

Model 130 DELTA GAUGE[®] Diaphragm Type Differential Pressure Gauge **LOW RANGE: 0-5" H₂O (0 to 12.4 mbar) to 0-400" H₂O (0 to 1 bar)**

The Model 130 is a rugged general purpose differential pressure gauge with a 4-1/2" round dial.

- Either linear or square root (for flow) dials.
- Working pressure of 300 P.S.I.G. (20 bar) with a polysulfone body, and 500 P.S.I.G. (34 bar) in aluminum, brass, 316 S.S., and Hastelloy C.
- Over-range protection to rated working pressure.
- **Five Year Limited Warranty**

- Magnetic coupling between the sensing element and the indicating pointer provides for complete isolation of the process fluid within the pressure capsule.
- Suitable for use on virtually all reasonably clean liquids or gases.
- Diaphragm design allows use of dissimilar fluids on high and low side of gauge.
- Can be used with vacuum or pressure applications.
- Ideal for liquid level indication for pressurized tanks.
- Wide range of elastomers.
- CE marked switches and enclosures are available.



INSTRUMENTS • CONTROLS • VALVES

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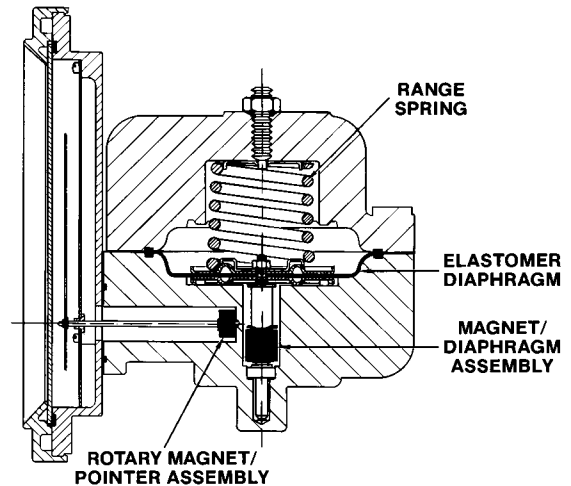
MODEL 130 DELTA GAUGE® CHARACTERISTICS

A flexible elastomer diaphragm and calibrated spring sense differential pressure. The diaphragm provides total separation of the high and low pressure liquids and gases. Totally supported at full travel in either direction, this feature assures full overrange protection to the rated working pressure of the gauge.

A magnetic coupling transmits the sensing element motion to the indicating pointer while assuring total isolation of the process fluid within the pressure capsule. This prohibits the possibility of process fluid leaking into the gauge case.

The few internal metal parts are 316 Stainless Steel, or Hastelloy C as an option.

The low range capability of the Model 130 is ideally suited for flow, liquid level and vacuum applications.



The Model 130 is available in Aluminum, Brass and 316SS bodies only with one or two hermetically sealed reed switches for low and/or high limit alarm. These CSA listed switches are single-pole, double-throw, and may be connected to open or close on rising or falling pressure.

Switching may be adjusted from 10% to 90% of the differential pressure range of the instrument.

Switches are enclosed in a weather resistant housing. Switch setting is readily made with a screw adjustment.

Special Enclosures:

NEMA Type 4X Enclosure

The Model 130 with CSA listed control switching is available in non-corrosive molded plastic enclosures. These are oiltight, dustfree and watertight per NEMA Type 4X standards. Dimensions approximately 6"x6"x7". Weight approximately 5 to 11 lbs. (2.3 to 5.0 Kilos).

Explosion-proof CSA Listed

The Model 130 with CSA listed control switching is available in an explosion-proof enclosure which complies with NEC Class 1, Groups C and D; Class II Groups E, F, and G; NEMA 7 and 9 standards. These are machined cast-aluminum enclosures with 1/2" FNPT conduit connection and 24" wire leads. Dimensions approximately 8"x8"x9". Weight approximately 20 to 26 lbs. (9.0 to 11.7 Kilos).



Standard Hermetically Sealed Reed Switch for Low-energy Circuits CSA Listed

Type: S.P.D.T.

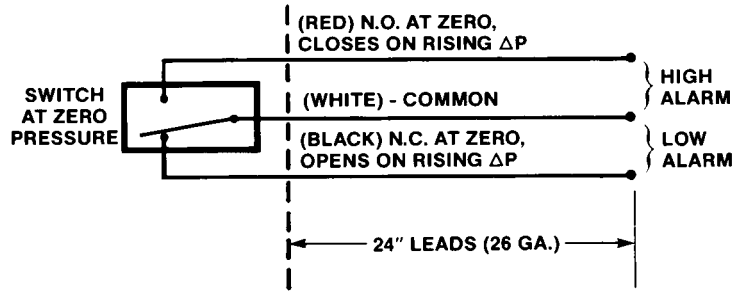
Accuracy: Repeatability of set point 1% of full scale. On-off switching differential 5% of full scale.

Settings: Adjustable from 10% to 90% of scale range.

Maximum Current: 0.25 amps

Maximum Power: 3 watts at 125 volts; AC/DC continuous

Leads: Three color-coded leads 24" long; 26 gauge.



STANDARD MODEL SPECIFICATIONS

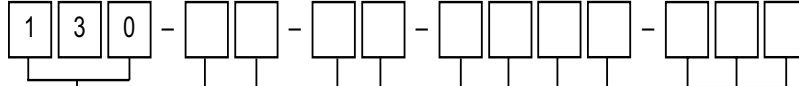
130-PC-00-00

300 P.S.I.G. Working Pressure, 40% Glass filled Polysulfone Capsule; Buna N Diaphragm; 316 Stainless Steel Internal Metal Parts; Ceramic Magnet and Acetal Guide Bushing; 4-1/2" Round Dial in Corrosion Resistant Engineering Plastic Case with Shatter Resistant Acrylic Lens. 1/4" Steel Compression Tube Fittings. (Metal Bodies - Dual 1/4" FNPT Top and Bottom, Single for Hastelloy only.)

DIFFERENTIAL RANGE (IN. H₂O OR EQUIVALENT & ACCURACY)

0-5 to 9.9	0-10 thru 0-400
±5% Full Scale (Ascending)	±3-2-3% Full Scale (Ascending)

PART NUMBERING SYSTEM



① BASIC MODEL NUMBER

② MATERIAL

- A. Aluminum
- B. Brass
- H. Hastelloy C
- P. Glass-Reinforced Engineering Plastic Body
- S. 316 S.S.
- Z. Special (Uncoded Options)

③ DIAL SIZE

- C. 4-1/2" Round Dial Engrd. Plastic Housing Assy. (STANDARD)
- E. 3-1/2" Round Dial Anod. Aluminum Housing Assy.
- G. 4-1/2" Round Dial Anod. Aluminum Housing Assy.
- T. Non-Indicating Differential Pressure Switch Only (Select Appropriate Electrical Options)
- Z. Special (Uncoded Options)

④ SEALS & DIAPHRAGM MATERIAL

- 0. Buna N (STANDARD)
- 1. *Viton®
- 2. Silicone
- 5. Ethylene Propylene (0-5" H₂O thru 0-100" H₂O max)
- 9. Special (Uncoded Options)

*Viton® is a Registered Trademark of DuPont Dow Elastomers.

⑤ CONNECTIONS

- 0. 1/4" C.S. Comp. Tube Ftg. (2) Model P or 1/4" FNPT (4) for Models A, B & S (STANDARD)
- 1. 1/4" 316 S.S. Comp. Tube Ftg. (2)
- 2. 1/4" FNPT Brass Adapters (2) (Model P Only)
- 3. 1/4" FNPT 316 S.S. Adapters (2) (Model P Only)
- 4. 1/2" FNPT 316 S.S. Adapters (2) (All Models, Except P)
- 9. Special (Uncoded Options)

NOTE: The use of diaphragm seals is not recommended for the model 130 series gauges. Attempts to install such seals will void the warranty.

NOTE: Not all options available in combination with other options.

⑥ OPTIONS (Up to four options)

- O. None (STANDARD)
- B. Drain & Bleed Plugs, 316 Stainless Steel (2) (Model 130 P only)
- D. Drain & Bleed, for Model 130 P in Nema 4X Enclosure
- E. Drain & Bleed, for all other Model 130's in Nema 4X Enclosure
- F. Pipe Mounting Kit
- H. Hastelloy C Internal Wetted Metal Parts and Fittings
- M. Maximum Indicator Follower Pointer
- T. Oxygen Cleaning
- U. S.S. Tag Mounted w/S.S. Wire
- V. S.S. Tag Mounted w/S.S. Screws
- W. Wall Mounting Kit
- Z. Special (Uncoded Options)

⑦ ELECTRICAL CONFIGURATIONS (SWITCH ADJUSTABLE RANGE 10-90%)

(NOTE: Switch option not available for 130-PC Models)

(NOTE: All options "C" marked, except N & P)

- O. None (STANDARD)
- H. (1) Reed Switch with Condulet Enclosure
- I. (2) Reed Switches with Condulet Enclosure
- J. (1) Reed Switch with Condulet Enclosure and Plug-In Connector (DIN 43650-PG 11)
- K. (2) Reed Switches with Condulet Enclosure and Plug-In Connector (DIN 43650-PG11)
- L. (1) Switch in NEMA-4X Plastic Enclosure
- M. (2) Switches in NEMA-4X Plastic Enclosure
- N. One (1) Switch in Explosion Proof Enclosure with Glass Window Cover and C.S.A. Listing⁽¹⁾
- P. Two (2) Switches in Explosion Proof Enclosure with Glass Window Cover and C.S.A. Listing⁽¹⁾
- Z. Special (Uncoded Options)

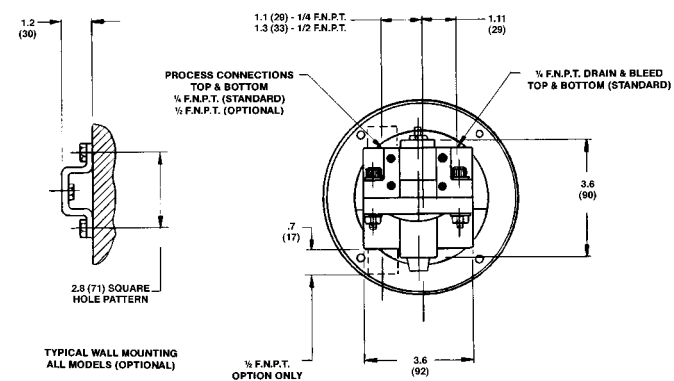
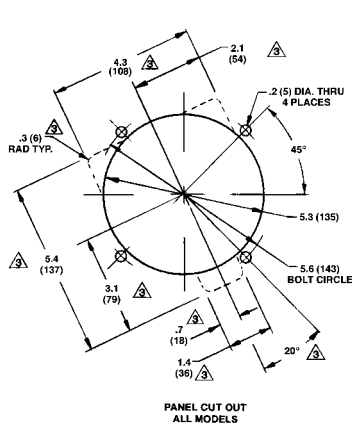
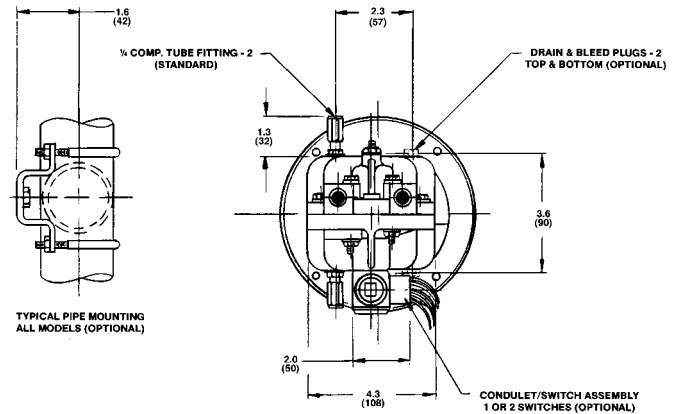
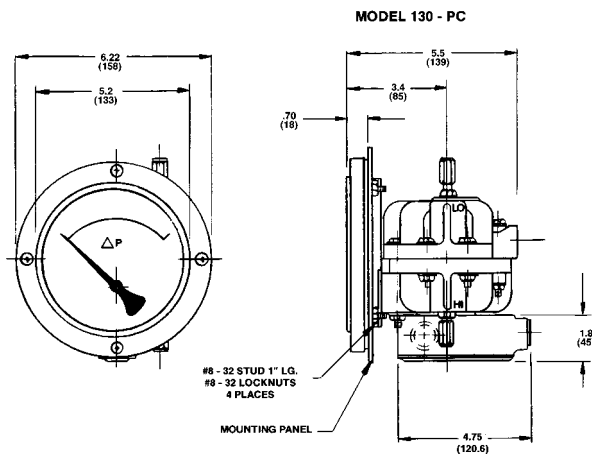
⁽¹⁾Complete Assembly Rated Class I, Division I, Groups C & D; Class II, Division I, Groups E, F & G.

⑧ ELECTRICAL SPECIFICATIONS (For Resistive Loads)

- A. SPDT, 3 Watts, 0.25 Amp, 125 VAC/VDC (Switch adjustable range 10-90%)
- Z. Special (Uncoded Options)

(Up to three options)

MOUNTING INFORMATION & DIMENSIONAL DATA



- NOTES:
1. Drawings show standard gauge nominal dimensions. (not to scale)
 2. Dimensions shown in parentheses are in millimeters.
 3. Add to panel cut out for conduit/switch assembly option.
 4. Contact Factory for 3-1/2" & 4-1/2" anod. alum. dial assy. mounting dimensions.

Manufacturer reserves the right to change specifications without prior notice.

Temperature limitations: -40°F(-40°C) to +200°F(+93°C). **Proof pressure:** two times rated working pressure.

NOTE: These limitations are based on the entire instrument being saturated to these temperatures. Systems (process) temperatures may exceed these limitations with proper installation. Contact our customer service representative for details.

STANDARDS: All Model 130 Series differential pressure gauges either conform to and/or are designed to the requirements of the following standards:

ASME B1.20.1
ASME B40.1
CSA-C22.2 No. 14.25 and 30
EN-61010-1

NACE MR0175
NEMA Std. No. 250
SAE J514
UL Std. No. 50,508 and 1203

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