

3200 Series Differential Pressure Transmitters

FOR NUCLEAR SERVICE QUALIFIED DIFFERENTIAL PRESSURE, LEVEL, AND FLOW MEASUREMENT APPLICATIONS



DIFFERENTIAL PRESSURE TRANSMITTER

AMETEK PD3200 and PDH3200 Differential Pressure Transmitters are designed and tested for Nuclear Safety Related service in level, flow, and other pressure monitoring applications. The accuracy and stability of this Sputtered Thin Film Strain Gage sensor technology is combined with simple DC electronics in a fully welded, hermetically sealed CRES 316 housing to provide high accuracy and a highly reliable pressure measurement, even in severe environments.

AMETEK PD3200 and PDH3200 Differential Pressure Transmitters were tested in accordance with IEEE 323, 1974 & IEEE 344, 1975 as reported in Test Report TR-1136 Rev. B and were TÜV certified KTA3505 compliant as reported in TÜV Report ETL2 FIL 017/00.

AMETEK PD3200 and PDH3200 Differential Pressure Transmitters have traceability of process-wetted, pressure retaining components.



FEATURES AND BENEFITS

- 10 Year Qualified Life at 115°F (Operating Temperature)
- Qualified to 5.5 x 10⁷ Rads TID (Gamma)
- Seismically Qualified to 15 Gs SSE and 7.5 Gs OBE
- LOCA Profile to 305°F
- Outputs: 4-20 mA (Standard)/10-50 mA (Optional)
- <±0.25% Accuracy
- Hermetically Sealed Submersible CRES 316 Housing
- Five Year Warranty

AMETEK[®]

**POWER
INSTRUMENTS**

Experience the Power™

SPECIFICATIONS

FUNCTIONAL DATA

Ranges

- 0-30" WC to 0-1000 psid

Service

- Gas, vapor, liquid

Power Input

- 12-55 VDC

Static Pressure Limits

- 3,000 psig at either connection without damage to transmitter
- 2000 psig for 0-100" WC Range
- 150 psig for 0-30" WC Range

Temperature Limits

- Operating Electronics: 40 to 250°F (5 to 122°C)
- DBE Electronics: 40 to 250°F (5 to 122°C)
- Maximum Process: 40 to 250°F (5 to 122°C)
- Storage: ANSI N45.2.2 Level B

Humidity Limits

- 0-100% RH

Volumetric Displacement

- 0.004 in.³

PERFORMANCE DATA

(% of Factory Calibrated Span or URL)
 (Note: Performance is based on PD/PDH3200 with CRES 316 diaphragms and DC702 fill fluid)

Accuracy

- $\pm 0.25\%$ (includes linearity, hysteresis, repeatability)

Repeatability

- $\pm 0.1\%$ of URL

Stability

- $\pm 0.5\%$ of URL for 12 months

Response Time

- Standard (Damped): Consult Factory
- Optional (Undamped): Consult Factory

Ambient Temperature Effect

- $\pm 1.5\%$ from 40 to 250°F (5 to 122°C) at URL

Static Pressure Effects

- Zero Error: $\pm 0.5\%$ at URL/1000 psi (6.9 Mpa)
- Span Error: $\pm 0.2\%$ of Factory Calibrated Span

(Zero errors can be corrected for a particular line pressure)

Overpressure Effects

- $\pm 2\%$ of URL for overpressure events less than the static pressure rating of the transmitter

Mounting Position Effect

- Up to 2" H₂O (0.5kPa) zero shift perpendicular to diaphragms (correctable by zero adjustment). No effect in plane of diaphragms; no span effect.

Zero Elevation

- -100% of URL

Zero Suppression

- +80% of URL

(Note: Sum of span and elevation and/or suppression cannot exceed the maximum range of the transmitter.)

PD/PDH3200 Ordering Information

TYPICAL MODEL NUMBER (coded by color)

PD3200	-100	-6	8	-21	-36	-N1	-0	1
--------	------	----	---	-----	-----	-----	----	---

Code Description

PD/PDH3200 Sealed Adjustable Differential Pressure Transmitter

Pressure Range

	PD3200	PDH3200
030	0-6 to 0-30" WC	030 0-6 to 0-30 psid
100	0-20 to 0-100" WC	100 0-20 to 0-100 psid
200	0-40 to 0-200" WC	300 0-60 to 0-300 psid
400	0-80 to 0-400" WC	01M 0-200 to 0-1000 psid

Pressure Cap Configuration

	Pressure Cap Configuration	O-Rings
5	Pressure Caps with open ports	Viton
6	Pressure Caps with CRES 316 plugs	Viton
7	Pressure Caps with CRES 316 drain/vent valves	Viton
J	Pressure Caps with SST Swagelock™ connector	Viton

Electrical Terminations

- 2 3 leads, 3' length standard, Kapton insulation, (3rd wire is ground)
- 6 Factory molded submersible neoprene (optional Viton) cable, 10' length standard (specify length to 170 feet maximum)
- 8 Factory mounting of MA136N Junction Box
- A Factory mounting of Rockbestos™ Nuclear Qualified Cable

Process Wetted Parts (Consult factory for special options)

	Pressure Flanges	Plugs Vent/Drain	Diaphragm	Bolts	Fill Fluid
21	CRES 316	CRES 316	HAST. C-276	CRES 316	Silicone Oil DC-702
22	CRES 316	CRES 316	CRES 316	CRES 316	Silicone Oil DC-702
92	CRES 316	CRES 316	CRES 316	17-4 PH	Silicone Oil DC-702
93	Same as 22 (above) except process ports mate with DIN19213				

Electrical Accessories (Mounted)

- XX None
- 36 MA136N Nuclear Junction Box

Mechanical Accessories (Unmounted)

- XX None
- N2 Seismic Mounting Bracket

Response Selection

- 0 Standard response
- 1 Fast response
- 2 10-50mA Fast Response
- 4 10-50mA Standard Response

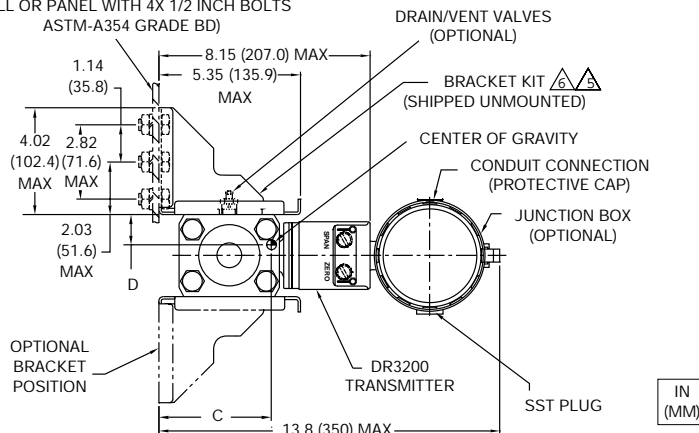
Custom Calibration

- 0 Standard Calibration
- 1 Custom Calibration

Option availability is subject to change without notice.

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

(TYPICAL MOUNTING CONFIGURATION:
 WALL OR PANEL WITH 4X 1/2 INCH BOLTS
 ASTM-A354 GRADE BD)



For customer support call:

POWER INSTRUMENTS

1644 Whittier Avenue
 Costa Mesa, CA 92627
 Tel: 949.642.2400
 Fax: 949.642.9490
 power.industrial@ametek.com

HEADQUARTERS

AMETEK Power Instruments
 50 Fordham Road
 Wilmington, MA 01887
 Tel: 978.988.4903
 Fax: 978.988.4990
 power.industrial@ametek.com

EUROPEAN HEADQUARTERS

Unit 20, Ridgeway
 Donibristle Industrial Estate
 Dalgety Bay, Dunfermline, KY119JN
 Scotland U.K.
 Tel: 44.1383.825630
 Fax: 44.1383.825715
 sales@ametekuk.com

ASIA PACIFIC HEADQUARTERS

10 Ang Mo Kio Street 65
 #05-12 Techpoint
 Singapore 569059
 Tel: 65.6484.2388
 Fax: 65.6481.6588



ISO 9001 Certified