

# Moisture Sensor

## Specifications

<b>Accuracy</b>	±1 ppm at dry limit. S and R ranges ±3 °C (±5.4 °F) DP across range. For all other ranges ±4 °C (±7.2 °F) DP.
<b>Dimensions</b>	Overall length: 141 mm, protruding 68 mm, thread 14 mm x pitch 1.25 mm.
<b>Weight</b>	Approximately 100 g.
<b>Sensor Connection</b>	PAL TV Type connector to low loss coax cable (75 ohms max impedance, capacitance of 50 pF per metre). Sensor location up to 1,000 m from meter except after zener barrier then 300 m.
<b>Sensor Materials</b>	High purity aluminium, gold, nylon, silver and stainless steel.
<b>Sampling</b>	Pressure up to 400 Bar preferably atmospheric with flow rate of 1 - 5 litres/minute in Shaw Sensor Holder.
<b>Black List Gases</b>	Ammonia, Chlorine, acidic and caustic gases and any known to corrode any of the sensor materials listed above.
<b>Calibration</b>	AutoCal on all but BL ranges.
<b>Intrinsic Safety Certification:</b>	 II 1 G Ex ia IIC T6 Ga ATEX: Baseefa 03ATEX0067X IECEX: BAS 14.0132X National Physical Laboratory (NPL) traceable calibration available.
<b>Accessories/Options</b>	Zener Barrier Unit (ZBU) for intrinsically safe operation in hazardous areas to EEx ia IIC. SU4 Lo, Med or Hi sample system for sample conditioning pressurised gases to atmospheric conditions and controlled flow. SWS Lo, Med or Hi Sample System, as SU4 but in IP rated cabinet.

## Ordering Information

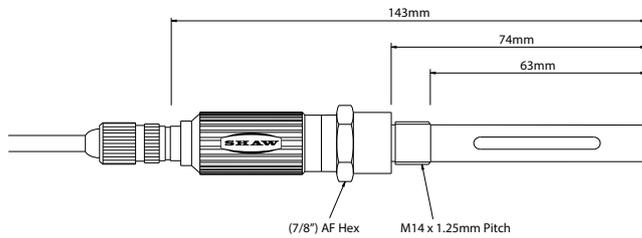
<b>Sensor Type {r}:</b>	<b>Sensor Range:</b>
<b>P (Purple):</b>	-100 to 0 °C (-148 to +32 °F) DP, 0 - 6,000 ppm
<b>S (Silver):*</b>	-100 to -20 °C (-148 to -4 °F) DP, 0 - 1,000 ppm
<b>R (Red):</b>	-80 to -20 °C (-112 to -4 °F) DP, 0 - 1,000 ppm
<b>G (Grey):</b>	-80 to 0 °C (-112 to +32 °F) DP, 0 - 6,000 ppm
<b>Y (Yellow):**</b>	-60 to 0 °C (-76 to +32 °F) DP, 10 - 6,000 ppm
<b>B (Blue):</b>	-80 to +20 °C (-112 to +68 °F) DP, 0 - 23,000 ppm
<b>To order</b>	Example: To order a sensor with a measuring range of -80 to 0 °C (-112 to +32 °F) dewpoint (grey sensor) please order <b>SE-G</b> All sensors are supplied with universal guards.

\* check availability  
 \*\* replacement only available in limited quantities

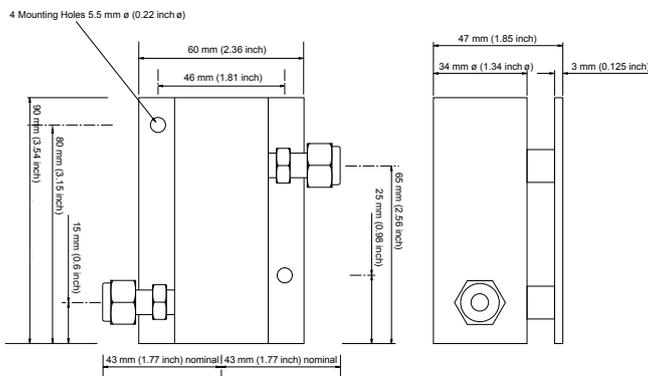
**NOTE: This is the full range of Shaw sensors, with only particular ranges applicable to certain models as per the model specification sheet.**



## Sensor Diagram



## Sensor Holder Assembly Diagram



NOTE: The assembly is shown with 1/4 inch OD tube fittings. The dimension across the tube fittings will vary for all other size fittings.

## Related Products

### Model SADP - Portable Dewpoint Meter

The world renowned Model SADP portable dewpoint meter from Shaw Moisture Meters offers an easy to use hygrometer for fast and reliable trace moisture measurement.

Designed to operate at atmospheric pressure, the Model SADP features a large, easy to read analogue indicator scaled in °C dewpoint, °F dewpoint and corresponding parts per million (ppm(v)) range. The TR versions of the Shaw SADP offer the 0 - 10 ppm(v) range expanded over the full scale, which is selected by means of the rotary switch on the front panel. This allows for accurate measurement below 10 ppm(v).



### Superdew 3 - Hygrometer

The Model Superdew 3 is a single channel on-line hygrometer designed to measure dewpoint in process gases and compressed air. The panel mounted enclosure provides panel protection to IP54.

The combination of the highly accurate, repeatable Shaw sensor and advanced digital electronics, make this the instrument of choice for a wide range of applications where precise measurement, control and monitoring is critical. Each sensor is calibrated to provide overall system accuracy of better than  $\pm 2$  °C ( $\pm 3.6$  °F) dewpoint. An isolated 4 - 20 mA analogue output is supplied as standard which can be configured across the range of the sensor allowing for the instrument to be sited in excess of 1,000 metres from the sensor.



### Model SU4 - Sample Conditioning Unit

The Model SU4 sample conditioning unit provides ideal sample conditions reducing the pressure from the dryer to give a pressure and flow suitable for measurement. The SU4 combines a pressure regulator, sensor holder and a flow meter mounted on a stove enamelled back plate.

The Model SU4 comes with pneumatic connections with a choice of 1/8", 1/4" or 6 mm compression fittings for inlet and outlet.

