

MEASURING INSTRUMENTS

Digox 6.1 H2-S

Measuring dissolved hydrogen concentrations in PWR cooling water cycle



Analyzer Digox 6.1 H2-S

The Digox 6.1 H2-S is an instrument to measure the concentration of dissolved hydrogen in coolant of PWR. The dissolved hydrogen would be detected on fuel cell sensor after separating with a water/gas membrane. The working principle assures reliable, long-living and maintenance-free operation.

The Digox 6.1 H2-S consists of sensor and transmitter. The sensor is engineered to work in closed cycle of contaminated reactor cooling water. The system works selective for hydrogen. The transmitter processes the digital sensor signal, shows the concentration value and provides different signal output. A reference value, determined by laboratory analysis, can be used to adjust the analyzer during reference calibration. The maintenance-free sensor avoids the radioactive exposure of operator. The transmitter can be mounted in safe area. Cable lengths up to 50m between sensor and transmitter are possible.

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ADVANTAGES

- approved and field-tested measuring system
- reliable, long-living and maintenance-free sensor
- redundant electronic circuit design for high system stability
- low fault liability through digital signal transmission and included sensor self test function
- no influence from conductivity of sample and from other dissolved gases



TECHNICAL DATA

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Type	Digox 6.1 H2 stationary
Measuring range	0...100 cc/kg respectively 0...10mg/l dissolved H ₂ , display unit selectable
Accuracy	<17cc/kg: 5 % reading or ± 1 cc/kg >17cc/kg: 10 % reading or ± 1 cc/kg
Resolution	0,01 cc/kg, selectable
Response time	t ₈₀ < 20 min
Calibration	reference calibration, (i.e. gas chromatography after phase separation)
Sample flow	10...250l/h, stabilized
Sample pressure	1...200 bar
Sample temperature	15...45 °C, automatically compensated
Sample conductivity	no requirements
Design	transmitter for wall mounting sensor for sample line assembling connection signal cable (maximum length 50m)
Sensor	stainless steel housing, inlet and outlet Ø6mm/ Ø¼" Swagelok
Material in contact with sample line coolant	stainless steel, PTFE
Signal output	3 x active 0(4)...20 mA free selectable 5 x switching contact (changer), free selectable 60V/0,5A
Power supply	100...240 VAC (50/60 Hz), 20 VA
Ambient temperature	0...40 °C
IP Rating	IP 65
Weight	transmitter 3kg sensor 3kg
Dimensionen	transmitter 280 x 200 x 80 (H x W x D) sensor 100 x 200 (Ø x H)

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Subject to technical alterations.

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