

# GRIDSCAN® 5000

COMPREHENSIVE  
TRANSFORMER  
MONITORING



## Extend the Life of Your Assets With the GRIDSCAN 5000 Series

H2scan's GRIDSCAN 5000 Series is a proven transformer monitor that provides meaningful and actionable insight into the condition of transformer fleets. H2scan's GRIDSCAN 5000 monitor alerts transformer operators when their assets enter an abnormal state, prompting action to avoid catastrophic failure. The GRIDSCAN 5000's low cost, ease of deployment and operating life lends it to real-time fleetwide health monitoring.

Unlike competitive single-gas products, the GRIDSCAN 5000 incorporates H2scan's unique solid-state technology, eliminating the need for sensor maintenance, calibration and problematic consumables. The patented H2scan sensor is recognized in the industry as the gold standard and carries an exclusive 10-year warranty. It provides true set-and-forget monitoring (no more monitoring the monitor), allowing maintenance teams to focus on distressed assets identified by the GRIDSCAN sensors and while reducing OPEX and extending the life of critical transformer assets.

Using industry standard communication protocols, the GRIDSCAN 5000 integrates seamlessly with a wide range of systems, making it an ideal standalone deployment by grid operators, or for integration into OEM solutions such as multi-gas DGA's or transformer monitors.

H2scan's reliable and accurate hydrogen sensors have been monitoring transformer fleets for decades. They are:

- Designed to support fleetwide deployment
- Able to operate in insulating liquid or headspace of power transformers and ancillary equipment
- Ruggedly fabricated to offer market-leading range of environmental operating conditions (hot/cold/salt water/submersible)
- A compact form factor for tight installation spaces
- Ideal for a fleetwide IoT deployment strategy, but also support conventional SCADA connectivity

## Transform Your Transformer Monitoring Program

**Fast Time to Value:**  
Hours, not weeks or months

**Longest Life Hydrogen Sensor:** Standard 3-year warranty on the product and 10-year warranty on the hydrogen sensing element

**Patented Auto Calibration:**  
Eliminates drift and need for periodic calibrations to maximize uptime

**Easy to Install and Operate:**  
No moving parts and small form factor

**Rugged and Reliable:** Rated for harsh environmental conditions

**Broad Connectivity:** IoT/SCADA/  
ADMS ready with Modbus or DNP3



Protect critical transformer assets without worrying about maintaining sensors or calibration. GRIDSCAN 5000 Series analyzers provide an accurate, reliable and affordable hydrogen process gas measurement solution for the insulating liquid or head-space of power transformers.

**Certifications:** The GRIDSCAN 5000 meets all relevant global monitoring standards for transformer installations and is CE-approved for safe general-use operation.

### Specifications

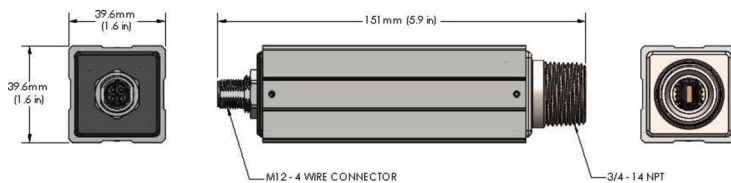
Hydrogen Sensor Specifications		Physical Specifications	
<b>H2 Measurement Range</b>	Oil Phase: 25 - 5,000 ppm Gas Phase: 25 - 5,000 ppm in-oil equivalent	<b>Wetted Materials and Internal Sealing</b>	316SS, 40% mineral filled nylon, polyimide, viton (fluoropolymer elastomer), hermetic glass-to-metal feedthrough
<b>Accuracy<sup>1</sup></b>	±20% of reading or ±25 ppm, whichever is greater	<b>External Housing and Sealing</b>	Hard anodized 6061 aluminum, 40% mineral filled nylon, viton (fluoropolymer elastomer), nickel-plated zinc (4-wire connector)
<b>Repeatability<sup>2</sup></b>	±10% of reading or ±15 ppm, whichever is greater	<b>Humidity and Corrosion Resistance</b>	Class C5M marine equivalent; salt-water condensing (IEC60068-2-11 & DIN EN ISO 12944)
<b>Response Time</b>	< 60 minutes (location on Xfmr)	<b>Ingress Protection</b>	IP68; 7.62 m [25 ft.] water for 14 days (IEC 60529)
<b>Operating Temperature (Ambient)</b>	-40°C to 70°C (-40°F to 158°F)	<b>Certifications</b>	FM Approved - FM 6520:2022 (In Liquid Phase), CE Mark, ROHS 2011/65/EU compliant, EMC/RFI and Other Electrical Certification, IEC 55022 IFCC Part 15, IEC 55011, IEC 61000-4-2 through 61000-4-4, 61000-4-6, and 61000-4-8, IEC 61010-1, IEC 61326, IEC 60068-2-30
<b>Storage Temperature</b>	-40°C to 85°C (-40°F to 185°F)	<b>Vibration</b>	3-axis Sinusoidal, Wideband and Random [Simulated Long-Life] (IEC 60068-2-6 table C.2, IEC 60068-2-64 paragraph A.2, category no. 2)
<b>Liquid Temperature Range<sup>3</sup></b>	Oil Phase: -40°C to 105°C (-40°C to 221°F) Gas Phase: n/a	<b>Shock</b>	30 g, shock duration 18 ms (IEC 60068-2-27)
<b>Data Log Storage</b>	1 year		
<b>Cross-sensitivity to H2O, CO2, C2H2, C2H4, CO, etc.</b>	<2%		
<b>Serial Communications</b>	2-Wire RS485, Modbus RTU, DNP3.0		
<b>Power Supply</b>	12-48 VDC, 10 W		
<b>Environment</b>	IP68 (7.62 m [25 ft.] water for 14 days) – Marine rated assembly (C5M equiv)		
<b>Insulating Liquid Supported</b>	Mineral oil, silicone, natural ester, synthetic ester		
<b>Designed Life Expectancy</b>	10+ years		

1 Accuracy of the sensor in the FIELD

2 For consecutive measurements to an identical hydrogen concentration

3 Main tank bulk oil temperature

### GRIDSCAN 5000 DIMENSIONS



Specifications subject to change without notice  
Printed Documents are uncontrolled.  
© 2024 H2scan