

BARTON®

Differential Pressure Indicators

Models 200A

Barton® indicators are available for a variety of safe working pressures and differential pressure ranges. They are widely used for the measurement of differential pressure, flowrate, and liquid level applications.

Features

- Barton® DPU Sensor
- NEMA-4/IP65 cases
- Wide Selection of DP Ranges
(including absolute, zero-center, and split ranges)
- Pulsation Dampening

Actuating Units

- The indicator is actuated by a rupture-proof bellows differential pressure unit (DPU) with integral temperature compensation.
- The M199 DPU features dual, liquid-filled, bellows designed to withstand repeated overranges equal to the safe working pressure of the housings without a change in calibration.

Indicating Mechanism

- The indicating pointer traverses a 270 degree arc, providing excellent readability. It is driven by a precision-jeweled rotary movement that multiplies rotation of the torque tube through a gear and pinion to the pointer. The movement employs a thermally stable Ni-Span-C hair spring.
- The movement has a micrometer screw for convenient range adjustments. Zero/range adjustments can be made without removing the scale plate or pointer. Linearity adjustments are readily accessible after removal of the scale plate.

Cases

- Barton® indicators are available in 6-in. (152 mm) dial size. The standard case is die-cast aluminum with a



Model 199
Dual Bellows

special baked epoxy black finish, which is NEMA-4/IP65 rated. Optional "S" version 316 stainless steel case is available for offshore/corrosive environments.

Scales

- All indicating scales can be graduated uniformly for measurement of differential pressure or liquid level, or square root for direct reading of flow rate. Special scales can be furnished for indicating liquid level in horizontal or non-uniform tanks. Scales are available in black with white lettering (standard) and in white with black lettering (optional, as shown).

M199 DPU Actuated Units

- Model 200A/200AS/200N*
 - A 6-in. (152 mm) indicator that features a built-in adjustable pulsation dampener for direct control of response time.
 - Note: For NACE applications, M200N uses a M199N DPU. See DPU bulletin #21700.

Specifications

- M199 DPU Housings (Material/SWP)
 - Forged Steel: 2500, 4500, & 6,000 PSI (172, 310, & 414 bar)
 - 316 SST: 1,000, 3,000, & 6,000 PSI (69, 207, & 414 bar)

- Aluminum: 1,000 PSI (69 bar)
- Bellows Material: 316 SST & Inconel
- DP Ranges: 0-10-in. w.c. to 0-100 PSID (0-25 mbar to 0-6.9 bar)
- 200A/200AS Indicator
 - Accuracy (DP Range): 0-10-in. w.c. to 0-349-in. w.c. +/- 0.5% F.S. (0-25 mbar to 0-867 mbar +/- 0.5% F.S.)
 - 0-350-in. w.c. to 0-100 PSID +/- 0.75% F.S. (0-869 mbar to 0-6.9 bar +/- 0.75% F.S.)
 - Repeatability: 0.25%
 - Temperature Limits: -40°F (-40°C) to +180°F (+82°C)

Ordering Information

When ordering, specify the following items:

- Quantity
- Model number
- Housing pressure rating (SWP)
- Housing material
- Bellows material
- Material contacting bellows
- Differential pressure range
- Type of scale (uniform, square root)
- Color of scale and scale lettering
- Mounting (pipe, wall, flush panel)

Weights (includes DPU)

IND Model	Approximate Gross Weight (lbs/kg)							
	Material/Safe Working Pressure (PSI)							
	Aluminum		Forged Steel			Forged SST		
	1000	2500	4500	6000	1000	3000	6000	
199	25 (11)	46 (21)	47 (21)	49 (22)	37 (17)	47 (21)	49 (22)	

Note: NACE Model (M200N) weight is the same as M200A.

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