

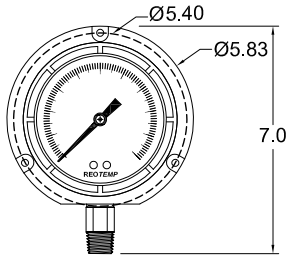
4.5" INDUSTRIAL PROCESS GAUGE

PRESSURE GAUGES

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.*

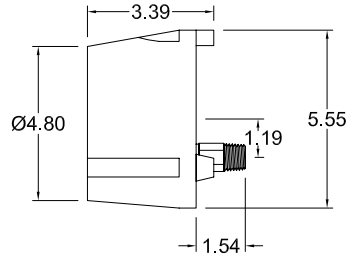


PT45P



PT45P/PT45A

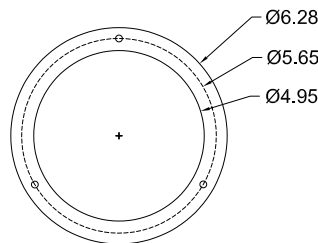
*dimensions in inches



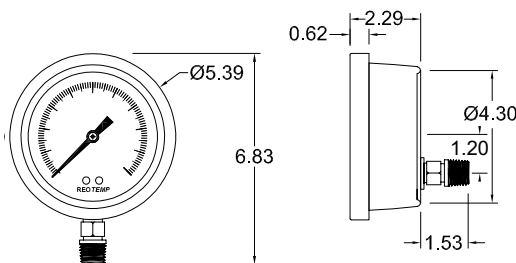
PT45P



PT45T








PT45T Mounting Flange



PT45T

*dimensions in inches

| | | | | |
|---|--|---|---|---|
|  |  |  |  |  |
| Fillable | Dials | Accuracy | Dampened Movement | 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



SPECIFICATIONS

| | |
|---|---|
| Accuracy | ±0.5%, Grade 2A (10k - 20k psi = 1% upscale, 2% downscale) |
| Ambient Limits | -40°F/150°F |
| Process Limits | -40°F/250°F |
| Process Limits with Diaphragm Seal | -60°F/400°F (Direct Mount)* -110°F/750°F (Remote Mount or Cooling Tower)* *Exact limits depend on diaphragm seal and fill fluids. |
| Wetted Materials | Tube: 316SS Seamless Socket: 316SS |
| Lens | Tempered Safety Glass (Standard), Plastic or Laminated Safety Glass |
| Other Materials | Case: Reinforced Phenolic, Thermoplastic, or 316SS Ring: Phenolic Turret Twist-Off or SS Twist-Off Bayonet Dial: White Aluminum, Black Letters, Case-to-Socket: O-Ring |
| Fillable | Yes |
| Restrictor Screw | Yes, removable. |
| Maximum Working Pressure | Stable = 100% Momentary = 130% of scale |
| Environmental Protection | NEMA 4X/IP65 |
| Weight | Phenolic (Dry) = 2.5 lbs Phenolic (Filled) = 3.5 lbs Thermoplastic (Dry) = 1.9 lbs Thermoplastic (Filled) = 2.9 lbs SS (Dry) = 2 lbs SS (Filled) = 3 lbs |

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 |
| PT45 = 4.5" | P = Fiberglass Reinforced Phenolic Resin A = Thermoplastic (PBTB) T = 316SS, Bayonet Ring | 1 = 316SS *3 = Monel | A = Bottom C = Lower Back*** E = Lower Back / Front Flange (316SS case Only) | 2 = 1/2" NPT 4 = 1/4" NPT 5 = 1/4" Female High Pressure (9/16" - 18 UNF) 3 = 3/4" NPT | 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 ■ ftH ₂ O ■ & more <i>For Additional Range Codes See Page 75</i> | -D = Dry -G = Glycerin -T = Dry, Teflon Coated Movement -W = Glycerin/Water (65/35) -S = Silicone -I = Inert | -T = Tempered Safety Glass (std) -P = Plastic -S = Laminated Safety Glass | -HV = Hi-Vis™ Dial -DX = DampX™ Dampened Movement -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 and Thermoplastic Cases Only
 ***Phenolic and 316SS Cases 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 | | | | | |
| | W7/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.

Assembly will function correctly given stable temperature.

Assembly is highly sensitive to orientation and temperature variance. Reotemp cannot guarantee a stated accuracy.

Assembly will not work. The diaphragm does not displace enough fill fluid to drive the pressure gauge.

PT45P1A2L21-D-T
W51522SSS-TTDTD-AS



PRESSURE GAUGE OPTIONS

| Part # | Description | Heavy-Duty Industrial Gauges | | | | Process Gauges | | | Stainless Steel Case Industrial Gauges | | | | |
|------------------------------|--|------------------------------|------|------|------|----------------|-------|------|--|---------|-------|-------|--|
| | | PR25 | PR35 | PR40 | PR60 | PT45P | PT45T | PI45 | PM25/40 | PM15/20 | PG**C | PG**S | |
| CASE FILL OPTIONS | | | | | | | | | | | | | |
| -G | Glycerin Filled Case | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | N/A | ✓ | ✓ | ✓ | ✓ | |
| -W | Glycerin Water Filled Case (65/35) | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | N/A | ✓ | ✓ | ✓ | ✓ | |
| -S | Silicone Filled Case | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | N/A | ✓ | ✓ | ✓ | ✓ | |
| -T | Teflon-coated Movement (No Case Fill) | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | N/A | N/A | N/A | |
| -I | Inert Case Fill | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | N/A | ✓ | N/A | N/A | N/A | |
| LENS OPTIONS | | | | | | | | | | | | | |
| -P | Plastic Lens | STD | ✓ | ✓ | ✓ | ✓ | ✓ | STD | STD | STD | STD | ✓ | |
| -T | Tempered Safety Glass Lens | ✓ | STD | STD | STD | STD | STD | N/A | N/A | N/A | N/A | STD | |
| -S | Laminated Safety Glass Lens | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 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 | MQ | N/A | |
| POINTER OPTIONS | | | | | | | | | | | | | |
| -RP | Red Pointer | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | N/A | N/A | N/A | |
| -MP | Min/Max Pointer (Drag Hand)† | ✓ | 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 | |
| -RH | Red Set Hand (Manual Adjustment) | 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 | |
| DIAL OPTIONS | | | | | | | | | | | | | |
| -CL | Custom Logo Dial | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | MQ | MQ | ✓ | |
| -HV | Hi-Vis Dial | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | |
| -CB | Color Band | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | MQ | MQ | ✓ | |
| -CP | Color Pie | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | MQ | MQ | ✓ | |
| -DM | Dial Marking | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | MQ | MQ | ✓ | |
| -LP | Removable Lens Protector | 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 | ✓ | |
| -R2 | Upgrade to 0.5% FS Accuracy | N/A | N/A | ✓ | ✓ | STD | STD | STD | 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 | |
| -C1 | 1pt. NIST Calibration Cert | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | |
| -C3 | 3pt. NIST Calibration Cert | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | |
| -C5 | 5pt. NIST Calibration Cert | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | |
| -CX | 10pt. NIST Calibration Cert | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | |
| -CS | Calibration Sticker (No logged pts.) | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | |
| 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 | |
| -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 | ✓ | |
| -OX | Cleaned for Oxygen Service per ASME B40.1 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | MQ | MQ | ✓ | |
| -OY | Cleaned for Oxygen Service per MIL-STD-1330D | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | N/A | N/A | ✓ | |
| OTHER OPTIONS | | | | | | | | | | | | | |
| -NR | No Restrictor Screw | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 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. |

†This option is only available with a plastic lens.

PRESSURE GAUGE RANGES AND CODES

PRESSURE GAUGES

VACUUM/COMPOUND RANGES

| psi | | Dual Scale & psi & Metric | | | | | | Single Scale-Metric | | | | | |
|-----------|-----------|---------------------------|----------------|--------------------------|-------------------------------|-----------|--------------------|---------------------|----------|--------------------|-------------------------|------|--------------|
| "Hg/0/psi | | psi & bar | | psi & kg/cm ² | | psi & kPa | | bar | | kg/cm ² | | 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/cm ² | L01 | "Hg & -100/0 kPa | B00 | -1/0 bar | K00 | -1/0 kg/cm ² | 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/cm ² | | psi & kPa | | bar | | kg/cm ² | | 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/cm ² | L14 | psi & 70 kPa | | | | | | |
| P15 | 0-15 | D15 | psi & 0-1 | G15 | psi & 0-1 | L15 | psi & 0-100 | B1 | 0-1 bar | K1 | 0-1 kg/cm ² | 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.