

## HY-OPTIMA™ 740 In-Line Process Hydrogen Monitor

- CO Tolerance and Enhanced H<sub>2</sub>S Tolerance

### 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™ 740 is a solid state sensor configured to operate in background gas streams having carbon monoxide concentrations up to 100 ppm, sulfur stream concentrations up to 1000 ppm, up to 95% relative humidity, and temperatures up to 100°C. The HY-OPTIMA™ 740 is ideal for hydrogen production and petrochemical applications where real time measurements of hydrogen can increase process plant efficiencies, improve diagnostics and enhance maintenance management translating into higher profitability.

### 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: ± (0.03 x 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

Certification: 

### Operating Conditions

Process Gas Tolerance:  
*CO tolerance < 100 ppm*  
*H<sub>2</sub>S tolerance < 1000 ppm*  
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.

