

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 Stick for data logging.
- Factory tested, ready for installation and operation.



Specifications:

- Measuring range:
0.1 ppb to 800 ppb H₂ (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.
- One current output (0/4 - 20 mA) for measured signal.

Order Nr.	AMI INSPECTOR Hydrogen	A-75.400.000
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Dissolved Hydrogen measurement

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

Measuring range **Resolution**
0.1 to 199 ppb 0.1 ppb
200 to 800 ppb 1 ppb
0 – 50% saturation 0.1% saturation
Automatic range switching.

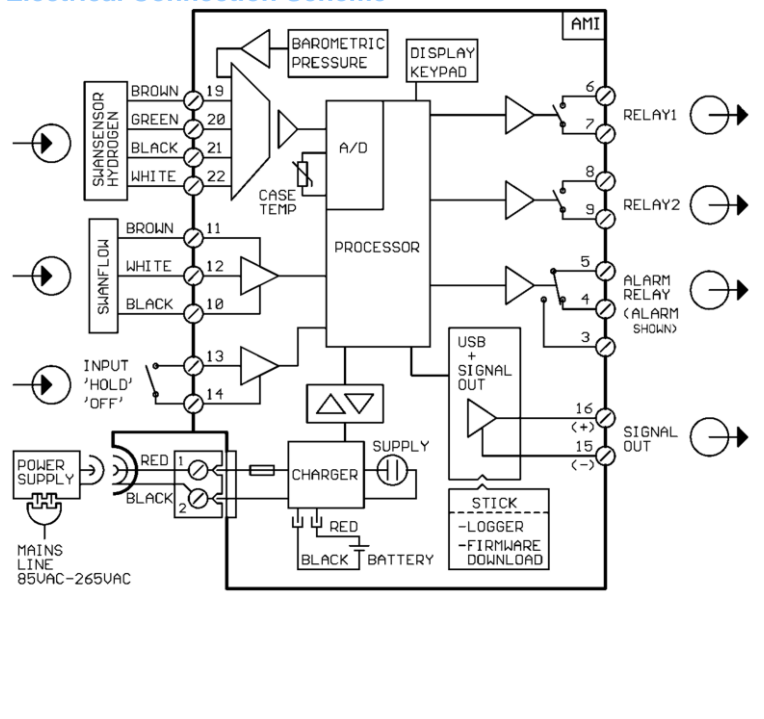
Accuracy / Repeatability:
Accuracy ± 3 % of reading or ± 0.5 ppb
Repeatability: ± 1 % of read. or ± 0.5 ppb (whichever is greater)

Response time
 $t_{90} < 40 \text{ sec.}$ or ± 1 ppb (rising concentration, whichever greater)

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

Sample flow measurement
with digital SWAN sample flow sensor.

Electrical Connection Scheme



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 power adapter only.
Voltage: 85 - 265 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: 100 mA / 50 V

1 Signal outputs
One programmable signal output for measured value (freely scalable, linear or bilinear) or as continuous control output (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 Stick for logger data.

Monitor Data

Sample conditions
Flow rate: 6 to 20 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