

# TR420E SERIES

## CONTINUOUS OUTPUT LEVEL TRANSMITTER FOR HAZARDOUS LOCATIONS

### DESCRIPTION

The vertically-mounted TR420E Continuous Output Level Transmitter for Hazardous Locations is equipped with an integral signal conditioner and provides a reliable 4-20 mA, 0-5 VDC or 1-5 VDC proportional electronic output in tank levels up to 15 feet. It can be used to input programmable controllers, meters and other digital receivers for accurate and continuous measurement in many liquid level applications. The TR420E is FM-approved with an explosion-proof rating for Class I, Div I, Groups A, B, C & D and an dust ignition-proof rating for Class II/III, Div I, Groups E, F & G hazardous (classified) locations, indoor/outdoor (Type 4, 4X). Float materials are available in stainless steel with a selection of mounting types. Additional options include high-level and low-level alarms as well as SPST 100 VA or SPDT 30 VA switch contacts.

### PRINCIPLE OF OPERATION

As the float travels with the fluid level within the tank, the float's internal magnets actuate a series of reed switches and resistors along the stem. The signal is electronically conditioned through the built-in transmitter board to provide a proportional current output.

### KEY FEATURES

- Two-Part Assembly: J-Box & Sensing Probe
- FM-Approved Class I, Div 1, Groups B, C & D
- Interchangeable Solid-State Electronics
- Watertight NEMA 7 & 9 Enclosure
- Probe Lengths Up to 15 Feet
- Optional Weighted Float For Oil/Water Interface

### ENVIRONMENTAL

- Process Temperature:  
-40° to +300° F (-40° to +149° C)
- Process Pressure: Up to 750 PSIG (51.7 bar)

### SPECIFICATIONS

MOUNT SIZE	MOUNT TYPE
1 ½" to 4" NPT	NPT Outside Mount
2 ½" to 4" Sanitary Flange	NPT Inside Mount
1 ½" to 4" #150 ANSI Flange	Flange
1 ½" to 4" #300 ANSI Flange	Sanitary Flange

### ELECTRICAL

- Input: 12 or 24 VDC
- Output: 4-20 mA, 0-5 VDC or 1-5 VDC
- Response Time: < 1/2 Second
- Linearity: ± 0.50%
- Resolution: 1/2" or 1/4"
- Power Consumption: 1.3 VA
- Independent Switch Contacts:  
SPST 100 VA or SPDT 30 VA

### APPLICATIONS

-  Fuel & Chemical Storage
-  Oil/Water Separators
-  Fuel & Day Storage Tanks
-  Off-Road Fuel Containers



### DIMENSIONS

