

Portable inspection equipment for trace measurement of dissolved hydrogen in water steam cycle.

## AMI INSPECTOR Hydrogen

Complete portable system mounted on small, aluminum panel:

- **Transmitter AMI INSPECTOR Hydrogen** in a rugged aluminum enclosure (IP 66).
- **Swansensor Hydrogen** with platinum anode, silver cathode and integrated NT5k temperature sensor.
- **Flow cell QV-Flow PMMA OTG** made of acrylic glass with needle valve and digital sample flow meter.
- Rechargeable battery for stand-alone operation.
- Carrying case
- USB interface for logger download to PC.
- Factory tested, ready for installation and operation.



### Specifications:

- Measuring range:  
0.1 ppb to 800 ppb H<sub>2</sub> (at 25°C, 1013hPa) or  
0 – 50% saturation
- Big LC display for the reading of measuring value, sample temperature, sample flow, operating status and battery charge condition.
- Easy user menus in English, German, French and Spanish. Simple programming of all parameters by keypad.
- Electronic record of major process events and calibration data.
- Data logger for 1'500 data records stored at a selectable interval.
- Two current outputs (0/4 - 20 mA) for measured signals.

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**Dissolved Hydrogen measurement**

**Swansensor Hydrogen** with platinum anode, silver cathode and integrated NT5k temperature sensor.

<b>Measuring range</b>	<b>Resolution</b>
0.1 to 199 ppb	0.1 ppb
200 to 800 ppb	1 ppb
0 – 50% saturation	0.1% saturation
Automatic range switching.	

**Accuracy / Repeatability:**  
Accuracy ± 3 % of reading or ± 0.5 ppb  
Repeatability: ± 1 % of read. or ± 0.5 ppb (whichever is greater)

**Response time**  
t<sub>90</sub> < 40 sec. (rising concentration)

**Temperature measurement NT5k**  
Measuring range: -30 to +130 °C  
Resolution: 0.1 °C

**Sample flow measurement**  
with digital SWAN sample flow sensor.

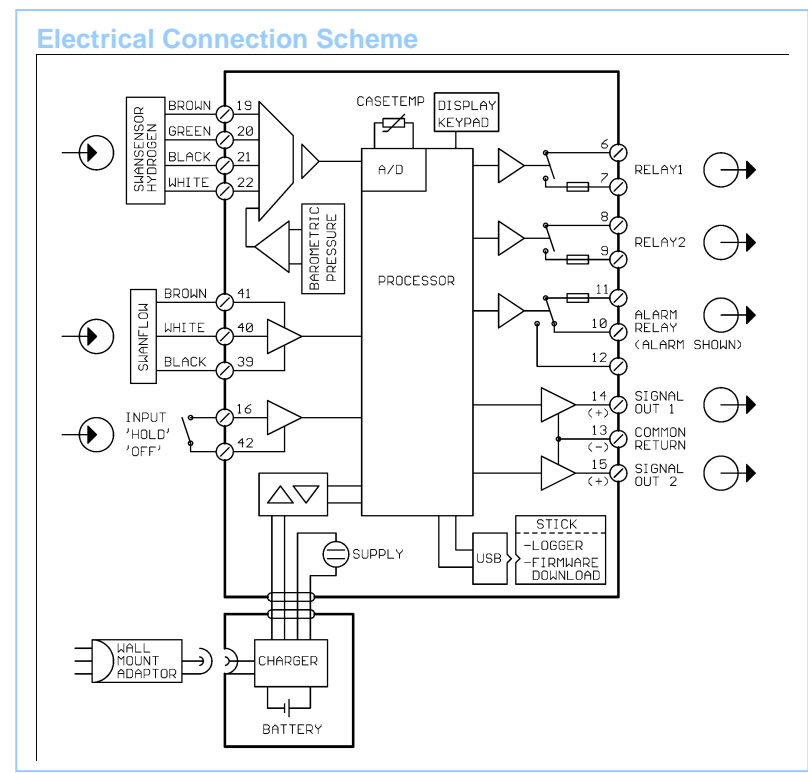
**Transmitter Specifications and Functionality**

Electronics case:	Cast aluminum
Protection degree:	IP 66 / NEMA 4X
Display:	LCD, 75 x 45 mm
Electrical connectors:	screw clamps
Dimensions:	180 x 140 x 70 mm
Weight:	1.5 kg
Ambient temperature:	-10 to +50°C
Humidity:	10 - 90% rel., non condensing

**Power supply - Battery**  
Use original, supplied wall mount power adapter only.  
Voltage: 90 - 264 VAC, 50/60 Hz  
Power consumption: max. 20 VA  
Charging time: ~ 6h  
Battery type: Li-Ion  
During charging protect from heat impact and keep splash-proof (not IP66).

**Operating time**  
Stand-alone (Battery): > 24h  
Connected adapter: continuous  
Controlled shut-down when battery is empty, remaining time is displayed.

**Operation**  
Easy operation based on separate menus for "Messages", "Diagnostics", "Maintenance", "Operation" and "Installation". User menus in English, German, French and Spanish.  
Separate menu specific password protection.  
Display of process value, sample flow, alarm status, time and battery charge condition.



Storage of event log, alarm log and calibration history.  
Storage of the last 1'500 data records in logger with selectable time interval.

**Safety features**  
No data loss after power failure, all data is saved in non-volatile memory.  
Overvoltage protection of in- and outputs.  
Galvanic separation of measuring inputs and signal outputs.

**Transmitter temperature monitoring**  
with programmable high/low alarm limits.

**1 Alarm relay**  
One potential free contact for summary alarm indication for programmable alarm values and instrument errors.  
Maximum load: 1A / 250 VAC

**1 Input**  
One input for potential-free contact.  
Programmable hold or remote off function.

**2 Relay outputs**  
Two potential-free contacts programmable as limit switches for measuring values, controllers or timer for system cleaning with automatic hold function.  
Rated load: 1A / 250 VAC

**2 Signal outputs**  
Two programmable signal outputs for measured values (freely scalable, linear or bilinear) or as continuous control outputs (control parameters programmable).  
Current loop: 0/4 - 20 mA  
Maximum burden: 510 Ω

**Control functions**  
Relays or current outputs programmable for 1 or 2 pulse dosing pumps, solenoid valves or for one motor valve.  
Programmable P, PI, PID or PD control parameters.

**1 Communication interface**  
USB interface for logger download to PC.

**Monitor Data**

**Sample conditions**  
Flow rate: 6 to 25 l/h  
Temperature: up to 45 °C  
Inlet pressure (25 °C): 0.2 to 1 bar  
Outlet pressure: pressure free  
Suspended solids: less than 10 ppm

**Flow cell and connections**  
Flow cell made of acrylic glass with built-in flow adjustment valve and digital sample flow meter.  
Inlet: ¼" Swagelok tube adapter  
Outlet: flexible tube 8 x 6 mm

**Panel**  
Dimensions: 275 x 320 x 240 mm  
Material: anodized aluminum  
Total weight: 4.5 kg