



ELECTRONIC PRESSURE MEASUREMENT PRODUCTS

Model 88F Flushmount Pressure Transmitter

DESCRIPTION

The Model 88F is a durable, full featured, flush diaphragm pressure transmitter. It is designed to mount flush against process media and to prevent any media particles, such as from paper slurry, from collecting at the diaphragm. Its rugged 316 stainless steel and Hastelloy C construction make it perfect for tough environments and corrosive media conditions.

The compact size and weight of the Model 88F transmitter eliminate any complicated mounting hardware and mechanical supports.

The integral junction box permits simple field wiring, too. All of this reduces your installation time substantially. And with the cover retained by a stainless steel chain and no internal jumpers for span turndown, losses due to misplaced or dropped parts are eliminated.

A 4-20 mA output is standard with a 12-40 VDC power supply. Approvals include ratings for CSA, for both intrinsic safety and explosion-proof, and FM for explosion-proof only. The Model 88F also meets NACE standards.

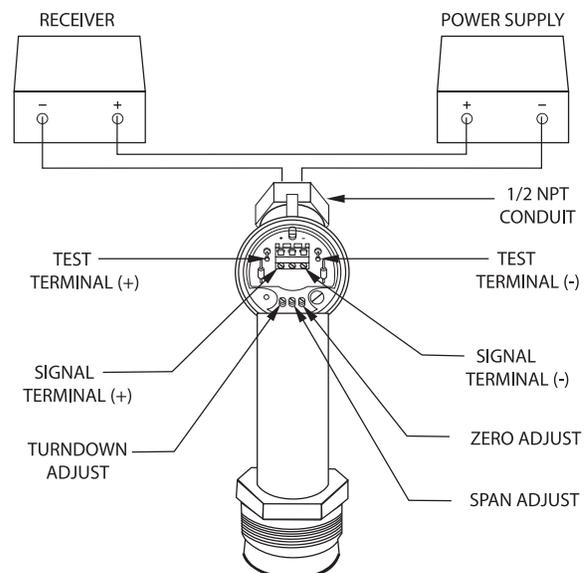
FEATURES

- A high-quality, full featured transmitter at just 1.6 lbs. (720 grams)
- Designed to mount flush against process media
- All welded 316 stainless steel construction (no aluminum)
- Standard Hastelloy C diaphragm
- Ranges from 0-3 through 0-300 psig (0-.2 through 0-20 bar)
- $\pm 0.25\%$ accuracy
- Zero and span adjustability
- Full 5:1 turndown
- 4-20 mA output at 12-40 VDC
- 316 stainless steel coupling and plug available for mounting and maintenance
- FM for explosion-proof
- CSA for explosion-proof and intrinsic safety

Model 88F
Flushmount Transmitters



WIRING DIAGRAM





ELECTRONIC PRESSURE MEASUREMENT PRODUCTS

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SPECIFICATIONS

Functional Specifications

Service: Liquid, gas or vapor

Range Limits:

- 0/3 to 0/15 psi (0/.2 to 0/1 bar)
- 0/6 to 0/30 psi (0/.4 to 0/2 bar)
- 0/20 to 0/100 psi (0/1.4 to 0/7 bar)
- 0/60 to 0/300 psi (0/4 to 0/20 bar)

Output: 4-20 mADC, limited to 30 mADC

Power Supply: 12 to 40 VDC with reverse polarity protection

Loop Resistance: 1400 ohms max @ 40 volts

Turndown: 5:1

Zero Adjust: ±10%

Span Adjust: ±10%

Temperature Limits:

- Electronics (Ambient): -40° to 140°F (-40° to 60°C)
- Process Interface: -40° to 212°F (-40° to 100°C)
- Storage: -40° to 212°F (-40° to 100°C)

Overrange: 300% upper range limit

Humidity Limits: 0-100% RH

Pressure Specifications

Accuracy: ±0.25% of calibrated span including linearity, hysteresis and repeatability.

Response Time: Time constant of 20 milliseconds.

Stability: ±0.5% of upper range limit for six months

Temperature Effect: (includes zero and span)

- Compensated: -20° to 180°F (-29° to 82°C)
- Between 30° and 130°F (-1° and 54°C): ±1% of URL per 50°F (28°C)
- Between -20° and 180°F (-29° and 82°C): ±1.6% of URL per 5°F (28°C)

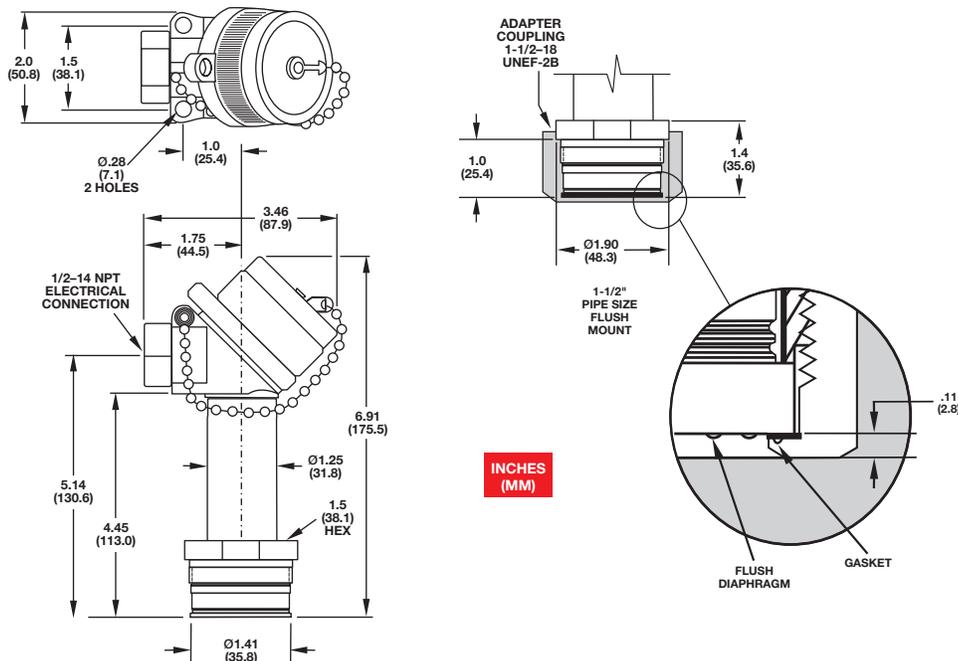
Power Supply Effect: ±0.005% F.S. per volt

Surge Protection: Standard

Vibration Effect: ±0.1% of upper range limit for 3 G to 200 Hz

Position Effect: .05% /90° tilt

Overrange Effect: ±0.15% F.S. per 300% of maximum range




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Physical Specifications
Materials of Construction
Process Wetted Parts: 316 stainless steel

Diaphragm: Hastelloy C

Non Wetted Parts: 316 stainless steel

Cast Head: CF-8M (316 cast stainless steel)

O-ring: BUNA-N

Fill Fluid: DC 200 silicone (standard)

Process Connection: Refer to dimension drawing

Electrical Connection: 1/2 inch NPT female

Weight: 1.67 lbs. (720 grams)

Classifications
Factory Mutual: Explosion Proof for Class I, II, III, Division 1, Groups B, C, D, E, G for hazardous locations. NEMA 4 enclosure.

Canadian Standards Association: Exia-Intrinsically safe for Class I, Division 1 & 2, Groups A, B, C, D; Class II, Groups E, F, G when connected per AMETEK dwg. BK750483.

Explosion Proof for Class I, Division 1, Groups B, C, D; Class II, Groups E, F, G; Class III for hazardous locations. Enclosure 4, Temperature Code T3C (160 C)

Model Numbering:	
● 88 Flushmount Pressure Transmitter	
88F Flushmount pressure transmitter	
● Pressure ranges	
002	0/3 to 0/15 psi (0/0.2 to 0/1 bar)
003	0/6 to 0/30 psi (0/0.4 to 0/2 bar)
004	0/20 to 0/100 psi (0/1.4 to 0/7 bar)
005	0/60 to 0/300 psi (0/4 to 0/20 bar)
● Material	
A	316 SS Hastelloy C (diaphragm), silicone oil (liquid fill)
B	316 SS Hastelloy C (diaphragm), mineral oil (liquid fill)*
F	316 SS Hastelloy C (diaphragm), fluorolube (liquid fill)*
L	316 SS and diaphragm, mineral oil (liquid fill)*
Other	Consult factory for availability
● Output	
2	4 to 20 mADC
● Approvals	
FM	Factory Mutual for explosion-proof
CS	Canadian Standards Association for explosion-proof and intrinsic safety
CL	Approved by Cenelec for intrinsic safety
● Coupling	
SC	316 SS coupling; TEFLON gasket
PC	316 SS plug and coupling; TEFLON gasket
NC	No coupling; TEFLON gasket
● Calibration ranges	
Will be calibrated at maximum fill range in psi if not specified	
88F	002
A	2
CS	PC
0-50	psi

* Consult factory for additional options