

HY-OPTIMA™ 700 In-Line Process Hydrogen Monitor

Description

H2scan's Series 700 in-line, real time hydrogen-specific process monitors are designed for ease of use, interface flexibility, and true process control. The HY-OPTIMA™ 700 is a solid state sensor that can operate in humidity and process gas streams with temperatures up to 100°C. The HY-OPTIMA™ 700 is ideal for hydrogen production and petrochemical applications where real-time measurements can enhance process plant efficiencies, diagnostics, and maintenance management.

Performance

Hydrogen Sensitivity Range:
0.5% to 100% hydrogen by volume at 1 ATM
Typical Response Time: T90 less than 30 sec
Ingress Protection: IP64 capable
Calibration Interval: 90 days
Product Life Expectancy: 10 years
Accuracy: $\pm (0.03 \times \text{indication} + 0.2)$ percent hydrogen by volume

Interface Options

Input Voltage Range: 8 VDC to 13 VDC
Input Current: 0.5 A
Analog Outputs:
Output Voltages - OR - Output Currents

- 0 VDC to 5 VDC
- 1 VDC to 5 VDC
- 0 VDC to 4 VDC
- 0.5 VDC to 4.5 VDC
- User-specific VDC range
- 4 mA to 20 mA
- 0 mA to 20 mA
- User-specific mA range

Serial Communication Options: RS232 or RS422
Relay Contacts: Two programmable 60 VDC / 1 A SPDT relays with both normally open (N.O.) and normally closed (N.C.) contacts.

Certifications:  

Operating Conditions

Operating Humidity: 0% to 95% RH
Flow Rate: 0.1 slpm to 50 slpm
Pressure: 0 to 7 bar gauge, 0 to 100 psi gauge
Process Gas Temperature Range: -20°C to 100°C
Operating Temperature Range: -20°C to 40°C
Storage Temperature Range: -40°C to 50°C
Calibration Background Gas: Nitrogen

Adapter Fittings

½ in. MNPT thread
½ in. FNPT thread
-8 SAE/MS thread size
... and many other industry standards.

Dimensions

Total Length: 9.1 in.
Length of Enclosure: 6.7 in.
Length of Tube: 2.4 in.
Width: 3.4 in.
Depth: 1.4 in.

