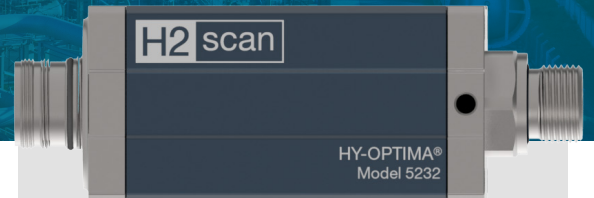


# HY-OPTIMA<sup>®</sup> 5232

## HYDROGEN ANALYZER



### Revolutionary Self-Calibrating Hydrogen Measurement for Industrial Applications

The HY-OPTIMA<sup>®</sup> 5232 analyzer delivers unparalleled reliability, robustness, and durability to hydrogen in-line monitoring across various industrial applications, from chemical facilities and refineries to the burgeoning green hydrogen economy. Built on H2scan's zero maintenance and patented solid-state hydrogen sensing technology, it is the only hydrogen sensor capable of providing years of drift-correcting and self-calibrating operation. The sensor's real-time, hydrogen-specific measurements enhance process efficiencies, improve yields, reduce maintenance costs, and support the green hydrogen economy.

### HY-OPTIMA Analyzer Enhances H2scan's Patented Hydrogen Sensing Technology

The HY-OPTIMA 5232 provides continuous, hydrogen-specific monitoring without cross-sensitivity to other gases. Its compact design allows for easy installation, whether standalone or integrated into existing analyzer systems. The unit's self-calibrating capability does not require any consumables, and delivers long-term accuracy, significantly reducing the total cost of ownership as well as enhancing the reliability of the hydrogen monitoring solution.

#### Long-Term Reliability:

Enjoy maintenance-free operation from H2scan's hydrogen process analyzer

**Versatile Integration:** Easily installed as a stand-alone hydrogen measurement device or integrates seamlessly into existing OEM systems

#### Broad Applicability:

Ideal for a wide range of industries, including refineries, petrochemical facilities, gas manufacturing, hydrogen-based process lines, hydrogen production and distribution, fuel cells, electrolyzers, and many more hydrogen economy applications

#### Cost-Effective:

Achieve comprehensive coverage while reducing the total cost of ownership by more than 40% over its long lifespan

**Improved Safety:** Enhance safety during hydrogen production or use with accurate hydrogen measurement

**Easy In-line Integration:** Compact form factor fits seamlessly into processing gas streams

**Green Operations:** No consumables required, supporting environmentally friendly operations & maintenance practices



### Key Features and Benefits

- Self-calibration eliminates drift and maintains accuracy
- No consumables such as calibration gases are needed
- Zero reference or carrier gases are required
- Reliable long lifespan
- No cross-sensitivity to other gases preventing false H<sub>2</sub> issues
- Continuous, real-time, accurate monitoring without process downtimes
- Tolerance of various harsh background contaminants
- Accessible serial communication via integrated digital and analog capabilities
- Relays to trigger alarms in any safety system
- Compact design allows for versatile installation options

### HY-OPTIMA 5232 Hydrogen Range

Hydrogen Range		Accuracy	Repeatability	T90 Response Time (sec)
Low	High			
0.4%	5%	0.3%	0.3%	<60

### Product Specifications

Operating Conditions	
Operating Pressure	0.95 - 1.1 ATM Absolute
Operating Humidity	< 95% RH (non-condensing)
Input/Output Signal	
Digital Communication	Modbus over RS-485, three-wire
Relays	2 optically isolated open-collector switch circuits
Analog	4-20 mA
Power	
Input Voltage	9-30 VDC
Input Power	5W
Physical	
Dimensions	144.4 x 50 x 50 mm (5.68 x 1.97 x 1.97 in)
Weight	748.43 g (1.65 lbs)
Electrical Fitting	Twelve-Pin, M23
Sensor Fitting	M20 face seal, ISO 9974-1
Environmental	
Ingress Protection	IP66
Operating Temperature	-40°C to 70°C (-40°F to 158°F)
Storage Temperature	-40°C to 85°C (-40°F to 185°F)
Certifications	
CE	

### HY-OPTIMA 5232 Dimensions

