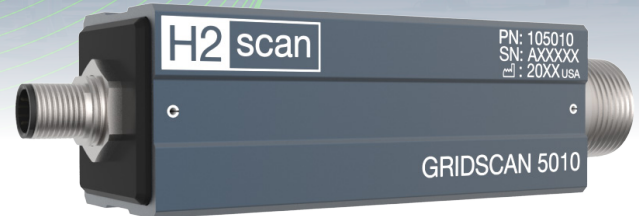


# GRIDSCAN® 5010

## Continuous dissolved gas monitoring that turns early warning into protected uptime



A dedicated hydrogen sensor for transformer fleets, GRIDSCAN continuously monitors dissolved hydrogen in transformer oil or gas space and flags a developing fault before it becomes a catastrophic failure. Long-term accuracy with no calibration gases, consumables or scheduled maintenance required.

### ALWAYS ALERT



#### CONTINUOUS DISSOLVED GAS MONITORING

Continuously monitors dissolved hydrogen across the fleet to catch the first signs of a developing fault.

### PRECISE MEASUREMENTS



#### PATENTED SELF-CALIBRATION

No need for periodic recalibration, giving maintenance teams true set-and-forget monitoring.

### NO CROSS-SENSITIVITY



#### ABNORMAL STATE DETECTION

Alerts owners to an abnormal operation or state of their asset, giving maintenance teams time to act while the problem is still manageable.

### WORKS WITH YOUR SETUP



#### FULL SYSTEM INTEGRATION

Modbus and DNP3 connectivity integrate directly into SCADA, IoT platforms and OEM transformer monitoring or multi-gas DGA systems, and aggregates data through H2cloud.

### BUILT FOR THE FIELD



#### RUGGED AND RELIABLE

Rated for hot, cold, salt water and submersible conditions; built to operate reliably wherever the fleet is deployed.

### MADE WITH LONG LIFESPAN



#### LONG OPERATING LIFE & LOWER OPEX

Built for the full operating life of the assets it protects, cutting the ongoing cost of fleet-wide monitoring.



### POWER & COMMUNICATION

- 12–48 VDC power supply
- 4–20 mA analog output (optional)
- 2-wire RS-485 (Modbus, DNP3)

### RATED FOR HARSH ENVIRONMENTS

- IP68, marine-rated (C5M equivalent)
- Rated for hot, cold, salt water and submersible conditions
- M12 4-wire connector, 3/4–14 NPT fitting

# GRIDSCAN<sup>®</sup> 5010

Continuous hydrogen monitoring for transformer fleets of every size, sensing the first signal of a developing fault long before it becomes a costly failure. Built on H2scan's patented solid-state sensing technology and decades of field deployment, GRIDSCAN runs continuously in harsh, contaminated environments to protect critical infrastructure. A continuous data stream you can trust and build on, year after year with a long lifespan.

## HYDROGEN SENSOR SPECIFICATIONS

|                                                                                                                              |                                                                                               |
|------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| <b>H<sub>2</sub> Measurement Range<sup>1</sup></b>                                                                           | Oil Phase:<br>25–5,000 ppm<br>Gas Phase:<br>25–5,000 ppm in-oil equivalent <sup>2</sup>       |
| <b>Accuracy<sup>3</sup></b>                                                                                                  | ±20% of reading or ±25 ppm, whichever is greater <sup>4</sup>                                 |
| <b>Repeatability<sup>5</sup></b>                                                                                             | ±10% of reading or ±15 ppm, whichever is greater <sup>4</sup>                                 |
| <b>Response Time</b>                                                                                                         | <60 minutes                                                                                   |
| <b>Operating Temperature (Ambient)</b>                                                                                       | –40°C to 70°C (–40°F to 158°F)                                                                |
| <b>Storage Temperature</b>                                                                                                   | –40°C to 85°C (–40°F to 185°F)                                                                |
| <b>Temperature Range<sup>6</sup></b>                                                                                         | Oil Phase:<br>–40°C to 105°C (–40°F to 221°F)<br>Gas Phase:<br>–40°C to 80°C (–40°F to 176°F) |
| <b>Data Log Storage</b>                                                                                                      | 1 year                                                                                        |
| <b>Cross-sensitivity to H<sub>2</sub>O, CO<sub>2</sub>, C<sub>2</sub>H<sub>2</sub>, C<sub>2</sub>H<sub>4</sub>, CO, etc.</b> | <2%                                                                                           |
| <b>Serial Communications</b>                                                                                                 | 2-wire RS-485, Modbus, DNP3                                                                   |
| <b>Power Supply</b>                                                                                                          | 12–48 VDC                                                                                     |
| <b>Max Power Consumption</b>                                                                                                 | 10 W                                                                                          |
| <b>Environment</b>                                                                                                           | IP68 (7.62 m [25 ft.] water for 14 days) – Marine rated assembly (C5M equivalent)             |
| <b>Insulating Liquid Supported</b>                                                                                           | Mineral oil, silicone, natural ester, synthetic ester                                         |

## PHYSICAL SPECIFICATIONS

|                                              |                                                                                                                                                                                                                      |
|----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Wetted Materials and Internal Sealing</b> | 316SS, 40% mineral filled nylon, polyimide, Viton (fluoropolymer elastomer), hermetic glass-to-metal feed-through                                                                                                    |
| <b>External Housing and Sealing</b>          | Hard anodized 6061 aluminum, 40% mineral filled nylon, Viton (fluoropolymer elastomer), nickel-plated zinc (4-wire connector)                                                                                        |
| <b>Humidity and Corrosion Resistance</b>     | Class C5M marine equivalent; salt-water condensing (IEC 60068-2-11 & DIN EN ISO 12944)                                                                                                                               |
| <b>Ingress Protection</b>                    | IP68; 7.62 m [25 ft.] water for 14 days (IEC 60529)                                                                                                                                                                  |
| <b>Certifications</b>                        | CE Mark; RoHS 2011/65/EU compliant; EMC/RFI and other. Electrical certification: IEC 55022, FCC 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>Vibration</b>                             | 3-axis Sinusoidal, Wide-band and Random [Simulated Long-Life] (IEC 60068-2-6 table C.2, IEC 60068-2-64 paragraph A.2, category no. 2), Class 4M6 per IEC 60721-3-4                                                   |
| <b>Shock</b>                                 | 30 g, shock duration 18 ms (IEC 60068-2-27), Class 4M6 per IEC 60721-3-4                                                                                                                                             |

1. Accuracy and Repeatability specs do not apply above 5,000 ppm

2. If in gas sensor the value is the in oil equivalent ppm value

3. True accuracy of the sensor when in service

4. Whichever is greater

5. For consecutive measurements to an identical hydrogen concentration

6. Main tank bulk oil temperature

## GRIDSCAN 5010 DIMENSIONS

