

3200 Series Draft Range Differential Pressure Transmitters

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



DRAFT RANGE DIFFERENTIAL PRESSURE TRANSMITTER

AMETEK DR3200 Differential Pressure Transmitters are designed and tested for Nuclear Safety Related service in HVAC filter, control room, containment pressure 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 DR3200 Differential Pressure Transmitters were tested in accordance with IEEE 323, 1974 & IEEE 344, 1975 as reported in Test Report TR-1136 Rev. B.

AMETEK DR3200 Differential Pressure Transmitters have traceability of process-wetted, pressure retaining components.



FEATURES AND BENEFITS

- 10 Year Qualified Life at 110°F (Operating Temperature)
- Qualified to 6×10^6 Rads TID (Gamma)
- Seismically Qualified to 7.5 Gs DBE
- LOCA Profile to 155°F
- Outputs: 4-20 mA (Standard)/10-50 mA (Optional)
- $< \pm 0.25\%$ Accuracy
- Hermetically Sealed Submersible CRES 316 Housing
- Five Year Warranty

SPECIFICATIONS

FUNCTIONAL DATA

Ranges

- 0-5" WC

Service

- Gas, vapor, liquid

Power Input

- 12-55 VDC

Static Pressure Limits

- 10 psig at either connection without damage to transmitter

Temperature Limits

- Operating Electronics: 40° to 155°F (5° to 68°C)
- DBE Electronics 40° to 155°F (5° to 68°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

- 0.001 in.³

PERFORMANCE DATA

(% of Factory Calibrated Span or URL)
(Note: Performance is based on DR3200 with CRES 316 diaphragms and DC702 fill fluid)

Accuracy

- <±0.25% (includes linearity, hysteresis, repeatability)

Repeatability

- <±0.1% of URL

Stability

- <±1% of URL for 12 months

Response Time

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

Ambient Temperature Effect

- <±2% URL Total Error Band/ 50°F from 75° to 155°F (24° to 68°C) at URL

Mounting Position Effect

- Up to 1.5" H₂O (0.4kPa) zero shift perpendicular to diaphragms (correctable by zero adjustment). No effect in plane of diaphragms; no span effect.

Zero Elevation

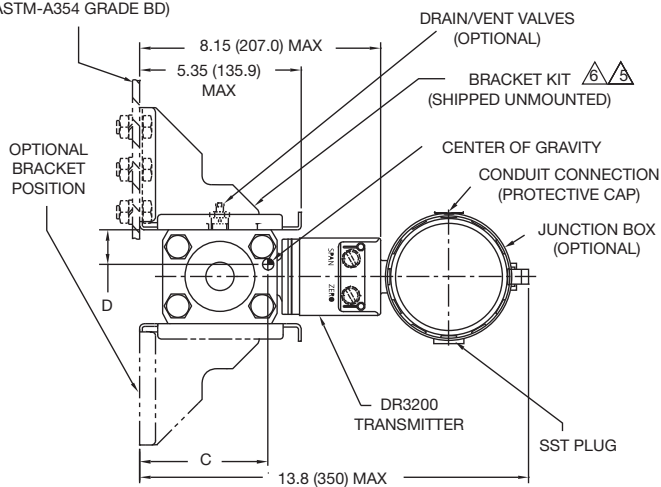
- -60% of URL

Zero Suppression

- +60% of URL

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

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



DR3200 Ordering Information

TYPICAL MODEL NUMBER (coded by color)

DR3200 -005 -2 8 -22 -36 -N2 -0 1

Code Description

DR3200 Sealed Adjustable Draft Range Differential Pressure Transmitter

Pressure Range

005 0-2 to 0-5" WC (for 0-1" WC Range Consult Factory)

Pressure Cap Configuration

O-Ring

0	10 psi SWP Pressure Caps with open ports	Viton
1	10 psi SWP Pressure Caps with CRES 316 plugs	Viton
2	10 psi SWP Pressure Caps with CRES 316 drain/vent	Viton

Electrical Terminations

2	3 leads, 3' length standard, Kapton insulation, (3rd wire is ground)
8	Factory mounting of MA136N Junction Box

Process Wetted Parts (Consult factory for special options)

Pressure Flanges	Plugs Vent/Drain	Diaphragm	Bolts	Fill Fluid
22 CRES 316	CRES SST	CRES 316	CRES 316	Silicone Oil DC-702
92 CRES 316	CRES SST	CRES 316	17-4 PH	Silicone Oil DC-702

Electrical Accessories (Mounted)

XX	None
36	MA136N Nuclear Junction Box

Mechanical Accessories (Unmounted)

XX	None
N2	Mounting Bracket N2

Response Selection

0	4-20mA Standard response
4	10-50mA Standard response

Calibration

0	Standard Calibration
1	Custom Calibration

Option availability is subject to change without notice.

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For customer support call:

POWER INSTRUMENTS
255 North Union Street
Rochester, NY 14605
Tel: 585.263.7700
Fax: 585.454.7805
power.sales@ametek.com

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

EUROPEAN HEADQUARTERS
Unit 15, Lisburn Enterprise Centre
Ballinderry Road
Lisburn, Co Antrim, UK BT282BP
Tel: 44.28.9260.4100
Fax: 44.28.9260.4141
sales@ametekuk.com

ASIA PACIFIC HEADQUARTERS
10 Ang Mo Kio Street 65
#05-12 Techpoint
Singapore 569059
Tel: 65.484.2388
Fax: 65.481.6588



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