

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 vent filter.*

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 further 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

Internal Lightning Protection

Maintenance Free



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.



Tel-Tru Manufacturing Co.
408 St. Paul Street
Rochester, New York 14605 USA
Phone: 585-232-1440 • 800-232-5335 • Fax: 585-232-3857 • E-mail: info@teltru.com • Web: www.teltru.com

P431 Pressure Transmitter



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	= ±1% FSO
FSO Setting	= ±1% FSO
Resolution	Infinite (±.001% FSO usable)
Response Time	<5 mS
Insulation Resistance	1000 MO @ 50 Vdc
Reverse Polarity	Protected
Warm-up	< 3 mS
Power Supply Effect	= ±.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)

Performance

Static Accuracy	= ±0.25% FSO* (BFSL, RSS) (combined effects of non-linearity, hysteresis & repeatability)
Repeatability	= ±0.05% FSO
Temperature Effects	= ±1.5%* FSO over comp range (combined effects of Zero & FSO with reference at 70°F)
Long Term Stability	= ±0.25% FSO per year

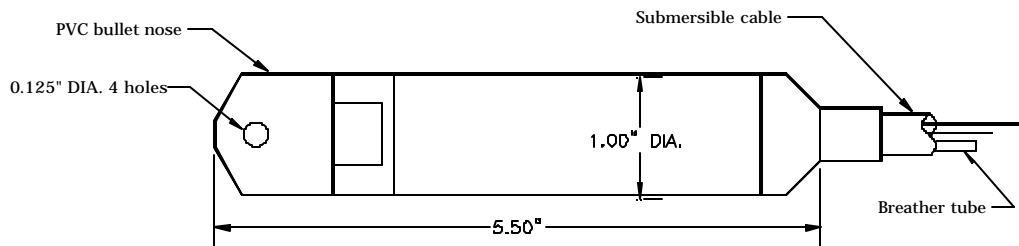
Environmental

Compensated Temp Range	0 to 170 °F
Operating Temp Range	-40 to 200 °F
Storage Temp Range	-40 to 250 °F

* Options available

Outline

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TEL-TRU PRESSURE TRANSMITTERS

Submersible Series Model P431

HOW TO ORDER EXAMPLE:

Precision Grade Submersible, 4-20 mA, 0.25% Accuracy, 0 to 100 psi, Gauge Pressure, 7/16-20 UNF (M) w/PVC cap, Vented polyurethane cable 10', Fully potted.

Example: **P431 A 3 D9A G - 15 A210 - B6**



MODEL
P431

OUTPUT

A 4-20 mA (2-wire)
B 0-5 Vdc (3-wire)
J .5 - 4.5 Vdc output
(5 Vdc in)

ACCURACY

3 0.25%
6 0.1% (includes improved zero balance to 0.5%)

PRESSURE RANGE

Pressure

A8A 0 to 3 psi
B1A 0 to 5 psi
B4A 0 to 10 psi
B7A 0 to 15 psi
C6A 0 to 30 psi
D6A 0 to 60 psi
D9A 0 to 100 psi
E3A 0 to 150 psi
E5A 0 to 200 psi
E7A 0 to 250 psi
E8A 0 to 300 psi
F3A 0 to 500 psi
F6A 0 to 750 psi
B4S 0 to 10 ft. WC
D4S 0 to 50 ft. WC
D9S 0 to 100 ft. WC
E7S 0 to 250 ft. WC
F3S 0 to 500 ft. WC
F6S 0 to 750 ft. WC
F8S 0 to 1,000 ft. WC
H2S 0 to 1,500 ft. WC

OPTIONS

B6 Fully potted

ELECTRICAL CONNECTION

A210 Vented polyurethane cable 10'
A230 Vented polyurethane cable 30'
***A250** Vented polyurethane cable 50'

A310 Vented tefzel cable 10'
A330 Vented tefzel cable 30'
***A350** Vented tefzel cable 50'
*** NOTE:** Request quote for more than 50' cable

PROCESS CONNECTION

15 7/16-20 UNF (M) w/PVC cap (> 15psi)
20 7/8-14 UNF (M) w/PVC cap (< 15 psi)
14 Stainless sludge nose
16 Stainless steel cap

MODE

G Gauge Pressure Ref.

PRICES INCLUDE:

- Certificate of calibration (directly traceable to NIST)

IMPORTANT NOTE:

Available Upon Request--Additional Options (consult factory):

- Process Connections
- Electrical Connections
- Pressure Ranges/Unit of Measure

