

PD/PDH 3000 Series Differential Pressure Transmitters

FOR POWER GENERATION, GAS PIPELINE, COMPRESSOR, CHEMICAL, OIL, AND GAS APPLICATIONS



DIFFERENTIAL PRESSURE TRANSMITTER

AMETEK's PD/PDH3000 differential pressure transmitter offers all 316 SST welded hermetically sealed construction, making it ideal for severe environment and submersible applications (to 1500 meters). This model also offers a Fast Response (7ms) option as well as a High Temperature (220°F) option.

The Fast Response option makes the unit ideal for process surge control and critical media monitoring and control. The High Temperature option allows location closer to the point of measurement, increasing response time and reduction of installation costs.

FEATURES AND BENEFITS

- 3000 psi static pressure rating
- 4-20 mA output
- $\pm 0.25\%$ accuracy ($\pm 0.1\%$ optional)
- Fast 7ms response time (optional)
- Hermetically sealed submersible 316 SST housing is protective to 1500 meters
- HT (high temperature) option to 220°F
- Explosion-proof and intrinsically safe certifications FMS, CSA, CENELEC ATEX
- Non-interacting zero and span
- Five year warranty



SPECIFICATIONS

FUNCTIONAL DATA

Service

- Gas, liquid, or vapor

Power Required

- 12-55 VDC (30 VDC maximum hazardous locations)
- Reverse polarity protected

Output

- 4-20 mA, (27 mA maximum)

Temperature Limits

- Operating: -20 to 180°F (-29 to 82°C)
- Maximum Process: -65 to 250°F (-54 to 121°C)
- Storage: -65 to 200°F (-54 to 93°C)

HT Option

- Operating: -40 to 220°F (-40 to 104°C)
- Maximum Process: -40 to 300°F (-40 to 149°C)
- Storage: -65 to 220°F (-54 to 104°C)

Humidity

- 100% RH

AMETEK[®]

**POWER
INSTRUMENTS**

Experience the Power™

SPECIFICATIONS

PERFORMANCE DATA

Accuracy

- $\pm 0.25\%$ or $\pm 0.1\%$ (optional) factory calibrated span, including nonlinearity, hysteresis and repeatability

Repeatability (included in above specifications)

- $\pm 0.1\%$ at maximum span

Stability

- $\pm 0.25\%$ of URL for 6 months

Response Time

- 300 msec. for 63% step input optional < 7 msec

Ambient Temperature Effect

- $\pm 1.5\%$ URL from -20 to 180°F (-29 to 82°C) reference at 80°F (27°C)

HT Option

- $\pm 1.5\%$ URL from -40 to 220°F (-40 to 104°C) reference at 80°F (27°C)

Static Pressure Effects

- Zero Error: $\pm 0.5\%$ at URL/1000 psi (6.9 MPa); except $\pm 1.0\%$ at URL/1000 psi for 0-30" H₂O range
- Span Error: $\pm 0.2\%$ of factory calibrated span

RFI / EMI Effect

- Negligible to 500 MHz at 5 W direct contact

Mounting Position Effect

- Up to 2" H₂O (0.5 kPa) zero shift perpendicular to diaphragms (corrected by zero adjustment)

Zero/Span Adjustability

- 5:1 turndown

Zero Elevation

- -100% of full range

Zero Suppression

- +80% of URL
(Note: Elevation or suppression cannot exceed maximum range of transmitters.)

PHYSICAL MATERIALS

Pressure Retaining

- CRES 316

Mounting Bracket

- Carbon Steel (standard)
- CRES 316 (optional)

Process Connection

- 1/4" NPTF on 2-1/8" centers
- 1/2" NPTF on 2", 2-1/8", 2-1/4" centers (with flange adaptors)

Electrical Connection

- 3/4" NPTM

Weight

- Transmitter: 11.1 lbs. (5.1 kg)
- Junction Box: 2.3 lbs. (1.1 kg)
- Meter: 4.0 lbs. (1.8 kg)
- Brackets: 2.0 lbs. (0.9 kg)

APPROVALS

Enclosure Rating(s):

- NEMA 3, 4, 6, 7 & 9

CE Mark

NACE

- MR-01-75 (96)

ELECTRICAL TERMINATIONS

Leads

- White: Negative, Black: Positive, Green: Ground

PD/PDH3000/HT Ordering Information

TYPICAL MODEL NUMBER (coded by color)

PD3000	-100	-5	2	-21	-XX	-1	3	-93
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Code Description

PD/PDH3000 Sealed Adjustable Low Differential Pressure Transmitter
PD/PDH3000 HT Sealed Adjustable Low Differential Pressure Transmitter (High Temperature)

Pressure Range

030	0-6" to 0-30" H ₂ O	030	0-6 to 0-30 psid
100	0-20" to 0-100" H ₂ O	100	0-20 to 0-100 psid
200	0-40" to 0-200" H ₂ O	300	0-60 to 0-300 psid
400	0-80" to 0-400" H ₂ O	01M	0-200 to 0-1000 psid

Pressure Cap Configuration* (3000 psi static working pressure, 2000 psi limit on 0-30" and 1-100H₂O)

	PLUGS or DRAIN/VENT	O-RINGS
A	Rear plugs	Viton [†]
B	Rear drain/vent valves	Viton
1	Rear plugs with adaptors	Viton
5	Rear drain/vent valves with adaptors	Viton

Electrical Terminations

- 0 3 conductor cable, 18 AWG, TEFLON[†] insulation, 5' length standard
- 2 3 leads, 3' length standard, PVC insulation, 3rd wire is ground
- 6 Factory molded submersible neoprene cable, 10' length standard (specify length to 500)**
- 8 Factory mounting of electrical accessory (e.g. MA136 Junction Box)

Process Wetted Parts (Consult factory for special options)

	PRESSURE CAPS and ADAPTORS PLUGS or VENT/DRAINS	DIAPHRAGMS/ BOLTS	FILL FLUID
21	316 SST	HASTELLOY C-276 [†] /316 SST	Silicone Oil DC-200 [†]
22	316 SST	316 SST/316 SST	Silicone Oil DC-200

Electrical Accessories (Mounted)

- XX None
- 02 TP114 - Transient Protector, 55 V Maximum
- 07 C100 - Electrical Connector (Receptacle)
- 08 C100 and C101 Electrical Connectors (Receptacle/Plug)
- 19 MA134 - Linear Meter (0-100%)
- 20 MA135 - Square Root Meter (0-100%)
- 21 MA136 - Junction Box, short
- 25 MA134 with TP131 - Transient Protector
- 27 MA135 with TP131 - Transient Protector
- 29 MA136 with TP131 - Transient Protector

Mechanical Accessories

- 0 None
- 1 Standard Mounting Brackets B1 (Alum)
- 2 Optional Mounting Brackets B7 (CRES)

Accuracy and Response Selection

	ACCURACY	RESPONSE
0	Standard accuracy = $\pm 0.25\%$	Standard response - 300mS
1	Standard accuracy = $\pm 0.25\%$	Fast response - 7mS
2	High accuracy = $\pm 0.1\%$	Standard response - 300mS
3	High accuracy = $\pm 0.1\%$	Fast response - 7mS

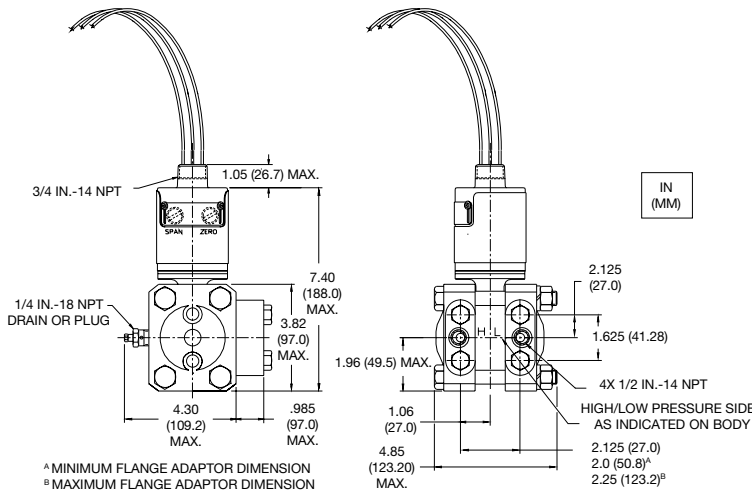
Certification Agency

00	None		
51	CENELEC ATEX FMS & CSA	I.S.	EEx ia IIC T5 (Std) T4 (HT) CL I, Div I, GRP A, B, C, D CL II, Div I, GRP E, F, G
52	CENELEC ATEX FMS & CSA	Exp	EEx d IIC T5 (Std) T4 (HT) CL I, Div I, GRP A, B, C, D CL II, Div I, GRP E, F, G
61	CENELEC ATEX	I.S.	EEx ia IIC T5 (Std) T4 (HT)
62	CENELEC ATEX	Exp	EEx d IIC T5 (Std) T4 (HT)
91	FMS & CSA	I.S.	CL I, Div I, GRP A, B, C, D CL II, Div I, GRP E, F, G
92	FMS & CSA	Exp	CL I, Div I, GRP A, B, C, D CL II, Div I, GRP E, F, G
93	FMS & CSA	I.S. & Exp	CL I, Div I, GRP A, B, C, D CL II, Div I, GRP E, F, G

*2000 psi limit on 0-30" and 0-100 H₂O

**Unit not certified for this application

† All other company, product, and service names and logos are registered trademarks of their respective owners.



Option availability is subject to change without notice.



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ISO 9001 Certified