

# HTM

## SL 2 WIRE ULTRASONIC LEVEL METER WITH REMOTE TRANSMITTER

### INTRODUCTION

HTM SL 2 Wire Ultrasonic Level Meter is a programmable, versatile, low cost and compact ultrasonic level sensing instrument that is suitable for measuring levels of water & any non-corrosive fluids. It can also be used for measuring distance of an object from the measuring point. Each set of SL 2 Wire Ultrasonic Level Meter consists of a sensor housed in a sealed UPVC enclosure and a signal converter housed in an IP66 wall mounted enclosure. It has a built-in lightning surge arrestor and is fully tropicalised for reliable operations.

### PRINCIPLE OF OPERATION

HTM SL 2 Wire Ultrasonic Level Meter is a non contact type level sensor which utilizes the time taken for an ultrasonic wave to be reflected from the measured surface to the sensor to compute the distance of the surface from the sensor. This signal is converted into level signal and then scaled & conditioned into 4-20mA current output for instrumentation purpose. An integral alphanumeric LCD display provides a direct read out of the level measured in metres.

### FEATURES

#### **Built-in lightning surge arrestor**

HTM SL 2 Wire Ultrasonic Level Meter is truly designed for tropical environment where lightning surge is a major destructive factor in instrumentation systems. Its converter has a built in 2 stage lightning surge arrestor which protect the electronic circuit in the event of lightning surges. This effectively reduces the risk of level meter damage and hence down time of the instrument.

#### **Two wires operation**

HTM 2 Wire Ultrasonic Level Meter is a two wires instrument which uses power cables to transmit signal. This enables lesser number of cables to be used.



#### **Password protected**

The instrument can be password protected to prevent unauthorized attempt to manipulate user settings.

#### **Low cost & repairable**

HTM SL 2 Wire Ultrasonic Level Meter is a low cost & yet reliable instrument designed to be repairable in the event of failure. Faulty modules can be replaced easily without complete unit replacement.

#### **Display Options**

Equipment LCD offers option to either display measured liquid level or space distance between sensor and liquid surface plus surrounding temperature.

#### **Humidity/Dew Immunity**

The major electronic components of SL 2 Wire Ultrasonic Level Meter are housed in ABS IP66 rated converter housing and tropicalised. This eliminates the risk of electronic failure due to humidity.

#### **Ease of calibration**

Converter unit is intelligent enough to self calibrate to accommodate to the change of site condition.

## **SPECIFICATIONS**

Power supply : 18 to 36Vdc  
Power consumption : 0.5W  
Display : Alphanumeric LCD  
Accuracy : +/- 0.3% FS  
Linearity & Repeatability : +/-0.25% FS  
Display resolution : 10mm  
Output resolution: 0.03% of actual range  
Long term stability : +/-0.25% FS  
Transient protection : 10kV, 10kA@8/20 $\mu$ S  
Calibrated ranges : 0-10Mwg std  
Blind spot: <= 0.3m  
Range turn down ratio : 0.5:15  
Measurable range : 0.7 to 15m  
Testing cycle : 1 Sec  
Beam pattern : 10° (3dB)  
Working temperature : -20 to + 60°C  
Temperature compensation : Built in  
Dimensions :  
    Converter : 180 X 120 X 60 (mm)  
    Sensor : 55dia. X 172mm  
Wiring connection : 2 wires  
Outputs : 4-20mA, max 600 Ohms@24Vdc

### Materials of construction :

Converter : Polycarbonate  
Sensor housing : UPVC  
Sensor surface : PTFE material  
Cable : PVC

### Degree of protection :

Converter : IP66  
Sensor : IP65

Cable type : RG62

Diameter of cable : 6mm

Cable gland : 2 X M16 IP68 Nylon glands

Cable length : 5M std, optional up to 50M

Std accessories : Sensor mounting L bracket

Weight : Converter : 500g

Sensor : 500g

Cable : 40g/M

L bracket : 250g

Shipping : 2kg

Compliance: EN61326-1:2006, EN55011:1998

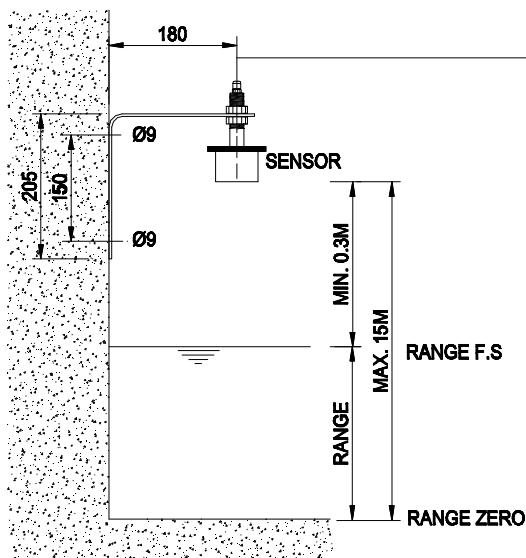
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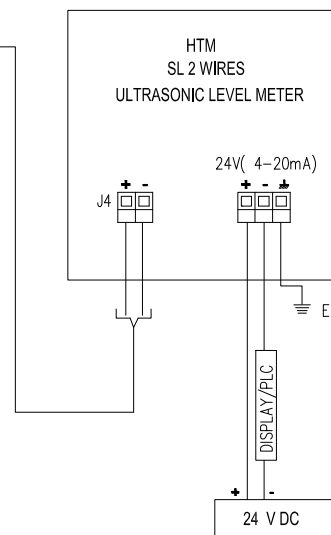
EN61000-4-4:2004, EN61000-4-5:2006,

EN61000-4-6:2007

## **SENSOR MOUNTING DETAILS**



## **WIRING DIAGRAM AND ADJUSTMENTS**



Manufactured by :

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