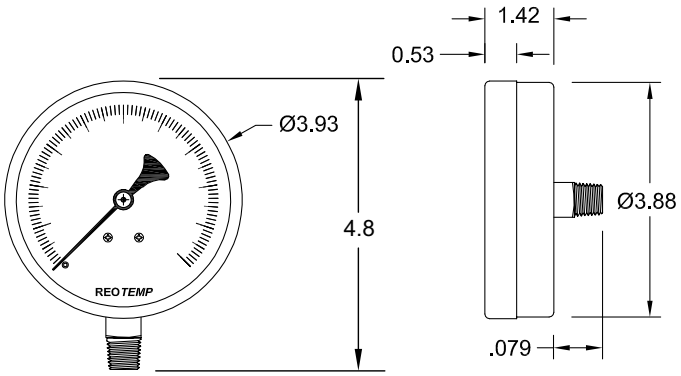
GENERAL PURPOSE GAUGE

REOTEMP's Series PD offers a wide variety of economical gauges for applications where ambient or process corrosion are not of concern. It is suitable for non-vibrating applications.

PD40



PD35 *dimensions in inches



PD40 *dimensions in inches

Custom Logo

FEATURES / BENEFITS

- Painted Black Steel Case
- Copper Alloy Wetted Parts
- Cost Effective Design

ASME B40.100

SPECIFICATIONS

Construction Materials:

Non Wetted
- Case: Black Painted Steel
- Ring: Black Painted Steel
- Dial: White Aluminum, Black Letters

Wetted
- Tube: Copper Alloy
- Socket: Copper Alloy

Case-to-Socket
- Screw Connection

Lens
- Glass

Temperature Limits:

Ambient: -40°F — 140°F

Process: -40°F — 140°F

Process Temperature Limits When Assembled with a Diaphragm Seal

Cannot Be Mounted to a Diaphragm Seal

Accuracy: 3 - 2 - 3%, ASME Grade B
Fillable: No
Restrictor Screw: No
Weight: 3.5" = 0.5 lbs
4" = 0.6 lbs
Maximum Working Pressure:
Stable = 100%
Momentary = 110% of scale

GENERAL PURPOSE GAUGE

Visit reotemp.com

- ✓ Check Stock
- ✓ Get Price
- ✓ Configure Part #
- ✓ Download PDF Data Sheets

HOW TO ORDER: Choose options to build a part number. For example: PD35B2A4P18-D-G-TP

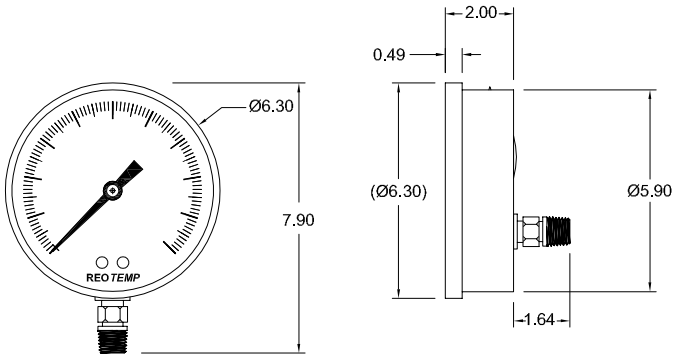
PD35	B	2	A	4	P16	-D	-G	-TP
DIAL SIZE	**CASE TYPE**	**TUBE & SOCKET**	**MOUNT TYPE**	**CONNECTION**	**RANGE CODE**	**CASE FILL**	**LENS**	**OPTIONS**
PD35 = 3.5” **PD40** = 4”	**B** = Black Steel Case, Push-On Bezel w/ Glass Window	**2** = Copper Alloy	**A** = Bottom ***B** = Bottom/ Rear Flange **C** = Center Back ***E** = Center Back/ Front Flange	**4** = 1/4” NPT **2** = 1/2” NPT*	*See Master Range Code Sheet on Page 45* *Common Ranges* **P16** = 0-30 psi **P17** = 0-60 psi **P18** = 0-100 psi **P19** = 0-160 psi *Available Ranges* ■ Vac to 6,000 psi ■ Gauge Pressure, Vacuum, or Compound	*Case is not fillable.* **-D** = Dry	**-G** = Glass	**-TP** = Paper Tag **-CS** = Calibration Sticker **-TS** = Stainless Steel Tag

*Non-standard configuration

INDUSTRIAL TEST GAUGE

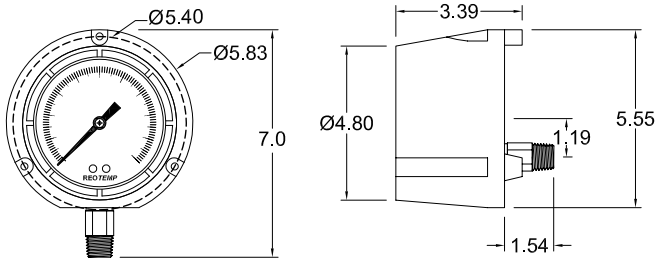
REOTEMP's Series PL test gauge is designed for use in laboratories, testing or calibration facilities, or wherever accuracy and repeatability are of prime importance. Rugged, all-welded stainless steel construction makes this gauge suitable for almost any test application. Reading error due to parallax is eliminated by use of a knife-edge pointer and mirror dial.

PL60



PL60

*dimensions in inches



PL45

*dimensions in inches

Accuracy

Custom Logo

FEATURES / BENEFITS

- Stainless Steel Case & Bayonet Ring
- Anti-Parallax, Mirror Dial
- 10 Point NIST Traceable Calibration Certificate Included

ASME B40.100

SPECIFICATIONS

Construction Materials:

Non Wetted
- Case: 304SS
- Ring: 304SS, Twist-Off Bayonet
- Dial: Aluminum, Mirror Band

Wetted
- Tube: 316SS
- Socket: 316SS

Case-to-Socket
- Screw Connection

Lens
- Tempered Safety Glass
- Plastic
- Laminated Safety Glass

Temperature Limits:

Ambient: -40°F — 150°F

Process: -40°F — 150°F

Accuracy: 0.25%, Grade 3A and 0.5% Grade 2A

Fillable: No

Restrictor Screw: Yes, Removable

Weight: 2.2 lbs

Maximum Working Pressure:
- Stable = 100%
- Momentary = 110%

INDUSTRIAL TEST GAUGE

HOW TO ORDER: Choose options to build a part number. For example: PL60M1A4P01-D-T-TS

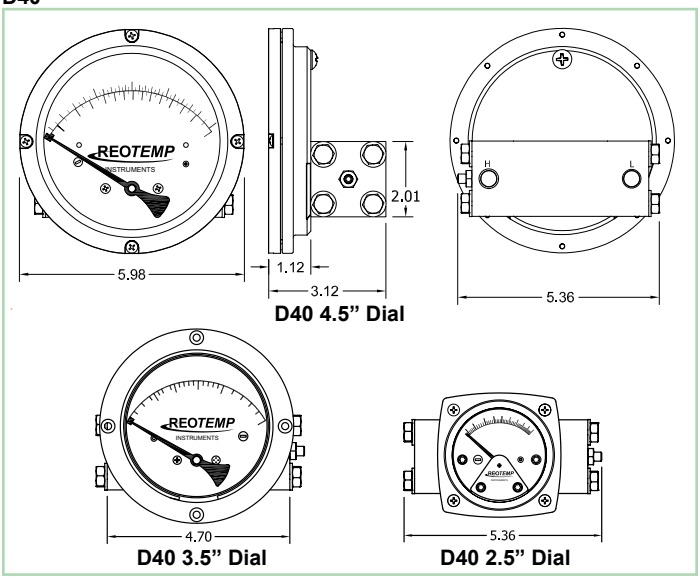
PL60 | M | 1 | A | 4 | P01 | -D | -T | -TS

DIAL SIZE	CASE TYPE	TUBE & SOCKET	MOUNT TYPE	CONNECTION	RANGE CODE	CASE FILL	LENS	OPTIONS
PL60 = 6”	**M** = 304SS Bayonet, 0.25% Accuracy **R** = 0.5% Accuracy	**1** = 316SS	**A** =  Bottom **B** =  Bottom/Rear Flange **C** =  Lower Back **D** =  Lower Back “U” Clamp **E** =  Lower Back/Front Flange **F** =  Lower Back/Rear Flange	**4** = 1/4” NPT **2** = 1/2” NPT	*See Master Range Code Sheet on Page 45* *Common Ranges* **P01** = -30 inHg-0 psi **P03** = -30 inHg-0-30 psi **P16** = 0-30 psi **P18** = 0-100 psi **P20** = 0-200 psi **P21** = 0-300 psi **P25** = 0-1,000 psi **P34** = 0-5,000 psi *Available Ranges* ■ Vac to 6,000 psi ■ Gauge Pressure, Vacuum, or Compound	**-D** = Dry	**-T** = Tempered Safety Glass (std) **-P** = Plastic **-S** = Laminated Safety Glass	**-TS** = Stainless Steel Tag *NOTE: 10pt. NIST traceable calibration certificate comes standard.*
PL45 = 4.5”	**P** = Phenolic Case, 0.25% Accuracy		**A** =  Bottom **C** =  Lower Back		Available Ranges for 4.5": ■ Vacuum, Compound, and Pressure up to 1,000psi			

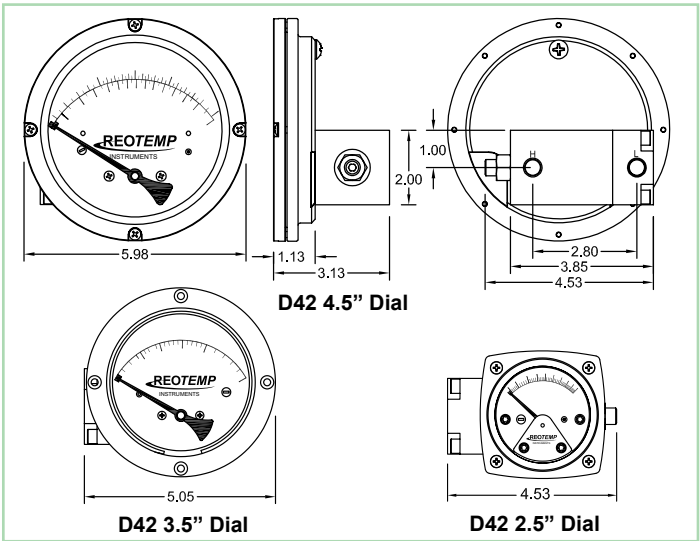
DIAPHRAGM TYPE DIFFERENTIAL GAUGE

REOTEMP Series D40/D42 differential pressure gauges are ideally suited for use on dissimilar fluids, wet gas or fluids with a high concentration of solids. Other applications include: use in Filter/Strainer Monitoring, Compressed Air, Hydraulic, Refrigerant, Pump Performance Testing, Heat Exchanger Pressure Drop Monitoring, Water Treatment Applications, Tank Level Monitoring Horizontal or Vertical, and Flow Monitoring & Balancing.

D40



D42



Fillable

Diaphragm Seal Compatible

FEATURES / BENEFITS

- Total Separation of High and Low by a Convoluted Elastomer Diaphragm
- Liquid Fillable Case Available
- For Use with Diaphragm Seals*
- Weatherproof Rated to NEMA 4X/IP65
- Working Pressure Up to 3,000 psi

SPECIFICATIONS

Construction Materials:

Non Wetted

Case: Aluminum or Engineered Plastic
Dial: White Aluminum, Black Letters
Lens: Plastic or Laminated Safety Glass

Wetted

Body: Aluminum, Brass, Monel, Aluminum-bronze, 316SS
Internal Parts: 316SS, Monel
Gaskets/Seals: Buna, Viton, Silicone, or Ethylene Propylene

Temperature Limits:

Ambient: -40°F to 130°F

Process: -40°F to 200°F

With Seals

-60°F to 350°F — Direct

-100°F to 750°F — Remote

Accuracy: +/- 3-2-3%

Fillable: Yes, 4.5" Aluminum Case Only

Max Working Pressure:

3,000 psi (6,000 proof) Aluminum or SS Body
1,500 psi (3,000 proof) Brass Body

*Diaphragm seals protect the gauge against corrosion, heat, and clogging from certain process fluids. Note: Diaphragm seals will reduce accuracy.

DIAPHRAGM TYPE DIFFERENTIAL GAUGE

Visit reotemp.com

- ✓ Configure Part #
- ✓ Get Price
- ✓ Generate a Custom Engineering Drawing
- ✓ Download PDF Data Sheets

HOW TO ORDER: Choose options to build a part number. For example: D402PABB4XXX-PD5-M1

D40	2P	A	B	B4	XX	X
SERIES	**DIAL SIZE & CASE MATERIAL**	**BODY/ INTERNALS**	**DIAPHRAGM & GASKETS**	**PROCESS CONNECTION**	**SWITCH TYPE AND HOUSING**	**ELECTRICAL SPECIFICATION**
D40 = For DP Ranges of 30-100 psid **D42** = For DP Ranges of 20" inH_2Od thru 25 psid	**2P** = 2.5" Dial, Plastic Case **4P** = 4.5" Dial, Platic Case **3A** = 3.5" Dial Aluminum Case **4A** = 4.5" Dial, Aluminum Case	**A** = Aluminum/316SS **S** = 316SS/316SS **B** = Brass/316SS **M** = Monel/316SS **N** = Aluminum-bronze/316SS Wetted	**B** = Buna-N **V** = Viton **S** = Silicone **E** = Ethylene Propylene Wetted	**B4** = 1/4" NPTF back **T4** = 1/4" NPTF top **L4** = 1/4" NPTF bottom **E4** = 1/4" NPTF end connection **E2** = 1/2" NPTF end adapters	**XX** = None **A1** = Single reed switch, NEMA4X enclosure **A2** = Dual reed switch, NEMA4X enclosure **D1** = Single reed switch, explosion proof enclosure* **D2** = Dual reed switch, explosion proof enclosure* **E1** = Single reed switch, NEMA4X/ explosion proof enclosure** **E2** = Dual reed switch, NEMA4X/ explosion proof enclosure** **Transmitter Type and Housing:** **TA** = 4-20mA transmitter in NEMA4X enclosure **TX** = 4-20mA transmitter in explosion proof enclosure** *Complete Assembly Rated Class 1, Div. 1, Groups C&D; Class II, Div. 1, Groups E, F, G **Complete assembly rated class 1, Div. 2, groups A, B, C, D; Class II, Div. 2, Groups F&G	**X** = None **A** = SPDT, 3W, .25Amp **B** = SPST, 25W, .5Amp 230VAC/Vdc **T** = 4-20mA output 8-28Vdc loop power

-PD5	-M1
PRESSURE RANGE	**OPTIONS**
-PD5 = 0-5 psid **-PD10** = 0-10 psid **-PD20** = 0-20 psid **-PD100** = 0-100 psid **-ID25** = 0-25 inH_2Od **-ID100** = 0-100 inH_2Od	**-M1** = 2" Pipe Mounting Kit with Carbon Steel Bracket **-M2** = 2" Pipe Mounting Kit with Stainless Steel Bracket **-M3** = Wall Mounting Kit **-SG** = Shatterproof Lens (4A Dial ONLY) **-MP** = Max Pointer (Not Available with SG or LF) **-LF** = Liquid fill (only with 4A dial, std. lens) **-TS** = SS tag **-OX** = Cleaned for oxygen service **-C3** = 3pt. Calibration Cert.

See Page 46 for a Complete List of Differential Pressure Range Codes

Diaphragm Seal Suitability Guide

Differential Pressure Gauges are very sensitive and require diaphragm seals with high fluid displacement. If a diaphragm seal is required to isolate the process fluid from the pressure gauge, the following seal model types are available for the Series D40/42.

Diaphragm Seal Model		Total Gauge Span					
		<99"H_2O	100"H_2O	150"H_2O	10psi	15psi	20psi+
High Displacement		W7	X	S	S	T		
		T6	X	X	X	T		
		V5	X	S	T			

	Assembly will function correctly with minimal accuracy degradation.
T	Assembly will function correctly given stable temperature.
S	Assembly is highly sensitive to orientation and temperature variance. REOTEMP cannot guarantee a stated accuracy.
X	Assembly will not work. The diaphragm does not displace enough fill fluid to drive the pressure gauge.

*Visit **reotemp.com/configurators** for easy seal configuration.*

PISTON TYPE MECHANICAL DIFFERENTIAL PRESSURE GAUGE

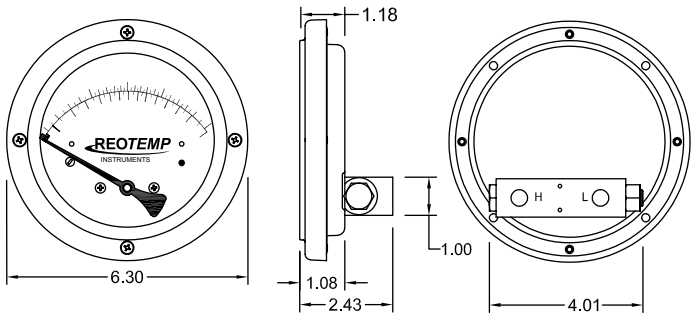
REOTEMP Series D20 Piston Type Mechanical Differential Pressure Gauges are primarily designed for liquid applications. Differential pressure is sensed by the movement of a precisely ground floating piston/magnet in a precision bore against a calibrated spring. A rotary pointer magnet located close to the internal magnet follows the movement of the piston magnet and indicates differential pressure on the dial. Piston type differential pressure gauges exhibit a slight amount of bypass as the fluid crosses from the high to the low pressure port.

D20

Fillable

FEATURES / BENEFITS

- Rugged, Compact, Cost Effective Design
- Weatherproof Rated to NEMA 4X/IP65
- Working Pressure Up to 6,000 psi
- Over-range Protection to Max Working Pressure
- Popular for Filters and Strainers
- +/- 2% Full Scale Accuracy



D20 4.5” Dial

SPECIFICATIONS

Construction Materials:

Non Wetted

Case: Aluminum or Engineered Plastic
Dial: White Aluminum, Black Letters
Lens: Plastic or Laminated Safety Glass

Wetted

Body: Aluminum, 316SS
Internal Parts: 316SS
Gasket/Seals: Buna, Viton, Teflon, Ethylene Propylene, or Perfluoroelastomer

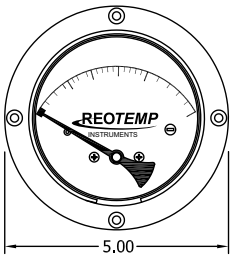
Temperature Limits:

Ambient
-40°F ● 130°F

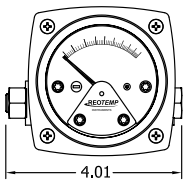
Process
-40°F ● 200°F

Series D20 cannot be mounted to a diaphragm seal. See series D40/42 for gauges mountable to a diaphragm seal.

Accuracy: +/- 2% Full Scale
Fillable: Yes, Except for 3.5” Dial
Maximum Working Pressure:
3,000 psi - Aluminum Body
6,000 psi - 316SS Body



D20 3.5” Dial



D20 2.5” Dial

PISTON TYPE MECHANICAL DIFFERENTIAL PRESSURE GAUGE

Visit reotemp.com

- ✓ Configure Part #
- ✓ Get Price
- ✓ Generate a Custom Engineering Drawing
- ✓ Download PDF Data Sheets

HOW TO ORDER: Choose options to build a part number. For example: D202PABB4XXA-PD5-M1

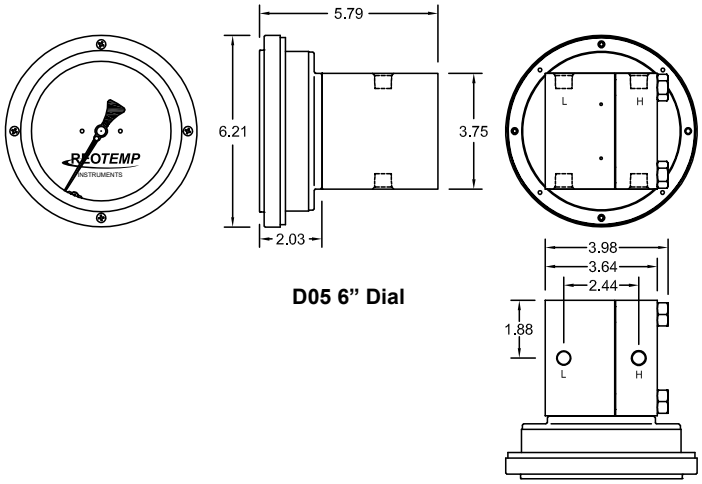
D20	2P	A	B	B4	XX	A
SERIES	DIAL SIZE/ CASE MATERIAL	BODY/ INTERNALS	DIAPHRAGM & GASKETS	PROCESS CONNECTION	SWITCH OR TRANSMITTER TYPE & HOUSING	ELECTRICAL SPECIFICATION
D20 = Mechanical DP Gauage Piston Style (5-110 psid)	**2P** = 2.5" Dial, Plastic Case **4P** = 4.5" Dial, Platic Case **3A** = 3.5" Dial Aluminum Case **4A** = 4.5" Dial, Aluminum Case	**A** = Aluminum/ 316SS **S** = 316SS/ 316SS Wetted	**B** = Buna-N **V** = Viton **E** = Ethylene Propylene **P** = Perfluoro-elastomer Wetted	**B4** = 1/4" NPTF back **E4** = 1/4" NPTF end connection **L4** = 1/4" NPTF bottom **E2** = 1/2" NPTF end adapters	**XX** = None **A3** = Single Reed Switch, Flying Leads with Grommet Wire Seal **A4** = Dual Reed Switch, Flying Leads with Grommet Wire Seal **A5** = Single Reed Switch, Flying Leads with 1/4" FNPT NEMA4X **A6** = Dual Reed Switch, Flying Leads with 1/4" FNPT NEMA4X **D3**= Single Reed Switch, Explo-sion Proof Enclosure* **D4** = Dual Reed Switch, Explo-sion Proof Enclosure* *Complete assembly rated class 1, Div. 2, groups A, B, C, D; Class II, Div. 2, Groups F&G	**X** = None **A** = SPDT, 3W, .25Amp 125VAC/Vdc **B** = SPST, 60W, 1.0Amp 240VAC/Vdc

-PD5	-M1
PRESSURE RANGE	OPTIONS
-PD5 = 0-5 psid **-PD10** = 0-10 psid **-PD20** = 0-20 psid **-PD50** = 0-50 psid **-PD100** = 0-100 psid *See Page 46 for a Complete List of Differential Pressure Range Codes*	**-M1** = 2" Pipe Mounting Kit with Carbon Steel Bracket **-M2** = 2" Pipe Mounting Kit with Stainless Steel Bracket **-M3** = Wall Mounting Kit **-SG** = Shatterproof Lens (ONLY with 4A Dial) **-MP** = Max Pointer (Not Available with SG or LF) **-LF** = Liquid fill (Not Available with 3A Dial) **-TS** = SS Tag **-OX** = Cleaned for oxygen service

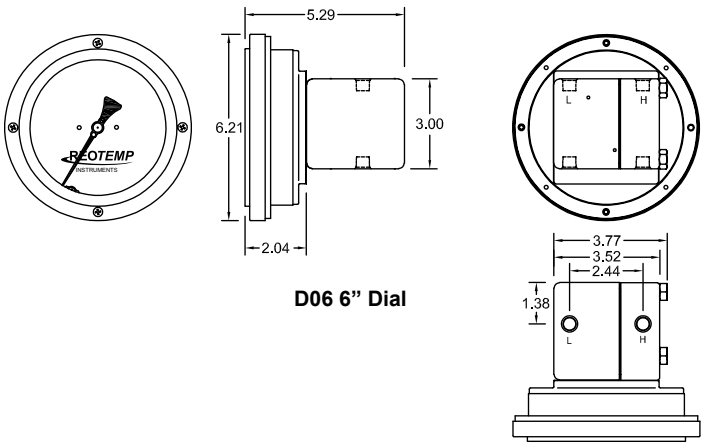
HIGH-ACCURACY INDUSTRIAL DIFFERENTIAL PRESSURE GAUGE

The REOTEMP Series D05/06 High Accuracy Bellows DP Gauge is a precise, easy-to-read, and rugged instrument built for the industrial markets. Available in a variety of wetted materials, this gauge is ideally suited for a variety of applications involving the differential pressure measurement of many process fluids.

D06



D05 6" Dial



D06 6" Dial

FEATURES / BENEFITS

- High Accuracy +/- 1% or .5% Full Scale
- Sensitive Bellows Measuring Element
- 270 Degree Dial Arc
- Differential Spans from 10" inH_2Od through 30 psid

SPECIFICATIONS

Construction Materials:

Non Wetted

Dial Case: Engineered Plastic
Dial: White Aluminum, Black Letters
Lens: Plastic or Laminated Safety Glass

Wetted

Body: Aluminum, 316SS, Brass, Carbon Steel
Internal Parts: 316SS, Copper Alloy
Gasket/Seals: Buna, Viton, Ethylene Propylene, Silicone

Temperature Limits:

Ambient

-40°F ● ——— ● 130°F

Process

-40°F ● ——— ● 200°F

Series D05/06 cannot be mounted to a diaphragm seal. See series D40/42 for gauges mountable to a diaphragm seal.

Accuracy: +/- 1% or .5% full scale
Fillable: Yes
Maximum Working Pressure:
3,000 psi - Aluminum body
6,000 psi - 316SS body

HIGH-ACCURACY INDUSTRIAL DIFFERENTIAL PRESSURE GAUGE

Visit reotemp.com

- ✓ Configure Part #
- ✓ Get Price
- ✓ Generate a Custom Engineering Drawing
- ✓ Download PDF Data Sheets

HOW TO ORDER: Choose options to build a part number. For example: D056PFB-D4W1M-PD5-M1

D05	6P	F	B	-D4
SERIES	DIAL SIZE	MATERIAL/ MAX WORKING PRESSURE	GASKETS & SEALS	PROCESS CONNECTION
D05 = For DP Ranges: 10-79 inH_2Od (.4-3 psi) **D06** = For DP Ranges: 80-800 inH_2Od (3-30 psi)	**4S** = 4.5" Dial, Plastic Housing, 1% Full Scale **6P** = 6" Dial, Plastic Housing, 1% Full Scale **6H** = 6" Dial, Plastic Housing, 1/2% Full Scale* **4H** = 4" Dial, Plastic Housing, 1/2% Full Scale* *30" WC and Above	**F** = Aluminum Body, SS Internals, 1,500 psi MWP **G** = Aluminum Body, SS Internals, 3,000 psi MWP **M** = Mild Carbon Steel Body, SS Internals, 1,500 psi **N** = Mild Carbon Steel Body, SS Internals, 3,000 psi **Q** = 316 Stainless Steel Body, SS Internals, 1,500 psi **R** = 316 Stainless Steel Body, SS Internals, 3,000 psi **T** = 316 Stainless Steel Body, SS Internals, 6,000 psi **X** = Brass Body, SS Internals, 1,500 psi **Y** = Brass Body, SS Internals, 500 psi Wetted	**B** = Buna **V** = Viton **S** = Silicone **E** = Ethylene/ Propylene Wetted	**-D4** = 1/4" FNPT Top and Bottom

W1	M	-PD5	-M1
SWITCH TYPE AND HOUSING	ELECTRICAL CONNECTION	PRESSURE RANGE	OPTIONS
XX = None **W1** = One Micro Switch in Weatherproof Enclosure ±2% **W2** = Two Micro Switch in Weatherproof Enclosure ±2%	**X** = None **M** = SPDT 4A, 30VDC; 3A, 240 VAC; 5A, 120VAC	**-PD1** = 0-1 psid **-PD5** = 0-5 psid **-PD10** = 0-10 psid **-PD20** = 0-20 psid **-ID25** = 0-25 inH_2Od **-ID100** = 0-100 inH_2Od **-ID300** = 0-300 inH_2Od *See Page 46 for a Complete List of Differential Pressure Range Codes*	**-M1** = 2" Pipe Mounting Kit with Carbon Steel Bracket **-M2** = 2" Pipe Mounting Kit with Stainless Steel Bracket **-M3** = Wall Mounting Kit **-SG** = Shatterproof Lens **-TS** = SS tag **-OX** = Cleaned for oxygen service

HIGH-ACCURACY INDUSTRIAL DIFFERENTIAL PRESSURE GAUGE

The REOTEMP Series D09, Bourdon Tube Style Differenetial Pressure Gauge is ideally suited for a broad range of applications requiring high accuracy and/or high differential pressure range. The large 6” dial with complete 270 degree dial arc makes the D09 the easiest to read differential pressure gauge.

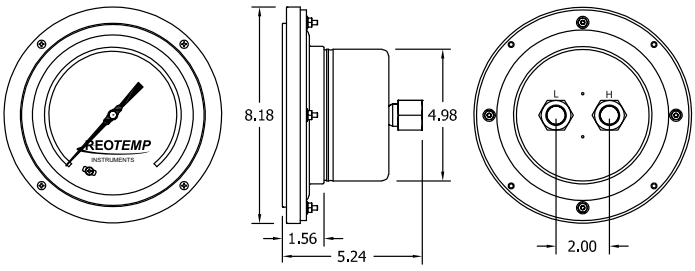
D09

Fillable

Accuracy

FEATURES / BENEFITS

- High Accuracy +/- 1% or .5% Full Scale
- Sensitive Bourdon Tube Construction
- 270 Degree Dial Arc
- Differential Span Up to 6,000 psid



D09 6” Dial, Back Connected

SPECIFICATIONS

Construction Materials:

Non Wetted

- Dial Case: Engineered Plastic
- Dial: White Aluminum, Black Letters
- Lens: Plastic or Laminated Safety Glass

Wetted

- Body: Aluminum, 316SS, Brass, Carbon Steel
- Internal Parts: 316SS, Copper Alloy
- Gasket/Seals: Buna, Viton, Ethylene Propylene, Silicone

Temperature Limits:

Ambient: -40°F — 130°F

Process: -40°F — 200°F

Series D09 cannot be mounted to a diaphragm seal. See series D40/42 for gauges mountable to a diaphragm seal.

Accuracy: +/- 1% or .5% Full Scale

Fillable: Yes

Maximum Working Pressure:

3,000 psi - Aluminum Body

6,000 psi - 316SS Body

HIGH-ACCURACY INDUSTRIAL DIFFERENTIAL PRESSURE GAUGE

Visit reotemp.com

- ✓ Configure Part #
- ✓ Get Price
- ✓ Generate a Custom Engineering Drawing
- ✓ Download PDF Data Sheets

HOW TO ORDER: Choose options to build a part number. For example: D094PFB-B4XXX-PD20-M1

D09	4S	F	B	-B4
SERIES	DIAL SIZE	MATERIAL/ MAX WORKING PRESSURE	GASKETS & SEALS	PROCESS CONNECTION
D09 = For DP Ranges: 15-6,000 psid	**4S** = 4.5" Dial, Plastic Housing **6P** = 6" Dial, Plastic Housing, 1% Full Scale **6H** = 6" Dial, Plastic Housing, 1/2% Full Scale	**F** = Aluminum Body, SS Internals, 1,500 psi MWP **G** = Aluminum Body, SS Internals, 3,000 psi MWP **M** = Mild Carbon Steel Body, SS Internals, 1,500 psi **N** = Mild Carbon Steel Body, SS Internals, 3,000 psi **Q** = 316 Stainless Steel Body, SS Internals, 1,500 psi **R** = 316 Stainless Steel Body, SS Internals, 3,000 psi **T** = 316 Stainless Steel Body, SS Internals, 6,000 psi **X** = Brass Body, SS Internals, 1,500 psi **Y** = Brass Body, SS Internals, 500 psi	**B** = Buna **V** = Viton **S** = Silicone **E** = Ethylene/ Propylene	**-B4** = 1/4" FNPT-Back **-B2** = 1/2" FNPT-Back (SS Adapters)

XX	X	-PD20	-M1
SWITCH TYPE AND HOUSING	ELECTRICAL CONNECTION	PRESSURE RANGE	OPTIONS
XX = None	**X** = None	**-PD20** = 0-20 psid **-PD100** = 0-100 psid **-PD1000** = 0-1000 psid **-BD7** = 0-7 bard **-BD140** = 0-140 bard *See Page 46 for a Complete List of Differential Pressure Range Codes*	**-M1** = 2" Pipe Mounting Kit with Carbon Steel Bracket **-M2** = 2" Pipe Mounting Kit with Stainless Steel Bracket **-M3** = Wall Mounting Kit **-SG** = Shatterproof Lens **-MP** = Max Pointer (Not Available with LF) **-LF** = Liquid Fill **-TS** = SS Tag **-OX** = Cleaned for Oxygen Service

Master Range Code Sheet

PRESSURE GAUGE RANGES AND CODES

VACUUM/COMPOUND RANGES

psi		Dual Scale & psi & Metric						Single Scale-Metric					
"Hg/0/psi		psi & bar		psi & kg/cm²		psi & kPa		bar		kg/cm²		kPa	
Code	Range	Code	Range	Code	Range	Code	Range	Code	Range	Code	Range	Code	Range
P01	-30"Hg/0	D01	"Hg & -1/0 bar	G01	"Hg & -1/0 kg/cm²	L01	"Hg & -100/0 kPa	B00	-1/0 bar	K00	-1/0 kg/cm²	A00	-100/0 kPa
P02	-30/0/15	D02	psi & -1/0/1	G02	psi & -1/0/1	L02	psi & -100/0/100	B01	-1/0/1	K01	-1/0/1	A01	-100/0/100
P03	-30/0/30	D03	psi & -1/0/2	G03	psi & -1/0/2	L03	psi & -100/0/200	B02	-1/0/2	K02	-1/0/2	A02	-100/0/200
P04	-30/0/60	D04	psi & -1/0/4	G04	psi & -1/0/4	L04	psi & -100/0/400	B04	-1/0/4	K04	-1/0/4	A04	-100/0/400
P05	-30/0/100	D05	psi & -1/0/7	G05	psi & -1/0/7	L05	psi & -100/0/700	B07	-1/0/7	K07	-1/0/7	A07	-100/0/700
P06	-30/0/160	D06	psi & -1/0/11	G06	psi & -1/0/11	L06	psi & -100/0/1,100	B011	-1/0/11	K011	-1/0/11	A011	-100/0/1,100
P07	-30/0/200	D07	psi & -1/0/14	G07	psi & -1/0/14	L07	psi & -100/0/1,400	B014	-1/0/14	K014	-1/0/14	A014	-100/0/1,400
P08	-30/0/300	D08	psi & -1/0/20	G08	psi & -1/0/20	L08	psi & -100/0/2,000	B020	-1/0/20	K020	-1/0/20	A020	-100/0/2,000

PRESSURE RANGES

psi		Dual Scale & psi & Metric						Single Scale-Metric					
psi		psi & bar		psi & kg/cm²		psi & kPa		bar		kg/cm²		kPa	
Code	Range	Code	Range	Code	Range	Code	Range	Code	Range	Code	Range	Code	Range
P14	0-10 psi	D14	psi & .7 bar	G14	psi & .7 kg/cm²	L14	psi & 70 kPa						
P15	0-15	D15	psi & 0-1	G15	psi & 0-1	L15	psi & 0-100	B1	0-1 bar	K1	-1/0 kg/cm²	A1	0-100 kPa
P16	0-30	D16	psi & 0-2	G16	psi & 0-2	L16	psi & 0-200	B2	0-2	K2	0-2	A2	0-200
P17	0-60	D17	psi & 0-4	G17	psi & 0-4	L17	psi & 0-400	B4	0-4	K4	0-4	A4	0-400
P18	0-100	D18	psi & 0-7	G18	psi & 0-7	L18	psi & 0-700	B7	0-7	K7	0-7	A7	0-700
P19	0-160	D19	psi & 0-11	G19	psi & 0-11	L19	psi & 0-1,100	B11	0-11	K11	0-11	A11	0-1,100
P20	0-200	D20	psi & 0-14	G20	psi & 0-14	L20	psi & 0-1,400	B14	0-14	K14	0-14	A14	0-1,400
P21	0-300	D21	psi & 0-20	G21	psi & 0-20	L21	psi & 0-2,000	B20	0-20	K20	0-20	A20	0-2,000
P22	0-400	D22	psi & 0-28	G22	psi & 0-28	L22	psi & 0-2,800	B28	0-28	K28	0-28	A28	0-2,800
P23	0-600	D23	psi & 0-40	G23	psi & 0-40	L23	psi & 0-4,000	B40	0-40	K40	0-40	A40	0-4,000
P24	0-800	D24	psi & 0-55	G24	psi & 0-55	L24	psi & 0-5,500	B55	0-55	K55	0-55	A55	0-5,500
P25	0-1,000	D25	psi & 0-70	G25	psi & 0-70	L25	psi & 0-7,000	B70	0-70	K70	0-70	A70	0-7,000
P30	0-1,500	D30	psi & 0-100	G30	psi & 0-100	L30	psi & 0-10,000	B100	0-100	K100	0-100	A100	0-10,000
P31	0-2,000	D31	psi & 0-140	G31	psi & 0-140	L31	psi & 0-14,000	B140	0-140	K140	0-140	A140	0-14,000
P32	0-3,000	D32	psi & 0-200	G32	psi & 0-200	L32	psi & 0-20,000	B200	0-200	K200	0-200	A200	0-20,000
P33	0-4,000	D33	psi & 0-280	G33	psi & 0-280	L33	psi & 0-28,000	B280	0-280	K280	0-280	A280	0-28,000
P34	0-5,000	D34	psi & 0-350	G34	psi & 0-350	L34	psi & 0-35,000	B350	0-350	K350	0-350	A350	0-35,000
P35	0-6,000	D35	psi & 0-400	G35	psi & 0-400	L35	psi & 0-40,000	B400	0-400	K400	0-400	A400	0-40,000
P36	0-8,000	D36	psi & 0-550	G36	psi & 0-550	L36	psi & 0-55,000	B550	0-550	K550	0-550	A550	0-55,000
P37	0-10,000	D37	psi & 0-700	G37	psi & 0-700	L37	psi & 0-70,000	B700	0-700	K700	0-700	A700	0-70,000
P38	0-15,000	D38	psi & 0-1,000	G38	psi & 0-1,000	L38	psi & 0-100,000	B1K	0-1,000	K1K	0-1,000	A1K	0-100,000
P39	0-20,000	D39	psi & 0-1,400	G39	psi & 0-1,400	L39	psi & 0-140,000						
P40	0-30,000	D40	psi & 0-2,000	G40	psi & 0-2,000	L40	psi & 0-200,000						
P41	0-40,000	D41	psi & 0-2,800	G41	psi & 0-2,800	L41	psi & 0-280,000						
P42	0-50,000	D42	psi & 0-3,500	G42	psi & 0-3,500	L42	psi & 0-350,000						

Don't See The Range You Need? REOTEMP has thousands of specialty dial ranges available and will work with you to create a custom range, just contact REOTEMP customer service.

PRESSURE GAUGE RANGES AND CODES

SPECIAL RANGE TYPES

Receiver Ranges			Refrigerant Ranges			Tank Level Ranges	
Code	Element	Dial Range	Code	Dial Range	Refrigerant	Code	Range
P60	3-15psi	0-100%	N06	-30inHg to 160psi	Ammonia	F14	0-24ft H2O
P61	3-15psi	0-10 sq rt	R06	-30inHg to 160psi	R134A	F15	0-30ft H2O
P62	3-15psi	0-100% & 0-10 sq.rt.	R06A	-30inHg to 160psi	R22	F15C	0-40ft H2O
			R06C	-30inHg to 160psi	R404A	F16	0-60ft H2O
			N07	-30inHg to 200psi	Ammonia	F165	0-100ft H2O
			N08	-30inHg to 300psi	Ammonia		

LOW PRESSURE RANGES (PC SERIES ONLY)

Low Pressure Ranges									
inH_2O		oz/in^2		inH_2O & oz/in^2		mbar		psi	
Code	Range	Code	Range	Code	Range	Code	Range	Code	Range
P50	0-10	Z50	0-6	Q50Z	0-10 inH_2O & 0-6 oz/in^2				
P51	0-15	Z51	0-8			M51	0-40		
P49	0-20	Z49	0-10	Q49C	0-20 inH_2O & 0-12 oz/in^2				
P515	0-25	Z52E	0-15						
P52	0-30			Q52N	0-30 inH_2O & 0-18 oz/in^2	M521	0-70	I52	0-1
P525	0-40	Z52	0-20	Q525W	0-40 inH_2O & 0-24 oz/in^2	M525	0-100		
P53	0-60	Z53	0-30	Q53	0-60 inH_2O & 0-35 oz/in^2	M53F	0-150	I53	0-2
P54	0-100	Z54	0-60	Q54B	0-100 inH_2O & 0-60 oz/in^2	M54	0-250	I54	0-3
P55	0-160					M55	0-400	I55	0-5
P56	0-200	Z56	0-100	Q56C	0-200 inH_2O & 0-115 oz/in^2	M56	0-500	I56	0-7
Vacuum Ranges									
P88	-10-0	Z88	-6-0	Q88	-10/0 inH_2O & -6/0 oz/in^2				
P90	-30-0	Z90	-20-0	Q90	-30/0 inH_2O & -18/0 oz/in^2	M905	-100-0	I90	-1-0
P91	-60-0	Z91	-30-0	Q91	-60/0 inH_2O & -35/0 oz/in^2	M94	-200-0	I91	-2-0
P92	-100-0	Z92	-60-0	Q92	-100/0 inH_2O & -60/0 oz/in^2	M95	-400-0		
Compound Ranges									
P7A	-5/0/5	Z7A	-3/0/3			M71	-20/0/20		
P70	-10/0/10			Q70C	-10/0/10 inH_2O & -6/0/6 $ozin^2$	M72E	-30/0/30		
P71	-15/0/15					M72	-40/0/40		
P72	-20/0/20	Z72	-10/0/10	Q72C	-20/0/20 inH_2O & -12/0/12 oz/in^2			I73	-1-0-1
P73	-30/0/30			Q73C	-30/0/30 inH_2O & -18/0/18 oz/in^2	M735	-100/0/100	I74	-2-0-2
P74	-60/0/60	Z745	-30/0/30					I55U	-3/0/3
P75	-100/0/100			Q75B	-100/0/100 inH_2O & -60/0/60 oz/in^2			P14C	-5/0/5

DIFFERENTIAL PRESSURE RANGES (DP GAUGES ONLY)

psid		inH_2Od		bard		mbard		kPad	
Code	Range	Code	Range	Code	Range	Code	Range	Code	Range
PD1	0-1	ID10	0-10	BD1	0-1	MD40	0-40	AD2.5	0-2.5
PD3	0-3	ID20	0-20	BD1.6	0-1.6	MD60	0-60	AD6	0-6
PD5	0-5	ID30	0-30	BD2.5	0-2.5	MD100	0-100	AD10	0-10
PD10	0-10	ID50	0-50	BD4	0-4	MD160	0-160	AD25	0-25
PD20	0-20	ID100	0-100	BD6	0-6	MD250	0-250	AD40	0-40
PD50	0-50	ID150	0-150	BD7	0-7	MD400	0-400	AD100	0-100
PD100	0-100	ID200	0-200	BD11	0-11	MD600	0-600	AD250	0-250
PD200	0-200	ID400	0-400	BD55	0-55	MD1000	0-1000	AD700	0-700
PD6000	0-6000			BD400	0-400				

STANDARD DIAL LAYOUTS

STANDARD DIAL LAYOUTS

	PD/PG/PM15		PD/PG/PM20		PD/PG/PM25		PG/PM40		PR25		PR35		PR40		PR60		PT45	
Range (psi)	Figure	Minor	Figure	Minor	Figure	Minor	Figure	Minor	Figure	Minor	Figure	Minor	Figure	Minor	Figure	Minor	Figure	Minor
10									1	0.1								
15	3	0.5	3	0.2	3	0.2	3	0.2	1	0.25	3	0.2	3	0.2	3	0.2	3	0.2
30	5	0.5	5	0.5	5	0.5	5	0.5	5	0.5	5	0.5	5	0.2	5	0.2	5	0.2
60	10	1	10	1	10	1	10	1	10	1	10	1	5	0.5	5	0.5	5	0.5
100	10	2	20	2	10	2	10	1	10	1	20	2	10	1	10	1	10	1
160	20	2	20	2	20	2	20	2	20	2	20	2.5	20	1	20	1	20	1
200	50	5	50	5	50	5	20	2	20	2	50	5	20	2	20	2	20	2
300	50	5	50	5	50	5	50	5	50	5	50	5	50	2	50	2	50	2
400	100	10	20	2	100	10	50	5	50	5	100	10	50	5	50	5	50	5
600	100	10	100	10	100	10	100	10	100	10	100	10	50	5	50	5	50	5
800	200	20	100	10	200	20	100	10	100	10	100	10	100	10	100	10	100	10
1000	200	20	200	25	100	20	100	10	100	10	200	20	100	10	100	10	100	10
1500	300	20	300	20	300	20	300	20	300	25	300	20	300	20	250	20	300	20
2000	500	50	500	50	500	50			200	20	500	50	200	20	200	20	200	20
3000	500	50	500	50	500	50	500	50	500	50	500	50	500	20	500	20	500	20
4000			1000	100	1000	100			1000	100			500	50	500	50	500	50
5000			1000	100	1000	100	500	50	500	100	1000	100	500	50	500	50	500	50
6000			1000	100	1000	100	1000	100	100	100	1000	100	1000	50	1000	50	1000	50
8000			1000	100					100	100			1000	100	1000	100	1000	100
10000									2000	200	2000	200	1000	100	1000	100	1000	100
15000									3000	200			3000	200	2500	200	3000	200
20000													2000	200	2000	200	2000	200
30 - 0 "Hg	5	0.5	5	0.5	5	0.5	5	0.5	5	0.5	5	0.5	5	0.2	5	0.2	5	0.5
30 - 0 - 15	10/5	1/.5	10/5	5/.5	10/5	1/.5	10/5	1/.5	10/5	1/.5	10/5	1/.5	10/5	1/.5	10/5	1/.5	10/5	1/.5
30 - 0 - 30	10	2/1	10	2/1	10	2/1	10/5	1/.5	10	2/1	10/5	1/.5	10/5	1/.5	10/5	1/.5	10/5	1/.5
30 - 0 - 60	30/10	2/2	30/20	2/2	10	2	10	2/2	10	2	10	2/1	10	2/1	10	2/1	10	2/1
30 - 0 - 100					10/20	.5/2			30/20	5/2	30/20	5/2	30/20	5/2	30/20	5/2	30/10	2/1
30 - 0 - 160					30/20	5/2			30/20	5/2	30/20	5/2	30/20	5/2	30/20	5/2	30/20	5/2
30 - 0 - 200					30/20	5			30/50	5	30/20	5	30/20	5/2	30/20	5/2	30/20	5/2
30 - 0 - 300					30/50	10/5			30/50	10	30/50	5	30/50	5/5	30/50	5	30/50	5/5

Note: Dial layouts are subject to change at any time, please confirm with REOTEMP if a specific dial layout is requested. Hi-Vis™ and custom dials have varying figure and minor graduations. Please contact REOTEMP for dial graduation requirements that differ from REOTEMP standard.

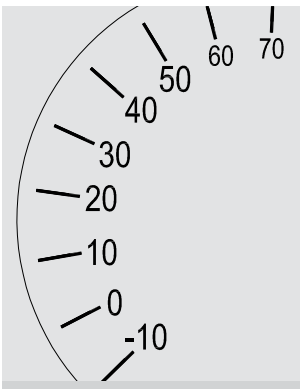
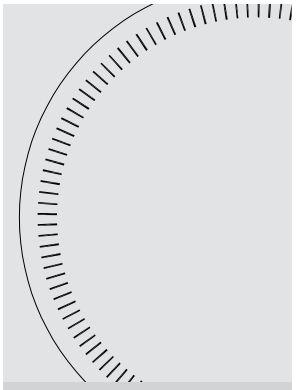


Figure Intervals


Minor Graduations

PRESSURE GAUGE DIAL OPTIONS

YouTube Visit reotemp.com/youtube

- ✓ In-depth Videos on our Customization Options
- ✓ Product Demonstration Videos

Hi Vis™

REOTEMP's Hi-Vis™ dial increases the visibility of dial gauges in low-light environments and at a distance. Hi-Vis™ dials are often used in areas where gauge readings are paramount to safety of the process. They can also be used to differentiate between two different process lines within a facility.

-HV	Hi-Vis™ High Visibility Dial
Availablity	PR, PT, PG-S and PC

COLOR BANDS & COLOR PIES

Color bands and pies highlight a specific range on the gauge so that it is immediately apparent if the process falls within a critical pressure range.

-CB	Color Band (Specify Colors and Ranges)
-CP	Color Pie (Specify Colors and Ranges)
Availablity	PR, PT, PG, PC and DP Gauges

Color Band

Color Pie

CUSTOM LOGO DIAL

Pressure gauge dials offer a unique opportunity to communicate critical information, highlight installation specifications, or promote an OEM or end-user brand.

-CL	Custom Logo Dial
Availablity	PR, PT, PG, PC and DP Gauges, Additional Models Available as Factory Order

DIAL MARKING

Add text, a serial number, tag number, equipment class, or other text to the gauge dial face.

-DM	Dial Marking
Availablity	PR, PT, PG, PC and DP Gauges, Additional Models Available as Factory Order

PRESSURE GAUGE OPTIONS

CASE FILL

Case Fill Ambient Temperature Limits		
-G	Glycerin USP	40°F to 140°F
-W	Glycerin/Water (65/35)	-40°F to 140°F
-S	Silicone (1000cst)	-50°F to 150°F
-T	Teflon Coated Movement	-40°F to 150°F

POINTER

Min/Max Pointer with Fixed Adjustment

Red Set Hand

-MP	Min/Max Pointer with Fixed Adjustment Screw
-MQ	Min/Max Pointer with Tamper-proof Cap and Key
-RH	Red Set Hand, Manual Adjustment, Not a Drag Pointer (PT45P Case Only)
-RP	Red Pointer (STD with Hi-Vis™ Dial)
Availability PR25, PR40, PR60, PT45P, PG25, & PG40S	

ELECTRICAL SWITCH CONTROLS

The electrical contacts option adds a convenient and durable switch option to the mechanical dial pressure gauge. The set pointer can be easily adjusted using a key on the outside of the dial. The pressure gauge pointer drags the switching contacts to either an open or closed position, based on how the user adjusts the contacts.

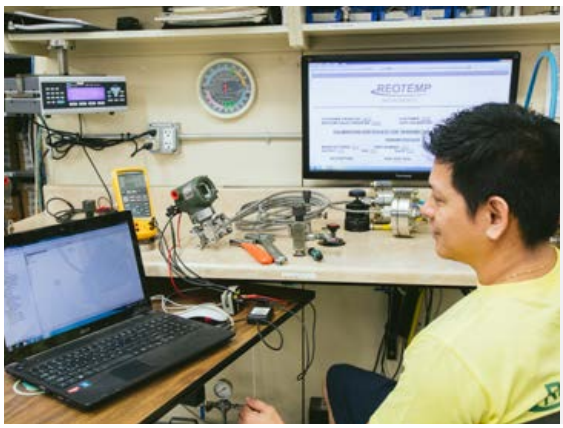
-EC	Electrical Contacts
Availability PR40 and PT45P (Case not liquid fillable with contacts)	

Electrical Contacts

Recommended Contact Loads			
Voltage	Resistive		Inductive
	DC mA	AC mA	AC mA
220	40	45	25
110	80	90	45
48	120	170	70
24	200	350	100
Maximum load at 250V = 0.6A, for larger loads or to reverse action of switches, use of a relay is recommended.			

CALIBRATION OPTIONS

- ✓ All gauge testing and calibrations are performed using NIST-traceable reference equipment.
- ✓ A point certificate (-**C3**, -**C5**, etc.) comes with a sticker on the case or lens with a unique test number and a calibration report with logged points.
- ✓ Upgraded accuracy (-**R1**, -**R2**, -**R5**) includes a notation on the dial and a calibration sticker, but no logged points.
- ✓ A calibration sticker (-**CS**) includes a sticker on the case or lens with a unique test number, but no logged points.



ASME B40.100

All REOTEMP pressure gauges are designed, manufactured, and calibrated to ASME B40. All calibration reference equipment is NIST-traceable.

PRESSURE GAUGE OPTIONS

		Heavy-Duty Industrial Gauges				Process Gauges			Stainless Steel Case Industrial Gauges			Commercial Gauges		Low Pressure Capsule Gauges			Test Gauges
Part #	Description	PR25	PR35	PR40	PR60	PT45P	PT45T	PI45	PM	PG**C	PG**S	PD15/20/25	PD35/40	PC25N	PC25S	PC40/45/60	PL60/45
CASE FILL OPTIONS																	
-G	Glycerin Filled Case	✓	✓	✓	✓	✓	✓	N/A	✓	✓	✓	N/A	N/A	N/A	N/A	N/A	N/A
-W	Glycerin Water Filled Case (65/35)	✓	✓	✓	✓	✓	✓	N/A	✓	✓	✓	N/A	N/A	N/A	N/A	N/A	N/A
-S	Silicone Filled Case	✓	✓	✓	✓	✓	✓	N/A	✓	N/A	✓	N/A	N/A	N/A	N/A	N/A	N/A
-T	Teflon-coated Movement (No case fill)	✓	✓	✓	✓	✓	✓	✓	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓	✓
LENS OPTIONS																	
-P	Plastic Lens	STD	✓	✓	✓	✓	✓	STD	STD	STD	✓	✓	MQ	✓	✓	✓	✓
-T	Tempered Safety Glass Lens	✓	STD	STD	STD	STD	STD	N/A	N/A	N/A	STD	N/A	N/A	N/A	STD	STD	STD
-S	Laminated Safety Glass Lens	✓	✓	✓	✓	✓	✓	N/A	N/A	N/A	✓	N/A	N/A	N/A	✓	✓	✓
-G	Plain Glass	N/A	N/A	N/A	N/A	N/A	N/A	N/A	MQ	MQ	N/A	MQ	STD	N/A	N/A	N/A	N/A
POINTER OPTIONS																	
-RP	Red Pointer	✓	✓	✓	✓	✓	✓	✓	N/A	N/A	✓	N/A	N/A	N/A	✓	✓	✓
-MP	Min/Max Pointer (Drag Hand)	✓	N/A	✓	✓	✓	✓	N/A	N/A	N/A	✓	N/A	N/A	N/A	N/A	N/A	N/A
-MQ	Min/Max Pointer (Tamper-proof)	✓	N/A	✓	✓	✓	✓	N/A	N/A	N/A	✓	N/A	N/A	N/A	N/A	N/A	N/A
-RH	Red Set Hand (Manual Adjustment)	N/A	N/A	N/A	N/A	✓	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
-EC	Electrical Contacts	N/A	N/A	✓	N/A	✓	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
DIAL OPTIONS																	
-CL	Custom Logo Dial	✓	✓	✓	✓	✓	✓	✓	MQ	MQ	✓	MQ	MQ	MQ	✓	✓	✓
-HV	Hi-Vis Dial	✓	✓	✓	✓	✓	✓	✓	N/A	N/A	✓	N/A	N/A	N/A	✓	✓	N/A
-CB	Color Band	✓	✓	✓	✓	✓	✓	✓	MQ	MQ	✓	MQ	MQ	MQ	✓	✓	N/A
-CP	Color Pie	✓	✓	✓	✓	✓	✓	✓	MQ	MQ	✓	MQ	MQ	MQ	✓	✓	N/A
-DM	Dial Marking	✓	✓	✓	✓	✓	✓	✓	MQ	MQ	✓	MQ	MQ	✓	✓	✓	✓
-LP	Removable Lens Protector	N/A	N/A	N/A	N/A	✓	✓	✓	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CALIBRATION OPTIONS																	
-R1	Upgrade to 1% FS Accuracy	✓	✓	STD	STD	N/A	N/A	N/A	N/A	N/A	✓	N/A	N/A	N/A	N/A	N/A	N/A
-R2	Upgrade to 0.5% FS Accuracy	N/A	N/A	✓	✓	STD	STD	STD	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
-R5	Upgrade to 1.5% FS Accuracy	✓	✓	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓	N/A
-C1	1pt. NIST Calibration Cert	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	N/A
-C3	3pt. NIST Calibration Cert	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	N/A
-C5	5pt. NIST Calibration Cert	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	N/A
-CX	10pt. NIST Calibration Cert	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	STD
-CS	Calibration Sticker (No logged pts.)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	N/A
TAG OPTION																	
-TS	Stainless Steel Tag (1-10 Characters)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
-TM	Stainless Steel Tag (11-80 characters)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
-TP	Paper Tag	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
CERTIFICATION OPTIONS																	
-CM	General Material Conformance	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
-NC	Certificate of NACE Compliance	✓	✓	✓	✓	✓	✓	✓	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓	✓
-PM	Positive Material Identification Certificate (PMI)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
-HT	Hydrostatic Test per ASME B31.3 (5 min)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
-LC	Argon Leak Check Certificate	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
CLEANING OPTIONS																	
-DG	Degreased - Wiped Clean of Oils, Shipped in Sealed Bag	✓	✓	✓	✓	✓	✓	✓	N/A	N/A	✓	N/A	N/A	✓	✓	✓	✓
-OX	Cleaned for Oxygen Service per ASME B40.1	✓	✓	✓	✓	✓	✓	✓	MQ	MQ	✓	MQ	MQ	✓	✓	✓	✓
-OY	Cleaned for Oxygen Service per MIL-STD-1330D	✓	✓	✓	✓	✓	✓	✓	N/A	N/A	✓	N/A	N/A	✓	✓	✓	✓

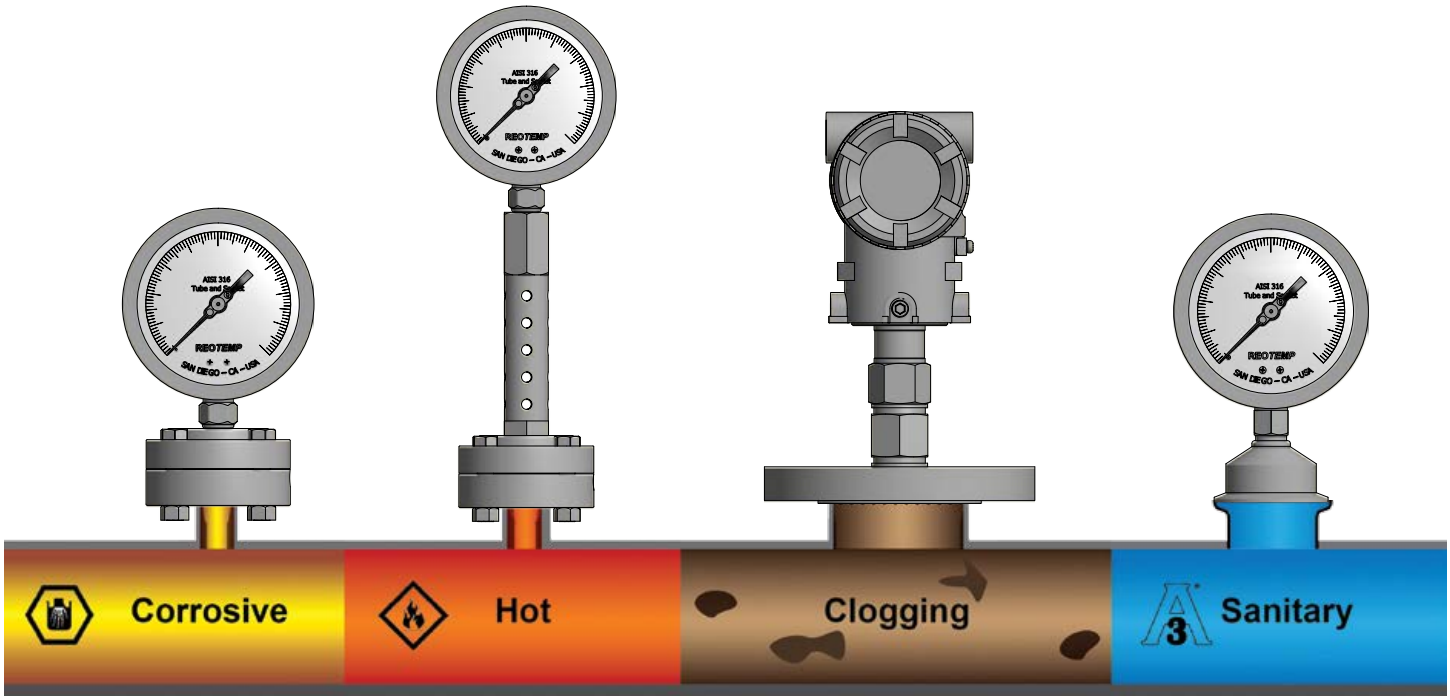
✓	Indicates that the option is available with the model.	N/A	Indicates the option is not available with this model.
STD	Indicates standard options with no additional cost.	MQ	Minimum order quantity applies.

REOTEMP®
INSTRUMENTS

DIAPHRAGM SEALS

Manufactured in the USA under strict ISO 9001 quality standards, REOTEMP offers a broad variety of diaphragm seals for the industrial markets. REOTEMP Diaphragm Seals are carefully designed, built, and tested to maximize performance, increase instrument durability, and assure operator safety. Along with superior product quality, REOTEMP is proud to offer responsive customer service, intuitive online product configurators, and the industry's quickest lead times.

Diaphragm Seals are used in applications where the pressure sensor requires isolation from the process media. These applications may be corrosive, high temp, clogging, or require a sanitary fluid to remain captured in the piping or vessel. Rather than the process fluid interfacing with the pressure sensor, the pressure is exerted onto the flexible diaphragm and transmitted hydraulically to the instrument through the fill fluid. When properly mounted and filled a diaphragm seal assembly will have minimal effect on the instrument's performance.



APPLICATION CONSIDERATIONS

REOTEMP Diaphragm Seal Assemblies are carefully designed, built, and tested to maximize performance, increase instrument lifespan, and assure operator safety. The following should be considered when specifying a diaphragm seal:

1. Instrument Considerations

- Is there sufficient displacement to drive through its full range?
- Is the diaphragm sensitive enough for the measuring range and accuracy grade of the instrument?

2. Diaphragm Seal Mounting

- How will the diaphragm seal mount to the process? Threaded? Flanged? Clamped?
- How will the instrument mount to the diaphragm seal? Threaded? Welded?
- Will the instrument be mounted directly to the seal or with capillary?

3. Process Characteristics

- What are the pressure and temperature limits?
- Are there issues with clogging or high viscosity?
- Is there severe shock and pulsation?
- Is the process fluid compatible with the wetted material and gasket?

4. Ambient Characteristics

- Are there extreme or fluctuating ambient temperatures?
- Is the outside environment corrosive?

5. Vacuum Considerations

- Will the assembly be operating in deep vacuum (< 5psia)? If yes, contact the factory with process specifications.

Questions? If you require application assistance, please contact REOTEMP customer service or your local REOTEMP distributor.

DIAPHRAGM SEAL FEATURES

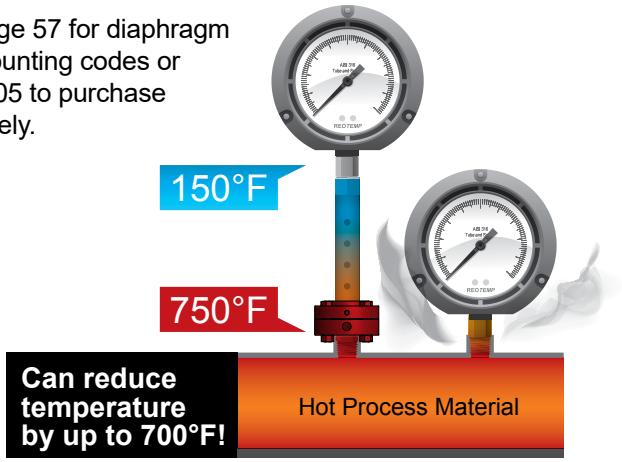
YouTube **Visit reotemp.com/youtube**

- ✓ In-depth Videos on our Customization Options
- ✓ Product Demonstration Videos

COOLING TOWERS

High process temperatures are damaging to pressure instrument performance and could pose an imminent safety risk. REOTEMP cooling towers provide the best option for extending instrument lifespan, improving performance and minimizing safety risk.

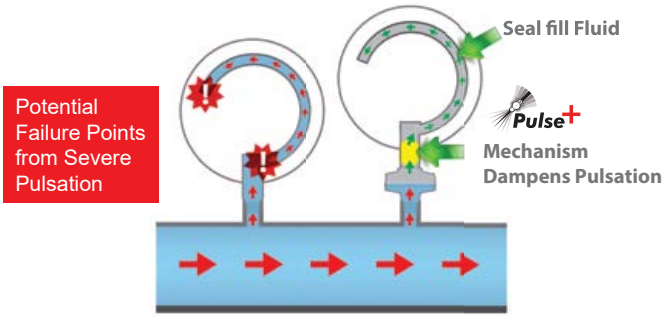
See Page 57 for diaphragm seal mounting codes or Page 105 to purchase separately.



PULSATION PROTECTION

Pulse+™

Process media pulsation is one of the most common causes of pressure gauge failure. REOTEMP's proprietary diaphragm seal feature, Pulse Plus™ dramatically reduces the effects of pulsation on mechanical pressure instruments.



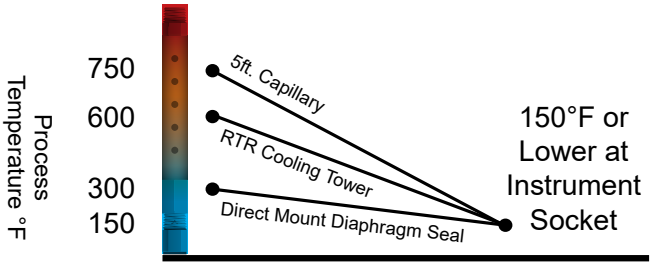
Specify with option code **-PP** on most diaphragm seal models when a seal is being mounted to a REOTEMP pressure gauge.

PRESSURE AND TEMPERATURE REFERENCE TABLES

Threaded Diaphragm Seal Temperature Rating

Process Temp °F	MWP 1500 psi	MWP 2500 psi	MWP 5000 psi	MWP 10000 psi
-40 to 100	1500	2500	5000	10000
200	1290	2150	4300	8600
300	1175	1950	3900	7800
400	1090	1800	3600	7200
500	1000	1650	3300	6600
650	910	1500	3000	6000

Temperature Dissipation by Diaphragm Seal Mount Type



ANSI B16.5 Flange Rating (Temperature/Pressure)

	Process Temp °F	Class 150 psi	Class 300 psi	Class 600 psi	Class 1500 psi
316SS	-40 to 100	275	720	1440	3600
	200	230	600	1200	3000
	300	205	540	1080	2700
	400	190	495	995	2485
	500	170	465	930	2330
	650	125	430	860	2150
Carbon Steel	-40 to 100	285	740	1480	3705
	200	260	675	1350	3375
	300	230	655	1315	3280
	400	200	635	1270	3170
	500	170	600	1200	2995
	650	125	535	1075	2685

Note: Figures are approximate, based on installation with significant ambient airflow.

COMMON CONFIGURATIONS

The pressure instrument and diaphragm seal assemblies shown below are examples of completely filled and tested assemblies and their corresponding part numbers.

Instrument
PT45P1A2P20-G-T-HV (pg.7)

Seal
W51522SSS-TKDTD-AS (pg.59)

Application
The most common gauge seal assembly for threaded connections. For use with corrosive, clogging or moderately hot process media.

Instruments
PR35S1A4D25-D-T (pg.3)
TG1P25-1A4A00 (pg.95)

Seal
DSTC15SS4-TRM-AG (pg.75)

Application
For use in a sanitary or clean-in-place application where the user would like both a mechanical dial pressure gauge and electronic output on the same connection port.

Instrument
PC40S1A4M250-D-T (pg.13)

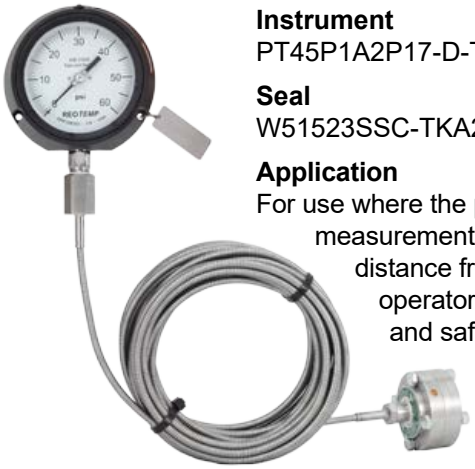
Seal
W7254R21SSS-TDTD-AS (pg.63)

Application
Low pressure gauge with a high accuracy diaphragm seal. For use with corrosive gas or liquid on a flanged connection.

Instrument
Customer Supplied In-Line Smart Pressure Transmitter

Seal
MS8QWM2XS-RTR-BH-R1 (pg.73)

Application
For use in high temperature service where a diaphragm seal is required to protect the pressure transmitter from process temperature as high as 750°F.



Instrument
PT45P1A2P17-D-T-TS (pg.7)

Seal
W51523SSC-TKA25-AS (pg.59)

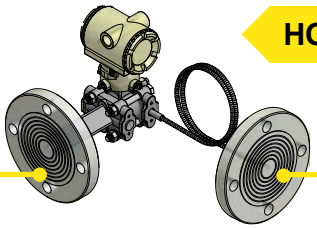
Application
For use where the pressure measurement point is a long distance from where the operator can conveniently and safely read the gauge.

Instrument
Customer Supplied dP Transmitter

Seal
W9FF31S-W20-AS-RR (pg.67)

Application
For use monitoring tank level, measuring flow across an orifice plate, measuring pressure drop across a valve or filter, and other dP application. Flush diaphragm seals are most commonly used with process media that clogs or coagulates in limited flow areas and dead legs.

SMART TRANSMITTER ATTACHMENT



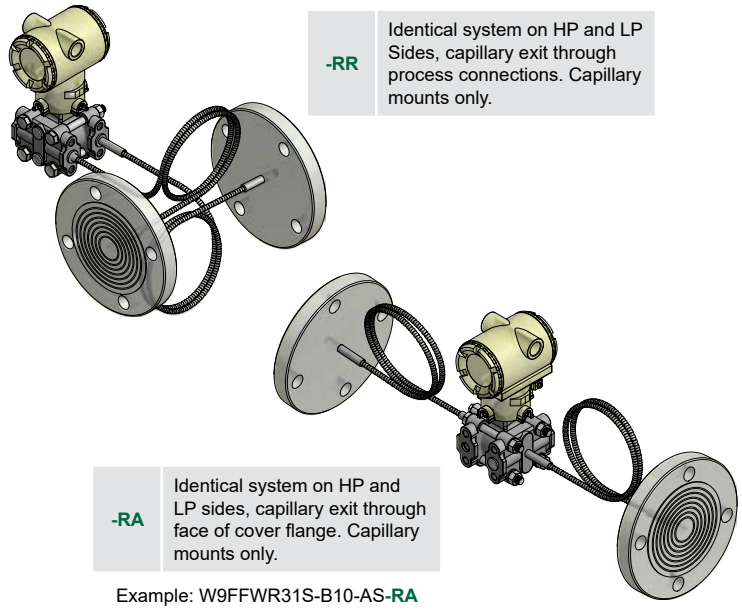
HOW TO ORDER: Unbalanced System Example

W9FFWR31S-DWD-AS-**RB**

W9FFWR31S-B0S-AS-**RL**

DIFFERENTIAL PRESSURE ASSEMBLY

Balanced System A complete assembly with one part number that includes two diaphragm seals, two capillaries, two fills, and one complete assembly calibration certificate.

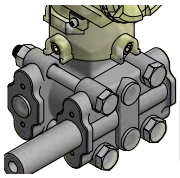


-RR	Identical system on HP and LP Sides, capillary exit through process connections. Capillary mounts only.
-RA	Identical system on HP and LP sides, capillary exit through face of cover flange. Capillary mounts only.

Example: W9FFWR31S-B10-AS-**RA**

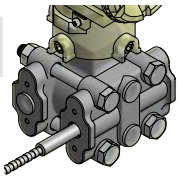
Unbalanced DP System Where seal, mount, capillary, or fill is not identical. A complete assembly includes one diaphragm seal on the HP side AND one diaphragm seal on the LP side.

High Pressure Side

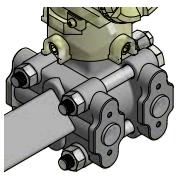


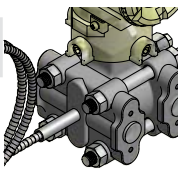
-RH	Mount via Process Connections
-RB	Mount via Face of Cover Flange

Low Pressure Side



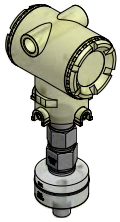
-RL	Mount via Process Connections
-RC	Mount via Face of Cover Flange



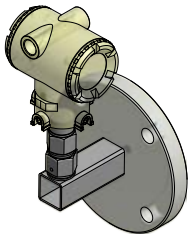


GAUGE PRESSURE ASSEMBLY

In Line Pressure Transmitter

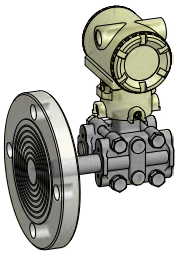


-R1	Mount to In-Line Gauge Pressure Transmitter. Direct or remote mount.

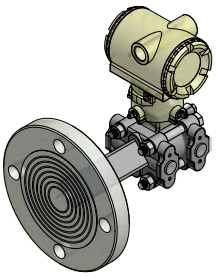


-R4	Horizontal Mount (Tank Mount) to In-Line Gauge Pressure Transmitter. Direct mount only.

Traditional Mount for Gauge Pressure Seal mount on one side only, other side is vented.



-R2	Instrument mount through process connections, HP Side. Use “R3” if mounting to LP side

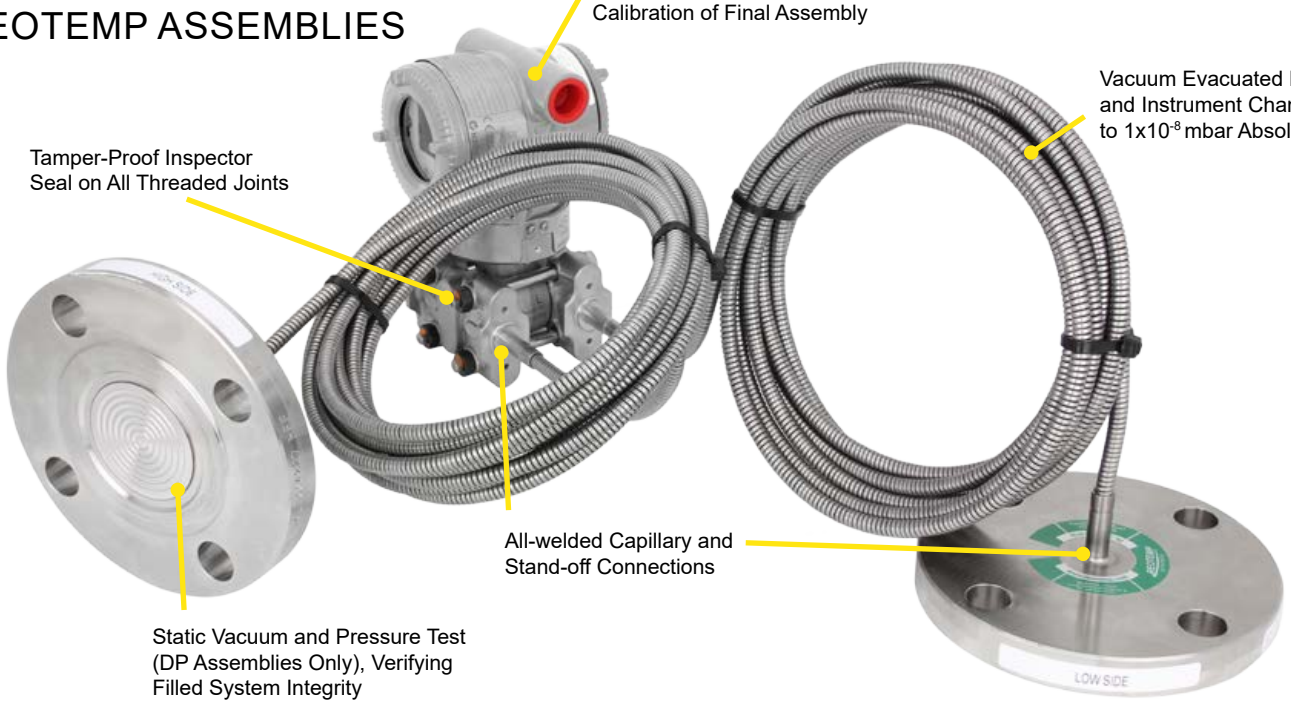


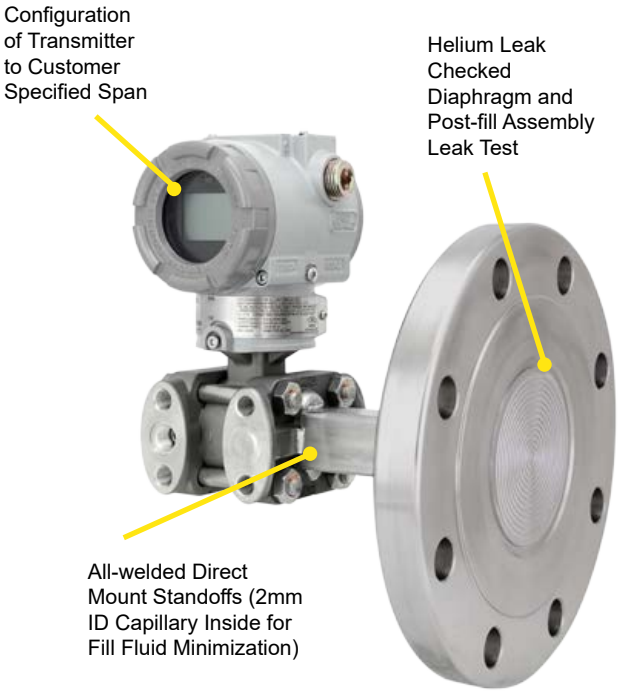
-R8	Instrument mount through face of cover flange, HP Side. Use “R9” if mounting to LP Side

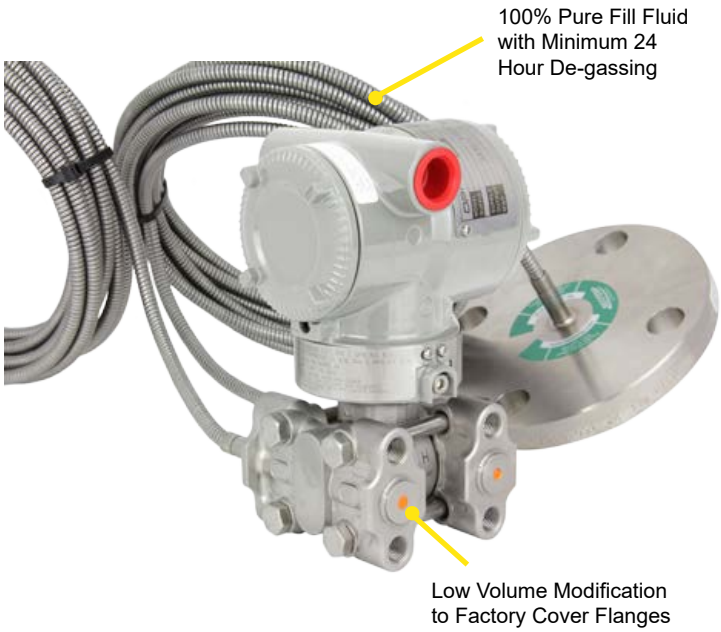
DIAPHRAGM SEAL ASSEMBLY TO SMART TRANSMITTERS

REOTEMP specializes in the unique craft of assembling diaphragm seals to field transmitters for the purpose of measuring pressure, differential pressure, level, and flow. As a trusted supplier to many of the world's leading transmitter manufacturers, REOTEMP can assemble a diaphragm seal system to virtually any make or model transmitter. Every transmitter mount includes the features below to ensure superior performance and durability for every assembly. REOTEMP also offers repair, refurbishment or replacement of used transmitters with remote seals.

STANDARD FEATURES ON ALL REOTEMP ASSEMBLIES







Diaphragm Seals

COMMON MOUNT CONFIGURATIONS

DIRECT MOUNT

Direct Mounting a pressure gauge, switch, or transmitter is the most common diaphragm seal assembly.

Threaded

- Allows Replaceability
- High Quality Thread Sealant
- Inspector Seal

Welded

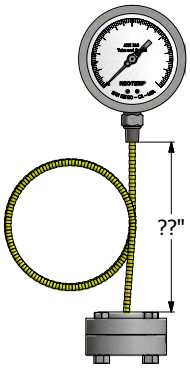
- Tamper Proof
- Rated for High Temps
- Leak Resistant

Code	Description	Max. Temp
-DTD	Threaded Instrument Connection	400°F
-DWD	Welded Instrument Connection	600°F

Assembly Notes: Welded connection recommended for pressure exceeding 1,500 psi for purposes of leak prevention.

REMOTE MOUNT

Remote Mounting a pressure instrument using flexible capillary is a common mounting method when the point of measurement is in a hazardous or inconvenient location.



PVC Coated SS Flex Armor

SS Flex Armor

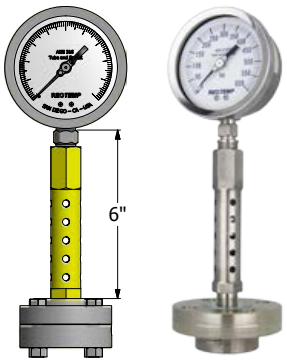
Code	Description	Max. Temp
-P??	PVC Coated SS Armor, Threaded to Seal	400°F
-W??	PVC Coated SS Armor, Welded to Seal	600°F
-A??	SS Flexible Armor, Threaded to Seal	400°F
-B??	SS Flexible Armor, Welded to Seal	750°F

Note: ?? = Length in feet (e.g. 05 = 5 feet)

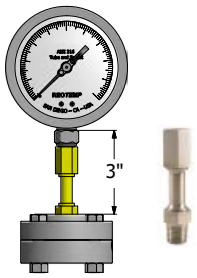
Assembly Notes: Capillary has a 2mm inner diameter unless specified differently by customer. Ambient temp limit of PVC coated armor is 250ºF. Standard instrument connection is threaded (Smart Transmitters are welded), unless specified by customer.

COOLING ELEMENTS

Used in either high temp or cold temp applications, Cooling Elements mounted above diaphragm seals quickly normalize fluid temperature toward ambient. This protects the pressure instrument while still maintaining the convenience of a direct mount.



-RTR



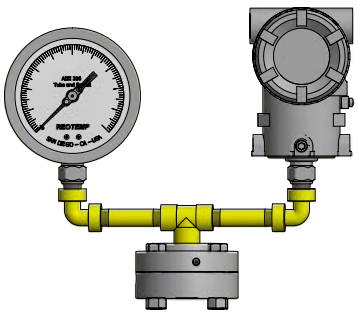
-STW

Code	Description	Max. Temp
-RTR	6” Cooling Tower	750°F
-STW	3” Cooling Standoff	600°F

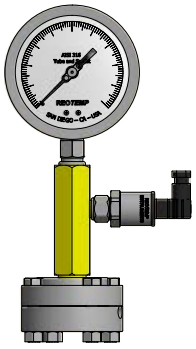
Assembly Notes: Cooling elements are welded to diaphragm seal. Instruments are threaded to cooling element unless specified. All lengths are nominal.

TREE ASSEMBLIES

Tree Assemblies offer the ability to mount two pressure instruments onto one diaphram seal, allowing the user to gain both a local indication and a remote signal without adding an additional pipe insertion.



-TRE & -TRX



-TRM

Code	Description	Max. Temp
-TRE	Goal Post, Low Pressure Assembly (Max. 150 psi)	400°F
-TRX	Goal Post, Heavy Duty (Max. 3,000 psi)	600°F
-TRM	Compact Tree Assembly (Max. 3,000 psi)	600°F

Assembly Notes: Threaded joints are fully welded for consistent instrument orientation. Instrument connections are threaded unless specified by customer. Diaphragm seal must displace enough fluid to drive both instruments.

FILL GUIDE

Diaphragm seals are designed to protect pressure instruments from hot process media and corrosive chemicals while minimizing any negative effect on instrument accuracy and durability. A well-made diaphragm seal can achieve this goal only if it is properly assembled, filled, and tested. REOTEMP's highly trained technicians use state-of-the-art equipment so that every diaphragm seal assembly is filled and tested to assure optimal instrument performance:

- ✓ 24-hour Minimum Fluid De-gassing
- ✓ Evacuated Instrument Chamber Up to 10^{-8} mbar Absolute
- ✓ Complete Fill Integrity Check
- ✓ Fill-port Leak Test
- ✓ Post-fill Static Test
- ✓ Verification of Instrument Calibration
- ✓ High-temp Pipe Sealant Used on All Threaded Joints (Welded Joints Upon Request)
- ✓ Tamper-proof (Inspection Seal) Lacquer used on All Threaded Joints
- ✓ Sturdy Diaphragm Packaging Protection

Part Number Code	Name	Description	Temperature Range (Vacuum Service <5psia)	Pulse+™	Viscosity cst @ ~77°F	Specific Gravity @ ~77°F	Thermal Expansion cc/cc/°C
STANDARD FILL FLUID							
AS	Silicone DC200[1]	This is the standard fill fluid for most diaphragm seal applications.	-40°F to 400°F (-40°F to 250°F)	Yes	20	0.94	.00104
HIGH TEMP SILICONE							
BH	Silicone DC704[1]	Standard for Smart Transmitters and capillary systems. Performs well in applications with high temperature and a deep vacuum.	0°F to 650°F (0°F to 450°F)	No	44	1.07	.00077
B1	Silicone DC710[1]	Highest temperature rating; ideal for gauge seal assemblies. Too thick for capillary assemblies. Response time can become very slow in cold conditions.	50°F to 750°F (50°F to 400°F)	Yes	500	1.11	.00043
C8	Syltherm 800[2]	Low viscosity allows it to perform well in both low and high temperatures. Not recommended for vacuum service or at high temperatures when under low static pressure.	-40°F to 750°F (-40°F to 150°F)	No	9.5	0.93	.00136
B5	Silicone DC705[1]	Performs very well in high temperatures when under vacuum. The high viscosity and freezing point of this fluid makes it a poor choice for cold or outdoor installations without heat tracing.	50°F to 675°F (50°F to 550°F)	Yes	175	1.09	.00096
B2	Silicone DC550[1]	Similar high temperature performance as DC705, however it performs better at lower temperatures.	-40°F to 575°F (-40°F to 400°F)	No	125	1.07	.00076
FOOD GRADE							
AG	Glycerin USP	This is the standard fill fluid for most gauge seal assemblies for food, beverage, and pharmeceutical applications. Its high viscosity will cause very slow response at times in low temperature and outdoor installations.	60°F to 450°F (Not Suitable)	Yes	1100	1.26	.00061
BN	NEOBEE M20[7]	Low viscosity and a wide temperature range makes this the standard sanitary fill fluid for Smart Transmitters and capillary systems.	-10°F to 400°F (-10°F to 200°F)	No	10	0.92	.00101
BS	Food Grade Silicone	Highest temperature limit for food grade fluids. Because of its high viscosity it does not perform well in low temperatures.	20°F to 550°F (20°F to 250°F)	Yes	350	0.97	.00096
BP	Propylene Glycol	This is the fill fluid used when Glycol is called for on the customer specification. It has a very narrow temperature range.	0°F to 200°F (Not Suitable)	No	2.85	1.03	.00073
INERT (TYPICALLY FOR CHLORINE AND OXYGEN APPICATIONS OR IN SILICONE-FREE ENVIRONMENTS)							
C1	Fomblin Y06[4]	Ideal inert fluid for transmitter applications. Relatively high vapor pressure above 200°F. Not recommended for use in high temperature situations with low static pressure.	-40°F to 450°F (0°F to 250°F)	No	71	1.88	.00086
C2	Halocarbon 6.3[3]	Standard inert fluid used in gauge seal assemblies.	-40°F to 400°F (-40°F to 200°F)	Yes	6.3	1.97	.00084
C3	Halocarbon 1.8[3]	Typically used in low temperature applications because of its low viscosity.	-110°F to 220°F (-100°F to 100°F)	No	1.8	1.82	.00084
C4	Fluorolube FS-5[5]	Similar performance to Halocarbon 6.3, however not suitable for vacuum service.	-40°F to 450°F (Not Suitable)	No	5	1.86	.00087
SPECIALTY							
CK	Krytox 1506[6]	Specialty fill fluid, inert.	-40°F to 350°F (-40°F to 300°F)	No	62	1.88	.00095
BE	Ethylene Glycol	Occasionally used in annular (O-ring) seal assemblies.	-25°F to 320°F (Not Suitable)	No	30	1.10	.00062

1 Trademark Dow Corning
2 Trademark The Dow Chemical Company
3 Trademark Halocarbon Product Corporation
4 Trademark AUSIMONT S.P.A
5 Trademark Hooker Chemical Company
6 Trademark The Chemours Company FC, LLC
7 Trademark Stepan Specialty Products

Note: PulsePlus™ fill fluids may have different physical properties than specified. Chemical composition and temperature ranges do not vary.

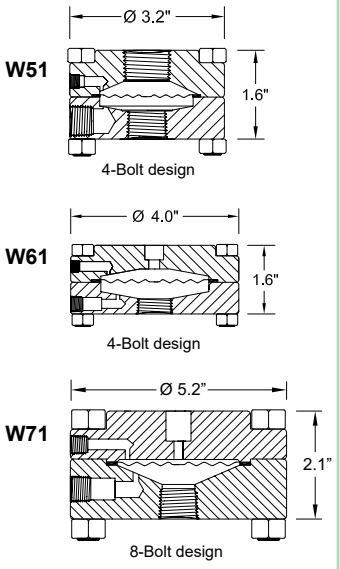
THREADED OFFLINE WELDED DIAPHRAGM SEALS

REOTEMP's Threaded Offline Welded Diaphragm Seals are designed with an upper and lower housing bolted together with a diaphragm welded to the upper housing. This removable design allows for easy cleanout of the seal chamber, while still maintaining the system fill. The threaded offline diaphragm seal can be adapted to fit almost any pressure instrument and process application.

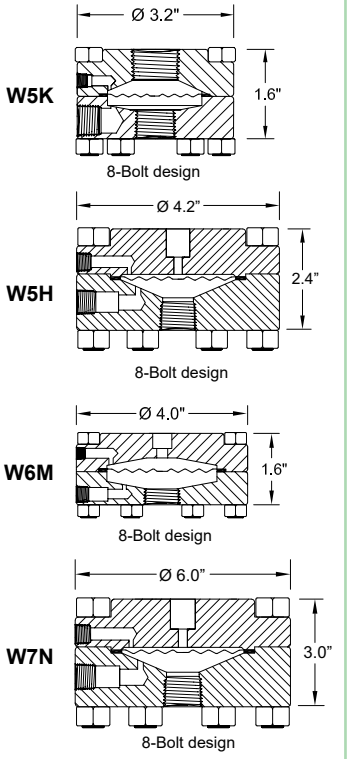
FEATURES / BENEFITS

- Welded Diaphragm for Maximum Durability
- Wide Variety of Diaphragm and Material Options
- Continuous-duty Disc Protects from Process Fluid Leaking in the Event of a System Breach
- Easy Cleanout of Diaphragm Cavity without Compromising Filled System

Standard Pressure



Heavy Duty



Note: All drawings depict a single 1/4" NPT Flush Port (optional). Drawing are not to scale. Contact REOTEMP customer service for more detailed drawings.

SPECIFICATIONS

Construction Materials:

Upper Housing (Non-wetted): 316SS, Nickel-plated Steel
Diaphragm (Wetted): 316SS, Hast C-276, Tantalum, Monel, others
Gasket (Wetted): PTFE, Grafoil, Klinger
Lower Housing (Wetted): 316SS, Hast C-276, Monel, CPVC, others

Process Temperature Limits:

		W51/W61	W5K/W6M/ W5H/W7
Metallic Lower	PTFE Gasket	-110/350ºF	-110/400ºF
	Klinger Gasket	-110/450ºF	-110/500ºF
	Grafoil Gasket	-40/600ºF	-40/750ºF
Non-Metallic Lower		140ºF	N/A

Ambient Temperature Limits:

Determined by the Pressure Instrument

Minimum Recommended Span:

	W5	W6	W7
2.5" & 3.5" Gauges	15 psi	200" H_2O	30" H_2O
4", 4.5", & 6" Gauges	30 psi	200" H_2O	30" H_2O
Transmitter (Gauge Pressure)	150" H_2O	60" H_2O	15" H_2O
Transmitter (Differential Pressure)	300" H_2O	60" H_2O	15" H_2O
Differential Pressure Gauge (D40/42 Only)	N/A	N/A	100" H_2O

Weight (lbs.):

	Metallic Lower	Non-Metallic Lower
W51/W5K	3.5	2.5
W5H	11.0	N/A
W61/W6M	5.2	4.2
W7	12.0	N/A

Note: Weights are approximate.

Maximum Working Pressure at 100ºF:

	Bolts	Grade 5	Grade 8	18/8SS	316SS
Metallic Lower	W51	2,500	2,500	1,500	1,500
	W5K	5,000	5,000	3,000	2,500
	W5H	-	10,000	-	-
	W61	1,500	1,500	1,000	750
	W6M	2,500	2,500	2,000	2,000
	W71	-	1,500	-	750
	W7N	-	4,000	-	-
Non-Metallic Lower		300	300	300	300

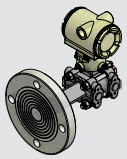
Note: All pressures in psi.

THREADED OFFLINE WELDED DIAPHRAGM SEALS

HOW TO ORDER: Choose options to build a part number. For example: W51622HSS-TGRTR-BH-PP

W51	6	2	2	H	S	S
SEAL TYPE	FLUSH PORT	INSTRUMENT CONNECTION	PROCESS CONNECTION	DIAPHRAGM MATERIAL	LOWER HOUSING	UPPER HOUSING
W51 = 2.2" Diaphragm **W5K** = 2.2" Diaphragm Heavy Duty **W5H** = 2.2" Diaphragm High Pressure **W61** = 2.9" Diaphragm **W6M** = 2.9" Diaphragm Heavy Duty **W71** = 4.1" Diaphragm **W7N** = 4.1" Diaphragm Heavy Duty	**5** = No Flush Port **6** = Single 1/4" NPT **7** = Dual 1/4" NPT **C** = Single 1/2" NPT‡ **D** = Dual 1/2" NPT‡ Note: SS Plugs Included in Flush Ports ‡Only Available with W51 & W61	**2** = 1/2" Female NPT **4** = 1/4" Female NPT **W** = Low-Volume Connection for Smart Transmitters (316 upper only)	**1** = 1" NPT Female **2** = 1/2" NPT Female **3** = 3/4" NPT Female **4** = 1/4" NPT Female **5** = 1.5" NPT Female (W6 & W7 ONLY) **M** = 1/2" NPT Male* **6** = 1.25" NPT Female **7** = 3/8" NPT Female **8** = 1/8" NPT Female **9** = 2" NPT Female (W6 & W7 ONLY) *Welded Adapter, Not Available in All Materials	**S** = 316L **H** = Hast C-276 **U** = Tantalum **M** = Monel (A400)[2] **D** = Alloy 20 **Y** = Inconel **G** = Hast B **N** = Nickel **J** = Titanium[1] [1]Snap-in Diaphragm Type, Not Welded to Upper Housing [2]Only Available with Carbon Steel Upper Housing Wetted	**S** = 316/316L **H** = Hast C-276 **M** = Monel (A400) **D** = Alloy 20 **G** = Hast B **F** = 304/304L **C** = Carbon Steel **N** = Nickel **T** = Teflon (PTFE) **Z** = PVC **W** = CPVC **K** = Kynar **J** = Titanium Important: See Choosing a Lower Housing Note Below Wetted	**S** = 316SS **C** = Carbon Steel, Nickel Plated[3] [3]Not Available with W71/W7N

-T	G	RTR	-BH	-PP
BOLTS/FASTENERS	GASKET	INSTRUMENT MOUNT	SYSTEM FILL FLUID	OPTIONS
-5 = Carbon Steel Grade 5, Zinc Plated **-8** = Carbon Steel Grade 8, Yellow Chromate **-T** = Stainless Steel 18/8 **-S** = Stainless Steel 316	**K** = Klinger C-4401 **T** = PTFE **G** = Grafoil **Z** = Kalrez Wetted	*See Page 57 for Complete Mounting Guide* *Direct Mount* **DTD** = Direct Mount, Threaded **DWD** = Direct Mount, Welded **RTR** = 6" Cooling Tower **STW** = 3" Cooling Standoff *Remote Mount* **A??** = Armored Capillary, Threaded **B??** = Armored Capillary, Welded **P??** = PVC Coated Armor, Threaded **W??** = PVC Coated Armor, Welded Note: ?? = Length in feet (e.g. 05 = 5 feet) *Tree Mount* **TRE** = Goal Post, Low Pressure **TRX** = Goal Post, Heavy Duty **TRM** = Compact Tree Assembly **YYY** = Dry Seal, No Instrument	*See Page 58 for Complete Fill Guide* *Common Fills* **-AS** = Silicone DC200 **-AG** = Glycerin USP **-BH** = Silicone DC704 **-C1** = Fomblin Y06 (inert) **-C2** = Halocarbon 6.3 **-XX** = No Fill Fluid	*See Page 78 for Additional Options* **-PP** = Pulse Plus™ (Pulsation Protection) **-OX** = Cleaned for Oxygen Service **-AU** = Gold-Plated Diaphragm **-TC** = Teflon-Coated Diaphragm **-TS** = SS Tag (1-10 Character) **-FW** = Fill Port Welded Closed **-MR** = Mill Test Report **-NC** = NACE Certification **-PM** = Positive Material Identification Certification



See Page 55 for Smart Transmitter Attachment Codes

Important Note on Choosing a Lower Housing: Reotemp recommends the use of metallic lower housings when process compatibility allows. Before specifying a non-metallic lower housing, users should be familiar with the material characteristics and risks of non-metallic materials including leaking, cracking, flowing and other issues that can affect durability and performance.

THREADED OFFLINE NON-METALLIC DIAPHRAGM SEALS

REOTEMP's Threaded Offline Non-Metallic Diaphragm Seals are designed with an upper and lower housing bolted together with a Teflon or Viton diaphragm bonded to the upper housing. This design allows for the lower housing to be removed for easy cleanout of the seal chamber while still maintaining the system fill. The Teflon and Viton diaphragms are ideal for protecting the pressure instrument from corrosive process fluid.

With Teflon Diaphragm

With Viton Diaphragm

SPECIFICATIONS

Construction Materials:

Upper Housing (Non-wetted): 316SS, Nickel-plated Steel
Diaphragm (Wetted): PTFE, Viton A
Lower Housing (Wetted): 316SS, Hast C-276, Teflon, CPVC, others

Process Temperature Limits:

Lower Housing	Diaphragm	Max. Temp.
Metallic Lower	Teflon	450ºF
	Viton	300ºF
Non-Metallic Lower	Teflon	140ºF
	Viton	140°F

Ambient Temperature Limits:

Determined by the Pressure Instrument

Minimum Recommended Span:

	T5	T6	V5
2.5" & 3.5" Gauges	15 psi	60" H_2O	25" H_2O
4", 4.5", & 6" Gauges	15 psi	60" H_2O	25" H_2O
*Transmitter (Gauge Pressure)	15 psi	5 psi	30" H_2O
*Transmitter (Differential Pressure)	n/a	200" H_2O	60" H_2O
Differential Pressure Gauge (D40/42 ONLY)	n/a	300" H_2O	100" H_2O

*Warning: Non-metallic diaphragms are not recommended for critical transmitter applications.

Weight:

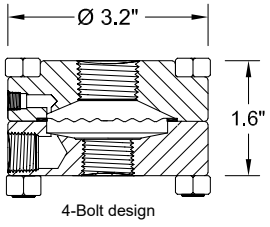
	Metallic Lower	Non-Metallic Lower
T5	3.5 lbs	2.5 lbs
T6	5.2 lbs	4.2 lbs
V5	3.5 lbs	2.5 lbs

Note: All Weights are Approximate.

FEATURES / BENEFITS

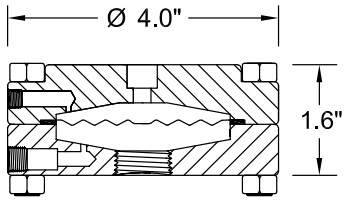
- Removable Lower Housing Design for Easy Cleanout
- Wide Variety of Plastic and Metallic Lower Housing Materials
- Highly Sensitive and Corrosion Resistant Diaphragm
- High Displacement Diaphragms Ideal for Mechanical Differential Pressure Gauges and Low Pressure Gauges

T51/V51



4-Bolt design

T61



4-Bolt design

Note: All drawings depict a single 1/4" NPT Flush Port (optional). Drawing are not to scale. Contact REOTEMP customer service for more detailed drawings.

Maximum Working Pressures at 100ºF:

Bolts	Grade 5	Grade 8	18/8SS	316SS
Metallic Lower, T51, V51	2,500	2,500	1,500	1,500
Metallic Lower, T61	1,500	1,500	1,000	750
Non-Metallic Lower	300	300	300	300

Note: All pressures in psi.

REOTEMP INSTRUMENTS

THREADED OFFLINE NON-METALLIC DIAPHRAGM SEALS

HOW TO ORDER: Choose options to build a part number. For example: T51622TSS-TTDTD-AS-PP

T51	6	2	2	T	S	S
SEAL TYPE	FLUSH PORT	INSTRUMENT CONNECTION	PROCESS CONNECTION	DIAPHRAGM MATERIAL	LOWER HOUSING	UPPER HOUSING
T51 = 2.2" Teflon Diaphragm **T61** = 2.9" Teflon Diaphragm **V51** = 2.2" Viton Diaphragm	**5** = No Flush Port **6** = Single 1/4" NPT **7** = Dual 1/4" NPT **C** = Single 1/2" NPT **D** = Dual 1/2" NPT	**2** = 1/2" Female NPT **4** = 1/4" Female NPT	**1** = 1" NPT Female **2** = 1/2" NPT Female **3** = 3/4" NPT Female **4** = 1/4" NPT Female **5** = 1.5" NPT Female (T6 ONLY) **M** = 1/2" NPT Male* **6** = 1.25" NPT Female **7** = 3/8" NPT Female **8** = 1/8" NPT Female **9** = 2" NPT Female (T6 ONLY) *Welded Adapter	**T** = Teflon (Virgin PTFE) **V** = Viton A Wetted	**S** = 316/316L **H** = Hast C-276 **M** = Monel (A400) **D** = Alloy 20 **T** = Teflon (PTFE) **Z** = PVC **W** = CPVC **K** = Kynar Important: see note on choosing a lower housing below. Wetted	**S** = 316SS **C** = Carbon Steel Nickel Plated

-T	T	DTD	-AS	-PP
BOLTS/FASTENERS	GASKET	INSTRUMENT MOUNT	SYSTEM FILL FLUID	OPTIONS
-5 = Carbon Steel Grade 5, Zinc Plated **-8** = Carbon Steel Grade 8, Yellow Chromate **-T** = Stainless Steel 18/8 **-S** = Stainless Steel 316	**T** = Teflon **V** = Viton Note: Gasket material matches diaphragm material Wetted	*See Page 57 for Complete Mounting Guide* *Direct Mount* **DTD** = Direct Mount, Threaded **DWD** = Direct Mount, Welded *Remote Mount* **A??** = Armored Capillary, Threaded **B??** = Armored Capillary, Welded **P??** = PVC Coated Armor, Threaded **W??** = PVC Coated Armor, Welded Note: ?? = Length in feet (e.g. 05 = 5 feet) *Tree Mount* **TRE** = Goal Post, Low Pressure **TRX** = Goal Post, Heavy Duty **TRM** = Compact Tree Assembly **YYY** = Dry Seal, No Instrument	*See Page 58 for Complete Fill Guide* *Common Fills* **-AS** = Silicone DC200 **-AG** = Glycerin USP **-BH** = Silicone DC704 **-C1** = Fomblin Y06 (inert) **-C2** = Halocarbon 6.3 **-XX** = No Fill Fluid	*See Page 78 for Additional Options* **-PP** = Pulse Plus™ (Pulsation Protection) **-FW** = Fill Port Welded Closed **-TS** = SS Tag (1-10 Character)

Important Note on Choosing a Lower Housing: Reotemp recommends the use of metallic lower housings when process compatibility allows. Before specifying a non-metallic lower housing, users should be familiar with the material characteristics and risks of non-metallic materials including leaking, cracking, flowing and other issues that can affect durability and performance.

FLANGED OFFLINE WELDED DIAPHRAGM SEALS

REOTEMP's Flanged Offline Welded Diaphragm Seals are designed with an upper and lower housing, bolted together with a diaphragm welded to the upper housing. This removable design allows for easy cleanout of the seal chamber, while maintaining the system fill. The flanged offline diaphragm seal can be adapted to fit almost any pressure instrument and process application.

Stud Mount Style

Lower Ring Style

FEATURES / BENEFITS

- Welded Diaphragm for Maximum Durability
- Wide Variety of Diaphragm and Material Options
- Continuous-duty Disc Protects from Process Fluid Leaking in the Event of a System Breach
- Easy Cleanout of Diaphragm Cavity without Compromising Filled System

SPECIFICATIONS

Construction Materials:

Upper Housing (Non-wetted): 316SS, Nickel-plated Steel
Diaphragm (Wetted): 316SS, Hast C-276, Tantalum, Monel, others
Gasket (Wetted): PTFE, Grafoil, Klinger
Lower Housing (Wetted): 316SS, Hast C-276, Monel, CPVC, others

Process Temperature Limits:

		Housing Type	
		2	3
Metallic Lower	PTFE Gasket	-110/400°F	
	Klinger Gasket	-110/500°F	
	Grafoil Gasket	-40/750°F	
Non-Metallic Lower		N/A	140°F

Ambient Temperature Limits:

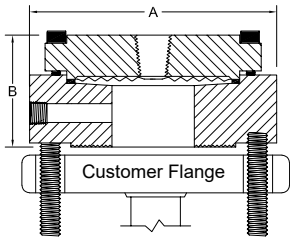
Determined by the Pressure Instrument

Minimum Recommended Span:

	W5	W6	W7
2.5" & 3.5" Gauges	15 psi	200" H_2O	30" H_2O
4", 4.5", & 6" Gauges	30 psi	200" H_2O	30" H_2O
Transmitter (Gauge Pressure)	150" H_2O	60" H_2O	15" H_2O
Transmitter (Differential Pressure)	300" H_2O	60" H_2O	15" H_2O
Differential Pressure Gauge (D40/42 Only)	N/A	N/A	100" H_2O

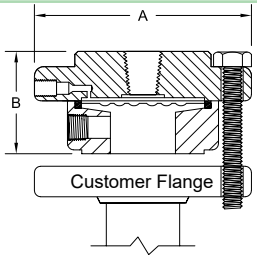
Maximum Working Pressure:

Determined by flange.



W52/W62/W72
Stud Mount Style

Note: stud bolts provided as a convenience. Reotemp recommends customer provide their own bolts and fasteners.



W53/W63/W73
Lower Ring Style

Diaphragm Size	Flange (ANSI)		A (in)	B (in)
W52	1/2"	150#	3.3	1.7
		300#	3.5	1.7
	3/4"	150#	3.5	1.7
W62	1/2"	150#	4.0	1.7
		300#	4.0	1.7
	3/4"	150#	4.0	1.7
		300#	4.0	1.8
	1"	150#	4.0	1.7
		300#	4.8	1.8
W72	1/2" & 3/4"	150#	5.3	2.1
		300#	5.3	2.3
	1"	150#	5.3	2.1
		300#	5.3	2.1
	1.5"	150#	5.3	2.1
		300#	5.3	2.3
W53	3/4"	300#	4.8	1.7
	1"	150#	4.3	1.7
		300#	4.8	1.7
	1.5"	150#	5.0	1.7
		300#	6.0	1.7
W63	1.5"	150#	5.0	1.7
		300#	6.0	1.7
	2"	150#	6.0	1.7
		300#	6.5	1.7

Note: All drawings depict a single 1/4" NPT Flush Port (optional). Drawing are not to scale. Contact REOTEMP customer service for more detailed drawings.

FLANGED OFFLINE WELDED DIAPHRAGM SEALS

HOW TO ORDER: Choose options to build a part number. For example: W5262RT1SSS-KDTD-AS-PP

W5	2	6	2	R	T	1	S
SEAL TYPE	HOUSING	FLUSH PORT	INSTRUMENT CONNECTION	SEALING FACE	PIPE SIZE	FLANGE RATING	DIAPHRAGM MATERIAL

W5 = 2.2" Diaphragm
W6 = 2.9" Diaphragm
W7 = 4.1" Diaphragm

2 = Stud Mount Style
3 = Lower Ring Style

5 = No Flush Port
6 = Single 1/4" NPT
7 = Dual 1/4" NPT
C = Single 1/2" NPT[1]
D = Dual 1/2" NPT[1]

[1]Not Available with Type 2 Housing

2 = 1/2" Female NPT
4 = 1/4" Female NPT
W = Low-Volume Connection for Smart Transmitters

R = Raised Face
J = Ring Type Joint
F = Flat Face

0 = 1/2" ANSI
T = 3/4" ANSI
1 = 1" ANSI
H = 1 ½" ANSI
2 = 2" ANSI
3 = 3" ANSI

1 = 150#
3 = 300#
6 = 600#
9 = 900/1500#
5 = 2500#
7 = 900#[2]
8 = 1500#[2]

[2]For 3" Pipe Size and Larger

S = 316L
H = Hast C-276
U = Tantalum
M = Monel (A400)[†]
D = Alloy 20
Y = Inconel
G = Hast B
N = Nickel
J = Titanium[3]

[3]Snap-in Diaphragm Type, Not Welded to Upper Housing

[†]Only Available with Carbon Steel Upper Housing

Wetted

Housing Details

Pipe Size	Seal Type W5	Seal Type W6	Seal Type W7
1/2"	2	2	2
3/4"	150# 2 300# 3	2	2
1"	3	2	2
1 ½"	3	3	2
2"	3	3	150# 2 300# 3
3"	3	3	3

S	S	-K	DTD	-AS	-PP
LOWER HOUSING	UPPER HOUSING	GASKET	INSTRUMENT MOUNT	SYSTEM FILL FLUID	OPTIONS

S = 316L
H = Hast C-276
M = Monel (A400)
D = Alloy 20
G = Hast B
L = Teflon Lined 316SS[5]
T = Teflon (PTFE)[4]
K = Kynar[4]
W = CPVC[4]
Z = PVC[4]

[4]Not Available on Stud Mount Style Housing

[5]Available for 1" Flange and Larger

Wetted

S = 316SS
C = Carbon Steel Nickel Plated

Important Note on Choosing a Lower Housing: Reotemp recommends the use of metallic lower housings when process compatibility allows. Before specifying a non-metallic lower housing, users should be familiar with the material characteristics and risks of non-metallic materials including leaking, cracking, flowing and other issues that can affect durability and performance.

-K = Klinger C-4401
-T = PTFE
-G = Grafoil
-Z = Kalrez

Wetted

See Page 57 for Complete Mounting Guide

Direct Mount
DTD = Direct Mount, Threaded
DWD = Direct Mount, Welded
RTR = 6" Cooling Tower
STW = 3" Cooling Standoff
Remote Mount
A?? = Armored Capillary, Threaded
B?? = Armored Capillary, Welded
P?? = PVC Coated Armor, Threaded
W?? = PVC Coated Armor, Welded
Note: ?? = Length in feet (e.g. 05 = 5 feet).

Tree Mount
TRE = Goal Post, Low Pressure
TRX = Goal Post, Heavy Duty
TRM = Compact Tree Assembly

YYY = Dry Seal, No Instrument

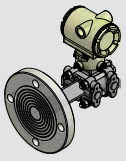
See Page 58 for Complete Fill Guide

Common Fills
-AS = Silicone DC200
-AG = Glycerin USP
-BH = Silicone DC704
-C1 = Fomblin Y06 (inert)
-C2 = Halocarbon 6.3

-XX = No Fill Fluid

See Page 78 for Additional Options

-PP = Pulse Plus™ (Pulsation Protection)
-OX = Cleaned for Oxygen Service
-AU = Gold-Plated Diaphragm
-TC = Teflon-Coated Diaphragm
-TS = SS Tag (1-10 Characters)
-FW = Fill Port Welded Closed
-LU = Tantalum Clad Lower Housing
-NC = NACE Certification MRO-175



See Page 55 for Smart Transmitter Attachment Codes

FLANGED OFFLINE NON-METALLIC DIAPHRAGM SEALS

REOTEMP's Flanged Offline Non-Metallic Diaphragm Seals are designed with an upper and lower housing bolted together with a Teflon or Viton diaphragm bonded to the upper housing. This design allows for the lower housing to be removed for easy cleanout of the seal chamber while still maintaining the system fill. The Teflon and Viton diaphragm are ideal for protecting the pressure instrument from corrosive process fluid.

Stud Mount Style

Lower Ring Style

SPECIFICATIONS

Construction Materials:

Upper Housing (Non-wetted): 316SS, Nickel-plated Steel, 304SS
Diaphragm (Wetted): Teflon, Viton A
Lower Housing (Wetted): 316SS, Hast C-276, Monel, CPVC, others

Process Temperature Limits:

Lower Housing	Diaphragm	Max. Temp.
Metallic Lower	Teflon	450ºF
	Viton	300ºF
Non-Metallic Lower	Teflon	140ºF
	Viton	140°F

Ambient Temperature Limits:

Determined by the Pressure Instrument

Minimum Recommended Span:

	T5	T6	V5
2.5" & 3.5" Gauges	15 psi	60" H_2O	15" H_2O
4", 4.5", & 6" Gauges	15 psi	60" H_2O	15" H_2O
*Transmitter (Gauge Pressure)	15 psi	5 psi	30" H_2O
*Transmitter (Differential Pressure)	n/a	200" H_2O	60" H_2O
Differential Pressure Gauge	n/a	300" H_2O	100" H_2O

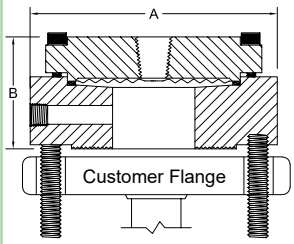
*Warning: Non-metallic diaphragms are not recommended for critical transmitter applications.

Maximum Working Pressure:

Determined by flange.

FEATURES / BENEFITS

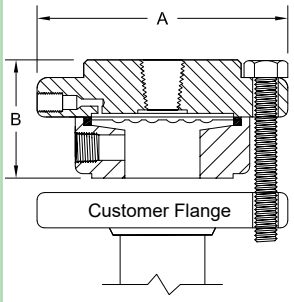
- Removable Lower Housing Design for Easy Cleanout
- Wide Variety of Plastic and Metallic Lower Housing Materials
- Highly Sensitive and Corrosion Resistant Diaphragm
- High Displacement Diaphragms Ideal for Mechanical Differential Pressure Gauges and Low Pressure Gauges



T52/V52
Stud Mount Style

Note: stud bolts provided as a convenience. Reotemp recommends customer provide their own bolts and fasteners.

Diap.	Size	Flange (ANSI)		A (in)	B (in)
Viton	V52	1/2"	150#	3.5	1.8
			300#	3.5	1.8
		3/4"	150#	3.5	1.8
Teflon	T52	1/2"	150#	3.3	1.7
			300#	3.5	1.7
		3/4"	150#	3.5	1.7
	T62	1/2"	150#	4.0	1.8
			300#	4.0	1.8
		3/4" & 1"	150#	4.0	1.8
			300#	4.8	1.9



T53/T63/V53
Lower Ring Style

Viton	V53	3/4"	300#	4.8	1.9
		1"	150#	4.0	1.8
			300#	4.8	1.9
		1.5"	150#	5.0	1.8
			300#	6.0	1.8
Teflon	T53	3/4"	300#	4.8	1.7
		1"	150#	4.3	1.7
			300#	4.8	1.7
		1.5"	150#	5.0	1.7
			300#	6.0	1.7
	T63	1.5"	150#	5.0	1.8
			300#	6.0	1.8

Note: All drawings depict a single 1/4" NPT Flush Port (optional). Drawing are not to scale. Contact REOTEMP customer service for more detailed drawings.

FLANGED OFFLINE NON-METALLIC DIAPHRAGM SEALS

HOW TO ORDER: Choose options to build a part number. For example: T5352R11TSS-TDTD-C2-PP

T5	3	5	2	R	1	1	T
SEAL TYPE	HOUSING	FLUSH PORT	INSTRUMENT CONNECTION	SEALING FACE	PIPE SIZE	FLANGE RATING	DIAPHRAGM MATERIAL

SEAL TYPE
- **T5** = 2.2" Teflon Diaphragm
- **T6** = 2.9" Teflon Diaphragm
- **V5** = 2.2" Viton Diaphragm

HOUSING
- **2** = Stud Mount Style
- **3** = Lower Ring Style

FLUSH PORT
- **5** = No Flush Port
- **6** = Single 1/4" NPT
- **7** = Dual 1/4" NPT
- **C** = Single 1/2" NPT[2]
- **D** = Dual 1/2" NPT[2]

[2]Not Available with Type 2 Housing

INSTRUMENT CONNECTION
- **2** = 1/2" Female NPT
- **4** = 1/4" Female NPT

SEALING FACE
- **R** = Raised Face
- **J** = Ring Type Joint
- **F** = Flat Face[3]

[3]Requires Housing Style "2" No Matter the Size

PIPE SIZE
- **O** = 1/2" ANSI
- **T** = 3/4" ANSI
- **1** = 1" ANSI
- **H** = 1 ½" ANSI
- **2** = 2" ANSI
- **3** = 3" ANSI

FLANGE RATING
- **1** = 150#
- **3** = 300#
- **6** = 600#
- **9** = 900/1500#
- **5** = 2500#

DIAPHRAGM MATERIAL
- **T** = Teflon (Virgin PTFE)
- **V** = Viton A

Wetted

Housing Details

Pipe Size	Seal Type T5/ V5	Seal Type T6
1/2"	2	2
3/4"	150# 2	2
	300# 3	
1"	3	2
1 ½"	3	3
2"	3	3
3"	3	3

S	S	-T	DTD	-C2	-PP
LOWER HOUSING	UPPER HOUSING	GASKET	INSTRUMENT MOUNT	SYSTEM FILL FLUID	OPTIONS

LOWER HOUSING
- **S** = 316L
- **H** = Hast C-276
- **M** = Monel (A400)
- **D** = Alloy 20
- **G** = Hast B
- **L** = Teflon Lined 316SS[1]
- **T** = Teflon (PTFE)[†]
- **K** = Kynar[†]
- **W** = CPVC[†]
- **Z** = PVC[†]

[†]Not Available On Stud Mount Style Housing

[1]Available for 1" Flange and Larger

Wetted

UPPER HOUSING
- **S** = 316SS
- **C** = Carbon Steel Nickel Plated

Important Note on Choosing a Lower Housing: Reotemp recommends the use of metallic lower housings when process compatibility allows. Before specifying a non-metallic lower housing, users should be familiar with the material characteristics and risks of non-metallic materials including leaking, cracking, flowing and other issues that can affect durability and performance.

GASKET
- **T** = Teflon
- **V** = Viton

Note: Gasket Material Matches Diaphragm Material

Wetted

INSTRUMENT MOUNT

See Page 57 for Complete Mounting Guide

Direct Mount
- **DTD** = Direct Mount, Threaded
- **DWD** = Direct Mount, Welded
- **RTR** = 6" Cooling Tower
- **STW** = 3" Cooling Standoff

Remote Mount
- **A??** = Armored Capillary, Threaded
- **B??** = Armored Capillary, Welded
- **P??** = PVC Coated Armor, Threaded
- **W??** = PVC Coated Armor, Welded

Note: ?? = Length in feet (e.g. 05 = 5 feet).

Tree Mount
- **TRE** = Goal Post, Low Pressure
- **TRX** = Goal Post, Heavy Duty
- **TRM** = Compact Tree Assembly

YYY = Dry Seal, No Instrument

SYSTEM FILL FLUID

See Page 58 for Complete Fill Guide

Common Fills
- **-AS** = Silicone DC200
- **-AG** = Glycerin USP
- **-BH** = Silicone DC704
- **-C1** = Fomblin Y06 (inert)
- **-C2** = Halocarbon 6.3

-XX = No Fill Fluid

OPTIONS

See Page 78 for Additional Options

- **-PP** = Pulse Plus™ (Pulsation Protection)
- **-TS** = SS Tag (1-10 Characters)
- **-FW** = Fill Port Welded Closed

Viton Diaphragm, Lower Ring Style

FLANGED FLUSH FACE DIAPHRAGM SEALS

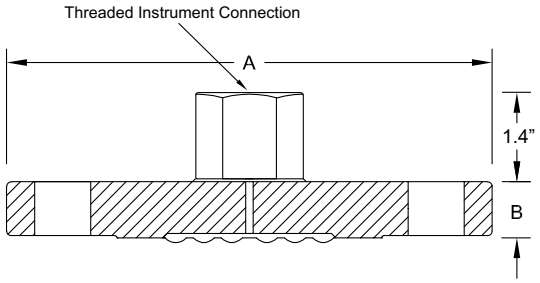
REOTEMP's Flanged Flush-Face Diaphragm Seals are useful in applications where a continuous flow of process across the diaphragm is required to prevent solids buildup and a one-piece, all-welded construction is desired.

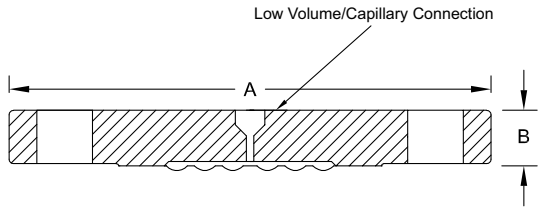
W9FF
Wetted Flange

W9FR
Integral Face Non-wetted Flange

FEATURES / BENEFITS

- One-piece Seal Design Bolts Directly to Process Flange
- Center Instrument Exit
- Commonly Supplied with Flush/Calibration Ring
- Ideal for Gauge or Differential Pressure Transmitters





SPECIFICATIONS

Construction Materials:

Flange: 316SS, 304SS, Monel, Alloy 20, Hast C-276

Diaphragm: 316SS, Hast C-276, Tantalum, Monel, others

Process Temperature Limits:

-110° to 750°F

Ambient Temperature Limits:

Determined by the Pressure Instrument

Minimum Recommended Span:

	Diaphragm Size			
	1.8"	2.2"	3.5"	4.1"
2.5" & 3.5" Gauges	30 psi	15 psi	10 psi	30" H_2O
4", 4.5", & 6" Gauges	N/A	60 psi	10 psi	30" H_2O
Transmitter (Gauge Pressure)	10 psi	100" H_2O	30" H_2O	15" H_2O
Transmitter (Differential Pressure)	N/A	150" H_2O	30" H_2O	15" H_2O
Differential Pressure Gauge	N/A	N/A	N/A	100" H_2O

Available Diaphragm Sizes:

	Diaphragm Size			
	1.8"	2.2"	3.5"	4.1"
1-1/2" Flange	STD	N/A	N/A	N/A
2" Flange	-D5	STD	N/A	N/A
3" Flange	-D5	-D6	STD	N/A
4" Flange	-D5	-D6	STD	-D9

Optional Diaphragm sizes are only available in W9FF, standard diaphragm sizes are the same for W9FF and W9FR.

Weights and Dimensions:

	Flange Rating	A	B	# of Bolts	Weight (Lbs.)
1 ½"	150#	5"	.69"	4	4
2"		6"	.75"	4	5
3"		7.5"	.94"	4	9
4"		9"	.94"	8	17
1 ½"	300#	6.13"	.81"	4	6
2"		6.5"	.88"	8	8
3"		8.25"	1.13"	8	16

NOTE: Weights and dimesions are for raised face flanges only. Other flange sizes and sealing face info can be found in ANSI B16.5 standards.

Maximum Working Pressures at 100ºF:

Determined by ANSI B16.5 flange ratings.

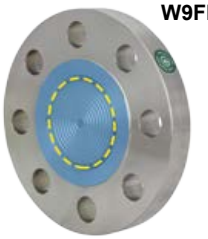
FLANGED FLUSH FACE DIAPHRAGM SEALS

HOW TO ORDER: Choose options to build a part number. For example: W9FFWR21S-W10-AS-TS // DXFR241S

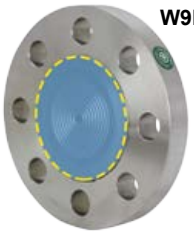
W9FF	W	R	2	1	S
SEAL TYPE	INSTRUMENT CONNECTION	SEALING FACE	PIPE SIZE	PRESSURE RATING	DIAPHRAGM/ FLANGE MATERIAL
Selections for W9FF > **W9FF** = Flanged Flush Face (Wetted Flange)	**2** = 1/2" Female NPT **4** = 1/4" Female NPT **W** = Low-Volume Connection for Smart Transmitters	**R** = Raised-Face **J** = Ring-Type Joint **F** = Flat Face	**2** = 2" ANSI **3** = 3" ANSI **4** = 4" ANSI **H** = 1 1/2" ANSI	**1** = 150# **3** = 300# **6** = 600# **9** = 900/1500# **7** = 900#[1] **8** = 1500#[1] [1]For 3" Pipe Size or Larger	**S** = 316L/316L **M** = Monel/Monel* **F** = 304/304L* **D** = Alloy 20/Alloy 20* **H** = Hast C-276* *Non-standard Configuration
Selections for W9FR > **W9FR** = Flanged Flush Face, Integral Face (Non-Wetted Flange)	**2** = 1/2" Female NPT **4** = 1/4" Female NPT **W** = Low-Volume Connection for Smart Transmitters	**R** = Raised-Face	**2** = 2" ANSI **3** = 3" ANSI	**1** = 150# **3** = 300#	**H** = Hast C-276[2] **U** = Tantalum[2] **2** = Duplex 2205[2] [2]Non-wetted 316SS Flange
					Wetted

Diaphragm Foil

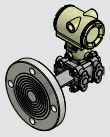
W9FF



W9FR



Diaphragm Surface | Wetted Surface

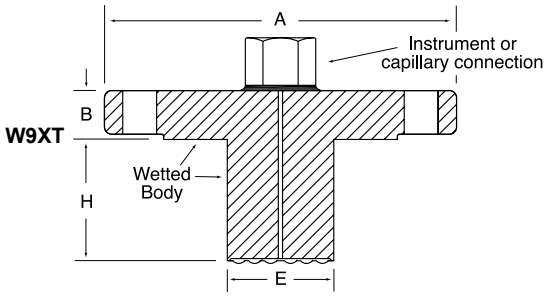
-W10	-AS	-TS	// DXFR241S
INSTRUMENT MOUNT	SYSTEM FILL FLUID	OPTIONS	FLUSH/CALIBRATION RINGS (OPTIONAL)
See Page 57 for Complete Mounting Guide ***Selections for Both W9FF & W9FR >*** **-DTD** = Direct Mount, Threaded **-DWD** = Direct Mount, Welded **-RTR** = 6" Cooling Tower **-STW** = 3" Cooling Tower **-A??** = Armored Capillary, Threaded **-B??** = Armored Capillary, Welded **-P??** = PVC Coated Armor, Threaded **-W??** = PVC Coated Armor, Welded Note: ?? = Length in Feet (e.g. 05 = 5 feet) **-YYY** = Dry Seal, No Instrument	*See Page 58 for Complete Fill Guide* *Common Fills* **-AS** = Silicone DC200 **-AG** = Glycerin USP **-BH** = Silicone DC704 **-C1** = Fomblin Y06 **-C2** = Halocarbon 6.3 **-XX** = No Fill Fluid	**-OX** = Cleaned for Oxygen Service **-AU** = Gold-Plated Diaphragm (20 Microns) **-NC** = NACE Certification MRO-175 **-TC** = Teflon-Coated Diaphragm **-TS** = SS Tag (9 Character Max.) **-D9** = 4.1" Diaphragm (W9FF 4" Only) **-D6** = 2.2" Diaphragm (Optional on W9FF 3" and 4")	**DXFR241S** = 2" Pipe, Single 1/4" Port, 316SS **DXFR242S** = 2" Pipe, Dual 1/4" Port, 316SS **DXFR221S** = 2" Pipe, Single 1/2" Port, 316SS **DXFR222S** = 2" Pipe, Dual 1/2" Port, 316SS **DXFR341S** = 3" Pipe, Single 1/4" Port, 316SS **DXFR342S** = 3" Pipe, Dual 1/4" Port, 316SS **DXFR321S** = 3" Pipe, Single 1/2" Port, 316SS **DXFR322S** = 3" Pipe, Dual 1/2" Port, 316SS *See Page 76 for Complete Offering*
		 **See Page 55 for Smart Transmitter Attachment Codes**	
			Wetted

DIAPHRAGM SEALS

EXTENDED DIAPHRAGM SEAL

W9XT

The Extended Diaphragm Seal is ideal for highly viscous and dry powder applications. Its unique design eliminates dead space in piping. It is often used for flush mounting in thick-walled vessels and is available in standard and custom lengths.



SPECIFICATIONS

Construction Materials: 316L or Hast C-276
Process Temperature Limits: -110°F to 750°F
Ambient Temperature Limits: Determined by the Pressure Instrument
Minimum Recommended Span:

	2”	3”	4”
Transmitter (Gauge Pressure)	200 ”H_2O	100 ”H_2O	30 ”H_2O
Transmitter (Differential Pressure)	200 ”H_2O	150 ”H_2O	30 ”H_2O

Dimensions:

	Flange Rating	A	B	E
2”	150#	6”	.75”	1.90
3”		7.5”	.94”	2.80
4”		9”	.94”	3.70
2”	300#	6.5”	.88”	1.90
3”		8.25”	1.13”	2.80

NOTE: Dimesions are for raised face flanges only. Other flange sizes and sealing face info can be found in ANSI B16.5 standards.

HOW TO ORDER: Choose options to build a part number. For example: W9XTWR31SSS020-W10-AS-DG

W9XT	W	R	3	1	S	S
MODEL	INSTRUMENT CONNECTION	SEALING FACE	PIPE SIZE	FLANGE RATING	DIAPHRAGM MATERIAL	EXTENSION MATERIAL
W9XT = Flanged Extended Diaphragm	W = Low-Volume Connection for Smart Transmitters 2 = 1/2” NPT Female 4 = 1/4” NPT Female	R = Raised Face J = Ring Type Joint	2 = 2” Pipe 3 = 3” Pipe 4 = 4” Pipe	1 = 150# ANSI 3 = 300# ANSI 6 = 600# ANSI	S = 316LSS H = Hastelloy C-276 Wetted	S = 316LSS H = Hastelloy C-276 Wetted

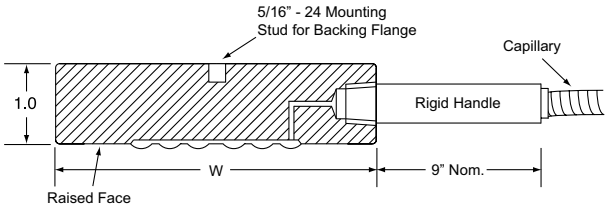
S	020	-W10	-AS	-DG
FLANGE/SEALING FACE MATERIAL	EXTENSION LENGTH (H)	MOUNTING	FILL FLUID	OPTIONS
S = 316LSS H = Hast. C-276 Wetted	020 = 2” 040 = 4” 060 = 6” ??? = Enter Custom Length in Inches Note: ??? = Length in inches (e.g. 020 = 2 inches).	*See Page 57 for Complete Mounting Guide* -DWD = Direct Mount, All Welded -RTR = 6” Cooling Tower, Welded -B?? = SS Armored Capillary, Welded -W?? = PVC Coated SS Armored Capillary, Welded Note: ?? = Length in feet (e.g. 05 = 5 feet)	*See Page 58 for Complete Fill Guide* -AS = Silicone DC200 -AG = Glycerin USP -BH = Silicone DC704 -C1 = Fomblin Y06 (inert) -C2 = Halocarbon 6.3	*See Page 55 for Smart Transmitter Attachement Codes* -DG = Degreased and Bagged -AU = Gold Plated Diaphragm (20 Microns Thick) -TS = SS Tag (1-10 Characters)

FLUSH PANCAKE (WAFER) DIAPHRAGM SEAL

W9FP

W9FP with Backing Flange

The Flush Pancake (Wafer) Diaphragm Seal is a flange type diaphragm seal with no bolt holes. It mounts between an open process flange and cover flange. Instruments are connected via side capillary connection and it is an ideal seal for transmitters or dP transmitters.



W9FP

Wafer Size	2"	3"	4"
W	3.6	5.0	6.2

SPECIFICATIONS

Construction Materials: 316L or Hast C-276
Process Temperature Limits: -110°F to 750°F
Ambient Temperature Limits: Determined by the Pressure Instrument
Minimum Recommended Span:

	2"	3" & 4"
Transmitter (Gauge Pressure)	100" H_2O	30" H_2O
Transmitter (Differential Pressure)	150" H_2O	30" H_2O

HOW TO ORDER: Choose options to build a part number. For example: W9FPWR2SF1-W10-AS-DG // DXFR242S

W9FP | W | R | 2 | S | F | 1

MODEL	INSTRUMENT CONNECTION	SEALING FACE	PIPE SIZE	DIAPHRAGM/WETTED SURFACE MATERIAL	BACKING FLANGE MATERIAL	FLANGE RATING
W9FP = Flanged Pancake	**W** = Low-Volume Connection for Smart Transmitters	**R** = Raised Face	**2** = 2" Pipe **3** = 3" Pipe **4** = 4" Pipe	**S** = 316LSS ***H** = Hastelloy C-276 *Non-wetted body is 316L Wetted	**X** = No Backing Flange **S** = 316LSS **F** = 304SS **C** = Carbon Steel	**X** = No Backing Flange **1** = 150# **3** = 300# **6** = 600# **5** = 2500# **9** = 900#/1500# **7** = 900#[1] **8** = 1500#[1] [1]For 3" Pipe Size or Larger

-W10 | -AS | -DG | // DXFR242S

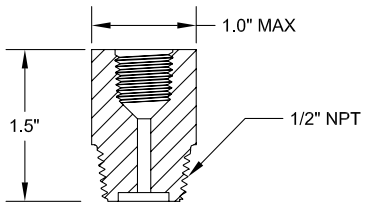
MOUNTING	FILL FLUID	OPTIONS	FLUSH/CALIBRATION RINGS (OPTIONAL)
-B?? = SS Armored Capillary, Welded **-W??** = PVC Coated SS Armored Capillary, Welded Note: ?? = Length in feet (e.g. 05 = 5 feet)	*See Page 58 for Complete Fill Guide* **-AS** = Silicone DC200 **-AG** = Glycerin USP **-BH** = Silicone DC704 **-C1** = Fomblin Y06 (inert) **-C2** = Halocarbon 6.3	*See Page 55 for Smart Transmitter Attachment Codes* **-DG** = Degreased and Bagged **-OX** = Cleaned for Oxygen Service (Shipped in Sealed Bag) **-AU** = Gold Plated Diaphragm (20 microns thick) **-TS** = SS Tag (1-10 Characters)	**DXFR242S** = 2" Pipe, Dual 1/4" Port, 316SS **DXFR322S** = 3" Pipe, Dual 1/2" Port, 316SS *See Page 76 for a Complete List* Wetted

THREADED FLUSH FACE DIAPHRAGM SEALS

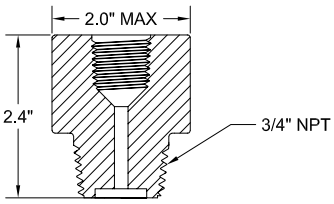
DSTF

REOTEMP's Threaded Flush Face Seals are ideal for high and medium pressure applications where process media clogging is a concern. The diaphragm is welded onto the end of the threads allowing for continuous flow of process media across the diaphragm and preventing any build-up of solids. Selection of process connection will greatly impact accuracy and temperature sensitivity.

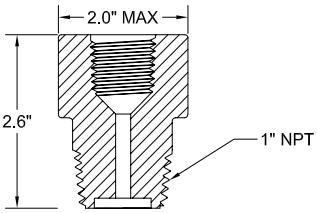
DSTF05



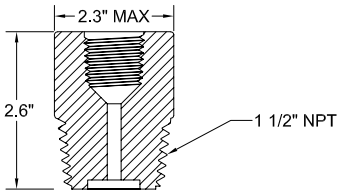
DSTF75



DSTF10



DSTF15



SPECIFICATIONS

Construction Materials:

Body: 316SS, Hast-C

Diaphragm: 316SS, Hast-C

Process Temperature Limits:

Process Connection	1/2"	3/4"	1"	1.5"
Limit	0/150°F	20/200°F	-40/400°F	-40/600°F

NOTE: Always use largest thread possible for smaller temperature effect.

Ambient Temperature Limits:

Determined by the Pressure Instrument

Maximum Working Pressure:

Determined by the Seal Threads

Minimum Recommended Span:

Male Process Thread NPT	1/2"	3/4"	1"	1.5"
2.5" & 3.5" Gauges	60 psi	30 psi	15 psi	15 psi
4", 4.5", & 6" Gauges	n/a	n/a	100 psi	30 psi
Transmitter (Gauge Pressure)	60 psi*	15 psi	10 psi	5 psi
Transmitter (Differential Pressure)	n/a	n/a	n/a	n/a

*Not Recommended for Critical Transmitter Applications.

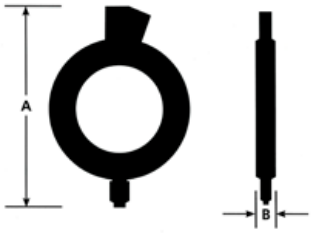
HOW TO ORDER: Choose options to build a part number. For example: DSTF75SS4-DTD-AS-OX

DSTF	75	SS	4	-DTD	-AS	-OX
MODEL	**PROCESS CONNECTION**	**DIAPHRAGM AND BODY MATERIAL**	**INSTRUMENT CONNECTION**	**MOUNTING**	**FILL FLUID**	**OPTIONS**
DSTF = Threaded Flush Face Diaphragm Seal	**05** = 1/2" Male NPT **75** = 3/4" Male NPT **10** = 1" Male NPT **15** = 1 1/2" Male NPT **G1** = 1" BSPP (G1)	**SS** = 316LSS **HC** = Hast. C-276 Wetted	**4** = 1/4" NPT **2** = 1/2" NPT[1] [1]Not Available with 1/2" NPT Process Connection	*See Page 57 for Complete Mounting Guide* **-DTD** = Direct Mount, Threaded **-DWD** = Direct Mount, Welded **-STW** = 3" Cooling Standoff **-RTR** = 6" Cooling Tower, Welded **-YYY** = No Instrument Mount, Dry Seal Only	*See Page 58 for Complete Fill Guide* **-AS** = Silicone DC200 **-AG** = Glycerin USP **-C2** = Halocarbon 6.3 **-XX** = No Seal Fill, Dry Seal Only	**-OX** = Cleaned for Oxygen Service (Shipped in Sealed Bag) **-AU** = Gold Plated Diaphragm (20 Microns Thick) **-TS** = SS Tag (1-10 Characters)

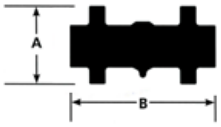
ISOLATION RING FLOW THRU SEAL

ORR

The REOTEMP Isolation Ring Flow Thru Seal boasts an In-Line Flow-Thru design ideal for waste water, slurries, or abrasives. Mounted between pipe flanges or threaded in-line, it has a tough but sensitve elastomer lining. One unique feature of this seal is the ability to mount multiple instruments on one seal.



Wafer



Threaded

SPECIFICATIONS

Construction Materials:

Body: Carbon Steel, 316SS
End Flange: Carbon Steel, 316SS
Diaphragm/Sleeve: Buna-N, PTFE EPDM, Natural Rubber and more

Process Temperature Limits:

Sleeve Material	Limit
Buna-N	225ºF
Flurocarbon	400ºF
PTFE	350ºF
Silicone	450ºF
EPDM	300ºF
Natural Rubber	212ºF

Ambient Temperature Limits:

Determined by the Pressure Instrument

Type	Pipe Size (in.)	A	B	Approx. Weight (lbs)
Iso-Ring (Wafer)	2	6-15/16”	2”	3
	4	9”	1-1/2”	8
	6	11-3/16”	1-1/2”	12
	8	13-3/8”	1-1/2”	16
Iso-Spool (Threaded)	1” NPT	3-9/16”	7-5/8”	10
	1-1/2” NPT	4-3/8”	7-7/8”	12

*Red Valve brand available if application requires. Choose **-RV** as option code. Red Valve dimensions may differ from above.*

HOW TO ORDER: Choose options to build a part number. For example: ORTCC2020-TRE-AG-TS

ORT	C	C	2	020	-TRE	-AG	-TS
MODEL	BODY	END FLANGE	DIAPHRAGM/ SLEEVE	PIPE SIZE	MOUNTING	FILL FLUID	OPTIONS
ORR = Ring Seal, Flanged Wafer **ORT** = Threaded Spool **ORB**= Ring Seal, Bolt-thru	**C** = Carbon Steel **S** = 316 SS	**C** = Carbon Steel **S** = 316 SS Wetted	**1** = Buna **2** = Fluorocarbon **3** = PTFE **4** = EPDM **5** = Silicone* *ORT Only Wetted	**020** = 2” Flanged **040** = 4” Flanged **060** = 6” Flanged **080** = 8” Flanged **010** = 1” NPT Threaded* **015** = 1.5” NPT Threaded* Other sizes available. *ORT Only	*See Page 57 for Complete Mounting Guide* **-DTD** = Direct Mount, Threaded **-TRE** = Goal Post, Low Pressure **-TRX** = Goal Post, Heavy Duty **-YYY** = No Instrument Mount, Dry Seal Only	*See Page 58 for Complete Fill Guide* **-AS** = Silicone DC200 **-AG** = Glycerin USP **-BP** = Propylene Glycol **-XX** = No Fill Fluid	**-IR** = Instrument Removal Device **-TS** = SS Tag (1-10 Characters) **-RV** = Red Valve Brand

WELDED MINI-SEAL

REOTEMP Welded Mini Seals are ideal for applications where a gauge or general purpose transmitter cannot be installed directly into the process media. REOTEMP mini seals are a one-piece, all-welded construction that offer a durable, economical choice for protecting a pressure instrument from corrosion, clogging, or high process temperatures.

MS4G

MS6G

MS8Q

SPECIFICATIONS

Construction Materials:

Upper Housing: 316SS
Diaphragm: 316SS Hast C-276, Monel
Lower Housing: 316SS, Hast C-276, Monel

Process Temperature Limits:

MS4	-40°F/300°F
MS6	-40°F/400°F
MS8	-110°F/750°F

Ambient Temperature Limits:

Determined by the pressure instrument.

Minimum Recommended Pressure Ranges:

	MS4	MS6	MS8
2.5” & 3.5” Gauges	30 psi	15 psi	15 psi
4”, 4.5”, & 6” Gauges	n/a	60 psi	30 psi
Transmitter (Gauge Pressure)	15 psi	10 psi	150” WC
Transmitter (Differential Pressure)	n/a	n/a	300” WC

Weight:

MS4	.2 lbs
MS6	.4 lbs
MS8	.6 lbs

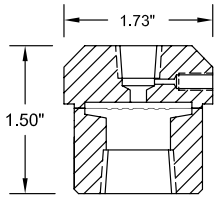
Maximum Working Pressure at 100°F:

	316SS	Hast-C	Monel
MS4	2,000 psi	1,000 psi	1,000 psi
MS6	1,000 psi	N/A	N/A
MS8 (1/4 or 1/2” connectors)	5,000 psi	2,000 psi	N/A
MS8 (3/4” male)	2,000 psi	N/A	N/A
MS8 (1” male)	1,000 psi	N/A	N/A

FEATURES / BENEFITS

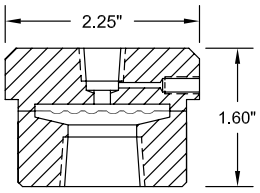
- Economical Choice for Protecting a Pressure Instrument from Severe Process Media
- All-welded Design Reduces Fugitive Emission Leaks
- Available with PulsePlus™ Pulsation Dampening
- Tamper Resistant

MS4G



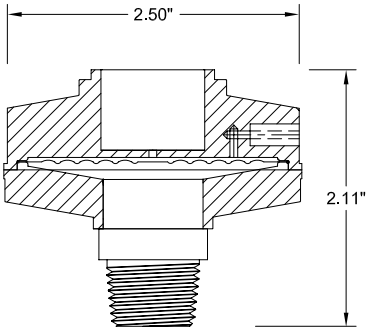
Depicted with female Process Connection.
Height will change with male fitting.

MS6G



Depicted with female Process Connection.
Height will change with male fitting.

MS8Q



Depicted with 1/2” Male Connection.
Height will change with female fitting.

WELDED MINI-SEAL

HOW TO ORDER: Choose options to build a part number. For example: MS4G2F4XS-DTD-AS-PP

MS4G	2	F4	X	S
SEAL TYPE	INSTRUMENT CONNECTION	PROCESS CONNECTION	FLUSH PORT	MATERIAL
MS4G = Compact Mini Seal **MS6G** = Standard Mini Seal **MS8Q** = Process Seal *Note: If mounting an MS8 to a REOTEMP gauge, use part builder on Page 10.*	**4** = 1/4" Female NPT **2** = 1/2" Female NPT (MS6 Only) **W** = Welded Connection (MS8 Only)	**F4** = 1/4" FNPT **F2** = 1/2" FNPT **M4** = 1/4" MNPT **M2** = 1/2" MNPT **M3** = 3/4" MNPT (MS8 only) **M1** = 1" MNPT (MS8 only)	**X** = None **F** = 1/4" Female NPT	**S** = 316LSS **H** = Hast C-276* **M** = Monel A400* *See Maximum Working Pressure Table on Page 73 for Material Availablity by Seal Type Wetted

-DTD	-AS	-PP
INSTRUMENT MOUNT	SYSTEM FILL FLUID	OPTIONS
See Page 57 for Complete Mounting Guide **-DTD** = Direct Mount, Threaded **-DWD** = Direct Mount, Welded **-RTR** = 6" Cooling Tower **-STW** = 3" Cooling Tower **-A??** = Armored Capillary, Threaded **-B??** = Armored Capillary, Welded **-W??** = PVC Coated Armor, Welded **-P??** = PVC Coated Armor, Threaded Note: ?? = Length in feet (e.g. 05 = 5 feet) **-YYY** = Dry Seal, No Instrument	*See Page 58 for Complete Fill Guide* **-AS** = Silicone DC200 **-AG** = Glycerin USP **-BH** = Silicone DC704 **-C1** = Fomblin Y06 (inert) **-C2** = Halocarbon 6.3 **-XX** = No Fill Fluid	**-PP** = Pulse Plus™ (Pulsation Protection) **-TS** = SS Tag (1-10 Character) **-FW** = Fill Port Welded Closed **-PM** = Positive Material Identification Certification

Using a REOTEMP Gauge?
If mounting an MS8 to a REOTEMP gauge, use the part builder on Page 10 or the online configurator at reotemp.com/configurators

SANITARY TRI-CLAMP® DIAPHRAGM SEAL

DSTC15

3-A Certified

REOTEMP's Sanitary Tri-Clamp® Diaphragm Seals are ideal for applications in the food and beverage, dairy, and pharmaceutical industries or wherever Tri-Clamp connections are used. Reotemp will mount and fill a variety of instruments to Tri-Clamp seals including Digital Pressure Gauges, Transmitters, and Switches. All Sanitary Diaphragm Seal Assemblies manufactured by Reotemp are 3-A Certified.

	Type A	Type B				
Process Connection	3/4"*	1.5"	2"	2.5"	3"	4"
Outer Diameter (C)	1	2	2.5	3.1	3.6	4.7
Diaphragm (D)	.65	1.4	1.9	2.2	2.5	3.6
Height (H)	1	1.3	1.3	1.3	1.3	1.6

*DSTC75 ONLY

Note: All dimensions are in inches. Height is subject to change based on the adapter required to fit instrument to seal.

SPECIFICATIONS

Construction Materials:

Body: 316L

Diaphragm: 316L

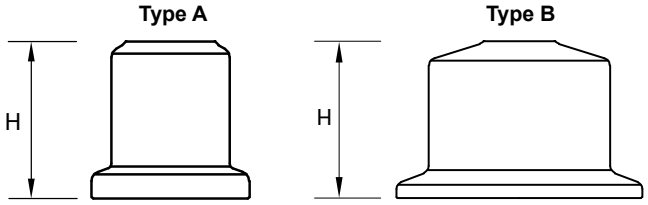
Wetted Surface Finish: 18-24 Ra

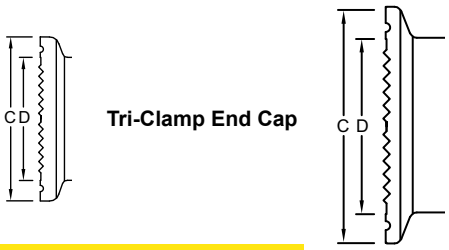
Process Temperature Limits:

Process Connection	3/4"	1.5"	2"	2.5" & 3"
Temperature Limit	0/150°F	-40/250°F	-40/400°F	-40/750°F

Ambient Temperature Limits:

Determined by the Pressure instrument





Tri-Clamp End Cap

HOW TO ORDER: Choose options to build a part number. For example: DSTC20SS4-DWD-BN-OX

DSTC	20	SS	4	-DWD	-BN	-OX
MODEL	TRI-CLAMP® SIZE	MATERIAL	INSTRUMENT CONNECTION	MOUNTING	FILL FLUID	OPTIONS
DSTC = Diaphragm Seal Sanitary Tri-Clamp	**75** = 3/4" (Also Fits a 1/2" Clamp) **15** = 1 1/2" (Also Fits a 1" Clamp) **20** = 2" **25** = 2.5" **30** = 3" **40** = 4"	**SS** = 316L SS **HC** = Hast. C-276	**4** = 1/4" NPT	*See Page 57 for Complete Mounting Guide* **-DWD** = Direct Mount, All Welded **-DTD** = Direct Mount, Threaded (not standard for sanitary applications) **-RTR** = 6" Cooling Tower, Welded **-STW** = 3" Cooling Standoff **-WXX** = PVC Coated SS Armored Capillary, Welded to Seal, XX = length in feet **-YYY** = No Instrument Mount, Dry Seal Only	*See Page 58 for Complete Fill Guide* **-AG** = Glycerin **-BN** = NEOBEE M20 **-AS** = Silicone DC200 **-XX** = No Fill Fluid	**-EP** = Electropolished Diaphragm **-OX** = Cleaned for Oxygen or Chorline Service (shipped in sealed bag) **-TS** = SS Tag (1-10 Characters)

Tri-Clamp® is a registered trademark of Alpha Laval Inc.

DIAPHRAGM SEAL ACCESSORIES

DRY CAPILLARY

- Used When Pressure Instrument Needs to be Removed from Direct Contact of Installation Point
- All-welded 316SS Construction
- Available up to 100 ft. in Length (Max 40 ft. in diaphragm seal assembly)
- Max Working Pressure of 10,000 psig
- 2mm ID Standard
- Note: if capillary is part of a filled diaphragm seal system use 3 digit mounting code per page 57 (Example: "A25" = 25' of armored capillary, threaded to seal)

HOW TO ORDER: Choose options to build a part number. For example: DXC4M4M10A-TS

DXC	4M	4M	10	A	-TS
MODEL	**INSTRUMENT CONNECTION**	**PROCESS CONNECTION**	**LENGTH IN FEET**	**PROTECTION**	**OPTIONS**
DXC = Capillary	**4M** = 1/4" Male NPT **4F** = 1/4" Female NPT **2M** = 1/2" Male NPT **2F** = 1/2" Female NPT	**4M** = 1/4" Male NPT **4F** = 1/4" Female NPT **2M** = 1/2" Male NPT **2F** = 1/2" Female NPT	**05** = 5 ft. **10** = 10 ft. **20** = 20 ft. **??** = Specify, Length in feet	**A** = Stainless Steel Armor **P** = PVC Coated Stainless Steel Armor **B** = Bare Capillary Tubing (Rare)	**-3M** = 3mm ID (10 ft. Max) **-TS** = Stainless Steel Tag (1-10 Characters)

FLUSH RINGS

- Used to Flush Process Fluid or Provide Access for Field Calibrations
- Machined from Solid Bar Stock
- Pressure Ratings Up to ANSI Class 2500
- For Use with W9FF and W9FR Diaphragm Seals (Raised Face)

HOW TO ORDER: Choose options to build a part number. For example: DXFR322S-PM

DXFR	3	2	2	S	-PM
MODEL	**PIPE SIZE**	**PORT SIZE**	**NUMBER OF PORTS**	**MATERIAL**	**OPTIONS**
DXFR = Flush Ring	**H** = 1-1/2" ANSI **2** = 2" ANSI **3** = 3" ANSI **4** = 4" ANSI	**4** = 1/4" NPT **2** = 1/2" NPT	**1** = One Port **2** = Two Ports (180° Opposed) **4** = Four Ports (90° Apart)	**S** = 316SS **H** = Hast-C276 **M** = Monel	**-MR** = Mill Certification **-PM** = Positive Material Identification Certification **-GS** = 1/4" NPT SS Plug **-G2** = 1/2" NPT SS Plug

OTHER DIAPHRAGM SEAL TYPES

REOTEMP provides many special use and custom diaphragm seals. Consult customer service for specific application assistance.

TANK SPUD

SADDLE WELD

WEDGE TYPE

PULP/PAPER

THREADED FLOW THRU

OTHER SERVICES

- Remote Seal Assembly Repair
- Hydrostatic Testing
- Positive Material Identification
- Custom Diaphragm Seal Design

DIAPHRAGM SEAL OPTIONS

Visit reotemp.com

✓ Check Stock ✓ Get Price
✓ Configure Part # ✓ Download PDF Data Sheets

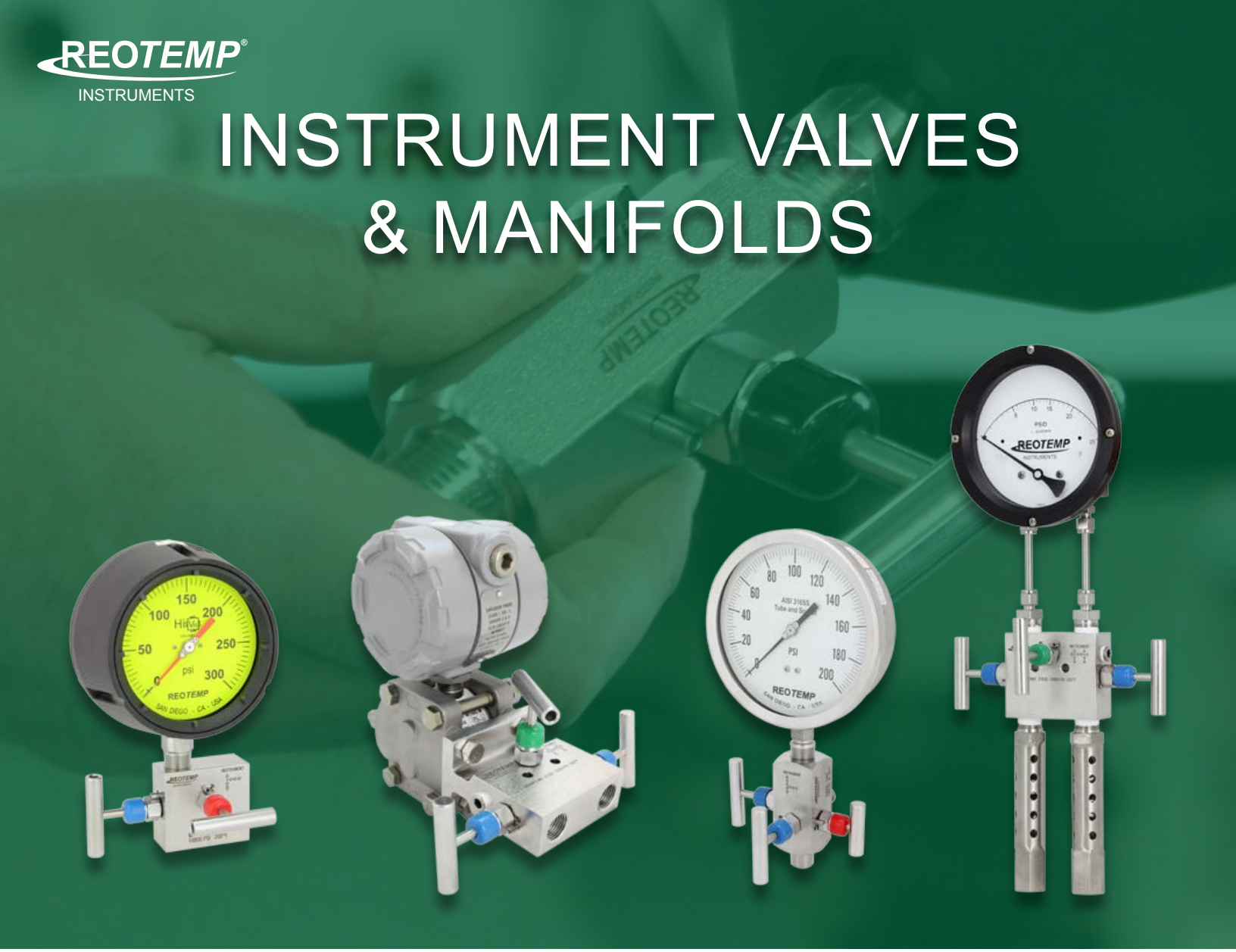
		MS4 MS6 MS8	W5 W6 W7	T5 T6 V5	W9FF W9FR	W9XT	W9FP	DSTC75	DSTC15 AND LARGER	DSTF05	DSTF75 AND LARGER	OR	DXFR
PULSATION PROTECTION (ONLY AVAILABLE WITH REOTEMP PRESSURE GAUGE MOUNTED TO SEAL)													
-PP	Pulse Plus™	✓	✓	✓	✓	✓	N/A	N/A	✓	N/A	✓	✓	N/A
DIAPHRAGM COATING													
-AU	Gold Plated Diaphragm	N/A	✓	N/A	✓	✓	✓	✓	✓	✓	✓	N/A	N/A
-TC	Teflon Coated Diaphragm PTFE	N/A	✓	N/A	✓	✓	✓	N/A	✓	N/A	✓	N/A	N/A
-EP	Electropolished Diaphragm	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓	✓	✓	N/A	N/A
FILL													
-FW	Fill Port Welded Closed	STD[1]	✓	✓	✓	✓	✓	✓	✓	✓	✓	N/A	N/A
-VF	Fill for Vacuum Service	N/A	✓	N/A	✓	✓	✓	N/A	✓	N/A	✓	N/A	N/A
CLEANING AND FINISH													
-DG	Degreased, Shipped in Sealed Bag	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	N/A	✓
-OX	Cleaned for Oxygen Service per ASME B40.1	✓	✓	N/A	✓	✓	✓	✓	✓	✓	✓	N/A	✓
-OY	Cleaned for Oxygen Service per MIL-STD-1330D	✓	✓	N/A	✓	✓	✓	✓	✓	✓	✓	N/A	✓
PLUG FOR FLUSH PORT													
-GS	1/4” SS Plug Installed	STD	STD	STD	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓
-G2	1/2” SS Plug Installed	N/A	STD	STD	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓
-GH	1/4” Hast C Plug Installed	✓	✓	✓	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓
-GK	1/2” Hast C Plug Installed	N/A	✓	✓	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓
-GM	1/4” Monel Plug Installed	N/A	✓	✓	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓
-GN	1/2” Monel Plug Installed	N/A	✓	✓	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓
TAG OPTION													
-TS	Stainless Steel Tag (1-10 Characters)							✓					
-TM	Stainless Steel Tag (11-80 Characters)							✓					
-TP	Paper Tag							✓					
CERTIFICATION OPTIONS													
-NC	Certificate of NACE Compliance	✓	✓	N/A	✓	✓	✓	N/A	N/A	✓	✓	N/A	✓
-CM	General Material Conformance	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
-MR	MTR - Mill Test Report Certificate	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	N/A	✓
-PM	PMI - Positive Material Identification Certificate	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	N/A	✓
-HT	Hydrostatic Test per ASME B31.3	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	N/A	N/A
-HL	Helium Leak Test Certificate	✓	✓	N/A	✓	✓	✓	✓	✓	✓	✓	N/A	N/A

✓	Indicates that the option is available
N/A	Indicates the option is not available

[1] Standard on MS8, available on MS4 & MS6.

REOTEMP®
INSTRUMENTS

INSTRUMENT VALVES & MANIFOLDS



Design: REOTEMP offers a full line of USA made instrument valves and manifolds. Whether your need is to safely remove instrumentation, pressure check or calibrate your process, test differential gauges/transmitters, or throttle flow in the system Reotemp has a valve to suit your application.

Quality: REOTEMP is a globally recognized ISO 9001:2008 manufacturer of pressure instrumentation. All instrument valves conform to MSS SP-99 standards, and all valves with packing conform to MSS SP-132 packing standards. All valves and manifolds are helium leak checked to 1 x 10-4 ml/s for ultimate performance. REOTEMP warrants all US made valves against defective workmanship or materials under normal use and service for three years following the date of shipment.

Additional Testing Services: Other in-house services include Mill Test Reports (MTRs), Positive Material Identification (PMI), Hydrostatic Testing, and Oxygen Cleaning (O2).

Configurations: Standard body materials include 316SS and zinc-plated carbon steel. Other non-standard materials are available upon request and may require a custom design and build. Various connections sizes are available from 1/8" – 2" NPT on most needle valve configurations. Gauge valves are available with connections from ¼" – ¾" NPT.

Instrument/Valve Mounting Options: REOTEMP offers in house mounting services by preinstalling pressure instrumentation on valve assemblies prior to shipping to allow for quick and easy installation. REOTEMP mounting services are available when mounting your REOTEMP pressure instrument to a REOTEMP gauge valve, or when mounting a REOTEMP differential pressure gauge on a 3 or 5-valve manifold. Select from a variety of options and orientations.

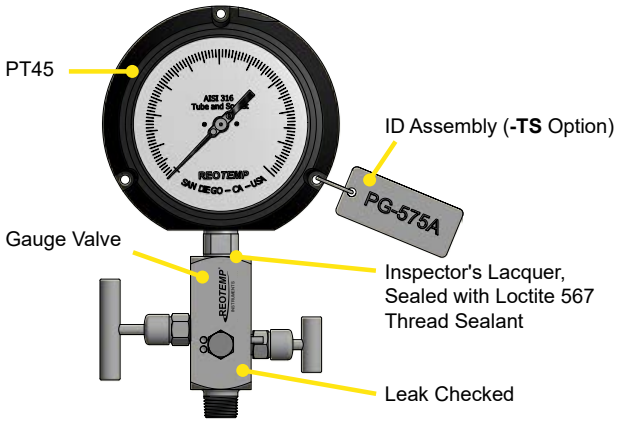
INSTRUMENT & VALVE ASSEMBLIES

REOTEMP offers in house mounting services by preinstalling pressure (or dP) instrumentation on valve assemblies prior to shipping to allow for stress free/easy installation. Select from a variety of standard designs or contact your REOTEMP customer service representative to design a custom assembly to suit your desired application.

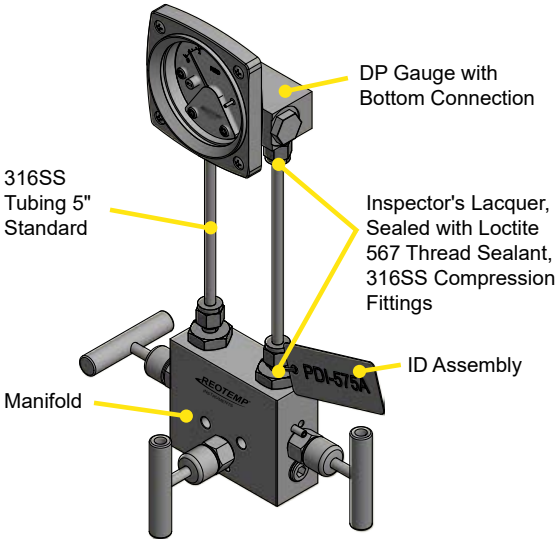
- ✓ Inspector's Lacquer & Threads Sealed with Loctite 567™
- ✓ 100% Argon Leak Checked (Maximum 1,000 psi)
- ✓ Optional ID Tag for Complete Assembly
- ✓ Packaged for Out of Box Installation
- ✓ DP Assemblies Mounted with 316SS Compression Fittings & 316 Tubing
- ✓ To Customize Your Design Contact REOTEMP Customer Service

HOW TO ORDER: Choose options to build a part number.

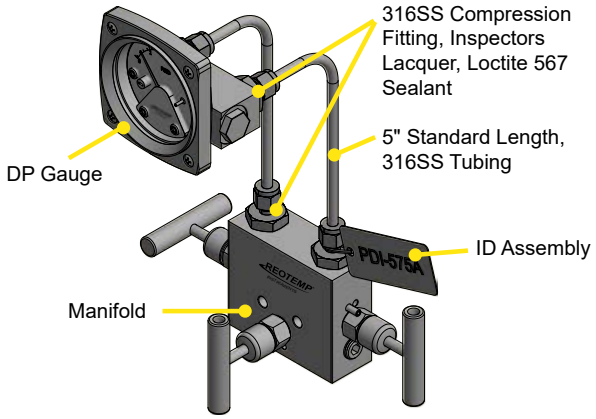
PT45P1A2P20-D-T-TS	// G20H22S	-A1
SELECT PRESSURE GAUGE	SELECT VALVE	SELECT MOUNT



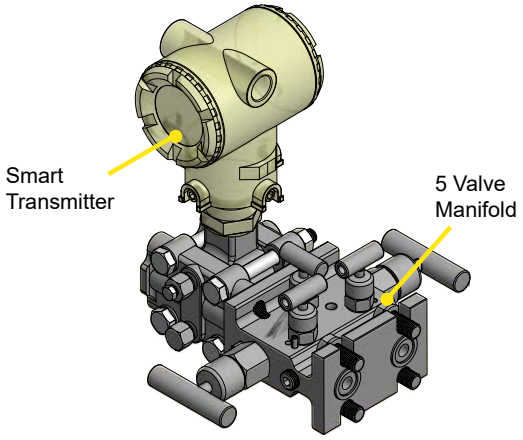
-A1	Valve mounted to pressure instrument. (Example: Gauge, Switch Direct Mount or Transmitter.)



-A4	Bottom mounted differential pressure gauge to manifold.



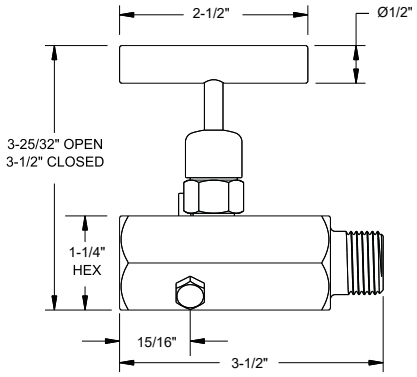
-A5	Back mounted threaded differential pressure gauge to manifold.



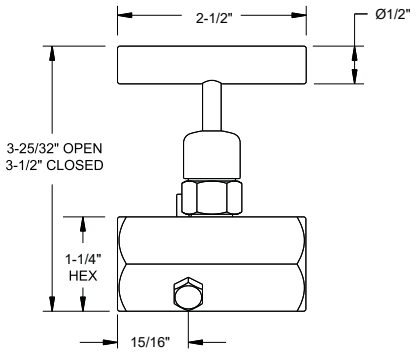
-A6	Differential transmitter to manifold.

SINGLE VALVE BLOCK & BLEED

G1



Male-Female



Female-Female

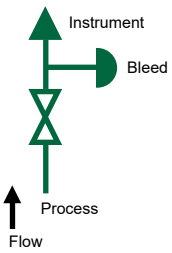
REOTEMP's single valve block and bleed allows users to isolate pressure to their instrument, bleed off excess process, and remove an instrument without disturbing or shutting down the system. A variety of options are available to suit just about every application.

FEATURES / BENEFITS

- 0.090" Bleed Hole Controlled by a 1/4"-20 UNF-2A Bleed Screw
- FKM O-ring Seal and PTFE Back-up Ring Below the Stem Threads to Protect from Corrosion and Galling; Soft Seat Comes Standard with Delrin Seat
- PTFE or Grafoil Packing Optional
- All Stems are 316SS
- Vinyl Dust Cap for Bonnet & Stem (Non-packing)
- Rolled Threads for Strength Durability, and Ease of Use
- All Valves are Helium Leak Tested for Optimal Performance

SPECIFICATIONS

Body Material: 316 Stainless Steel, Zinc-nickel Plated Carbon Steel
Pressure Rating: Hard Seat - 10,000 psi at 200°F, Soft Seat - 6,000 psi at 200°F.
Temperature Rating: Standard up to 200°F; Available up to 1,000°F.
See Pressure/Temperature Charts on Page 91 for More Detailed Information.
Orifice: 0.187"
Flow: Hard Seat C_V: 0.44, Soft Seat C_V: 0.76
Connections: 1/4" or 1/2"

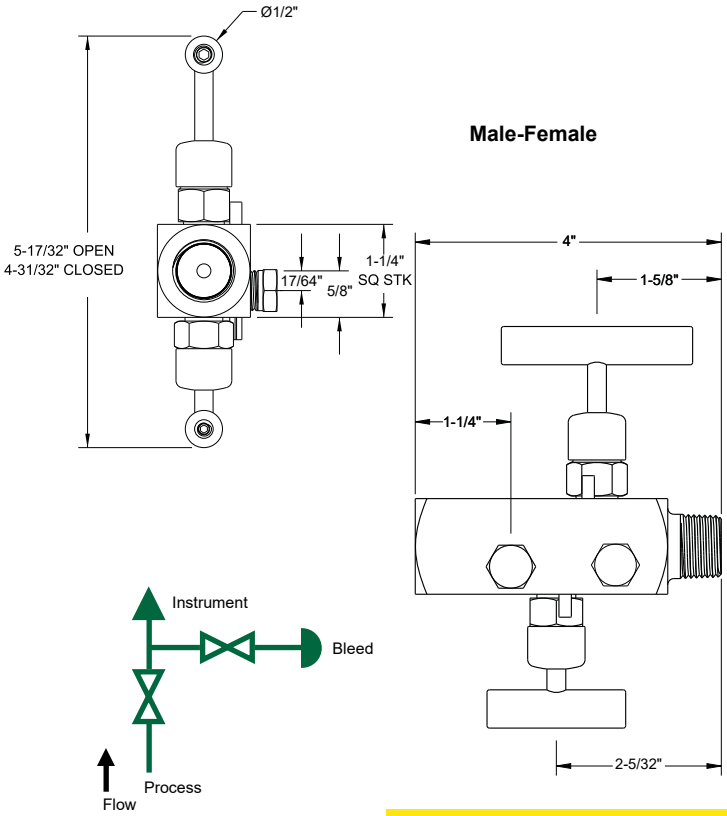


HOW TO ORDER: Choose options to build a part number. For example: G10H22S-P1NC

G10	H	22	S	-P1NC*
MODEL	SEAT TYPE	CONNECTION SIZE	MATERIAL	OPTIONS
G10 = Single Valve Block & Bleed	**H** = Hard Seat **S** = Soft Seat	**44** = 1/4" MxF **4F** = 1/4" FxF **22** = 1/2" MxF **2F** = 1/2" FxF	**C** = Carbon Steel **S** = Stainless Steel **H** = Hastelloy C **M** = Monel	*Available on G10:* **-P1** = PTFE Packaging *Available on G10H:* **-P2** = Grafoil Packing (316SS Body Rating 1,000°F at 1,500 psi) **See Page 92 for Additional Options*

2-VALVE BLOCK & BLEED

G2



Male-Female

REOTEMP's 2-Valve Block & Bleed allows users more options to control their venting. The secondary valve bleeds process through 1/4" FNPT port giving the user the ability to vent to atmosphere or capture the process by directly piping to the valve body.

FEATURES / BENEFITS

- 1/4" FNPT Bleed Port
- FKM O-ring Seal and PTFE Back-up Ring Below the Stem Threads to Protect from Corrosion and Galling; Soft Seat comes Standard with Delrin Seat
- PTFE or Grafoil Packing Optional
- All Stems are 316SS
- Vinyl Dust Cap for Bonnet & Stem (Non-packing)
- Rolled Threads for Strength, Durability, and Ease of Use
- All Valves are Helium Leak Tested for Optimal Performance

SPECIFICATIONS

Body Material: 316 Stainless Steel, Zinc-nickel Plated Carbon Steel
Pressure Rating: Hard Seat - 10,000 psi at 200°F, Soft Seat - 6,000 psi at 200°F.
Temperature Rating: Standard up to 200°F; Available up to 1,000°F.
See Pressure/Temperature Charts on Page 91 for More Detailed Information.
Orifice: 0.187"
Flow: Hard Seat C_V: 0.44, Soft Seat C_V: 0.76
Connections: 1/4" or 1/2"

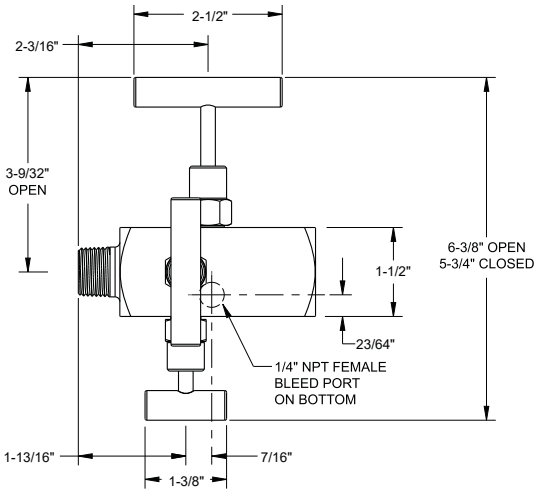
HOW TO ORDER: Choose options to build a part number. For example: G20H22S-P2NC

G20	H	22	S	-P2NC*
MODEL	SEAT TYPE	CONNECTION SIZE	MATERIAL	OPTIONS
G20 = 2-Valve Block & Bleed	**H** = Hard Seat **S** = Soft Seat	**44** = 1/4" MxF **4F** = 1/4" FxF **4R** = 1/4" FxM **22** = 1/2" MxF **2F** = 1/2" FxF **2R** = 1/2" FxM	**C** = Carbon Steel **S** = Stainless Steel **H** = Hastelloy C **M** = Monel	*Available on G10:* **-P1** = PTFE Packaging **-EX** = Extended Valve Body *Available on G10H:* **-RV** = Right Vent **-P2** = Grafoil Packing (316SS Body Rating 1,000°F at 1,500 psi)

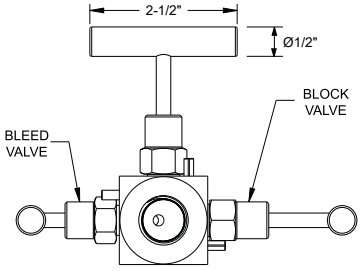
*See Page 92 for Additional Options

DOUBLE BLOCK & BLEED

G3



Top View



Side View

REOTEMP's Double Block & Bleed allows users more options to control their venting as well as added safety when removing instruments. This valve features an additional shutoff valve between the vent and the instrument. A bleed valve allows users to bleed the process through a 1/4" FNPT port, giving the ability to vent to atmosphere or capture the process by directly piping to the valve body.

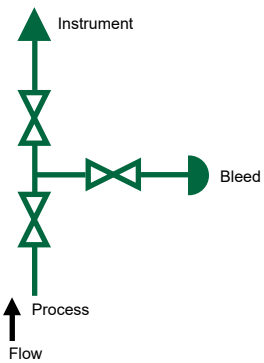
FEATURES / BENEFITS

- 1/4" FNPT Bleed Port
- FKM O-ring Seal and PTFE Back-up Ring Below the Stem Threads to Protect from Corrosion and Galling
- PTFE or Grafoil Packing Optional
- All Stems are 316SS
- Vinyl Dust Cap for Bonnet & Stem (Non-packing)
- Rolled Threads for Strength, Durability, and Ease of Use
- All Valves are Helium Leak Tested for Optimal Performance

SPECIFICATIONS

Body Material: 316 Stainless Steel, Zinc-nickel Plated Carbon Steel
Pressure Rating: Hard Seat - 10,000 psi at 200°F
Temperature Rating: Standard up to 200°F; Available up to 1,000°F.
See Pressure/Temperature Charts on Page 91 for More Detailed Information.
Orifice: 0.187"
Flow: Hard Seat C_V: 0.44
Connections: 1/4" or 1/2"

HOW TO ORDER: Choose options to build a part number. For example: G30H22S-P2NC

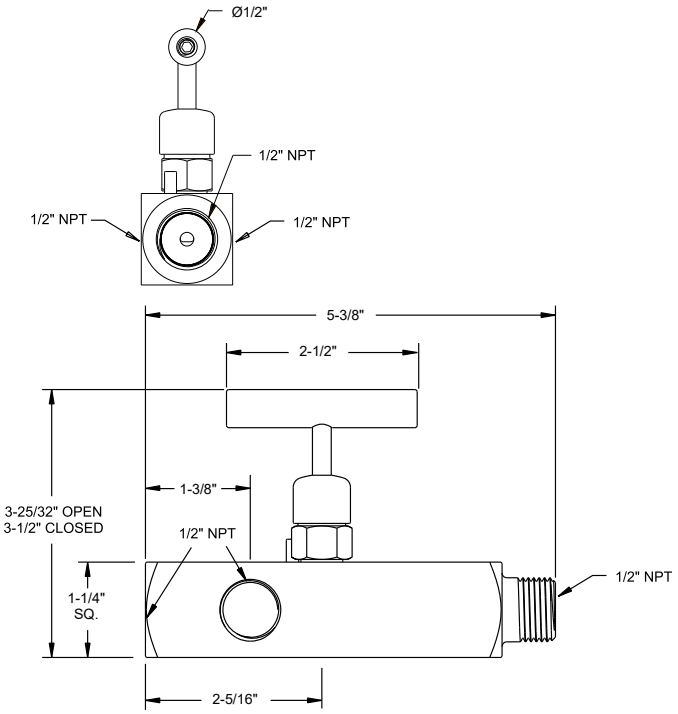


G30	H	22	S	-P2NC*
MODEL	SEAT TYPE	CONNECTION SIZE	MATERIAL	OPTIONS
G30 = 3-Valve Double Block & Bleed	**H** = Hard Seat **S** = Soft Seat	**44** = 1/4" MxF **4F** = 1/4" FxF **4R** = 1/4" FxM **22** = 1/2" MxF **2F** = 1/2" FxF **2R** = 1/2" FxM	**C** = Carbon Steel **S** = Stainless Steel **H** = Hastelloy C **M** = Monel	*Available on G30:* **-EX** = Extended Body Design **-RV** = Right Vent **-P1** = PTFE Packaging *Available on G30H:* **-P2** = Grafoil Packing (316SS Body Rating 1,000°F at 1,500 psi)

*See Page 92 for Additional Options

MULTIPORT BLOCK & BLEED

G4



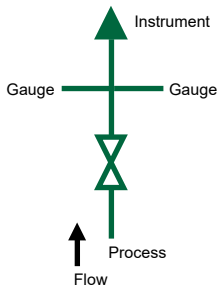
Need flexibility when installing your instruments? REOTEMP's Multiport Gauge Valve features a single shutoff along with three individual 1/2" FNPT instrument ports expanding instrument installation and venting options. The user can select from a variety of bleeds, valves, and plugs to obtain their desired setup.

FEATURES / BENEFITS

- 3 - 1/2" FNPT Instrument Ports
- FKM O-ring Seal and PTFE Back-up Ring Below the Stem Threads to Protect from Corrosion and Galling; Soft Seat Comes Standard With Delrin Seat
- PTFE or Grafoil Packing Optional
- All Stems are 316SS
- Vinyl Dust Cap for Bonnet & Stem (Non-packing)
- Rolled Threads for Strength, Durability, and Ease of Use
- All Valves are Helium Leak Tested for Optimal Performance

SPECIFICATIONS

Body Material: 316 Stainless Steel, Zinc-nickel Plated Carbon Steel
Pressure Rating: Hard Seat - 10,000 psi at 200°F, Soft Seat - 6,000 psi at 200°F
Temperature Rating: Standard up to 200°F; Available up to 1,000°F.
See Pressure/Temperature Charts on Page 91 for More Detailed Information.
Orifice: 0.187"
Flow: Hard Seat C_V: 0.44, Soft Seat: C_V 0.76
Connections: 1/2" or 3/4"



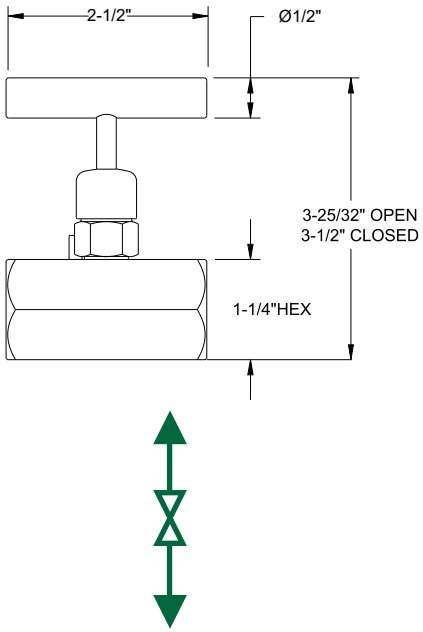
HOW TO ORDER: Choose options to build a part number. For example: G40H22S-HPBP

G40	H	22	S	-HPBP*
MODEL	SEAT TYPE	CONNECTION SIZE	MATERIAL	OPTIONS
G40 = Multiport Gauge Valve	**H** = Hard Seat **S** = Soft Seat	**22** = 1/2" M x (3) 1/2" F **23** = 3/4" M x (3) 1/2" F	**C** = Carbon Steel **S** = Stainless Steel **H** = Hastelloy C **M** = Monel	*Available on G40:* **-HP** = Hex Plug **-BP** = Bleed Plug **-BV** = 1/2" Bleed Valve **-P1** = PTFE Packaging *Available on G40H:* **-P2** = Grafoil Packing (316SS Body Rating 1,000°F at 1,500 psi)

* See Page 92 for Additional Options

NEEDLE VALVES

N1



Bidirectional Flow (Soft Seat)
Unidirectional Flow (Hard Seat)

REOTEMP needle valves allow users to isolate pressure to their instrument and remove the instrument without disturbing or shutting down the system. A variety of options are available to suit just about every application.

FEATURES / BENEFITS

- FKM O-ring Seal and PTFE Back-up Ring Below the Stem Threads to Protect from Corrosion and Galling; Soft Seat Comes Standard With Delrin Seat
- PTFE or Grafoil Packing Optional
- All Stems are 316SS
- Vinyl Dust Cap for Bonnet & Stem (Non-packing)
- Rolled Threads for Strength, Durability, and Ease of Use
- All Valves are Helium Leak Tested for Optimal Performance

SPECIFICATIONS

Body Material: 316 Stainless Steel, Zinc-nickel Plated Carbon Steel
Pressure Rating: Hard Seat - 10,000 psi at 200°F, Soft Seat - 6,000 psi at 200°F
Temperature Rating: Standard up to 200°F; Available up to 1,000°F.
See Pressure/Temperature Charts on Page 91 for More Detailed Information.
Orifice: 1/4" – 1/2"NPT: 0.187", 3/4" – 1-1/2"NPT: 0.438"
Flow: Hard Seat: 1/4" – 1/2" NPT: C_V 0.44, 3/4" – 1-1/2" NPT: C_V 2.70
Soft Seat: 1/4" – 1/2" NPT: C_V 0.76, 3/4" – 1-1/2" NPT: C_V 4.0
Connections: 1/4", 3/8" 1/2", 3/4", 1", 1-1/4" & 1-1/2"

HOW TO ORDER: Choose options to build a part number. For example: N10H22S-P1NC

N10	H	22	S	-P1NC*
MODEL	SEAT TYPE	CONNECTION SIZE	MATERIAL	OPTIONS

MODEL
N10 = Single Handle Needle Valve

SEAT TYPE
H = Hard Seat
S = Soft Seat

CONNECTION SIZE
44 = 1/4" MxF
4F = 1/4" FxF
22 = 1/2" MxF
2F = 1/2" FxF
24 = 1/4" F x 1/2" M (Soft Seat Only)
33 = 3/4" MxF
3F = 3/4" FxF
11 = 1" MxF
1F = 1" FxF
55 = 3/8" MxF
5F = 3/8" FxF
66 = 1-1/4" MxF
6F = 1-1/4" FxF
88 = 1-1/2" MxF
8F = 1-1/2" FxF

MATERIAL
C = Carbon Steel
S = Stainless Steel
H = Hastelloy C
M = Monel

OPTIONS
Available on N10:
-AN = 90° Angled Body Design
-P1 = PTFE Packaging

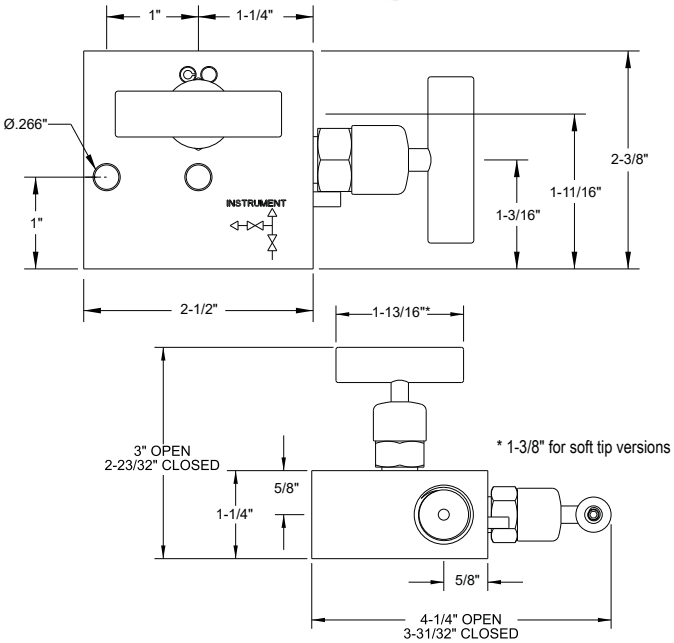
Available on N10H:
-P2 = Grafoil Packing (316SS Body Rating 1,000°F at 1,500 psi)

*See Page 92 for Additional Options

REOTEMP INSTRUMENTS

2-VALVE MANIFOLD

Threaded



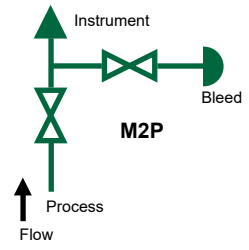
REOTEMP's 2-Valve Manifold has a variety of designs and can be used with just about any instrument. One available design has an isolation valve along with a valve controlling the 1/2" FNPT vent. A single block design is available with two isolation valves used in DP applications.

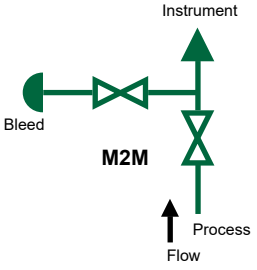
FEATURES / BENEFITS

- FKM O-ring Seal and PTFE Back-up Ring Below the Stem Threads to Protect from Corrosion and Galling; Soft Seat Comes Standard with Delrin Seat
- PTFE or Grafoil Packing Optional
- All Stems are 316SS
- Vinyl Dust Cap for Bonnet & Stem (Non-packing)
- Rolled Threads for Strength, Durability and Ease of Use
- All Valves are Helium Leak Tested for Optimal Performance

SPECIFICATIONS

Body Material: 316 Stainless Steel, Zinc-nickel Plated Carbon Steel
Pressure Rating: Hard Seat - 10,000 psi at 200°F, Soft Seat - 6,000 psi at 200°F. *See Pressure/Temperature Charts on Page 91 for More Detailed Information.*
Orifice: 0.187"; Mini: 0.156"
Flow: Hard Seat C_V: 0.44, Soft Seat C_V: 0.76
Connections: Available in block, single flange, or double flange connection for remote or direct installation





HOW TO ORDER: Choose options to build a part number. For example: M2PHNNS-M1NC

M2P	H	NN	S	-M1NC*
MODEL	SEAT TYPE	CONNECTION SIZE	MATERIAL	OPTIONS
M2P = 2-Valve Manifold Static Pressure **M2M** = 2-Valve Manifold Mini-Body Static Pressure *Other 2-Valve Manifolds Available*	**H** = Hard Seat **S** = Soft Seat	**NN** = 1/2" F x 1/2" F	**C** = Carbon Steel **S** = Stainless Steel **H** = Hastelloy C **M** = Monel	*Available on Hard & Soft Seat:* **-M1** = 2" CS Pipe Mounting Kit **-M2** = 2" SS Pipe Mounting Kit *Available on Hard Seat ONLY:* **-P2** = Grafoil Packing (316SS Body Rating 1,000°F at 1,500 psi) **See Page 92 for Additional Options*

3-VALVE MANIFOLD

Flange-Flange

Female-Female

Flange-Female

REOTEMP's 3-Valve Manifold can be mounted to differential pressure gauges as well as differential transmitters. This manifold features two isolation valves and an equalizing valve.

FEATURES / BENEFITS

- FKM O-ring Seal and PTFE Back-up Ring Below the Stem Threads to Protect from Corrosion and Galling; Soft Seat Comes Standard with Delrin Seat
- PTFE or Grafoil Packing Optional
- All Stems are 316SS
- Vinyl Dust Cap for Bonnet & Stem (Non-packing)
- Rolled Threads for Strength, Durability and Ease of Use
- All Valves are Helium Leak Tested for Optimal Performance

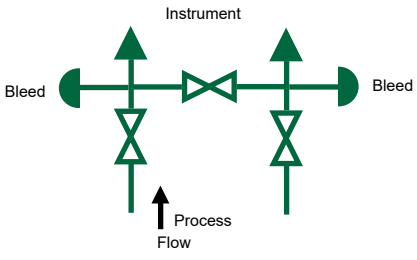
SPECIFICATIONS

Body Material: 316 Stainless Steel, Zinc-nickel Plated Carbon Steel
Pressure Rating: Hard Seat - 10,000 psi at 200°F, Soft Seat - 6,000 psi at 200°F. *See Pressure/Temperature Charts on Page 91 for More Detailed Information.*
Orifice: 0.187"
Flow: Hard Seat C_V: 0.44, Soft Seat C_V: 0.76
Connections: Available in block, single flange, or double flange connection for remote or direct installation

HOW TO ORDER: Choose options to build a part number. For example: M30HNNS-M2NC

M30	H	NN	S	-M2NC*
MODEL	SEAT TYPE	CONNECTION SIZE	MATERIAL	OPTIONS
M30 = 3-Valve Manifold **M3M** = 3-Valve Manifold (Mini-Body)	**H** = Hard Seat **S** = Soft Seat	**NN** = 1/2" F x 1/2" F **NF** = 1/2" F x Flange **FF** = Flanged x Flanged	**C** = Carbon Steel **S** = Stainless Steel **H** = Hastelloy C **M** = Monel	*Available on M3H and M3S:* **-M1** = 2" CS Pipe Mounting Kit **-M2** = 2" SS Pipe Mounting Kit **-FC** = CS Futbol **-FS** = SS Futbol **-DC** = CS Dielectric Kit **-DS** = SS Dielectric Kit **-P1** = PTFE Packaging *Available on M3H ONLY:* **-P2** = Grafoil Packing (316SS Body Rating 1,000°F at 1,500 psi)

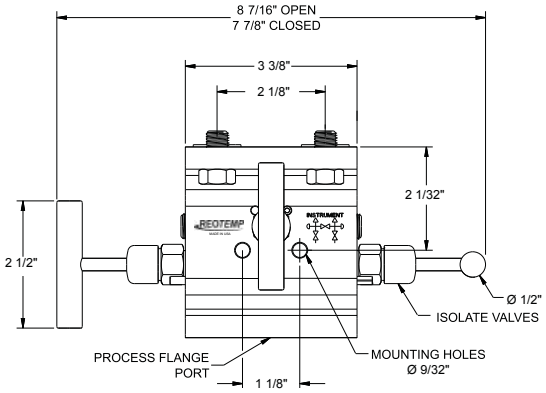
*See Page 92 for Additional Options



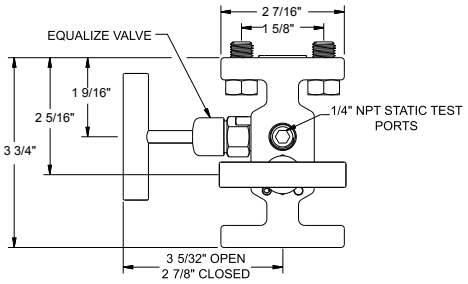
3-VALVE MANIFOLD

Visit reotemp.com

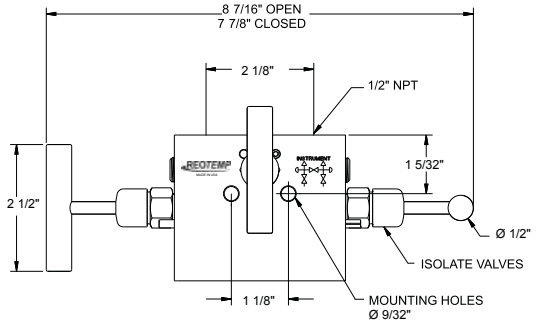
- ✓ Check Stock
- ✓ Get Price
- ✓ Configure Part #
- ✓ Download PDF Data Sheets



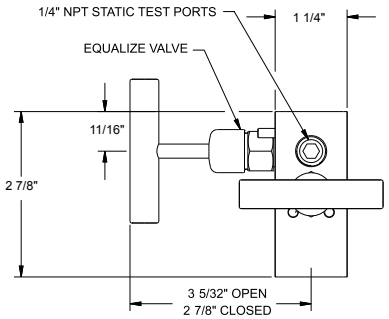
Flange-Flange (Top View)



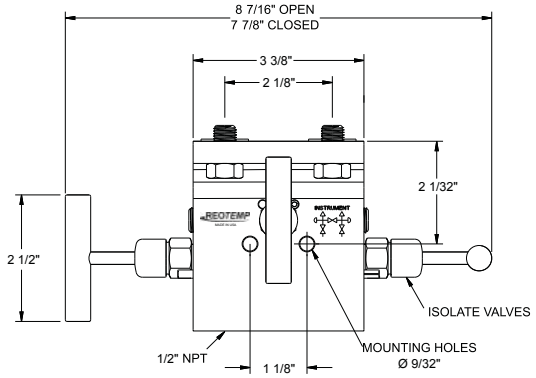
Flange-Flange (Side View)



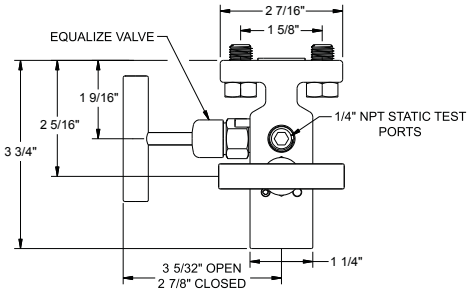
Female-Female (Top View)



Female-Female (Side View)



Flange-Female (Top View)

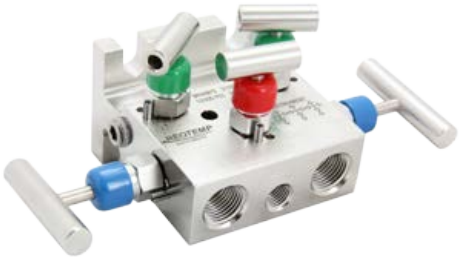


Flange-Female (Side View)

5-VALVE MANIFOLD

Flange-Flange

Female-Female



Flange-Female

REOTEMP's 5-Valve Manifold can be mounted to differential pressure gauges as well as differential transmitters. This manifold features two isolation valves, two equalizing valves, and a bleed valve.

FEATURES / BENEFITS

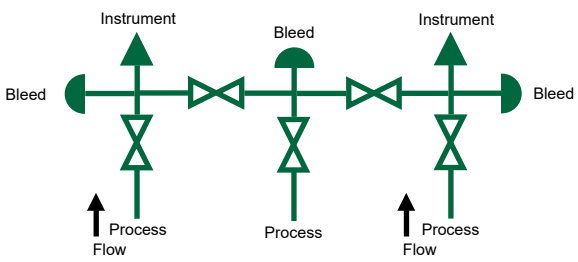
- FKM O-ring Seal and PTFE Back-up Ring Below the Stem Threads to Protect from Corrosion and Galling; Soft Seat Comes Standard with Delrin Seat
- PTFE or Grafoil Packing Optional
- All Stems are 316SS
- Vinyl Dust Cap for Bonnet & Stem (Non-packing)
- Rolled Threads for Strength, Durability, and Ease of Use
- All Valves are Helium Leak Tested for Optimal Performance
- Optional Angled Equalizing Valves for Ease of Use

SPECIFICATIONS

Body Material: 316 Stainless Steel, Zinc-nickel Plated Carbon Steel
Pressure Rating: Hard Seat - 10,000 psi at 200°F, Soft Seat - 6,000 psi at 200°F. *See Pressure/Temperature Charts on Page 91 for More Detailed Information.*
Orifice: 0.187"
Flow: Hard Seat C_V: 0.44, Soft Seat C_V: 0.76
Connections: Available in block, single flange, or double flange connection for remote or direct installation.

HOW TO ORDER: Choose options to build a part number. For example: M50HNNS-P2NC

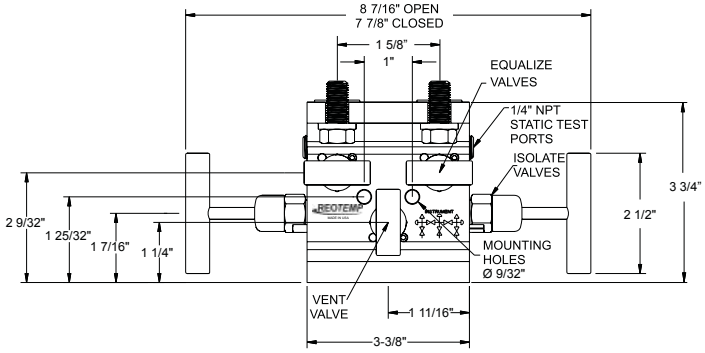
M50	H	NN	S	-P2NC*
MODEL	SEAT TYPE	CONNECTION SIZE	MATERIAL	OPTIONS
M50 = 5-Valve Manifold	**H** = Hard Seat **S** = Soft Seat	**NN** = 1/2" F x 1/2" F **NF** = 1/2" F x Flange **FF** = Flanged x Flanged	**C** = Carbon Steel **S** = Stainless Steel **H** = Hastelloy C **M** = Monel	*Available on M5H and M5S:* **-AV** = Angled (Flared) Valve Handles **-M1** = 2" CS Pipe Mounting Kit **-M2** = 2" SS Pipe Mounting Kit **-FC** = CS Futbol **-FS** = SS Futbol **-DC** = CS Dielectric Kit **-DS** = SS Dielectric Kit **-P1** = PTFE Packaging *Available on M5H ONLY:* **-P2** = Grafoil Packing (316SS Body Rating 1,000°F at 1,500 psi) **See Page 92 for Additional Options*



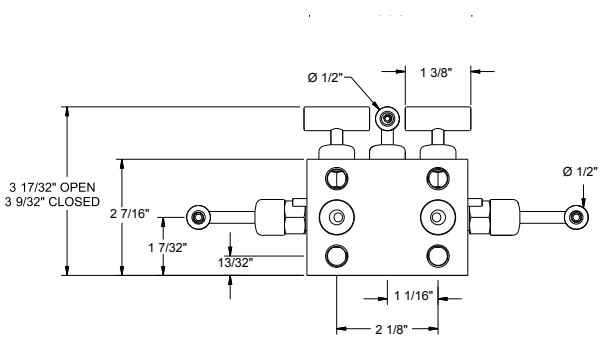
5-VALVE MANIFOLD

Visit reotemp.com

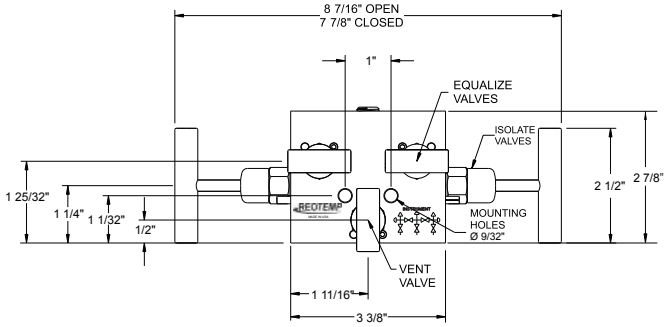
- ✓ Check Stock
- ✓ Get Price
- ✓ Configure Part #
- ✓ Download PDF Data Sheets



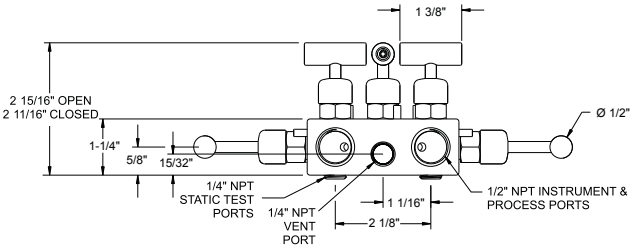
Flange-Flange (Top View)



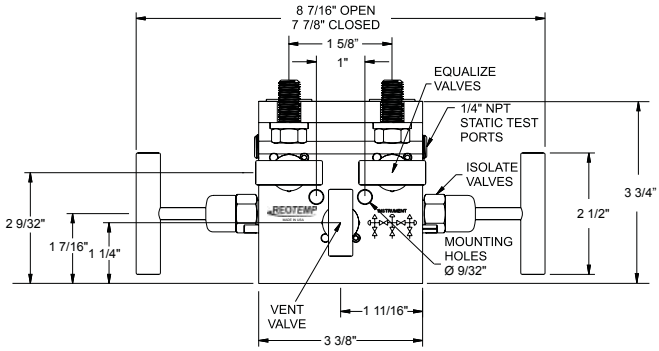
Flange-Flange (Side View)



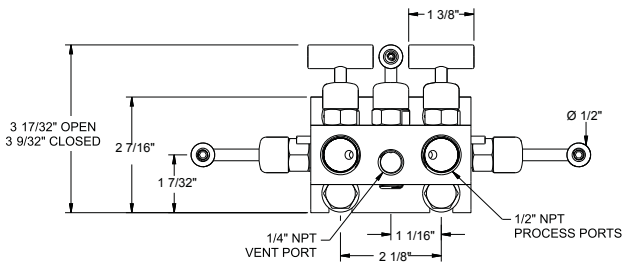
Female-Female (Top View)



Female-Female (Side View)



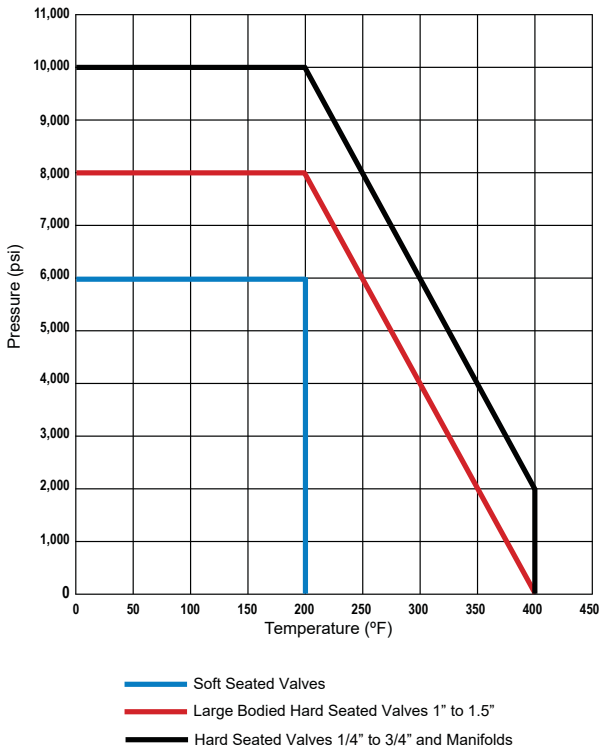
Flange-Female (Top View)



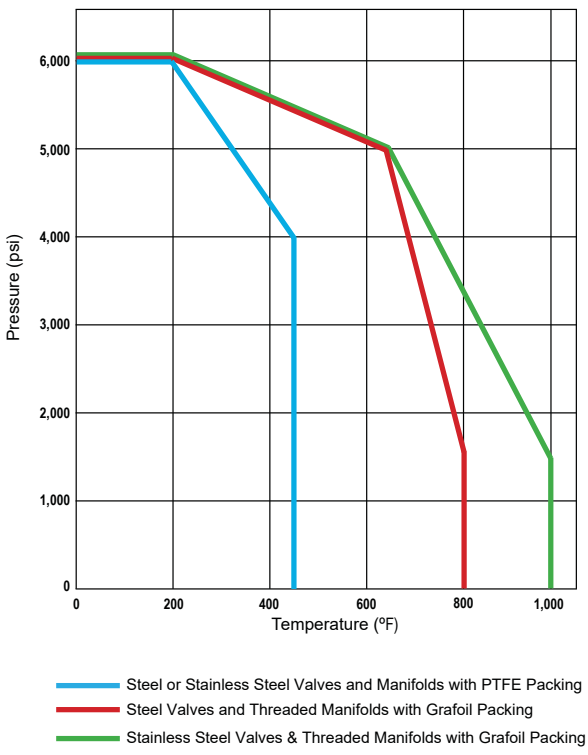
Flange-Female (Side View)

VALVE TEMPERATURE RATING & OTHER VALVES

INSTRUMENT VALVES & MANIFOLDS PRESSURE VS. TEMPERATURE: FKM O-RING



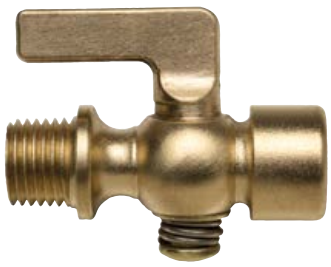
INSTRUMENT VALVES & MANIFOLDS PRESSURE VS. TEMPERATURE: GRAFOIL & PTFE PACKING



BALL VALVE

PRESSURE LIMITING VALVES

GAUGE COCK



VALVE OPTIONS

Visit reotemp.com

✓ Check Stock ✓ Get Price
✓ Configure Part # ✓ Download PDF Data Sheets

		G10	G20	G30	G40	N10	M2PH	M2PS	M2LH	M2LS	M2M	M30H	M30S	M3M	M50H	M50S
PACKING/O-RINGS																
P1	PTFE Packing	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
P2	Grafoil Packing	H	H	H	H	H	✓	N/A	✓	N/A	✓	✓	N/A	N/A	✓	N/A
P3	EPDM O-Ring	✓	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓	N/A	N/A	✓	N/A	N/A
P4	FFKM (Kalrez 3018) O-Ring	✓	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓	N/A	N/A	✓	N/A	N/A
P5	NBR O-Ring	✓	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓	N/A	N/A	✓	N/A	N/A
SOFT SEATS																
S1	PEEK	S	S	S	S	S	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓
S2	PCTFE	S	S	S	S	S	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓
STEM TIPS																
T1	Non-Rotating SS Stem Tip	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
T5	Ball (440C Stainless) Stem Tip	H	H	H	H	H	✓	N/A	✓	N/A	N/A	✓	N/A	N/A	✓	N/A
T6	Ball (Carbide) Stem Tip	H	H	H	H	H	✓	N/A	✓	N/A	N/A	✓	N/A	N/A	✓	N/A
T7	Ball (Ceramic) Stem Tip	H	H	H	H	H	✓	N/A	✓	N/A	N/A	✓	N/A	N/A	✓	N/A
T8	Ball (Monel) Stem Tip	H	H	H	H	H	✓	N/A	✓	N/A	N/A	✓	N/A	N/A	✓	N/A
T9	Regulating Hard Stem Tip	H	H	H	H	H	✓	N/A	✓	N/A	N/A	✓	N/A	N/A	✓	N/A
MOUNTING OPTIONS																
M1	CS 2" Pipe Mounting Bracket	N/A	✓	✓	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓	✓	✓	✓
M2	SS 2" Pipe Mounting Bracket	N/A	✓	✓	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓	✓	✓	✓
M3	1 Nut	✓	N/A	N/A	✓	✓	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M4	2 Nuts	✓	N/A	N/A	✓	✓	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
EXTRAS																
NC	NACE Compliance MR0175*	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
OX	Cleaned for O2 Service	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
IH	Internal Hydrostatic Test	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
PM	Positive Material ID	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
EX	Extended Body Design	N/A	✓	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
RV	Right Vent	N/A	✓	✓	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
HP	1/2" Hex Plug	N/A	N/A	N/A	✓	N/A	✓	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
BP	1/2" Bleed Plug	N/A	STD	STD	✓	N/A	✓	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
BV	1/2" Bleed Valve	N/A	N/A	N/A	✓	N/A	✓	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
AN	90° Angled Body Design	N/A	N/A	N/A	N/A	✓	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
FC	CS Futbol	N/A	N/A	N/A	N/A	N/A	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
FS	SS Futbol	N/A	N/A	N/A	N/A	N/A	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
DC	CS Dielectric Kit	N/A	N/A	N/A	N/A	N/A	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
DS	SS Dielectric Kit	N/A	N/A	N/A	N/A	N/A	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
AC	CS Static Adaptors	N/A	N/A	N/A	N/A	N/A	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
AS	SS Static Adaptors	N/A	N/A	N/A	N/A	N/A	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

*Available only on SS, Monel, & Hastelloy C-276 bodies.

✓	Indicates that the option is available
N/A	Indicates the option is not available
STD	The option comes standard
H	Only available on hard seated valves
S	Only available on soft seated valves

REOTEMP®
INSTRUMENTS

TRANSMITTERS

REOTEMP Pressure Transmitters and Transducers all convert applied pressure to an electrical signal that can be interpreted by a computer or other interpretive device, where it can be used to display or control a process variable.

Output: REOTEMP transmitters produce either a 4-20 mA signal (the most common output), or a variety of voltage outputs, such as 1-5 Vdc or 0-10 Vdc (3-wire).

Sensors: Piezoresistive diffused semiconductor technology is standard for pressures up to 300 psi. For higher pressures (up to 60,000 psi), sputtered thin film technology is used. These sensors are very stable, shock resistant, and durable. Our piezoresistive and thin-film sensors are made with no epoxies or bonding agents, virtually eliminating signal instability or drift.

Unit Integrity: Sensor durability, along with mechanical integrity of the stainless case and all-welded process connection, produce a rugged instrument designed to provide consistent performance under severe industrial conditions.

Accuracy: Accuracies from 0.5% to 0.1% are available. Each unit is temperature compensated to provide stable accuracy over large ambient variations and long periods of time.

Ready-to-go: Each REOTEMP transmitter is inspected and calibrated prior to shipment to assure it is 100% “Ready-to-go,” right out of the box!

Large Transmitter Stock: REOTEMP stocks many transmitter models in a large variety of ranges. However, the most popular output is the 4-20 mA output.

Transmitter or Transducer?

“Transmitter” is often used when referring to a pressure sensor with variable current (mA) output, whereas “Transducer” usually implies voltage output. For simplicity, we use the term “transmitter” for all sensors offered in this catalog.

SELECTING A TRANSMITTER

Consider the following issues to choose the best pressure transmitter for your application:

1. Special Needs

Series **TG** (general purpose transmitter) is a good choice for general industrial applications. For special needs or circumstances, other models will be more suitable:

High Accuracy	**TH**	Choose series **TH** for up to 0.125% accuracy (BFSL). For reference, the standard TG accuracy is 0.5%.
Hazardous Environments	**TE**	Series **TE** for explosion proof environments and **THX** for instrinsically safe.
Total Submersion	**TL**	Choose series **TL**.
Clogging Media	**TG**	Consider series **TG** mounted to a diaphragm seal.
Sanitary Appications	**TS**	Choose series **TS**, which comes with a sanitary Tri-clamp connection.
Low Cost	**TM**	For OEM use or for applications where low cost is a necessity, consider series **TM**.

2. Pressure Range & Overpressure

Choose a range that places your working pressure at 50% to 90% of the transmitter pressure range. After exposure to pressures up to **proof pressure**, the transmitter should return to normal operating performance within specifications. After exposure to pressures **above proof pressure, but below burst pressure**, the transmitter may be damaged and not perform to specification after return to operating range. Exposure to **pressure beyond burst pressure** may cause rupture of the transmitter.

3. Accuracy

Series **TG**, with 0.5% BFSL accuracy, and with 0.05% repeatability, suits many industrial applications. Higher accuracies (0.25% and 0.1%) are available, generally at higher cost.

> ***What is BFSL?*** BFSL is "Best Fit Straight Line". It expresses maximum deviation from a straight line positioned to minimize maximum deviation.

4. Output

Current output (4 mA to 20 mA) is the most popular for industrial use. This is because this output range is less susceptible to electrical noise and can be transmitted through copper wires up to thousands of feet with little signal loss. Several voltage outputs are also available, and are suitable for shorter distances. Typical **voltage outputs** include 0-5 Vdc, 1-5 Vdc, and 0-10 Vdc.

5. Process Connection

¼" NPT and ½" NPT are the most common connections in industrial process applications. In hydraulic applications, 7/16-20 UNF SAE male with o-ring seal is commonly used. For sanitary applications, Tri-clamp connections on the **TS** series are available in several sizes, with 1-½" Tri-clamp the most common.

6. Electrical Connection

All REOTEMP transmitters require wire hookup for both power and output. 4-20 mA output uses 2 wires, which carry both loop power and output signal (loop current). Voltage output usually uses three wires, with 4 wires available. The standard Hirschmann connector (Din 43650) in standard or mini-size allows easy connection to 2, 3 or 4 wires, with internal screw terminals and cable gland. Also available are sealed integral cable (with or without ½" NPT male conduit threads), Bendix 4- and 6-pin, and M12 types, as well as a Hirschmann with ½" NPT female conduit connection.

7. Severe Conditions

REOTEMP transmitters are rugged instruments intended for industrial use. However, temperatures, corrosion, vibration, or pulsation beyond operational limits should be addressed to prolong the life of the instrument:

Problem	*Solution*
High Process Temperature	Temperature at the instrument can be lowered by using a dead-leg extension. For high temperature with clogging media, a diaphragm seal with capillary or a cooling tower can also be used.
High Ambient Temperature	The instrument can be removed from the hot zone using piping, tubing, or capillary with a diaphragm seal.
Corrosive Media	A chemically compatible diaphragm seal can isolate the transmitter form the corrosive media.
Pulsation	Pressure fluctuations in an incompressible fluid can cause damaging pulsation (such as water hammer). This is a common cause of failure in pressure transducers, and measures should be taken to avoid this condition. Use of a snubber or restrictor screw (threaded orifice) should be considered.

GENERAL PURPOSE TRANSMITTER

TG

TG with 1/2" Flush Face Diaphragm

Diaphragm Seal Compatible

FEATURES / BENEFITS

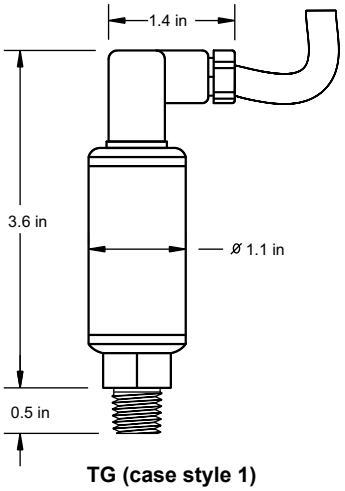
- 0.5% or 0.25% Accuracy
- All-stainless Welded Body and Wetted Parts
- 4-20 mA or Voltage Output
- Rugged, with Protection from Shock, Over-range, and Over-voltage, Internals Potted in Silicone Gel
- Internal Zero and Span Adjustments

SPECIFICATIONS

Output Signal: 4-20mA, 2-wire (standard)
0-5V, 0-10V, 1-6V, or 1-11Vdc (3-wire)
Pressure Ranges: Vacuum, compound, pressure to 15,000 psi; gauge and absolute

	Proof Pressure	Burst Pressure
0/5 - 0/200 psi	3 x range	3.8 x range
0/300 - 0/10,000 psi	1.75 x range	4 x range
0/15,000 psi	1.5 x range	3 x range

Accuracy(BFSL): ±0.5% of span (standard), ±0.25% of span (optional)
Adjustment: ±10% full scale, zero & span
Input: 12-30 Vdc (for current output), 14-30 Vdc (for voltage output)
Temperature:
Compensated: +32 to 175°F
Effect: ±0.02% of span/°F
Media: -22 to 212°F
Ambient: -40 to 185°F
Weight: Approximately 3.5 oz
Environmental Rating: IP65



TG (case style 1)

Note: Dimensions are nominal and may vary. Check with REOTEMP sales if dimensions are critical. Other case styles available.

HOW TO ORDER: Choose options to build a part number. For example: TG1P181A4A00-TS

TG1	P18	1	A	4	A00	-TS

MODEL	RANGE	ACCURACY	OUTPUT SIGNAL	PROCESS CONNECTION	ELECTRICAL CONNECTION	OPTIONS
TG1 = General Purpose Transmitter	*See Transmitter Technical Reference on Page 102*	**1** = ±0.5% Full Scale **2** = ±0.25% Full Scale	**A** = 4-20mA (2-wire) (standard) **B** = 0-5Vdc (3-wire) **C** = 1-5Vdc (3-wire) **E** = 0-10Vdc (3-wire)	**4** = 1/4" NPT Male **8** = 1/8" NPT Male **F** = 1/2" NPT Male Flush Face Diaphragm Seal (60 psi Minimum)	**A00** = Mini-Hirschmann, No Cable (DIN EN 175301-803 Form C) **A??** = Mini-Hirschmann (?? = ft. of cable) **J??** = 1/2" NPT Conduit (?? = ft. of cable) ***E00** = 4-pin Bendix ***F00** = 6-pin Bendix ***M00** = M12 x 1 (4-pin) *Mating connector sold separately.	**-RS** = Threaded Restrictor screw **-TS** = Stainless Steel Tag (1-10 Characters) *Optional Assembly to Diaphragm Seal Available*

COMPACT OEM TRANSMITTER

TM

TM with Mini-Hirschmann

CE RoHS compliant

FEATURES / BENEFITS

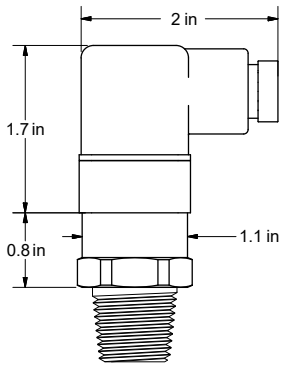
- Reliable, Economical
- 0.5% Accuracy
- 4-20 mA or Voltage Output
- Shock Resistant, High Over-range Protection
- All-stainless Body and Wetted Parts

SPECIFICATIONS

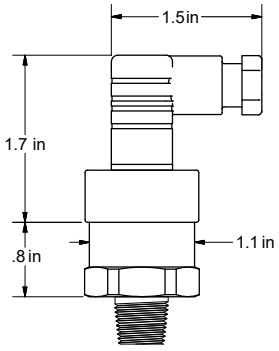
Output Signal: 4-20mA, 2-wire (standard)
0-10Vdc (3-wire)
Pressure Ranges: Vacuum, compound, pressure to 15,000 psi

	Proof Pressure	Burst Pressure
0/5 - 0/200 psi	3 x range	3.8 x range
0/300 - 0/10,000 psi	1.75 x range	2.6 x range
0/15,000 psi	1.5 x range	3 x range

Accuracy (BFSL): ±0.5% of span (standard), includes repeatability, hysteresis and linearity
Input: 10-30Vdc (for current output)
14-30Vdc (for voltage output)
Temperature:
Compensated: +32 to 175°F
Effect: ±0.02% of span/°F (on zero and span)
Media: -22 to 212°F (-30/100°C)
Ambient: -22 to 175°F (-30/80°C)
Certifications: CE
Environmental Rating: IP65



TM with Hirschmann



TM with Mini-Hirschmann

Note: Dimensions are nominal and may vary. Check with REOTEMP sales if dimensions are critical. Other case styles available. 1/4" NPT Male connection is standard, other connections available.

HOW TO ORDER: Choose options to build a part number. For example: TM1P182A4B00P-TS

TM1	P18	2	A	4	B00	P	-TS
MODEL	RANGE	ACCURACY	OUTPUT SIGNAL	PROCESS CONNECTION	ELECTRICAL CONNECTION	DISPLAY	OPTIONS
TM = Compact OEM Transmitter	*See Transmitter Technical Reference on Page 102*	**2** = ±0.5% Full Scale	**A** = 4-20mA (2-wire) (standard) **B** = 1-5Vdc (3-wire) **C** = 1-6Vdc (3-wire) **E** = 0-10Vdc (3-wire)	**4** = 1/4" NPT Male (Standard) **2** = 1/2" NPT Male	**B00** = Hirschmann, No Cable (DIN EN 175301-803 Form A) **B??** = Hirschmann (?? = ft. of cable) **A00** = Mini-Hirschmann, No Cable (DIN EN 175301-803 Form C) **A??** = Mini-Hirschmann, No Cable (?? = ft. of cable) *__M00__ = M12 x 1 (4-pin) *Mating connector sold separately.	**P** = Digital Display (Hirschmann connection and 4-20 output required) **X** = No Display	**-RS** = Threaded Restrictor Screw **-TS** = Stainless Steel Tag (1-10 Characters)

EXPLOSION PROOF TRANSMITTER

TE

FEATURES / BENEFITS

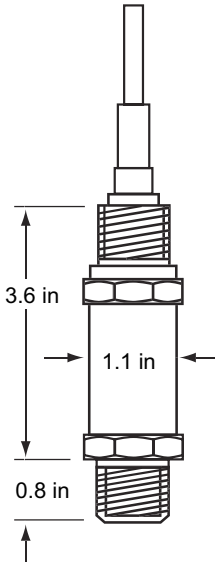
- ±0.25% Full-scale (BFSL) Accuracy
- All 316SS Welded Body and Elgiloy
- 4-20 mA or Low Power Voltage Outputs
- Rugged, with Protection from Shock, Over-range, and Over-voltage, Internals Potted in Silicone Gel

SPECIFICATIONS

Output Signal: 4-20mA, 2-wire (standard)
1-5Vdc
Pressure Ranges: Vacuum, compound, pressure 0/15 psi to 0/15,000 psi

	Proof Pressure	Burst Pressure
0/5 - 0/200 psi	3 x range	3.8 x range
0/300 - 0/10,000 psi	1.75 x range	4 x range
0/15,000 psi	1.5 x range	3 x range

Accuracy: BSFL ±0.25% of span
Input: 10-30Vdc for 4-20mA; 6-30Vdc for low power voltage output (≤ 2mA for power supply ≤ 12Vdc)
Temperature:
Compensated: 32 to 176°F
Effect: ±0.011% FS/°F
Media and Ambient: -25 to 212°F (-58 to 221°F optional)
Environmental Rating: IP67
Weight: Approximately 12 oz (with 6' cable)
Hazardous Approvals:
FM; Explosion proof with entity approval Cl. I, Div. 1, A,B,C,D. Dust/Ignition proof Cl. II/III, Div. 2 E,F,G.



TE

Note: Dimensions are nominal and may vary. Check with REOTEMP sales if dimensions are critical. Other case styles available.

TRANSMITTERS

HOW TO ORDER: Choose options to build a part number. For example: TE1P212A2J06-TS

TE	1	P21	2	A	2	J06	-TS
MODEL	APPROVAL	RANGE	ACCURACY	OUTPUT SIGNAL	PROCESS CONNECTION	ELECTRICAL CONNECTION	OPTIONS
TE = Explosion Proof Industrial Transmitter	**1** = FM & CSA **A** = ATEX	*See Transmitter Technical Reference on Page 102*	**2** = ±0.25% Full Scale	**A** = 4-20mA (2-wire) (standard) **B** = 0-5Vdc (3-wire) **C** = 1-5Vdc low power (3-wire) **E**= 0-10Vdc (3-wire)	**2** = 1/2" NPT Male **4** = 1/4" NPT Male	**J06** = 1/2" NPT Conduit (6' cable) **J??** = 1/2" NPT Conduit (?? = ft. of cable)	**-RS** = Threaded Restrictor Screw **-TS** = Stainless Steel Tag (1-10 Characters) **-NC** = NACE Compliance

HEAVY DUTY INDUSTRIAL TRANSMITTER

TH1

TH1 with Piggyback Display

FM APPROVED

Diaphragm Seal Compatible

FEATURES / BENEFITS

- 0.25% or 0.12% Accuracy
- All-stainless Welded Body and Wetted Parts
- Very Large Pressure Range
- Engineered for High Stability, Shock Resistance, and Durability
- Internal Zero and Span Adjustments

SPECIFICATIONS

Output Signal: 4-20mA, 2-wire (standard)
0-5Vdc or 1-10Vdc (3-wire)

Pressure Ranges: Vacuum, compound, pressure to 60,000 psi; gauge and absolute

	Proof Pressure	Burst Pressure
0/2 - 0/200 psi	3 x range	3.8 x range
0/300 - 0/10,000 psi	1.75 x range	4 x range
0/15,000 psi	1.5 x range	3 x range

Accuracy(BFSL): ±0.25% of span (standard), ±0.125% of span (optional)

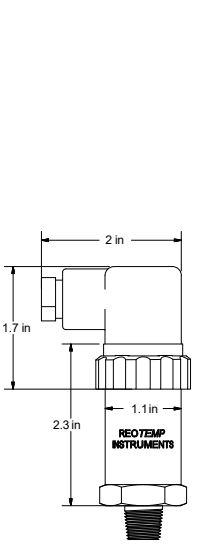
Adjustment: ±10% full scale, zero & span

Input: 10-30 Vdc (for current output), 14-30 Vdc (for voltage output)

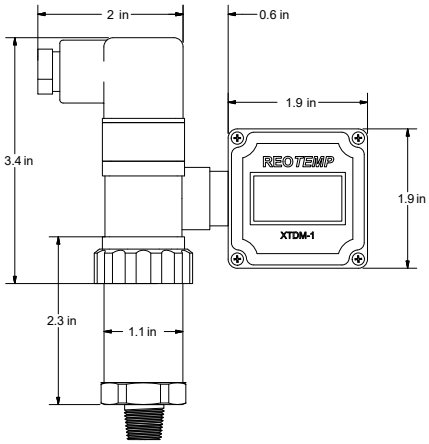
Temperature:
Compensated: +32 to 175°F
Effect: ±0.01% of span/°F (on zero and span)
Media: -20 to 200°F
Ambient: -15 to 185°F

Environmental Rating: IP65

Weight: Approximately 7 oz



TH1



TH1 with Digital Display

Note: Dimensions are nominal and may vary. Check with REOTEMP sales if dimensions are critical. Other case styles available. 1/2" NPT Male is standard connection, other connections available.

HOW TO ORDER: Choose options to build a part number. For example: TH1P142A4B00P-TS

MODEL	RANGE	ACCURACY	OUTPUT SIGNAL	PROCESS CONNECTION	ELECTRICAL CONNECTION	DISPLAY	OPTIONS
TH1 = High-Accuracy Transmitter, CE Compliant **THX** = Intrinsically Safe, CE Compliant, FM & CSA Approved	*See Transmitter Technical Reference on Page 102*	**2** = ±0.25% Full Scale **3** = ±0.125% Full Scale	*Both Models* **A** = 4-20mA (2-wire) (standard) *TH1 ONLY* **B** = 0-5Vdc (3-wire) **C** = 1-5Vdc (3-wire) **E** = 0-10Vdc (3-wire)	**2** = 1/2" NPT Male (Standard) **4** = 1/4" NPT Male **F** = 1/2" NPT Male Flush Face Diaphragm Seal (60 psi Minimum) **9** = 9/16-18 UNF 2B Pressure Cone (Equal to F250C Autoclave)	**B00** = Hirschmann, No Cable (DIN EN 175301-803 Form A) **B??** = Hirschmann (?? = ft. of cable) **J??** = 1/2" NPT Conduit (?? = ft. of cable) *F00 = 6-pin Bendix *M00 = M12 x 1 (4-pin) *Mating connector sold separately.	**P** = Digital Display (Hirschmann connection and 4-20 output required) **X** = No Display	**-RS** = Threaded Restrictor Screw **-TS** = Stainless Steel Tag (1-10 Characters) *Optional Assembly to Diaphragm Seal Available*

TRANSMITTERS

SANITARY PRESSURE TRANSMITTER

TSB

3A Certified CE

FEATURES / BENEFITS

- 3-A, Tri-Clamp® Sanitary Connection
- 316 Stainless Wetted parts
- Designed for “Clean-in-place” and “Sterilize-in-place” Procedures
- Media Temperatures Up to 750°F
- Internal Zero & Span Adjustments

SPECIFICATIONS

Output Signal: 4-20mA, 2-wire (standard)
1-5Vdc, 1-6Vdc, or 1-11Vdc (3-wire)

Pressure Ranges: Vacuum, compound, pressure 0/2 to 0/1000 PSI gauge and absolute. Ranges 60 psi and below not recommended with 3/4” Tri-Clamp.

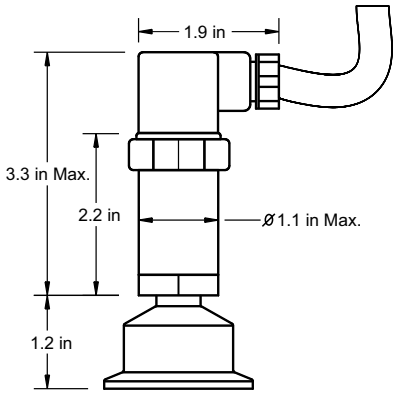
	Proof Pressure	Burst Pressure
0/5 - 0/200 psi	3 x range	3.8 x range
0/300 - 0/1,000 psi	1.75 x range	4 x range

Accuracy(BFSL): ±1.0% of span, ±0.5% of span, or ±0.25% of span

Adjustment: ±5% full scale, zero & span

Input: 10-30 Vdc (for current output), 14-30 Vdc (for voltage output)

Temperature:
Temperature effect with 1.5” or 2” Tri-Clamp:
±0.1% of span/10°F (for zero and span)
or ±0.02 psi/10°F (greater of)
Note: 3/4” tri-clamp not recomended for temperature variations. Effect is ≤ ±0.9 psi/10°F



TSA

TRANSMITTERS

Tri-Clamp® is a registered trademark of Alpha Laval Inc.

SANITARY PRESSURE TRANSMITTER

Visit reotemp.com

✓ Check Stock ✓ Get Price
✓ Configure Part # ✓ Download PDF Data Sheets

HOW TO ORDER: Choose options to build a part number. For example: TSAP18ATC75A03-DWD-AG-PM

TSA	P18	A	TC	75	A03
MODEL	RANGE	OUTPUT SIGNAL	CONNECTION TYPE	TRI-CLAMP® SIZE	ELECTRICAL CONNECTION

MODEL

TSA = General Purpose Sanitary Transmitter (1% Accuracy)
TSB = Industrial Sanitary Transmitter (0.5% Accuracy)
TSC = High-Accuracy Sanitary Transmitter (0.25% Accuracy)

RANGE

See Transmitter Technical Reference on Page 102 for Complete Range Guide

Common Ranges
P01 = -30inHg-0 psi
P03 = -30inHg-0-30 psi
P16 = 0-30 psi
P18 = 0-100 psi
P20 = 0-200 psi
P21 = 0-300 psi

Available Ranges
- Vac to 1,000 psi
- Gauge Pressure, Vacuum, or Compound
- Lowest Pressure = 2 psi

OUTPUT SIGNAL

A = 4-20mA (2-wire) (standard)
B = 0-5Vdc (3-wire)
C = 1-5Vdc (3-wire)
E = 0-10Vdc (3-wire)

CONNECTION TYPE

TC = Tri-Clamp
CI = I-Line

TRI-CLAMP® SIZE

TSA Model
75 = 3/4" Tri-Clamp
15 = 1.5" Tri-Clamp
20 = 2" Tri-Clamp

TSB & TSC Models
15 = 1.5" Tri-Clamp
20 = 2" Tri-Clamp
25 = 2.5" Tri-Clamp
30 = 3" Tri-Clamp

ELECTRICAL CONNECTION

TSA & TSB Model ONLY
A00 = Mini-Hirschmann (No Cable)
A?? = Mini-Hirschmann (?? = ft. of cable)
M00 = M12 x 1 (4-pin)
B00 = Hirschmann, No Cable (DIN EN 175301-803 Form A)
B?? = Hirschmann (?? = ft. of cable)

TSC Model ONLY
J?? = 1/2" NPT Conduit (?? = ft. of cable)
M00 = M12 x 1 (4-pin)

-DWD	-AG	-PM
MOUNTING	FILL FLUID	OPTIONS

MOUNTING

-DWD = Direct Mount, Welded
-RTR = 6" Cooling Tower
-STW = 3" Cooling Standoff
-W?? = PVC Coated SS Armored Capillary, Welded

Note: ?? = Length in feet (e.g. 05 = 5 feet)

FILL FLUID

See Page 58 for Complete Fill Guide

-AG = Glycerin USP
-BN = Neobee M20
-AS = Silicone DC200
-BS = Food-grade Silicone

OPTIONS

-PD = 4-Digit LCD Digital Display, (Model TSC Only)
-TS = Stainless Steel Tag
-PM = Positive Material Identification Certification

Optional Digital Display Available (-PD)

Diaphragm Seal Suitability Guide

	Tri-Clamp	Total Span* (in psi) 2	3	5	10	15	30	60	100	150+
TSA	3/4"	X	X	X	S	S	S	T	T	
	1.5"	X	X	T	T					
	2"	X	X							
TSB	1.5"	X	X	T	T	T	T			
	2"	X	X	T	T					
	2.5"	X	X	T						
	3"	X	X							
TSC	1.5"	S	S	S	T	T				
	2"	S	T	T						
	2.5"	T	T							
	3"	T								

*Total gauge span is additive of negative and positive pressures. Example: -15 - 0 - 30 psi = 45 psi span

- Assembly will function correctly with minimal accuracy degradation.
- T — Assembly will function correctly given stable process temperature.
- S — Assembly is highly sensitive to orientation and temperature variance. REOTEMP cannot guarantee a stated accuracy.
- X — Assembly not offered.

Tri-Clamp® is a registered trademark of Alpha Laval Inc.

SUBMERSIBLE LEVEL TRANSMITTER

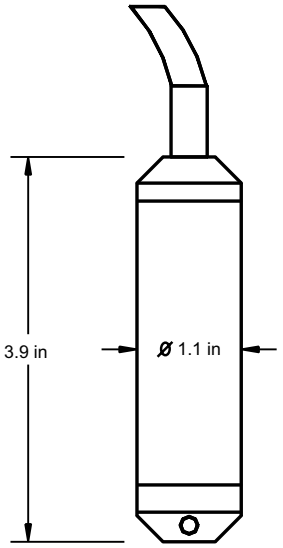
TL1

SPECIFICATIONS

Output Signal: 4-20mA, 2-wire
0-5Vdc, 0-10Vdc, or 0.5-2.5Vdc (3-wire)
Pressure Ranges: 0-2 psi through 0-500 psi
Proof Pressure: 2 x range
Burst Pressure: 4 x range
Accuracy (BFSL): ±0.25% of span (standard)
±0.125% of span (standard)
Input: 12-30Vdc (for current output)
14-30Vdc (for Vdc output)
6Vdc (for 0.05-2.5Vdc output)
Temperature:
Compensated: +32 to 122°F
Effect: ±0.01% of span/°F (on zero and span)
Media: -14 to 175°F
Environmental Rating: NEMA 6, IP68 (submersible to 1,000 ft.)
Electrical Protection: Reverse polarity, short circuit, and lightning protection
Submersible Cable:
Vented, watertight, polyurethane jacketed, tensile strength: maximum 220 lbs.
Wetted Parts: Body: 316 SS
Cable: Polyurethane (teflon available)
Nose Cone: Polyamide

FEATURES / BENEFITS

- Accurate Level Measurements from 5” WC to 300 psi
- 316SS and Polyurethane Wetted Parts
- ±0.25% or ±0.125% Accuracy
- Vented, Strong Submersible Cable
- Lightning, Short Circuit, and Reverse Polarity Protection
- NEMA 6/IP68 Protection, Submersible to 1,000 ft.



TL1 (case style 1)

Note: Dimensions are nominal and may vary. Check with REOTEMP sales if dimensions are critical. Other case styles available.

HOW TO ORDER: Choose options to build a part number. For example: TL1IN502AGP200LP

TL1	IN50	2	A	G	P200	LP
MODEL	RANGE	ACCURACY	OUTPUT SIGNAL	PROCESS CONNECTION	CABLE	OPTIONS
TL1 = General Protection **TLA** = Intrinsically Safe, FM Compliant & CSA Approved	*See Transmitter Technical Reference on Page 102* *Special INWC ranges for TL1:* **IN50** = 0/50 **IN100** = 0/100 **IN150** = 0/150 **IN200** = 0/200 **IN400** = 0/400	**2** = ±0.25% Full Scale (standard) **3** = ±0.125% Full Scale	*Both Models* **A** = 4-20mA (2-wire) (standard) *TL1 ONLY* **B** = 0-5Vdc (3-wire) **E** = 0-10Vdc (3-wire) **H** = 0.5-2.5Vdc (3-wire)	**N** = Standard Nose Cone **W** = Weighted Nose Cone **G** = 2” Flush Diaphragm with Protective Cage **2** = 1/2” Male NPT Adapter	**P???** = PUR Cable (??? = Length in .ft) **F???** = FEP Cable (??? = Length in .ft)	*TL1 ONLY* **LP** = Lightning Protection

TRANSMITTER TECHNICAL REFERENCE

SPECIFICATIONS

Wetted Parts: Body: 316 SS for ranges under 400 psi, high pressure ranges 17-4PH SS diaphragm and 300 series SS pressure chamber.

Repeatability: 0.05% of scale (model TM, 0.2%)

Hysteresis: 0.1% full-scale

Stability: 0.2% full-scale (model TM, 0.5%)

Burst Pressure: 4 x range

Response Time: <1 ms (between 10-90% of scale), Model TM: <5ms

Operating Life: 100 million cycles

Electromagnetic Rating: CE compliant to EMC norm, EN61326:1997/A1:1998, RFI, EMI and ESD protection

Electrical Protection: Reverse Polarity, over voltage, and short circuit protection

SHOCK: Less than ± 0.05% full-scale effect for 1,000 g's @ 2ms on any axis (model TM: 600 g's)

Vibration: Less than ± 0.01% full scale effect for 15 g's @ 0-2,000 Hz on any axis (model TG: less than 0.05% full scale effect for 20 g's @ 5-2,000 Hz on any axis.)

Temperature Range for Storage: -40-212°F

Environmental Protection: NEMA 4x (IP65), Series TL: NEMA 6, IP68

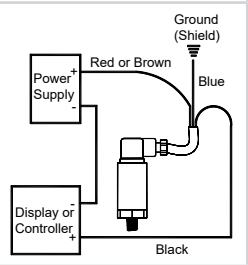
Proof Pressure: At Proof Pressure, zero and span may shift but no permanent damage has occured.

Burst Pressure: At Burst Pressure, permanent non-recoverable damage may occur.

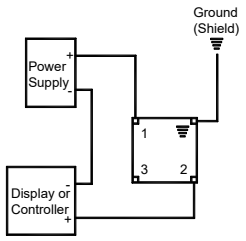
WIRING DIAGRAMS

4-20 mA, 2 Wire System

Cable Leads

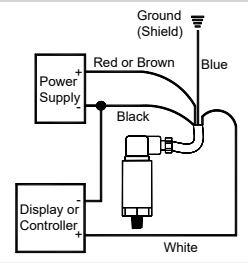


DIN Connector

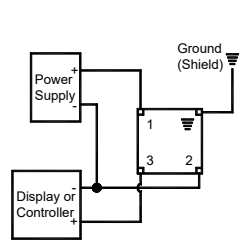


Voltage Output, 3 Wire System

Cable Leads



DIN Connector



SERIES		TSA	TSB	TSC	TG1	TM	TE	TH1	THX	TL1
Code	Range	VACUUM								
P01	-30"Hg VAC	✓	✓	✓	✓	✓	✓	✓	✓	
Code	Range	COMPOUND RANGES								
P02	-30"Hg/0/15psi	✓	✓	✓	✓			✓	✓	
P03	-30/0/30 psi	✓	✓	✓	✓		✓	✓		
P04	-30/0/60 psi	✓	✓	✓	✓					
P05	-30/0/100 psi	✓	✓	✓	✓		✓			
P06	-30/0/150 psi	✓	✓	✓	✓				✓	
P07	-30/0/200 psi						✓			
P08	-30/0/300 psi	✓	✓	✓	✓					
Code	Range	PRESSURE RANGES								
IN50	0/50 inH_2O							✓		✓
IN100	0/100 inH_2O				✓			✓		✓
IN200	0/200 inH_2O									✓
L11	0/55 INWC			✓				✓		
L12	0/80 INWC			✓				✓		
L13	0/140 INWC	✓	✓	✓	✓			✓		
L14	0/280 INWC	✓	✓	✓	✓			✓		
P11	0/2 psi			✓				✓	✓	✓
P12	0/3 psi			✓				✓	✓	✓
P13	0/5 psi	✓	✓	✓	✓			✓	✓	✓
P14	0/10 psi	✓	✓	✓	✓			✓	✓	✓
P15	0/15 psi	✓	✓	✓	✓	✓	✓	✓	✓	✓
P16	0/30 psi	✓	✓	✓	✓	✓	✓	✓	✓	✓
P17	0/60 psi	✓	✓	✓	✓	✓	✓	✓	✓	✓
P18	0/100 psi	✓	✓	✓	✓	✓	✓	✓	✓	✓
P19	0/150 psi	✓	✓	✓	✓	✓		✓	✓	✓
P20	0/200 psi	✓	✓	✓	✓	✓	✓	✓	✓	✓
P21	0/300 psi	✓	✓	✓	✓	✓	✓	✓	✓	✓
P26	0/500 psi	✓	✓	✓	✓	✓	✓	✓	✓	✓
P23	0/600 psi	✓	✓	✓	✓	✓		✓		
P27	0/750 psi	✓	✓	✓	✓	✓	✓	✓	✓	✓
P25	0/1000 psi	✓	✓	✓	✓	✓	✓	✓	✓	✓
P30	0/1500 psi				✓	✓		✓		
P31	0/2000 psi				✓	✓	✓	✓		
P32	0/3000 psi				✓	✓	✓	✓		
P34	0/5000 psi				✓	✓	✓	✓	✓	
P35	0/6000 psi				✓	✓	✓	✓		
P28	0/7500 psi				✓	✓		✓	✓	
P37	0/10000 psi				✓	✓	✓	✓	✓	
P38	0/15000 psi				✓	✓	✓	✓	✓	
P39	0/20000 psi							✓		
P40	0/30000 psi							✓		
P41	0/40000 psi							✓		
P42	0/50000 psi							✓		
P43	0/60000 psi							✓		
Code	Range	ABSOLUTE RANGES								
A15	0/15 psia	✓	✓		✓					
A16	0/30 psia	✓	✓		✓					
A17	0/60 psia	✓	✓		✓					
A18	0/100 psia	✓	✓		✓					
A19	0/150 psia	✓	✓		✓					
A20	0/200 psia	✓	✓		✓					
A21	0/300 psia	✓	✓		✓					

✓ Indicates that the option is available

Note: Specifications are subject to change.

Don't See the Range You Need? Other ranges may be available, contact REOTEMP customer service for more information.

MECHANICAL PRESSURE SWITCH

PS

REOTEMP's Mechanical Pressure Switches are suited for a variety of process applications where electrical devices must be turned on or off, in response to changing process pressure.

Diaphragm Seal Compatible

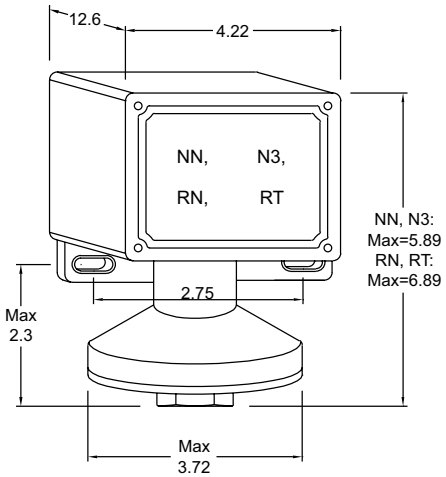
SPECIFICATIONS

Switching Elements: SPDT or DPDT
Current Capacity: 15A at 250VAC; 5A at 30VAC
Housing: NEMA4, 4X, or Explosion Proof (Class. 1, Group C&D; Class. 2, Group E,F,G, Division 1,2)
Electrical Outlet: 3/4" NPTF
Adjustable Setpoints: From full vacuum to 550 psi.
Wetted Diaphragm: Teflon/Buna, 316SS/Viton.
Wetted Pressure Points: 316SS, Aluminum, Cast Iron
Overrange: 200 psi to 1,500 psi
Warranty: 3 years

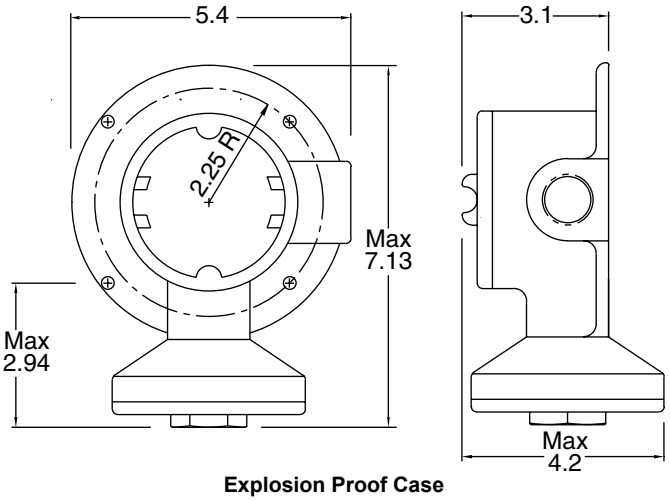
Note: Specifications are for standard switches shown on next page. A wide variety of alternative housings, ranges, switches, wetted parts and options are available.

FEATURES / BENEFITS

- Reliable Piston-Actuated, Force Balanced Construction
- Rugged, High Cycle Rate Tolerance
- Precise Resolution of Set Points
- Field-adjustable Set Points
- Simple Installation Requiring no Special Tools
- Long Service Life - no Required Periodic Service, no Spare Parts Required
- UL, CSA Certified Switching Elements



NEMA 4 Case



Explosion Proof Case

MECHANICAL PRESSURE SWITCH

HOW TO ORDER: Choose options to build a part number. For example: PS1264N3KM4C1-YY

PS1264 | **N3** | **K** | **M4**

PRESSURE RANGE (SET POINT MUST BE WITHIN RANGE)

Overrange	Proof	Code	Range	Typical Dead Band (At Midpoint)
		Pressure		
200 psi	400 psi	**PS1264**	2.5-45 INWC	0.8 INWC
		PS1220	.04-2 psi	0.1 psi
		PS1250	.75-12 psi	0.1 psi
750 psi	1000 psi	**PS0440**	2-25 psi	0.3 psi
		PS0450	3-50 psi	0.4 psi
1500 psi	2500 psi	**PS0630**	12-100 psi	0.9 psi
		PS0650	20-180 psi	1.4 psi
		PS0530	25-240 psi	2.2 psi
		PS0545	45-550 psi	3.9 psi
		Vacuum		
750 psi	1000 psi	**PS5418**	-30" Hg	0.5 Hg
		Compound		
200 psi	400 psi	**PS5217**	-40/0/40 INWC	1.1 INWC
1500 psi	2500 psi	**PS5626**	-30 Hg/0/10 psi	1" Hg/.5 psi
		PS5636	-30 Hg/0/80 psi	1.4" Hg/.7 psi

HOUSING

Weather Tight NEMA 4, 4X, IP65
NN = Aluminum, One Outlet (R)
N3 = Aluminum, Two Outlets (L+R)
RN = Aluminum, with 6-place Terminal Block, One Outlet (R)
RT = 316SS, with 6-place Terminal Block, One Outlet (R)

Explosion Proof (Class 1, Group C&D; Class II, Group E,F&G, Division. 1,2
L = Cast Iron, One Outlet (R), Housing is Weather Tight with CG Option

SWITCH

Switches are 15A@250VAC, 5A@30vDC
K = Single (SPDT)
KK = Dual (DPDT), 6x Dead Band Multiplier

DIAPHRAGM

N4 = Teflon Coated Polyamide with Buna O-ring
M4 = 316SS with Viton O-ring (Required with 56- ranges)

Wetted

C1 | **-YY**

PRESSURE PORT

316SS
C1 = 1/4" NPTF
C2 = 1/2" NPTF

Sanitary 3A Tri-Clamp, Max. 600 psi with Standard Clamp
C8 = 1 1/2" Tri-Clamp (Ranges 05-, 06-, 56-)
C9 = 2" Tri-Clamp (Ranges 04-, 05-, 06-, 54-, 56-)

Aluminum (Available on ranges beginning: 12, 04, 52, 54)
B1 = 1/4" NPTF
B2 = 1/2" NPTF

Cast Iron (Available on ranges beginning 06, 05, 56)
F1 = 1/4" NPTF
F2 = 1/2" NPTF

Wetted

OPTIONS

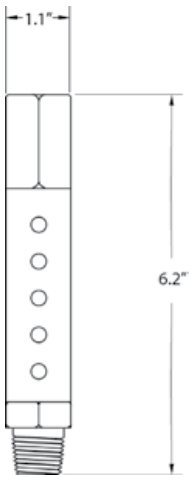
-MM = Vacuum Protector Plate (Standard with Vacuum + Compound Range)
-CG = Cemented Cover Gasket
-YY = Exterior Epoxy Coating
-TS = Stainless Steel Tag (1-10 Characters)
-SP = Specify Set Point (Set by Factory, N/C)
Example: SP 50A = 50 psi Acending. If set point is not specified, factory will set at mid point.

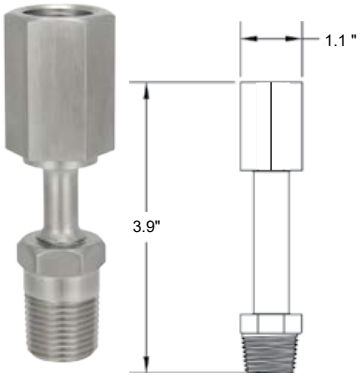
Tri-Clamp® is a registered trademark of Alpha Laval Inc.

COOLING TOWERS

REOTEMP Cooling Towers protect pressure instruments from extremely hot process media without the pain and hassle of remote mounting the instrument. It is specifically designed to mount above a diaphragm seal or thread directly into the process. REOTEMP's unique design can reduce the process temperature by up to 700°F!

RTR2F2M





STW2F2M

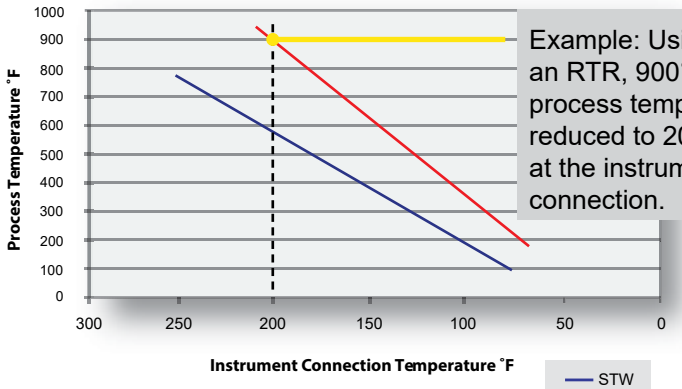
SPECIFICATIONS

- Protects Pressure Instruments from High Process Temperatures
- Reduces Temperature while Maintaining a Direct Mount
- Fully Welded, 316 Stainless Steel Construction

Application Notes

- Cooling towers may be threaded directly into process media in applications where the fluid is viscous enough to flow through a 3mm ID tube without clogging. For ultimate performance, mount cooling tower above a diaphragm seal.
- If mounting between pressure instrument and diaphragm seal, use 3-digit mounting code in diaphragm seal part number (pg. 57)
- Pigtail siphons (pg. 107) or diaphragm seals should be used for steam service.

Performance of Cooling Elements



Example: Using an RTR, 900°F process temp is reduced to 200°F at the instrument connection.

Note: At 70°F ambient temperatures. Actual temperature performance will vary based on process application.

HOW TO ORDER: Choose options to build a part number. For example: STW4M4M

STW	4M	4M
MODEL	INSTRUMENT CONNECTION	PROCESS CONNECTION
RTR = Cooling Tower **STW** = Cooling Standoff	**4M** = 1/4" Male NPT **4F** = 1/4" Female NPT **2M** = 1/2" Male NPT **2F** = 1/2" Female NPT	**4M** = 1/4" Male NPT **2M** = 1/2" Male NPT

	Temperature °F	RTR psi	STW psi
Maximum Working Pressure	200	5000	5000
	500	3500	3500
	800	1000	1500

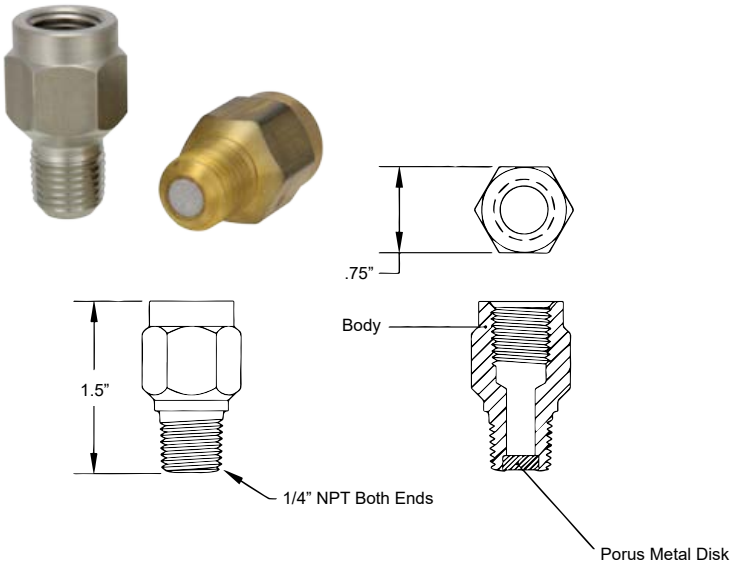
Maximum working temperature is 800°F.

SNUBBERS

REOTEMP snubbers are a simple cost-effective solution for harmful pressure surges and pulsation. When a REOTEMP snubber is installed, it absorbs pulsation and surges. This protects your instrumentation and stabilizes the pointer for easier readings. Snubbers are available in either an adjustable self-cleaning piston design or an economical porous disk design.

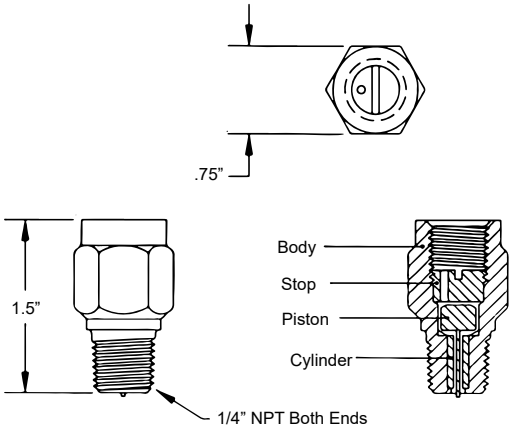
POROUS DISK TYPE				
Max. PSI	NPT	Porosity	Material	Part #
5,000	1/4”	Liquid	Brass	PXS-722BE
		Gas		PXS-722BG
	1/2”	Liquid		PXS-723BE
		Gas		PXS-723BG
15,000	1/4”	Liquid	303SS	PXS-722SE
		Gas		PXS-722SG
	1/2”	Liquid		PXS-723SE
		Gas		PXS-723SG

- The Economical Choice for Non-clogging Applications
- Multiple Porosities Available for Various Viscocities



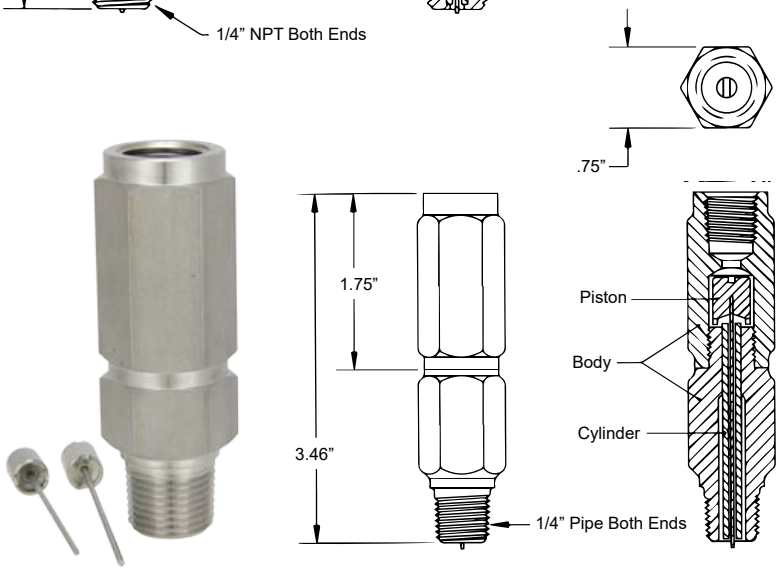
SHORT ORIFICE PISTON TYPE				
Max. PSI	NPT	Length (in.)	Material	Part #
5,000	1/4”	1.5”	Brass	PXS-022B
			Monel	PXS-022M
15,000			303SS	PXS-022S
			316SS	PXS-022SS
5,000	1/2”	2”	Brass	PXS-023B
			Monel	PXS-023M
15,000			303SS	PXS-023S
			316SS	PXS-023SS

- A Moving Piston Design for Self-cleaning Action
- A Solid Body for High Pressure Resistance
- Three Pistons Included for Adjustable Snubbing

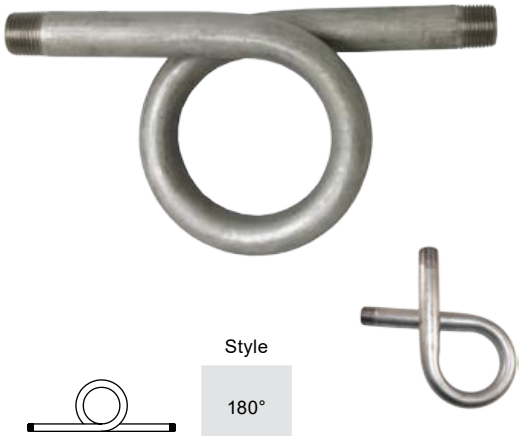


LONG ORIFICE PISTON TYPE				
Max. PSI	NPT	Length (in.)	Material	Part #
3,000	1/4”	3.46”	Brass	PXS-010B
5,000			303SS	PXS-010S
			316SS	PXS-010SS
5,000	1/2”	2”	Brass	PXS-060B
10,000			303SS	PXS-060S
			316SS	PXS-060SS

- A Long Orifice for Smoother Snubbing
- A Moving Piston Design for Self-cleaning Action
- Three Pistons Included for Adjustable Snubbing
- Center Joint (1/4” and brass models) for Easier Adjustment



SIPHONS



Style	
180°	
90°	
270°	
360°	

Pigtail siphons are used in steam service to protect the instrument from direct exposure to high temperature steam.

COMMON SIPHON PART NUMBERS

NPT	Material	Schedule	180°	90°	360°
1/4”	Steel	40	PXS21SS	PXS22SS	PXS24SS
1/4”		80	PXS21SX	PXS22SX	PXS24SX
1/2”		80	PXS51SX	PXS52SX	PXS54SX
1/4”	304SS	40	PXS214S	PXS224S	PXS244S
1/4”		80	PXS214X	PXS224X	PXS244X
1/2”		80	PXS514X	PXS524X	PXS544X
1/2”	316SS	40	PXS516S	PXS526S	PXS546S

HOW TO ORDER: Choose options to build a part number. For example: PXS516S

PXS	5	1	6	S
MODEL	NPT	STYLE	MATERIAL	PIPE SCHEDULE
PXS = Pigtail Siphon	2 = 1/4” 5 = 1/2”	1 = 180° 2 = 90° 3 = 270° 4 = 360°	S = Carbon Steel 4 = 304SS 6 = 316SS 1 = Chrome Moly P11 2 = Chrome Moly P22 *Other Materials Available*	S = Schedule 40 X = Schedule 80 1 = Schedule 160 (1/2” ONLY) D = XX Heavy (1/2” ONLY)

VISIT OUR WEBSITE

REOTEMP.COM

WARRANTY & EVALUATION POLICY

REOTEMP warrants all pressure gauges and pressure products against defective workmanship or materials under normal use and service for the following periods after the date of shipment:

- All Pressure and Differential Pressure Gauges: 3 Years
- Valves and Manifolds: 3 Years
- Diaphragm Seals: 1 Year
- Pressure Transmitters and Switches: 1 Year
- Accessories and Other Items not Mentioned: 1 Year

REOTEMP's liability is limited to repair or replacement at the factory, shipping charges prepaid. This warranty does not cover deterioration from normal wear and tear, exposure to corrosive materials, exposure to temperatures or pressures in excess of those recommended, excessive vibration, forces, or abrasion which cause deformation of component parts. This warranty is expressly in lieu of any other warranty, expressed or implied. REOTEMP shall not be liable for any defect or consequential damages arising out of any defects or from any cause whatsoever. Suitability of product for the customer's application rests with the customer; REOTEMP does not warrant suitability of its products for the application chosen by the customer.

REOTEMP will only accept shipments with returned product that are accompanied with a return authorization issued by REOTEMP. Please respect the health and safety of our employees by cleaning goods before return, disclosing any chemicals or foreign substance that may be on returned product and enclosing MSDS information. Handling and cleaning fees may apply.

REOTEMP reserves the right to make product improvements and change its specifications stated throughout the catalog at anytime without notification. Please contact the factory on all critical dimensions and specifications for verification.

REOTEMP'S GUIDING PRINCIPLES

> Provide industry leading customer satisfaction with a focus on fast turnaound, friendly service and keeping it easy to do business with Reotemp. Motto: Quick and Easy!!

> Focus on manufacturing quality instruments, continuous improvement and adding value to our product and services.

> Build long-lasting and rewarding relationships with the people we do business with.

> Build a strong Reotemp brand and reputation in the industrial markets where we compete.

> Maintain an enjoyable, fulfilling work environment for our employees.

> Achieve planned, sustained growth in our target markets both in the the US and internationally.

OTHER REO*TEMP* CATALOGS

Mechanical Temperature

Bimetal Thermometers

Thermowells

Sanitary Thermometers & Thermowells

Remote Reading Thermometers (Gas/Vapor Thermometers)

Thermocouples & RTDs

Head and Stem Assemblies

Sanitary 3-A RTDs

Transmitters

Thermowells & Accessories

Multipoint Sensors

Handheld Probes

Weld Pad TCs

REOTEMP®
INSTRUMENTS

Measuring your world since 1965™

+1 (858) 784-0710
Fax (858) 784-0720

10656 Roselle St.
San Diego, CA 92121
United States

sales@reotemp.com
www.reotemp.com

PCAT-0816