



### DESCRIPTION

The ultrasonic level sensor provides a continuous level measurement from 5" (12 cm) up to 78" (200 cm). It has both a 4-20 mA analog output and 4 digital signaling outputs. With no moving parts, the ULS level is highly reliable for dirty and sticky environments. This all-metal enclosure allows for a sensor that can withstand abuse.

### FEATURES

- No moving parts
- Rugged all-metal enclosure
- Continuous non contact measurement
- Slosh/filtering option

### APPLICATIONS

- Water tanks
- Hydraulic units

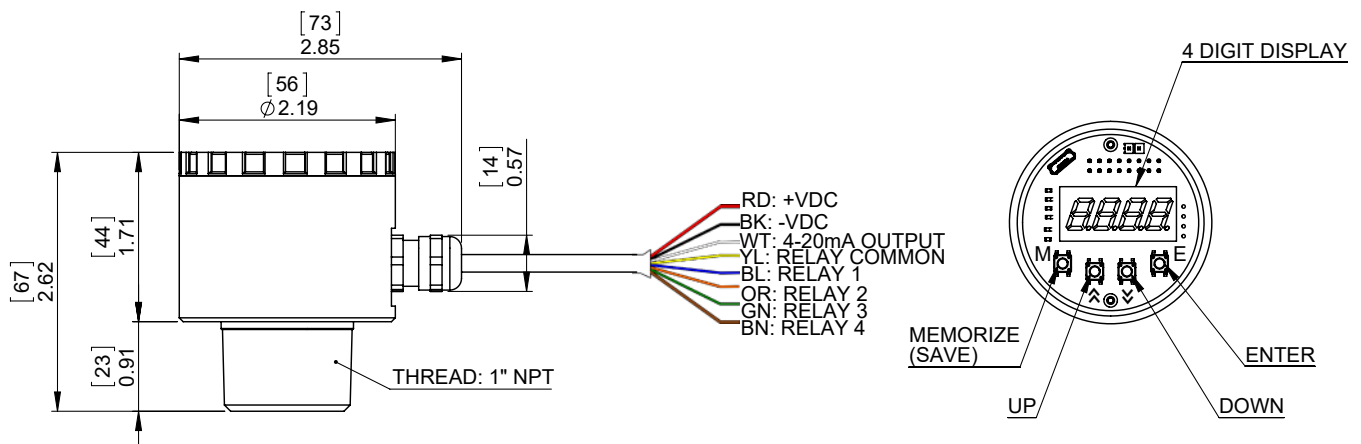
### Specifications

Range	5" to 78" (12 cm to 200 cm) from sensor surface at 32°F (22°C)
Dead Zone	5" (12 cm) from sensor face
Accuracy	0.5 % max distance (perpendicular to surface)*
Beam Angle	12° ± 2°
Ultrasonic Frequency	112 kHz
User Interface	Field Adjustable (push buttons and display)
Memory	Non-volatile
Supply Voltage	10 - 36 VDC (100mA maximum)
Analog Output	4-20mA **
Contact Type	(4) Normally Open SPST relays 48 VDC, 0.2A peak load current and 4-20 mA
Contact Hysteresis	Adjustable, 0 to 100%
Ambient Temperature	14°F to 140°F (-10°C to 60°C)
Enclosure Rating	IP65
Exposed Materials	Epoxy, Stainless steel thread, Aluminum enclosure
Cable Type	8-conductor shielded cable
Process Connection	1" NPT or 1" BSPT Stainless Steel
Optional Accessory	2" NPT PVC fitting. Recommended for optimal sensor performance

\* in stable homogeneous standard environment (affected by temperature gradients, vapors, supply voltage)

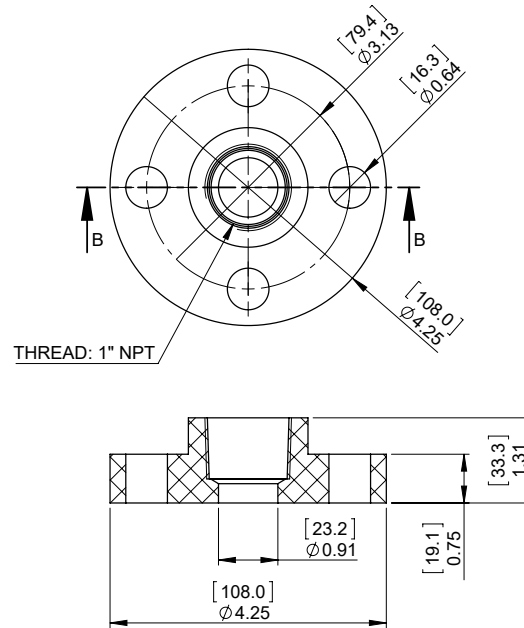
\*\* conversion error rate 0.2%

### Dimensions

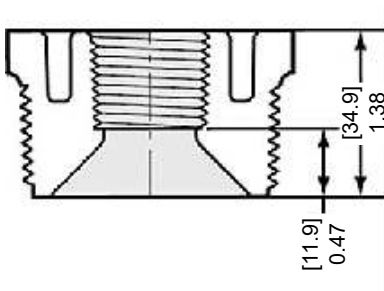


Wiring Code	
CONTACT	FLYING LEADS
RED	+VDC
BLACK	-VDC
WHITE	4-20 mA Output
YELLOW	Relay Common
BLUE	Relay 1
ORANGE	Relay 2
GREEN	Relay 3
BROWN	Relay 4

### FM16 Flange Dimensions



### TM3216 Bushing Dimensions



### Ordering Information

Field Adjustable    **ULS** - <sup>1</sup>**R** - <sup>2</sup>**16M** - <sup>3</sup>**78**

#### 1 - Output Type:

- A** - Analog Output
- R** - 4 Relay Output
- D** - Analog and 4 Relay Output

#### 2 - Thread:

**16M** - 1" NPT thread

#### 3 - Cable Length:

- 78** - 78" (2m cable)
- 275** - 275" (7m cable)

#### 1 - Accessories (Recommended optional item, ordered separately)

- TM3216** - 2" NPT PVC isolating bushing. Recommended for optimal performance.
- FM16** - 1" Flange Mount (gasket not included)
- FM16GV** - Viton Gasket for part number FM16