

ATEX Approved Intrinsically Safe Relative Humidity Transmitters HP140IS/HP150IS (Issue 12.0 June '19)

Function: The HP140IS and HP150IS are Duct and Wall mounting Intrinsically Safe Relative Humidity transmitters. They have been approved by SGS Baseefa Ltd, certificate number Baseefa 03ATEX0101X, for use in Zone 20 conditions and are certified to $\text{Ex ia IIC T4 Ga}(-20^{\circ}\text{C} \leq T_a \leq +70^{\circ}\text{C})$ and $\text{Ex ia IIC T}_{200}135^{\circ}\text{C Da}(-20^{\circ}\text{C} \leq T_a \leq +70^{\circ}\text{C})$. The probes operate as two wire transmitters and produce a 4 to 20mA output proportional to 0 to 100% Relative Humidity. Interface to the safe area must be via approved barriers. SGS Baseefa Ltd have also approved the system drawings below using MTL7728 -ve or MTL7788R+ve barriers. The system certificate number is Baseefa03Y0103.



Lee-Dickens Ltd 01536-760156

Web: <https://www.lee-dickens.co.uk>

SPECIFICATIONS

INPUT:

Relative Humidity

0 to 100% RH

Operating Temperature Range

HP140IS

Sensor: -10 to $+100^{\circ}\text{C}$

Electronics: -10 to $+70^{\circ}\text{C}$

HP150IS

Sensor and Electronics: -10 to $+70^{\circ}\text{C}$

OUTPUT:

DC Current

4 to 20mA

representing 0 to 100% RH

SUPPLY:

Power Supply Voltage

$+22$ to $+28$ Volt DC via approved barriers

PROBE CONSTRUCTION

HP140IS Duct Mounting

The HP140IS comes as standard with a Table E Flange and an insertion depth below flange of 178mm.

Options for the probe include a 22mm compression fitting and the probe length can be anything in the range of 100mm to 600mm max.

Probe Material: Stainless Steel

The HP140IS comes fitted as standard with a Sintered Bronze Guard - optionally it can be fitted with a plastic cage or a Stainless Steel Mesh Guard

SPECIAL CONDITION OF USE:

Where the equipment may be exposed to Acetylene, the Sintered Bronze Guard (SBG) must be replaced by a Stainless Steel Guard (SSG) or a Plastic Cage Guard.

Electronics Housing: Polycarbonate enclosure

HP150IS Wall Mounting

Sensor Guard: HP150IS comes fitted as standard with a Plastic Cage - optionally can be fitted with a Sintered Bronze Guard (as photo) or a Stainless Steel Mesh Guard.

Electronics Housing: Polycarbonate enclosure

N.B. Each probe comes fitted with mating connector

GENERAL:

Accuracy

Relative Humidity: $< \pm 2.0\%$ for 0 to 95% RH

Storage Temperature Range

Electronics: -20 to $+70^{\circ}\text{C}$

Operating/Storage Humidity Range

0 to 95% RH non-condensing

Barriers

MTL7728-ve

MTL7788R+ve

available from Lee-Dickens

Weight

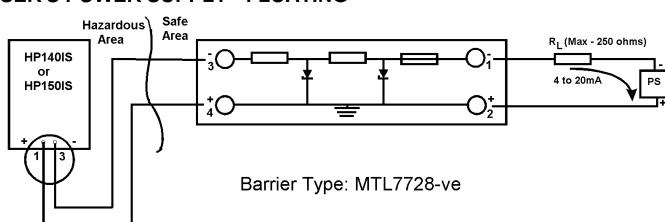
HP140IS - standard length with Flange 1.15 Kg

with Compression 0.9 Kg

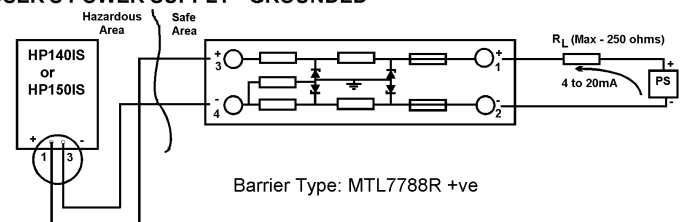
HP150IS 0.65 Kg

TERMINATION DETAILS

USER'S POWER SUPPLY - FLOATING

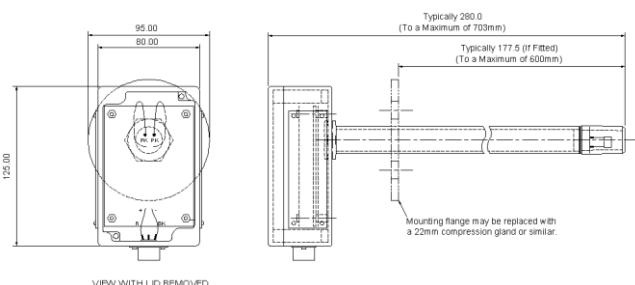


USER'S POWER SUPPLY - GROUNDING

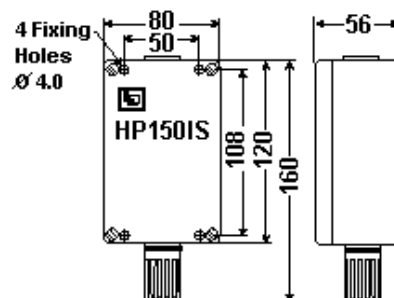


MECHANICAL DETAILS

HP140IS



HP150IS



ORDERING DETAILS

- Specify probe type required; i.e. HP140IS
- Specify barrier type required, if required
- Specify if Guard required is other than standard

- Specify if Compression Fitting required rather than Flange
- Specify if Insertion Length required is other than 178.0 mm