

THE SHAW SENSOR SYSTEM

The *Shaw Moisture Meters* sensor is a modified molecular sieve absorber manufactured in aluminum oxide with an outer conductor of 24-carat gold. The *Shaw Hygrometer with Automatic Calibration Sensor* allows field calibration checks. In 1950 *Leonard Shaw* invented the dry air hygrometer

SENSOR FEATURES

- A linear response to water vapor pressure change
- Up to 20 years of typical operating life
- Capacitance probe for quick system response
- All *Shaw* sensors are field interchangeable
- Two year guarantee on sensor; 6 months on Gray Spot Low Spec
- Intrinsically Safe when used with *Shaw* meters
- Factory certified calibration to international standards supplied with each sensor; except Gray Spot Low Spec
- Frequent calibration check not required
- Excellent long term stability
- Automatic zero setting on most sensor ranges
- 60, 80 or 100 °C (108, 144, 180 °F) dewpoint span
- Accurate to ± 1 ppm moisture in gas, dewpoint range to - 100 °C (-148 °F)
- Supplied with stainless steel sensor holder for ease of piping
- Each sensor and meter traceable by individual serial numbers
- Pressure rating of 2,800 psig
- Process temperature rating of -35 °C to +40 °C (-30 to +100 °F) (range dependent)



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Shaw Moisture Sensor Specification

Accuracy:	For P, G and R ranges ± 1 ppm at dry limit, ± 3 °C dewpoint across range. For other sensors ± 4 °C dewpoint. GYLS ± 7 °C dewpoint
Dimensions / Weight:	Overall length: 5.5 inches, protruding 2.7 inches, thread 14mm x 1.25mm pitch, weight 5.3 ounces
Sensor Connection:	TV type connector to low loss co-ax cable (75 ohms max impedance, capacitance of 50 pF per meter). Sensor location up to 3,300 feet from meter except 1,000 feet with Zener Barrier Unit
Sensor Materials:	High purity aluminum, PTFE, gold, nylon and modified molecular sieve.
Sampling:	Pressure up to 2,800 psig, preferably atmospheric with flow rate of 1 - 5 liters/minute in <i>Shaw</i> Sensor Holder.
Black List Gases:	Ammonia, Chlorine, acidic and caustic gases which may corrode any of the sensor materials listed above
Calibration:	Automatic Calibration on all but GO, BL and GN ranges.
I.S. Certification:	Baseefa no 72145/B. FM & CENELEC approved.
Certification:	Calibration of each sensor traceable to NPL (European Standard)
Accessories:	Zener Barrier for intrinsically safe operation in hazardous areas SU4 Lo, Med or Hi Sample system for flow and pressure conditioning Stainless Steel filter, 1/8" or 1/4" connections

Sensor Type:	Sensor Range:
Purple : (P)	-100 / 0 °C ~ -148 / +32 °F DP, 0-6000 ppm (auto-cal)
Red : (R)	-80 / -20 °C ~ -112 / -4 °F DP, 0-1000 ppm (auto-cal)
Gray : (GY)	-80 / 0 °C ~ -112 / +32 °F DP, 0-6000 ppm (auto-cal)
Gray LS : (GYLS)	-80 / 0 °C ~ -112 / +32 °F DP, 0-6000 ppm (auto-cal)
Silver : (S)	-100 / -20 °C ~ -148 / -4 °F DP, 0 - 1000 ppm (auto-cal)
Yellow : (Y)	-60 / 0 °C ~ -76 / +32 °F DP, 10-6000 ppm (auto-cal)
Gold : (GO)	-50 / +20 °C ~ -58 / +68 °F DP, 40-23,000 ppm (manual-cal)
Blue : (BL)	-80 / +20 °C ~ -112 / +68 °F DP, 0-23,000 ppm (manual -cal)



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