

"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.

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



Specifications

TYPICAL PERFORMANCE

Over-Range Capability: At least 25% over range
 Calibrated Accuracy: $\pm .75\%$ F.S. from 10-90% of range
 Repeatability: $\pm .25\%$ of full scale
 Linearity: $\pm .25\%$ of full scale
 Hysteresis: $\pm .25\%$ 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: Bronze bourdon/brass socket with silver soldered connections.

Construction: Brass.

Movement Mechanism: Welded 304 stainless steel (polished).

Case/Stem: Adhesive-backed printed Mylar in various scales, 90mm diameter min.

Dial: Corrosion resistant polysulfone able to withstand 325°F

Lens/Dial Plate: UV Stabilized polycarbonate (not suitable for autoclave)

Optional lens: 304 stainless steel, polished, compression formed to case (non-removable).

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:

Re-Span Adjustment:

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

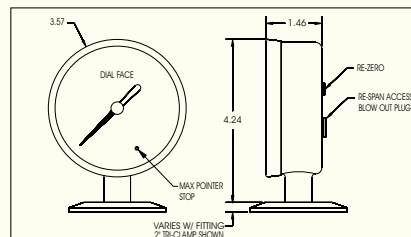
ASME B40.100.

NEMA 4X, IP-66

CSA B51-03,

CGA G4.1 (OPTIONAL)

DIMENSIONS



Order Information

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RANGE

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

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® 177 2" Tri-Clamp® - Recessed³ 027 1-1/2" G&H "H" Line (male)
 005 2" Tri-Clamp® 016 1-1/2" Cherry "I" (male) 028 2" G&H "H" Line (male)
 162 1-1/2" Tri-Clamp® - Recessed³ 017 2" Cherry "I" (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 diaphragm¹

MATERIALS OF CONSTRUCTION

A Standard
 B C22 diaphragm¹
 C C22 All product contact surface²
 L Standard w/Custom markings
 M C22 Diaphragm w/Custom markings¹
 N C22 All contact surface w/Custom markings²

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 5 Left 7 Top
 4 Back 6 Right

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