

FLOW
LEVEL
PRESSURE
ANALYTICAL
TEMPERATURE
INSTRUMENTATION
PASTEURIZATION CONTROLS



# "MPF" Modular Pressure Transmitter

- 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

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.andinst.com or call our Customer Service Department directly at 1-800-833-0081.

### **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



# **MPF** 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 Min. Ra =25

microinches. Optional: Hastelloy®

diaphragm

Non-Product Contact Metal: 304 finished to a Min. 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:** 

Internal Fill: ETR (Extended Temperature

Range) FDA approved mineral oil

Optional Neobee M-20

Output: 2 wire user selectable 4-20 mA DC or

20-4 mA

Internal Display: 4 digit LED nominally displays

loop current. Process variable selectable -

PSI or BAR

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

Interface Display: Optional; modular field replaceable. PSI,

BAR, kPA,  $\ln \mathrm{H_2O}$ ,  $\ln \mathrm{Hg}$ ,  $\mathrm{mm} \mathrm{H_2O}$ ,  $\mathrm{mA}$ 

#### APPROVALS AND DOCUMENTATION

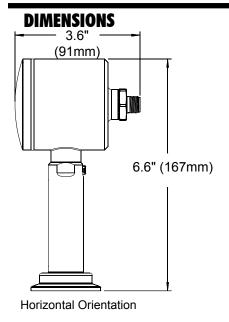
Sanitary: 3-A compliant, Third Party Verified

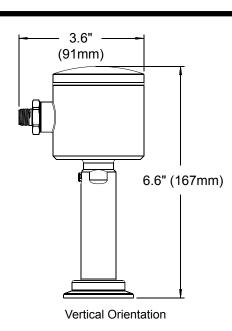
Compliance: Compliant with the Pressure Equipment Directive

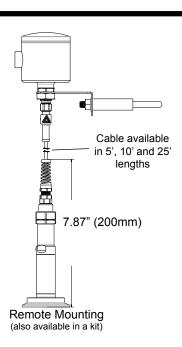
relative to Sound Engineering Practices(PED);

CE compliant

Warranty: 2 years





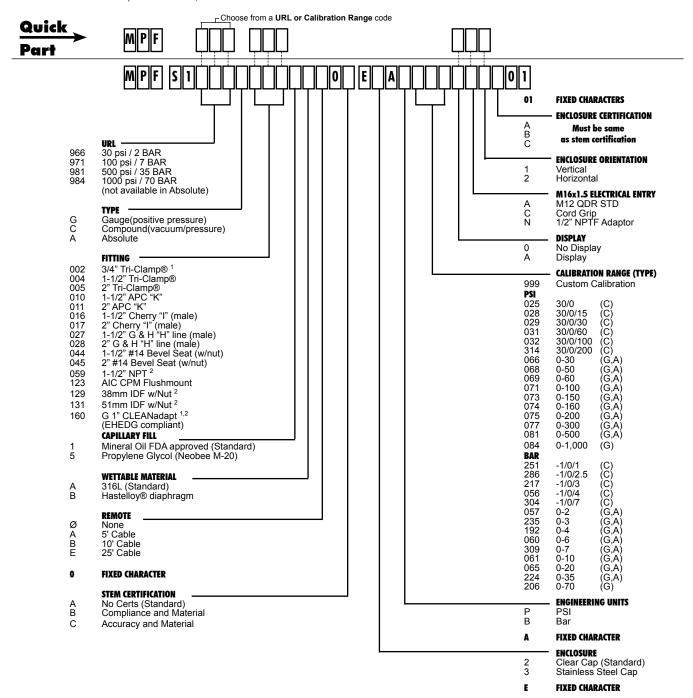


## **HOW TO ORDER (complete unit)**

**Quick Order Instructions:** 

Quick order numbers may be used when standard no charge features are selected. All choices omitted and not covered below default to the standard option. If a choice other than the standard option is required, the full part number must be utilized.

- 1) Select desired URL or CALIBRATION RANGE 3 place code
  - a) If URL is selected TYPE will default to Compound and will be calibrated from 0 psig to max range
  - b) If CALIBRATION RANGE is selected, Sensor type will default to (C) Compound or (G) Gauge depending on range
- 2) Select FITTING 3 place code
- 3) Select fixed "0", ELECTRICAL ENTRY and ENCLOSURE ORIENTATION

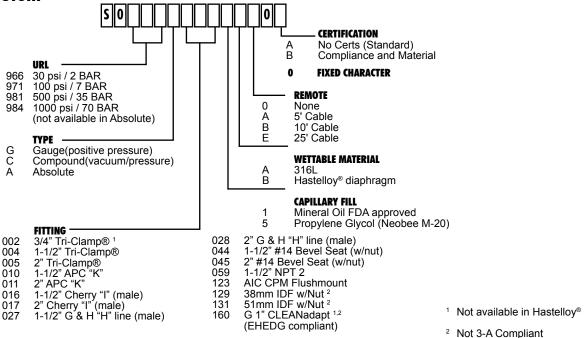


Not available in Hastelloy®

<sup>&</sup>lt;sup>2</sup> Not 3-A Compliant

### **HOW TO ORDER (modular components)**

### Stem



## **Puck/Enclosure**

