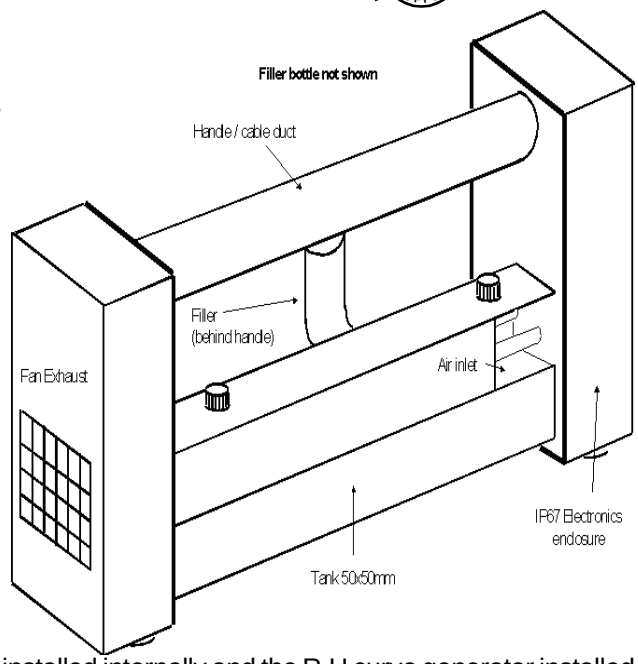
PHT Physchrometric humidity transducer.

The Pyschrometric Humidity Transducer is a wet and dry tank assembly complete with an aspirating fan, PT100 sensors, conditioning amplifiers and R.H. curve generator for accurate measurement of Relative humidity. The instrument is designed to provide a solution for measurement of Relative humidity in environments that are too aggressive or extreme for other types of R.H. sensing equipment.

The transducer is made from 316 Stainless steel with IP67 plastic enclosures for the electronics and fan.



Specifications

Power supply: 24vdc @150mA for Fan
24vdc @100mA or 230VAC 4w. for R.H. Curve generator
24vdc @ 40 mA max for conditioning amplifiers.

Curve generator:
Type: Intech PI-M, Input resolution : 0.024 °C
Output resolution 0.024% RH

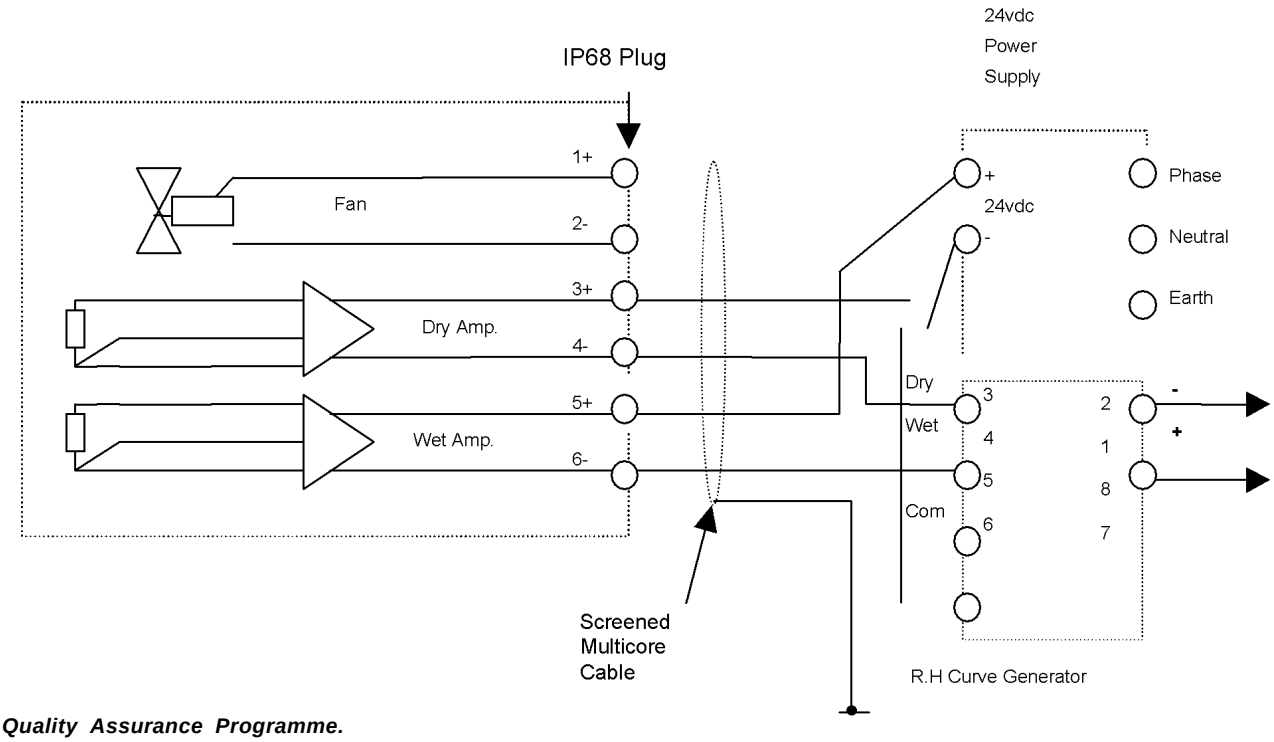
Conditioning amplifiers:
Type: Intech LPN-R

Operating Temperature Range of transducer: 0-60 °C

Transducer has been designed as a portable unit with amplifiers installed internally and the R.H curve generator installed externally. Wiring is as follows:

Operation:

1.The transducer should be placed on a level surface to prevent spillage from the water reservoir.
2.The water reservoir should be filled with deionised or distilled water to prevent wick contamination.
3. An Air gap should always be left in the filling bottle when it is filled, to prevent an airlock.
4. The wick should not be handled with fingers unless it is degreased afterwards by a non residue cleaner such as CRC contact cleaner.
5. The transducer should not be exposed to temperatures below 0°C while water remains in the reservoir.



Quality Assurance Programme.

The modern technology and strict procedures of the ISO9001 Quality Assurance Programme applied during design, development, production and final inspection grant long term reliability of the instrument. This instrument has been designed and built to comply with EMC and Safety Standards requirements.