



TR420

### Key Features

- 4-20 mA output
- Power: 24 VDC
- 3 Wire (2 Wire Loop Power Available)
- 316L stainless, brass & engineered plastics
- Replaceable solid state electronics
- Lengths up to 12 feet
- Watertight Nema 4 (IP65) enclosure

### Electrical

- Power: 24 VDC
- Output Signal: 4-20 Ma
- Power Consumption: 1 VA
- Linearity:  $\pm 0.5\%$  of actual



### Description

The vertically mounted TR420 with integral signal conditioner provides a reliable 4-20 mA proportional electronic output in tank levels up to twelve feet. Available with stainless steel, polypropylene or Buna floats and a wide selection of mounting styles and materials, the TR420 can be used to input programmable controllers, meters and other digital receivers for accurate and continuous measurement in many liquid level applications. The variety of float styles and densities afford the best and most direct means for continually monitoring surface interfaces of dissimilar liquids in a single tank.

### Principle of Operation

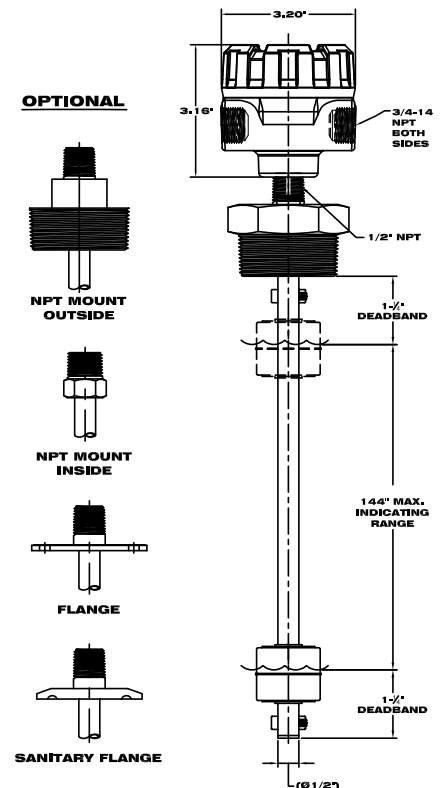
As the float moves, a magnet inside the float actuates a series of reed switches and resistors. The signal is electronically conditioned through the built-in transmitter board to provide a proportional 4-20 mA current output.

### Environmental

- Ambient Temperature (Electronics):  $-40^{\circ}$  to  $+160^{\circ}$  F ( $-40^{\circ}$  to  $+71^{\circ}$  C)
- Process Temp: (see table)
- Process Pressure:  
Plastic: 50 psig (3.4 bar)  
Buna: 150 psig (10 bar)  
316 SS: 750 psig (51 bar)

### Applications

- Food & Beverage Processing
- Medical & Pharmaceutical
- HVAC
- Underground Tanks
- Fuel Storage Tanks
- Chillers & Cooling Towers
- Semiconductor Processing



Specifications					
Model	Max Temp	Stem	Float	Float Dia	Applications
TR420-0401-20	+180° F / +82° C	Brass	Buna	1.87"	Petroleum based liquids, diesel
TR420-0408-03	+180° F / +82° C	316 SS	PP	2"	General purpose, water based liquids
TR420-0408-08	+180° F / +82° C	316 SS	316 SS	1.63"	Food and beverage, medical, severe service

Bulletin: IS-210.0  
Effective: December 2009