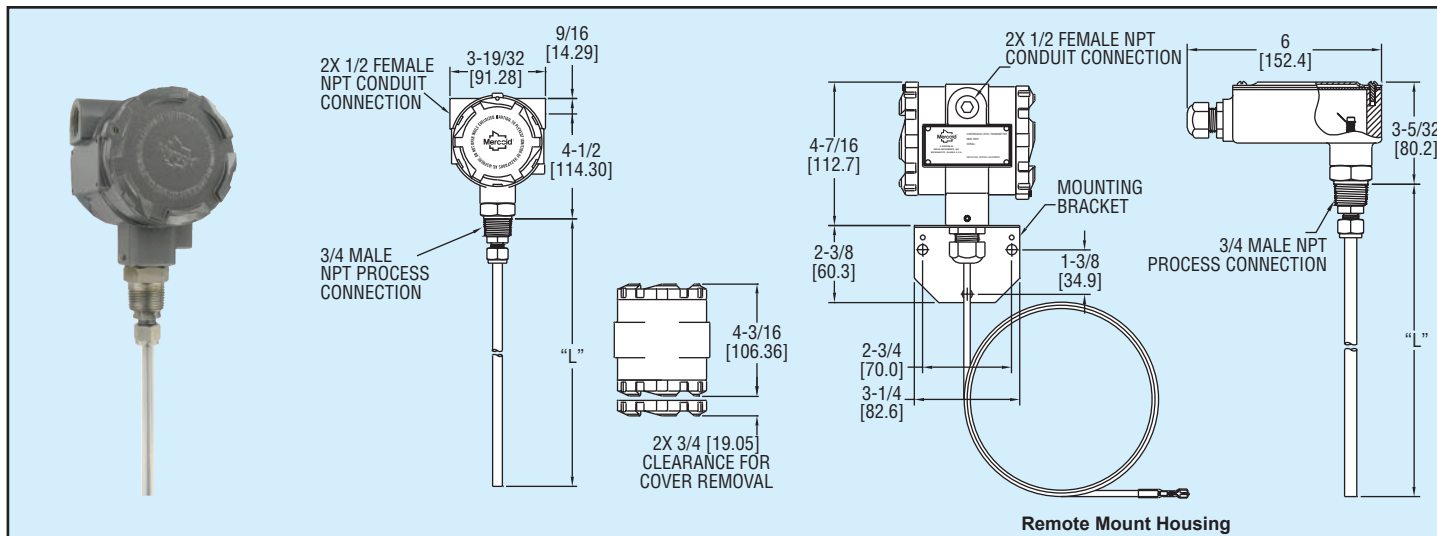




Series  
CRF2

# Capacitive Level Transmitter

## Powder, Bulk or Liquids



The Series CRF2 is a level transmitter providing a two-wire 4 to 20 mA output to indicate level of liquids, powders and bulk materials. State of the art sensing technology in the CRF2, using impulse RF admittance measurement provides excellent accuracy and stability. The CRF2 senses capacitance changes resulting from the height of the material in the tank between the probe and the tank wall. In non-metallic tanks or tanks that do not have the wall parallel to the probe a ground reference must be used.

The CRF2 comes with either a rigid or flexible probe depending on application installation need and probe length required. Featured in the CRF2 is easy push button calibration of zero and span. Custom order the CRF2 to any length probe that you need for your application. FEP covered probe is ideal for use with corrosive media. This technology also provides immunity to external RF sources like walkie-talkies and cell phones as well as minimal interference with radio communication or other electronic systems.

The CRF2 is perfect for level indication in bins, hoppers, or small silos of powder and bulk materials.

**Example Models:**  
CRF2-WR01T-072  
CRF2-WR01T-096

### SPECIFICATIONS

**Service:** Liquids, powders, and bulk materials compatible with wetted materials.

**Wetted Materials:** Standard:  
Rod/cable: FEP, Connection: 316 SS;  
Ground option: Rod/cable and connection: 316 SS; Cable spacers: PVC; Flange option: Material of flange.

**Capacitance Range:** 0 to 2000 pF.

**Sensitivity:** 0.15 pF.

**Minimum Span:** 8 pF.

**Accuracy:**  $\pm 0.5$  pF or  $\pm 0.25\%$  of span, whichever is greater.

**Repeatability:**  $\pm 0.25$  pF or  $\pm 0.1\%$  of span, whichever is greater.

**Temperature Limits:** Ambient: -40 to 185°F (-40 to 85°C); Process: -40 to 250°F (-40 to 121°C).

**Pressure Limit:** 100 psi (6.9 bar).

**Power Requirements:** 12 to 35 VDC.

**Output Signal:** 4 to 20 mA or 20 to 4 mA, 2 wire.

**Response Time:** 0.5 seconds.

**Electrical Connection:** Screw terminal.

**Conduit Connection:** 1/2" NPT female.

**Process Connection:** Standard: 3/4" NPT male; Optional: See model chart.

**Enclosure Rating:** NEMA 4X (IP66) weather-tight/corrosion resistant.

**Spark/Static Protection:** 10<sup>6</sup>  $\Omega$  dissipation resistance with spark gap. Surge current to 100A max.

**Calibration:** Zero, span, 4 mA, 20 mA.

**Mounting Orientation:** Vertical.

**Weight:** 6 ft rod type: 3.6 lb (1.63 kg).

Example	CRF2	W	R	0	1T	048	M20	CRF2-WR01T-048-M20
Series	CRF2							Capacitive Level Transmitter
Enclosure		W	R					Weatherproof Remote Mount Weatherproof Housing
Probe Type			R	C				Rod Cable
Ground				0	A			None Included Attached ground rod (3" or 4" flange process connection types only) Unattached ground rod
Process Connection				1T	2T	3T	1B	3/4" NPT male 1" NPT male 1-1/2" NPT male 3/4" BSPT 1" BSPT 1-1/2" BSPT 1" sanitary clamp 1-1/2" sanitary clamp 2" sanitary clamp 2" 150# flange, 316 SS 2" 150# flange, PVC 3" 150# flange, 316 SS 3" 150# flange, PVC 4" 150# flange, 316 SS 4" 150# flange, PVC
Probe Length						XXX		Insertion length in inches. Example 048 is 48" L. Rod Type: min: 24", max: 144" Cable Type: min: 24", max: 360"
Options							M20	M20 conduit connection with cable gland

LEVEL

Level Transmitters,  
Capacitive