

# P421



## Submersible Pressure Transmitter

*Precision Grade--  
Clog Free in Waste Water/ Sludge/ Slurry Applications*

### **Designed for clog free operation in slurry applications**

Tel-Tru's P421 submersible pressure transmitter is designed for the OEM and end-users where continuous submersion in sludge/slurry applications is required.

*The P421's key feature is its clog free design of the sensing diaphragm, which improves reliability and lowers maintenance.*

### **Manufactured for reliability in harsh well environments**

The P421 is manufactured to perform over time in harsh well environments. An internal network of MOV's and dual gas discharge tubes protect against lightning, while dual sealing techniques ensure the integrity of the waterproof seal. 100% of P421 transmitters are submerged at our factory for at least 24 hours.

### **"Backed-up" sensing diaphragm**

The P421 all welded sensing diaphragm is "backed-up" with a solid piece of stainless steel and can withstand the most abrasive / cyclical applications.

### **Certification**

Every P421 is shipped with a NIST traceable calibration certificate.

### **CE**

Conforms to EN50081-2 and EN50082-2

*MOV & Dual Gas Discharge Tube  
Lightning Protection Network*



*Internal EMI/RFI  
Filtering*

### **Standard Features**

*Flush-clog free sensor  
Internal protection from lightning and EMI/RFI  
=±0.5% FSO Static Accuracy*

### **Available Options**

*=±0.25% FSO Static Accuracy  
Tefzel® Cable  
Low Power Consumption*

Note: specifications are subject to change.



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# P421 Pressure Transmitter



Submersible Level for Sludge/Slurry Applications

0-10 ft H<sub>2</sub>O through 0-500 ft H<sub>2</sub>O

## Product Specifications

### Electrical

Excitation	8-38 Vdc*
Output	
P421A	4-20 mA
P421B	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	< 10 mS
Power Supply Effect	= ±.002% FSO per V input
EMI/RFI	Internal Filtering
Lightning Protected	MOV & dual gas discharge tube
Short Circuit Protected	Up to 40 Vdc

### Mechanical

Pressure Ranges	0-5 through 0-300 psi (Customer may specify any range/eng. unit FOC)
Proof Pressure	2X Full Scale*
Burst Pressure	5X Full Scale*
Materials	316L SST plus cable*
Pressure Port	Flush mount per outline below*
Electrical Connector	½"-NPT Male submersible conduit fitting with 10ft of polyurethane cable*
Dimensions	per outline below
Weight	nominal 20 oz

### Environmental

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

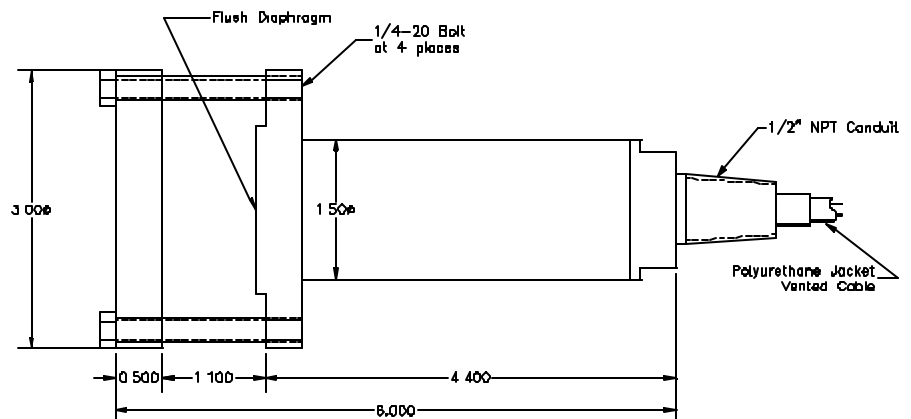
### Performance

Static Accuracy	= ±0.5% FSO* (BFSL, RSS)* (combined effects of non-linearity, hysteresis & repeatability)
Repeatability	= ±0.1% 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

### \* Options Available

### Outline

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