



# "EM" 90mm Sanitary Pressure Gauge

## Introduction

The best just got better! With our re-designed 90mm sanitary pressure gauge, Anderson-Negele has raised the bar relative to performance, reliability, and ease of use.

Customers in the Life Sciences market will recognize at a glance that we've maintained all our unique features like all-welded construction, electro-polished wetted parts, and standard calibration certifications. They'll also appreciate the new, compact profile that fits virtually anywhere while still maximizing readability. But what really sets this gauge apart is the new offset adjustment that comes as a standard feature on every Life Science series gauge. Rear-mounted and unobtrusive, we even provide a special tool for the optional span adjustment so it's tamper-proof.

Complete specifications and ordering information are available on the reverse. For more information contact our Customer Service Department at 1-800-833-0081, or visit our website at [www.anderson-negele.com](http://www.anderson-negele.com).

## Features

- The industry's only externally adjustable span and offset
- Designed specifically for SIP and autoclave applications
- Lowest/most narrow profile of any sanitary gauge
- Custom laser etched markings available
- Available clean for oxygen service

## Applications

- Fermentation
- Filtration
- All sanitary pressure dependent processes


**CSI**

 417.831.1411  
[csidesigns.com](http://csidesigns.com)

Specifications

TYPICAL PERFORMANCE

Over-Range Capability: At least 25% over range  
 Calibrated Accuracy: ± .75% F.S. from 10-90% of range  
 Repeatability: ± .25% of full scale  
 Linearity: ±.25% of full scale  
 Hysteresis: ±.25% of full scale  
 Stability: Within specified accuracy for 6 months under normal operating conditions.

Process Temperature Limits: -20° to 300°F (-29° to 149°C) option to 330°F (166°C)

Ambient Temperature Limits: 40° to 120°F (4° to 49°C)  
 CIP Temperature Limit: 250°F (121°C) continuous  
 SIP Temperature Limit: 300°F (149°C) continuous  
 Autoclave Temperature Limit: 300°F (149°C) for one hour (unfilled case only)  
 Temperature Effect: Less than 0.06 psi per 10°F change in process or ambient temperature

Storage Temperature Limits: -22°F to 195°F (-30°C to 91°C) -22°F to 250°F (-30°C to 121°C)\*

\* Vented Case

CONSTRUCTION/FINISH

All Product Contact Surface (Diaphragm and fitting): Welded 316L stainless steel, electropolished. Maximum Ra = 8 microinches (.2 microns).

Bourdon Tube/Socket Construction: Bronze bourdon/brass socket with silver soldered connections.  
 Movement Mechanism: Brass.  
 Case/Stem: Welded 304 stainless steel (polished).  
 Dial: Adhesive-backed printed Mylar in various scales, 90mm diameter min.  
 Lens/Dial Plate: Corrosion resistant polysulfone able to withstand 325°F  
 Optional lens: UV Stabilized polycarbonate (not suitable for autoclave)  
 Bezel: 304 stainless steel, polished, compression formed to case (non-removable).

Viewing Angle: 100 degrees minimum.  
 Clean for Oxygen Service: Optional, product contact surfaces prepared per Compressed Gas Association G4.1

OPERATIONAL

Actuating Fill: 100% mineral oil. Meets FDA requirements (21CFR, 172.878 and 178.3620(a))  
 Neobee-20, 80/20 glycerine/H2O optional  
 Optional, glycerine 100% USP Food Grade.

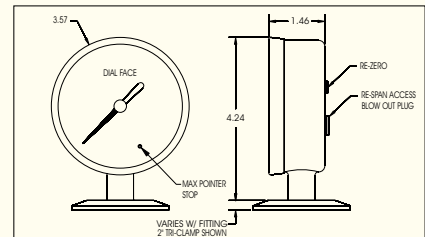
Case Fill: Mechanical Dampening: Optional. Standard and case filled gauges dampened to 25% to 50%. Mechanical dampening dampens 50% to 80% of pressure variations. Tamper resistant adjustment, +/-5% of span. Non interactive with span. External adjustment integrally located on back of case. Externally accessible with tool (AIC #4523800000) through rear of case. Adjustment up to +/-5% of span.

Re-Zero Adjustment: Tamper resistant adjustment, +/-5% of span. Non interactive with span. External adjustment integrally located on back of case. Externally accessible with tool (AIC #4523800000) through rear of case. Adjustment up to +/-5% of span.

Re-Span Adjustment: Externally accessible with tool (AIC #4523800000) through rear of case. Adjustment up to +/-5% of span.

Standards: Designed and manufactured to sound engineering practices in accordance with Article 3.3 of the PED 97/23/EC.  
 Designed and tested in accordance with ASME B40.100.  
 NEMA 4X, IP-66  
 CSA B51-03, CRN# CSA0F9754.5C  
 CGA G4.1 (OPTIONAL)

DIMENSIONS



Order Information



RANGE

- 029 30" Hg/0/30 PSIG
- 031 30" Hg/0/60 PSIG
- 032 30" Hg/0/100 PSIG
- 033 30" Hg/0/160 PSIG
- 034 30" Hg/0/300 PSIG
- 066 0/30 PSIG
- 069 0/60 PSIG
- 071 0/100 PSIG
- 074 0/160 PSIG
- 077 0/300 PSIG
- 082 0/600 PSIG
- 055 -1/0/2 BAR
- 057 0/2 BAR
- 056 -1/0/4 BAR
- 058 0/2.5 BAR
- 060 0/6 BAR
- 061 0/10 BAR
- 064 0/16 BAR
- 067 0/40 BAR

DUAL SCALE RANGES

- 241 -0.1/0/0.2 MPa/BAR
- 242 -0.1/0/0.4 MPa/BAR
- 367 -0.1/0/0.7 MPa/BAR
- 243 0/0.25 MPa/BAR
- 244 0/0.4 MPa/BAR
- 245 0/0.6 MPa/BAR
- 246 0/1 MPa/BAR
- 857 0/2 MPa/BAR
- 929 30" Hg/0/30 psig - -1/0/2 BAR
- 931 30" Hg/0/60 psig - -1/0/4 BAR
- 932 30" Hg/0/100 psig - -1/0/7 BAR
- 933 30" Hg/0/160 psig - -1/0/11 BAR
- 934 30" Hg/0/300 psig - -1/0/20 BAR
- 966 0/30 psig - 0/2 BAR
- 969 0/60 psig - 0/4 BAR
- 971 0/100 psig - 0/7 BAR
- 974 0/160 psig - 0/11 BAR
- 977 0/300 psig - 0/20 BAR
- 982 0/600 psig - 0/40 BAR

NAME ON DIAL

- 01 Anderson Instrument Co.

FITTING

- 004 1-1/2" Tri-Clamp®
- 005 2" Tri-Clamp®
- 162 1-1/2" Tri-Clamp® - Recessed<sup>3</sup>
- 177 2" Tri-Clamp® - Recessed<sup>3</sup>
- 016 1-1/2" Cherry "I" (male)
- 017 2" Cherry "I" (male)
- 027 1-1/2" G&H "H" Line (male)
- 028 2" G&H "H" Line (male)
- 123 AIC CPM Flush Mount
- 099 2" Varivent

0 FIXED CHARACTER SURFACE PREPARATION

- 0 Standard
- 1 Clean for oxygen service

LENS

- 0 Standard
- 1 UV Stabilized

TEMPERATURE

- 0 Standard
- 1 Hi temp to 330°F with steam stabilized diaphragm<sup>1</sup>

MATERIALS OF CONSTRUCTION

- A Standard
- B C22 diaphragm<sup>1</sup>
- C C22 All product contact surface<sup>2</sup>
- L Standard w/Custom markings
- M C22 Diaphragm w/Custom markings<sup>1</sup>
- N C22 All contact surface w/Custom markings<sup>2</sup>

CAPILLARY FILL

- 1 Mineral Oil (Standard)
- 4 80/20 Glycerin/H2O
- 5 Propylene Glycol (Neobee-20)

CALIBRATION ADJUSTMENT/STOP

- 1 w/Re-Zero (Standard)
- 2 w/Re-Zero & Re-Span
- 3 w/Re-Zero w/ max pointer stop
- 4 w/Re-Zero & Re-Span w/ max pointer stop

DAMPENING

- 0 Standard Dampening
- 1 Glycerine Filled Case (OF)
- 2 Mechanical Dampening (MD)
- 3 Vented Case/Standard Dampening
- 4 Vented Case/Mechanical Dampening

MOUNT

- 1 Bottom
- 4 Back
- 5 Left
- 6 Right
- 7 Top

1-1/2" TC & 2" TC, other fittings available consult factory  
 Available 1-1/2" TC & 2" TC only  
 Not 3-A compliant