P431

Submersible Pressure Transmitter



Precision Grade--Shallow or Deep Well Level Instrument

Designed for low cost of ownership

Tel-Tru's P431 Submersible Pressure Transmitter is designed for low cost of ownership for level /depth measurement applications in shallow or deep wells. Key features of the P431 are its long term stability, internal protection from lightning via dual gas discharge tubes, internal EMI/RFI filtering, double sealed cable exit and a maintenance free venifilter.

Manufactured for extended life cycle

Every P431 is built using advanced manufacturing techniques to ensure the integrity of the waterproof seal. Double sealing techniques are used and 100 % of all P431 are submerged at our factory for at least 24 hours. Automated welding procedures and extreme environmental burn in, along with the internal protection against the harsh well conditions give customers the confidence of product reliability over time.

Low power / alternate materials available

From 0-5ft H₂O through 0-1500ft H₂O, the P431 is available in either a 4-20 mA or 0-5 Vdc output signal. For remote or battery powered systems, a low power option is available from a 5 Vdc, 1.5 mA supply. To futher enhance battery life, warm-up time is less than 3 mS. Other options include alternate materials of construction or Tefzel® cable.

Certification

Each P431 is delivered with a NIST traceable calibration record which details the input/output characteristics.

CE

Conforms to EN50081-2 and EN50082-2

Standard Features

Moisture Free/Maintenance Free Vent Filter EMI/RFI filtering with lightning protection Standard accuracy $\pm 0.25\%$ FSO Double sealed cable exit

Note: specifications are subject to change.







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High Stability Depth/Level Transmitter 0-5ft H₂O through 0-1,500ft H₂O



Product Specifications

- Electrical

Excitation 8-38 Vdc*

Output

P431A 4-20 mA P431B 0-5 Vdc* Zero Balance $= \pm 1\%$ FSO FSO Setting $= \pm 1\%$ FSO

Resolution Infinite (\pm .001% FSO usable)

Response Time <5 mS

Insulation Resistance 1000 MO @ 50 Vdc

Reverse Polarity Protected Warm-up < 3 mS

Power Supply Effect = $\pm .002\%$ FSO per V input

EMI/RFI Internal Filtering
Short Circuit Protected Up to 40 Vdc

Lightning Protected Dual gas discharge tubes

Mechanical

Pressure Ranges 0-3 through 0-750 psi (Customer may specify any range/eng. unit FOC) (Absolute, vacuum, compound available options)

Proof Pressure 2X Full Scale
Burst Pressure 5X Full Scale
Materials 316L & 15-5 SST*

Pressure Port PVC Cap*

Electrical Connector Submersible cable exit with 10ft

vented polyurethane cable*

Dimensions per outline below

Weight Nominal 10 oz (excluding cable)

Environmental -

Compensated Temp Range 0 to 170 °F

Operating Temp Range -40 to 200 °F

Storage Temp Range -40 to 250 °F

Performance

Static Accuracy $= \pm 0.25\%$ FSO* (BFSL, RSS) (combined effects of non-linearity, hysteresis & repeatability)

Repeatability = $\pm 0.05\%$ FSO

Temperature Effects = $\pm 1.5\%$ * FSO over comp range

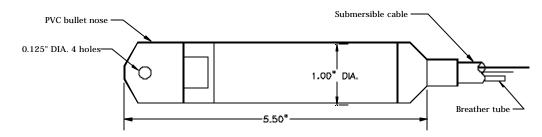
(combined effects of Zero & FSO with reference at 70°F)

Long Term Stability = $\pm 0.25\%$ FSO per year

* Options available

Outline

Note: specifications are subject to change.





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