

## HY-OPTIMA™ 2740 Explosion Proof In-line Area Hydrogen Analyzer (% H<sub>2</sub>S & CO)

- % Level CO and % Level H<sub>2</sub>S Tolerance

### Description

**H2scan's** Series 2700 real-time hydrogen specific process analyzers are designed for ease of use, interface flexibility and true process control. The HY-OPTIMA™ 2740 is a solid-state sensor configured to operate in background gas streams having carbon monoxide, concentrations up to 20% by volume, hydrogen sulfide concentrations up to 10% by volume, up to 95% relative humidity, and temperatures up to 65°C. The HY-OPTIMA™ 2740 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 at 1 ATM on a volume basis in a single or multi-component gas background

Ingress Protection: IP64 capable

Recommended Verification Interval: 90 days

Product Life Expectancy: 10 years

#### Accuracy(\*):

± 0.3% absolute for 0.5 to 10% H<sub>2</sub>

± 1.0% absolute for 10 to 100% H<sub>2</sub>

#### Drift/week:

± 0.2% absolute for 0.5 to 10% H<sub>2</sub>

± 0.4% absolute for 10 to 100% H<sub>2</sub>

#### Repeatability:

± 0.2% absolute for 0.5 to 10% H<sub>2</sub>

± 0.4% absolute for 10 to 100% H<sub>2</sub>

#### Linearity:

± 0.2% absolute for 0.5-10% H<sub>2</sub>

± 0.4% absolute for 10-100% H<sub>2</sub>

### Interface Options

Input Voltage Range: 90 VAC to 240 VAC

Input Power: 15W

Analog Outputs:

Output Currents

- 4 mA to 20 mA

- 0 mA to 20 mA

- User-specific mA range

#### Serial Communication Options:

RS232 or RS422

**Relay Contacts:** Two programmable

relays and one fault relay with both

normally open (N.O.) and normally

closed (N.C.) contacts:

- 5A/240VAC

- 5A/ 30 VDC

### Certifications:

UL 1203

UL 508

USC – Class I, Division 1, Groups B, C, and D Hazardous (Classified)



### Operating Conditions

Process Gas Tolerance:

CO tolerance: 20% by volume

H<sub>2</sub>S tolerance: 10% by volume

Operating Humidity: 0% to 95% RH (non condensing)

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 65°C

Operating Temperature Range: -20°C to 40°C

Storage Temperature Range: -30°C to 80°C

Calibration Background Gas: Nitrogen

### Adapter Fittings

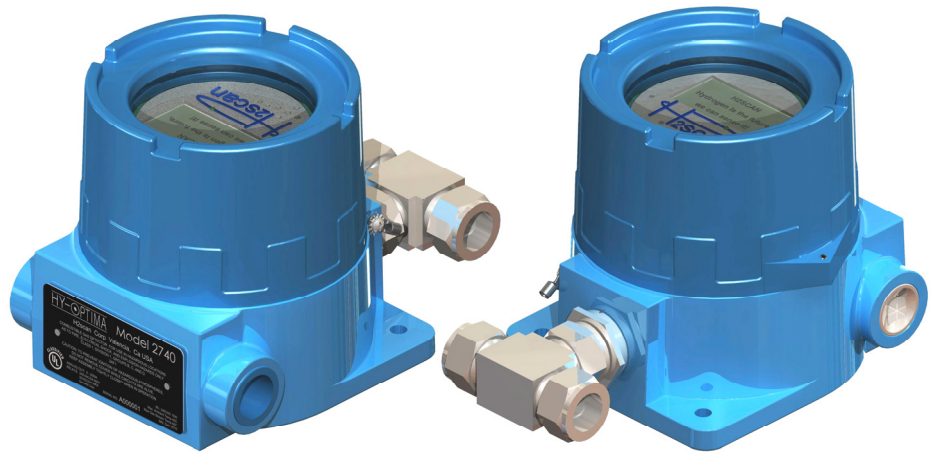
3/4" Union Tee Compression

### Dimensions

Width: 13.8 cm (5.4 in)

Length: 19.2 cm (7.5)

Depth: 13.0 cm (5.7 in)



\* Sensor performance specifications are only valid for units configured for a maximum 65°C dry process stream and at 25 °C ambient temperature. All figures assume pressure compensation, operating in ambient that do not contain Oxygen and are in addition to any errors in the gasses used. The accuracy is specified for serial port and digital display output only.

HY-OPTIMA™ is a registered Trademark of **H2scan**

Specifications subject to change without prior notice

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