

HTM

PS420 PIEZORESISTIVE LEVEL SENSOR

INTRODUCTION

HTM PS420 is a versatile, low cost and compact Piezoresistive level sensor suitable for measuring levels of water & any other non-corrosive liquids. The unit is housed in a submersible stainless steel enclosure for Immersion to the bottom of water tanks etc for level sensing. It has a built-in lightning surge arrester and is fully tropicalised for reliable operations.

PRINCIPLE OF OPERATION

HTM PS420 is a Immersion level sensor which based on the hydrostatic forces of the liquid for which it is measuring. The level sensor consists of a precision Piezoresistive sensor, which converts the pressure exerted on the sensor diaphragm into electrical signal. This signal is then scaled & conditioned into 4-20mA current output for instrumentation purpose. The internal pressure of the sensor is vented to the atmosphere through a venting tube embedded in the signal cable.

FEATURES

Built-in lightning surge arrester

HTM PS420 Piezoresistive level sensor is truly designed for tropical environment where lightning surge is a major destructive factor in instrumentation systems. The PS420 has a built in 2 stage lightning surge arrester which protect the electronic circuit in the event of lightning surge. This effectively reduced the risk of level sensor damage and hence down time of the instrument.

Two wire operation

HTM PS420 is a two wire level sensor, which is loop powered. This enables low power consumption and hence can be operated in



solar powered and battery operated system without using large battery banks.

Low cost & repairable

HTM PS420 level sensors are low cost & yet reliable instrument designed to be repairable in the event of failure. Complete sensor replacement due to component failure is eliminated.

Humidity/Dew Immunity

The major electronic components of PS420 level sensor are potted with removable gel type compound. This eliminates the risk of electronic failure due to Humidity.

Ease of calibration & Repair

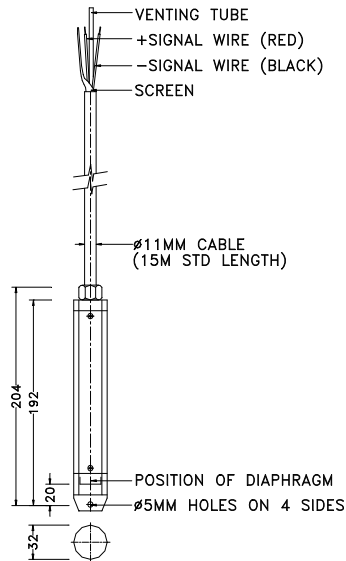
The Zero & Span adjustment and Electronic components of the PS420 level sensor can be easily accessed by open up the locking screws of the sensor body. Calibration and repairs can be carried out without any hassles.

SPECIFICATIONS

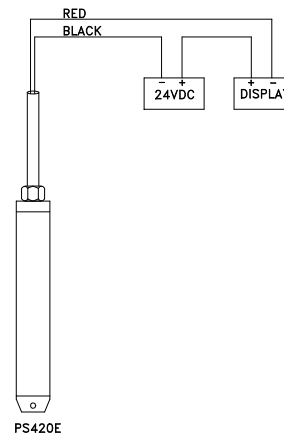
Power supply: 12 to 36Vdc
Accuracy : +/- 0.2% FS
Linearity & Repeatability : +/-0.2% FS
Long term stability : +/-0.2% FS
Transient protection : 10kV, 10kA@8/20 μ S
Ranges : 10Mwg std, other ranges optional
Max.Over pressure : 200%
Outputs : 4-20mA, max 600 Ohms@24Vdc
Materials of construction :
 Body : Stainless steel 316L
 Diaphragm : Stainless steel 316L
 Cable : PVC
Dimensions : 32mm dia. X 192mm L

Cable type : screened 4 wire, 2 wires used
Diameter of cable : 11mm
Cable length : 15M std, longer length optional
Enclosure : IP68
Temperature : -20 to + 70°C
Weight : 600g
Weight of cable : 95g/M
Compliance: EN61326-1:2006, EN55011:1998
+A1:1999 +A2:2002, EN61000-4-
2:1995+A1:1998+A2:2001, EN61000-4-
3:2006, EN61000-4-4:2004, EN61000-4-
5:2006, EN61000-4-6:2007
Conformance: CE, EC Directive 2004/108/EC

DIMENSIONS



WIRING DIAGRAM



Manufactured by :

HTM Instruments Sdn Bhd (Company No 687564-T)
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