



HYDROGEN Sensor

Function principle

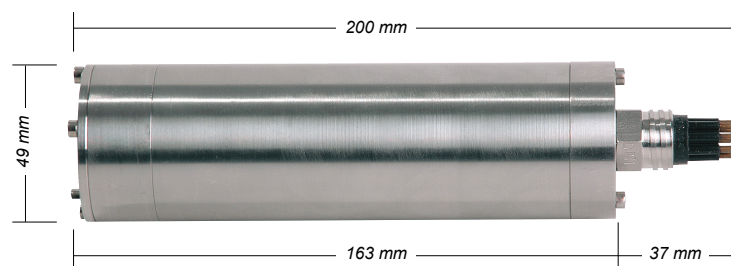
A hydrogen sensitive detector is located in a detector room in the sensor head. The detector room is protected against water and pressure by a silicone membrane. The gas molecules diffuse through the membrane, following the partial pressure gradient between water and detector room, according to the Law of Henry. Hence, the concentration the detector room is directly correlated to the concentration in the outside water. The correlation is expressed by the calibration formula.

The Hydrogen sensor bases on the same detection technology as the classic Methane sensor.

Inherent to the technology, and also dependent on detector manufacturing and tuning, all parameters such as sensitivity, power consumption, response time and response behavior are linked together. The following specifications are indicative, we can select and tune the detector to meet your requirements.

Response time: reaction time within a few seconds, T90 between 5 and 30 min depending on deployment conditions.

Mechanical specifications



| | Standard | Optional |
|------------------------------------|-----------------|-----------|
| Material (housing and connector) | Stainless steel | Titanium |
| Weight in air | 1.3 kg | 0.8 kg |
| Connector (manufacturer: Subconn™) | MCBH8M-SS | MCBH8M-Ti |

Depth standard 2000m, optional 3500m.

Electrical specifications

| | |
|---------------|---------------------|
| Power supply: | generally 9..36 VDC |
| Consumption: | 100 mA@ 12VDC |

Output

| | standard | optional |
|---------------------|--|---|
| digital | RS485 | Integral RS232 RS485/RS232 desktop converter |
| analog | 0..5 V | 4..20 mA |
| Format | Franatech, universal | Seabird® SBE-probe SST® CTD-probe |
| Calibration formula | | Integrated (plug & play) |
| Note | Digital and analog outputs in parallel | With integrated formula no raw data available |

Concentration Range typical 4 to 100 nanomol/l

Temperature range standard 2-20°C, optional 10-30°C