

"MPF" Modular Pressure Transmitter

Introduction

The industry's first fully modular sanitary pressure transmitter offers not only best in class performance within harsh process environments, but also the ability to be custom configured on site both for process parameters and enclosure form factor. Diagnostic routines continuously check on the health of the circuitry and visually report any issues that could impact performance.

The illuminated internal display provides a simple user interface to ease start up commissioning and configuration. The optional display interface provides class leading legibility and intuitive configuration functions.

Patent pending dual seals at every enclosure penetration and a fully potted electronic puck assure long life and problem free operation.

The modular design and universal electronics puck significantly lowers cost of ownership as critical spare inventory is reduced to manageable, replaceable components. When accidents do happen, the damaged component is easily and economically replaced saving the cost of full sensor replacement. While the sensor industry trends toward cheaper designs with the inevitable reduction of durability, and longevity, the MPF provides quality and value through innovation.

For more information on this product, or any of our other products, visit www.anderson-negele.com or call our Customer Service Department directly at 1-800-833-0081.



Authorizations



- State of the art sanitary design delivers class leading performance
- Replaceable components reduce cost of ownership
- Diagnostic routines promote reliability, display verifies problem free operation
- Intuitive menu driven setup simplifies commissioning
- Available HART communications simplifies commissioning and maintenance for HART protocol adapters

Applications

- Sanitary pressure line direct or remote measurement
- Process sensor control including pressurized fillers, pressurized vessels, filter monitoring, etc
- Aseptic processing, steam injection and other high temperature processes
- Sanitary environment including wash downs, condensing humidity, and wide temperature swings

Specifications

PERFORMANCE MECHANICAL & ELECTRICAL:

Calibrated Accuracy: ± 0.10% of calibrated range up to 5:1 turndown (± 0.15% if over 5:1 turndown)
 Repeatability: 0.05% as calibrated
 Long Term Stability: 0.2% URL for 2 years
 Process Temperature Effect: ± 0.1 psi/10°F (5.5°C) typical
 Ambient Temperature Effect: ± 0.1 psi/10°F (5.5°C) typical
 Over-Range Capability: 30/100/500 psi stem:
 1.5x URL no effect on accuracy
 2x URL to failure
 1000 psi stem:
 1.1x URL no effect on accuracy
 1.25x URL to failure
 Response Time: <100 Milliseconds
 Sampling Rate: <50 Milliseconds
 Damping: Menu adjustable
 Range Turndown Capability: 10 to 1 turn down from URL
 Ranges, URL (PSI): 30,100,500,1K gauge and compound
 30,100,500 absolute
 Ranges, URL (BAR): 2,7,35,70 gauge and compound
 2,7,35 absolute

ENVIRONMENTAL:

Process Temperature Limits: 0 to 350°F (-18 to 177°C) with ambient temperatures to 140°F (60°C) and 0 to 330°F (-18 to 165°C) with ambient temperatures to 160°F (71°C)

Ambient Temperature Limits: 32 to 160°F (0 to 71°C)
 Enclosure Protection: NEMA 4X & IP66
 IP69K(when equipped with QDR)

CONSTRUCTION / FINISH:

Product Contact: 316L finished to a Max. Ra =25 microinches.
 Optional: Hastelloy® diaphragm
 Non-Product Contact Metal: 304 finished to a Max. Ra =32 microinches
 Non-Product Contact Plastic: polycarbonate threaded cap.
 Delrin atmospheric vent

Wiring Connection: M16 x 1.5 threaded housing electrical entry
 Equipped with: Standard - replaceable M12 5 pin Eurofast QDR Optional - M16 Cord Grip, M16 x 1.5" NPTF adaptor

Operational: ETR (Extended Temperature Range) FDA approved mineral oil
 Internal Fill: Optional Neobee M-20

Output: Analog 2-wire user selectable 4-20 mA DC or 20-4 mA
 Optional - HART 7.0 digital communications protocol
 Internal Display: 4 digit LED nominally displays loop current. Process variable selectable - PSI or BAR.

Display Interface: Optional; modular field replaceable - Millibar, Torr & Kg/cm2, PSI, BAR, kPA, In H2O, In Hg, mm H2O, mA
 Loop Resistance: 0-300 ohms at 24 VDC

Electrical Connection: screw terminals with a conductor cross section range of 14-26 AWG

Recommended Cable: Anderson shielded molded cordset, alternatively: 22-24 AWG, foil shielded, 0.17 - 0.26" Cable Sheath OD for use with cord grip or field wiring connector
 Electrical Protection: Voltage spike and reverse polarity
 Operating Voltage: 18-36 VDC (24 VDC Nominal regulated or unregulated)

Zero Adjustment: one touch
 Re-Span: With switch through user interface & with or without a reference pressure source

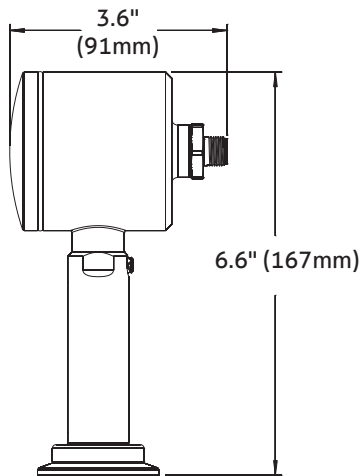
Electronics Puck: Modular, Field replaceable
 Fitting & Sensor Stem: Modular, Field replaceable

APPROVALS AND DOCUMENTATION

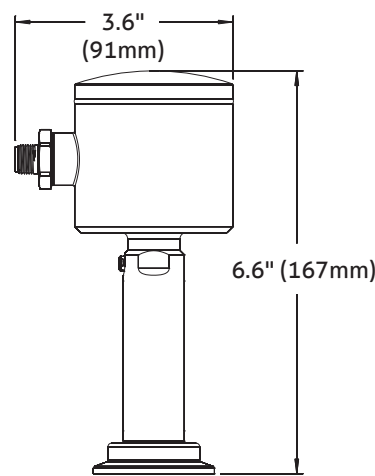
Sanitary: 3-A compliant, Third Party Verified
 Compliance: Compliant with the Pressure Equipment Directive relative to Sound Engineering Practices(PED);
 CE compliant
 CSA-B51-03
 CRN# CSAOF9754.5R1

Warranty: 2 years

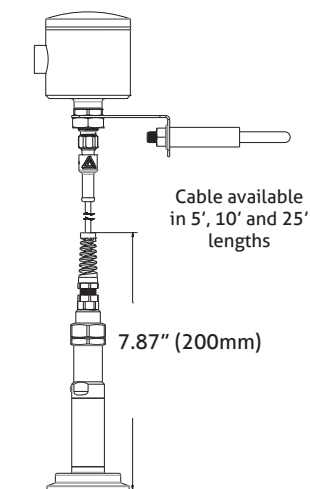
Dimensions



HORIZONTAL ORIENTATION



VERTICAL ORIENTATION



**REMOTE MOUNTING
(ALSO AVAILABLE IN A KIT)**

HOW TO ORDER (complete unit)



URL

- Compound (Vacuum/Pressure)(C)
- 6 30"Hg/0/30 PSI, -1...2 BAR
- 7 30"Hg/0/100 PSI, -1...7 BAR
- 8 30"Hg/0/500 PSI, -1...35 BAR
- 9 30"Hg/0/1000 PSI, -1...70 BAR

Absolute(A)

- A 0...30 PSI, 0...2 BAR
- B 0...100 PSI, 0...7 BAR
- C 0...500 PSI, 0...35 BAR

FITTING

- 002 3/4" Tri-Clamp[®] 1
- 004 1-1/2" Tri-Clamp[®]
- 005 2" Tri-Clamp[®]
- 010 1-1/2" APC "K"
- 011 2" APC "K"
- 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)
- 044 1-1/2" #14 Bevel Seat (w/nut)
- 045 2" #14 Bevel Seat (w/nut)
- 059 1-1/2" NPT 2
- 123 AIC CPM Flushmount
- 129 38mm IDF w/Nut 2
- 131 51mm IDF w/Nut 2
- 160 G 1" CLEANadapt 1,2

CAPILLARY FILL

- 1 Mineral Oil FDA approved (Standard)
- 5 Propylene Glycol (Neobee M-20)

WETTABLE MATERIAL

- A 316L (Standard)
- B Hastelloy[®] diaphragm

REMOTE

- 0 None
- A 5' Cable
- B 10' Cable
- E 25' Cable

STEM CERTIFICATION

- A No Certs (Standard)
- B Compliance and Material
- C Accuracy and Material

ENCLOSURE ORIENTATION

- 1 Vertical
- 2 Horizontal

M16x1.5 ELECTRICAL ENTRY

- A M12 QDR STD
- C Cord Grip N/C
- N 1/2" NPTF Adaptor

DISPLAY

- 0 Standard Display
- A Advanced Display Interface

CALIBRATION RANGE (TYPE)

- 999 Custom Calibration

PSI

- 025 30/0 (C)
- 028 30/0/15 (C)
- 029 30/0/30 (C)
- 031 30/0/60 (C)
- 032 30/0/100 (C)
- 314 30/0/200 (C)
- 066 0-30 (C,A)
- 068 0-50 (C,A)
- 069 0-60 (C,A)
- 071 0-100 (C,A)
- 073 0-150 (C,A)
- 074 0-160 (C,A)
- 075 0-200 (C,A)
- 077 0-300 (C,A)
- 081 0-500 (C,A)
- 084 0-1,000 (C)

BAR

- 251 -1/0/1 (C)
- 286 -1/0/2.5 (C)
- 217 -1/0/3 (C)
- 056 -1/0/4 (C)
- 304 -1/0/7 (C)
- 057 0-2 (C,A)
- 235 0-3 (C,A)
- 192 0-4 (C,A)
- 060 0-6 (C,A)
- 309 0-7 (C,A)
- 061 0-10 (C,A)
- 065 0-20 (C,A)
- 224 0-35 (C,A)
- 206 0-70 (C)

ENGINEERING UNITS

- P PSI
- B BAR

OUTPUT

- A Analog
- H HART and Analog

ENCLOSURE

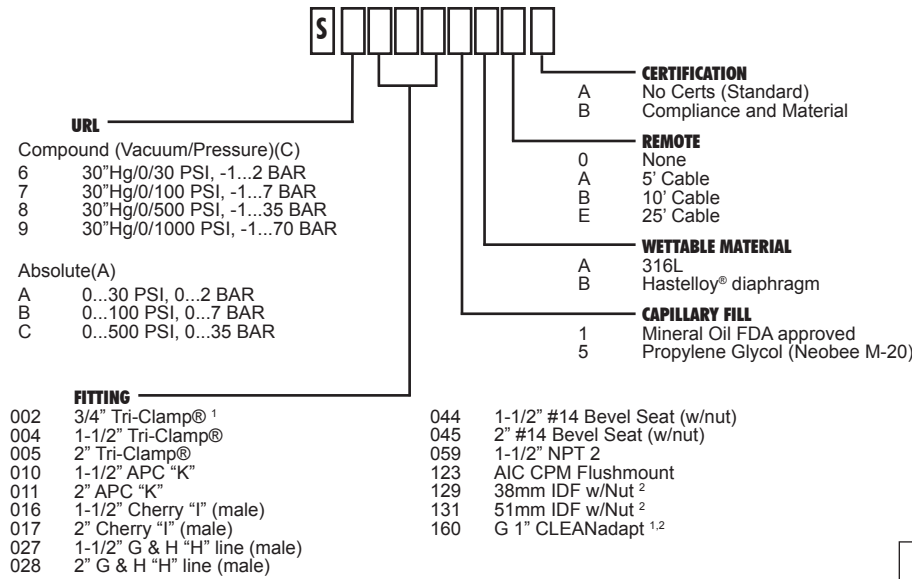
- 2 Clear Cap (Standard)
- 3 Stainless Steel Cap

FIXED CHARACTER

1 Not available in Hastelloy[®]
 2 Not 3-A Compliant

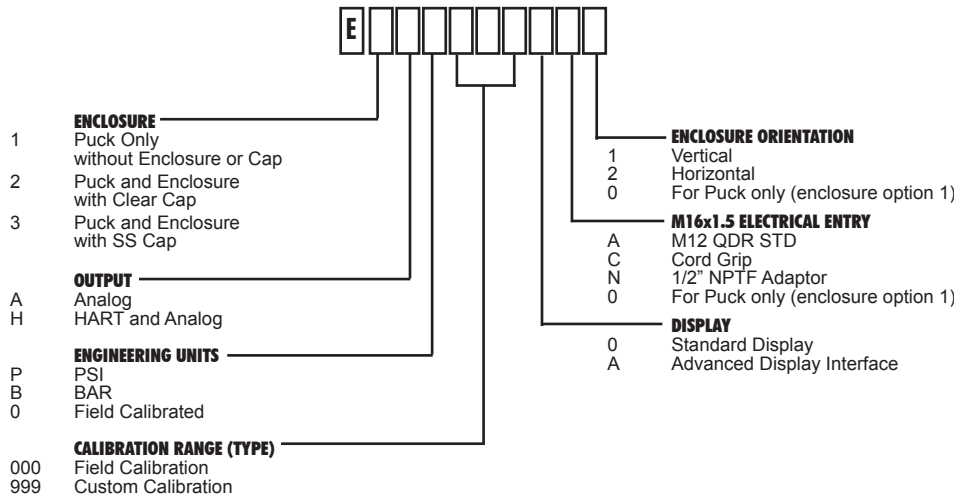
HOW TO ORDER (modular components)

Stem



1 Not available in Hastelloy[®]
 2 Not 3-A Compliant

Puck/Enclosure



PSI			BAR		
025	30/0	(C)	251	-1/0/1	(C)
028	30/0/15	(C)	286	-1/0/2.5	(C)
029	30/0/30	(C)	217	-1/0/3	(C)
031	30/0/60	(C)	056	-1/0/4	(C)
032	30/0/100	(C)	304	-1/0/7	(C)
314	30/0/200	(C)	057	0-2	(C,A)
066	0-30	(C,A)	235	0-3	(C,A)
068	0-50	(C,A)	192	0-4	(C,A)
069	0-60	(C,A)	060	0-6	(C,A)
071	0-100	(C,A)	309	0-7	(C,A)
073	0-150	(C,A)	061	0-10	(C,A)
074	0-160	(C,A)	065	0-20	(C,A)
075	0-200	(C,A)	224	0-35	(C,A)
077	0-300	(C,A)	206	0-70	(C)
081	0-500	(C,A)			
084	0-1,000	(C)			

ACCESSORIES

Cord Sets

Shielded Molded w/25' cable	42117K0025
Shielded Molded w/50' cable	42117K0050
Shielded Molded w/100' cable	42117K0100

Clear Cap w/gaskets 5632800001
 Stainless Steel Cap w/gaskets 5632900001
 Enclosure w/Clear cap w/gaskets SP5632700001
 Enclosure w/SS cap w/gaskets SP56327A0001
 M12 Quick Disconnect Receptacle SP56726A0002
 Cord Grip SP5633100000
 1/2" NPTF adaptor SP5633200000
 Seal Kit (6) gaskets 5633000001
 Field Wireable Connector-Straight 42119B0000
 Field Wireable Connector-90° 42119A0000
 Display Kit SP56741A0001
 5' Remote Kit SP73228A0005
 10' Remote Kit SP73228A0010
 25' Remote Kit SP73228A0025
 Coverplate SP56741B0001