

Data Sheet

1209 4½" SS Process Gauge

FEATURES

- Solid front case design with full pressure relief back
- 4½" Dial size
- Accuracy: ±0.50% of span (ASME B40.100 Grade 2A)
- 316L SS case and ring
- Patented **PLUS!**™ Performance
Dampens vibration, shock and pulsation effects

TYPICAL USES

- Oil & Gas Industry
Upstream: Onshore/offshore production
Midstream: Transport, storage and natural gas compression
Downstream: Refineries and petrochemical industries
- Chemical Industry
- Injection molding equipment
- Power Plants
Conventional power plants
Nuclear power plants
Flue gas desulfurization plants
- Other Industries
Waste incineration plants
Seawater desalination plants
Steel mills
Cement plants



1209
4½" Dial size

KEY BENEFITS

- Full pressure relief back for safety
- Socket welded to case for superior leak integrity

SPECIFICATIONS

| | |
|---------------------|---|
| Accuracy: | ±0.5% of span (ASME B40.100 Grade 2A) |
| Dial Size: | 4½" |
| Process Connection: | ¼ NPT, ½ NPT |
| Case Style: | Solid front with full pressure relief back |
| Movement: | Adjustable |
| Window Material: | Glass (STD.) |
| Pointer: | Aluminum |
| Weather Protection: | IP65 hermetically sealed |
| Mounting: | Stem |
| Dampening: | Liquid fill, PLUS! ™ Performance, throttle screw, dampeners, capillary, diaphragm seals and snubbers |

WETTED COMPONENTS

| Model | Bourdon Tube | Process Connection | Joints |
|-------|--------------|--------------------|--------|
| 1209 | 316L SS | 316L SS | Welded |

NON-WETTED COMPONENTS

| Model | Case | Ring | Back Cover |
|-------|---------|---------|------------|
| 1209 | 316L SS | 316L SS | 316L SS |

MIN./MAX. TEMPERATURE LIMITS

| | Ambient | Process | Storage |
|----------------|----------------------------|----------------------------|----------------------------|
| Dry | -40 to 200°F (-40 to 93°C) | -40 to 200°F (-40 to 93°C) | -40 to 200°F (-40 to 93°C) |
| PLUS! ™ | -40 to 200°F (-40 to 93°C) | -40 to 200°F (-40 to 93°C) | -40 to 200°F (-40 to 93°C) |
| Glycerin | 20 to 150°F (-7 to 66°C) | 20 to 150°F (-7 to 66°C) | 20 to 150°F (-7 to 66°C) |
| Silicone | -40 to 150°F (-40 to 66°C) | -40 to 150°F (-40 to 66°C) | -40 to 150°F (-40 to 66°C) |
| Halocarbon® | -40 to 150°F (-40 to 66°C) | -40 to 150°F (-40 to 66°C) | -40 to 150°F (-40 to 66°C) |

Note: Other than discoloration of the dial and hardening of the gasketing that may occur as ambient or process temperatures exceeds 150°F, non-liquid-filled gauges with standard glass windows, can withstand continuous operating temperatures up to 250°F (121°C). Liquid-filled gauges can withstand 200°F (93°C) but glycerin fill and acrylic window will tend to yellow. Accuracy at temperatures above or below the reference ambient temperature of 68°F (20°C) will be affected by approximately 0.4% per 25°F. Gauges with welded joints will withstand 750°F (400°C), 450°F (232°C) with silver brazed joints for short times without rupture, although other parts of the gauge will be destroyed and calibration will be lost. For continuous use and for process or ambient temperatures above 250°F (121°C), a diaphragm seal or capillary or siphon is recommended.

OPTIONAL FEATURES

| | |
|-----------------------|---|
| Window: | Safety glass, acrylic |
| Pointer: | Max. adjustable |
| Tag Options: | SS, wired to cover |
| Stop Options: | Overload, underload |
| Material Test Report: | EN 10204.3.1 |
| Consult Factory For: | Individual calibration charts and cleaned for oxygen services |

Data Sheet

1209 4½" SS Process Gauge

| ORDERING CODE | Example: | 451209 | S | D | 04 | L | 15# | -XLL |
|--|----------|--------|---|---|----|---|-----|------|
| Dial Size/Model Code | | | | | | | | |
| 451209 - 4½" SS, solid front process gauge per ASME B40.100 | | 451209 | | | | | | |
| System (tube and process connection) | | | | | | | | |
| S - SS system | | | S | | | | | |
| Case Fill | | | | | | | | |
| D - Dry Case | | | | D | | | | |
| L - Liquid filled case, glycerin (STD.) | | | | | | | | |
| Process Connection Sizes | | | | | | | | |
| 02 - ¼ NPT Male (up to 20,000 psi) | | | | | | | | |
| 04 - ½ NPT Male (up to 20,000 psi) | | | | | 04 | | | |
| Process Connection Location | | | | | | | | |
| L - Lower connection only | | | | | | L | | |
| Range (coding examples only, see range table on next page for all standard ranges) | | | | | | | | |
| Single Scales | | | | | | | | |
| 15# - 15 psi | | | | | | | 15# | |
| 1KSC - 1 kg/cm ² | | | | | | | | |
| 100KP - 100 kPa | | | | | | | | |
| Options (if choosing an option(s) must include an "X") | | | | | | | | |
| EP - Maximum pointer, adjustable | | | | | | | | -X__ |
| LL - <i>PLUS!</i> ™ Performance | | | | | | | | LL |
| NH - SS tag wired to case | | | | | | | | |
| OS - Overload stop | | | | | | | | |
| PD - Acrylic window | | | | | | | | |
| SG - Safety glass | | | | | | | | |
| VS - Underload stop | | | | | | | | |
| C3 - Material test report to EN 10204.3.1 | | | | | | | | |
| C4 - Individual calibration chart (in accordance with ASME B40.100:2013. Accuracy traceable to NIST) | | | | | | | | |
| 6B - Cleaned for oxygen service | | | | | | | | |

Data Sheet

1209 4 1/2" SS Process Gauge

| 1209 STANDARD RANGES | | | | | | |
|----------------------|-------------------|----------|------------|-------------|--------------------|-----|
| | psi | bar | kPa | mPa | kg/cm ² | |
| Vacuum | 30IMV | N1BR | N100KP | N1MP | N1KG | |
| | - | N1/0.6BR | N100/60KP | 0.1/0.06MP | N1/0.6KG | |
| Compound | V/15# | - | - | - | - | |
| | - | N1/1.5BR | N100/150KP | N0.1/0.15MP | N1/1.5KG | |
| | V/30# | - | - | - | - | |
| | - | N1/3BR | N100/300KP | N0.1/0.3MP | N1/3KG | |
| | V/60# | - | - | - | - | |
| | - | N1/5BR | N100/500KP | N0.1/5MP | N1/5KG | |
| | V/100# | - | - | - | - | |
| | - | N1/9BR | N100/900KP | N0.1/0.9MP | N1/9KG | |
| | Positive Pressure | 15# | 1BR | 100KP | 0.1MP | 1KG |
| | | 20# | - | - | - | - |
| - | | 1.6BR | 160KP | 0.16MP | 1.6KG | |
| 30# | | - | - | - | - | |
| - | | 2.5BR | 250KP | 0.25MP | 2.5KG | |
| 60# | | 4BR | 400KP | 0.4MP | 4KG | |
| - | | 6BR | 600KP | 0.6MP | 6KG | |
| 100# | | - | - | - | - | |
| 120# | | - | - | - | - | |
| - | | 10BR | 1000KP | 1MP | 10KG | |
| 160# | | - | - | - | - | |
| 200# | | - | - | - | - | |
| - | | 16BR | 1600KP | 1.6MP | 16KG | |
| 300# | | - | - | - | - | |
| - | | 25BR | 2500KP | 2.5MP | 25KG | |
| 400# | | - | - | - | - | |
| 500# | | - | - | - | - | |
| 600# | | 40BR | 4000KP | 4MP | 40KG | |
| 800# | | - | - | - | - | |
| - | | 60BR | 6000KP | 6MP | 60KG | |
| 1000# | - | - | - | - | | |
| 1500# | 100BR | 10000KP | 10MP | 100KG | | |
| 2000# | - | - | - | - | | |
| - | 160BR | 16000KP | 16MP | 160KG | | |
| 3000# | - | - | - | - | | |
| - | 250BR | 25000KP | 25MP | 250KG | | |
| 4000# | - | - | - | - | | |
| 5000# | - | - | - | - | | |
| 6000# | 400BR | 40000KP | 40MP | 400KG | | |
| 8000# | - | - | - | - | | |
| - | 600BR | 60000KP | 60MP | 600KG | | |
| 10000# | - | - | - | - | | |
| 15000# | 1000BR | 100000KP | 100MP | 1000KG | | |
| 20000# | 1600BR | - | 160MP | 1600KG | | |

DIMENSIONS in [] are millimeters

