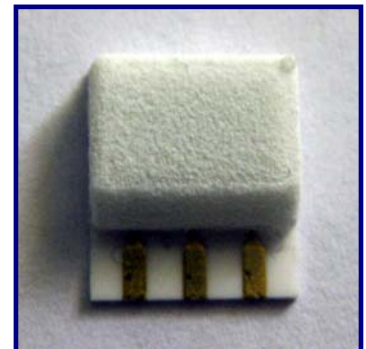


HYDROGEN 20000 Sensor Element SS1 Technical Specification

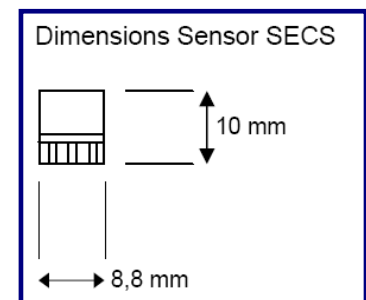
Sensor Type	SEC H ₂ 20000 Sensor Element SS1
Detectable Gases	Hydrogen
PN wafer à 48 sensors	01-01-10-01
PN single sensor	01-02-10-01
Measuring Principle	Amperometric 3-electrode sensor
Contact	3 gold pads * non solderable
Standard Range	0 – 20.000 ppm
Lower Detectable Limit (LDL)	10 ppm
Maximum Range	40.000 ppm
LEL	40.000 ppm
Long Term Sensitivity Drift	< 10 % / year
Linearity at standard range	< 10 % FS
Repeatability	> 98 % of signal
Zero current at normal conditions	+/- 100 nA
Sensitivity	0,4 ... 10,0 nA/ppm
Response time at target level	
T50	< 10 s
T90	< 30 s
Sensor warm up time typically	20 s
Operating conditions	- 20°C ... + 80°C 10 ... 95 % r. h.
Expected life time	5 years



HYDROGEN 20000 Sensor Element SS1 Dimensional Drawing

Sensor dimensions 10 mm x 8,8 mm x 3 mm

* Soldering to the pads will damage the sensor



HYDROGEN 20000 Sensor Element SS1 Temperature Dependence

0,5 %/°C (October 2010)

HYDROGEN 20000 Sensor Element SS1 Cross Sensitivity

Gas	Formula	Test Gas Concentration	Reading in ppm
Ammonia	NH ₃	25 ppm	0
Carbon Dioxide	CO ₂	5000 ppm	0
Carbon Monoxide	CO	50 ppm	37
Chlorine	Cl ₂	1.0 ppm	0
Hydrocarbons unsaturated	-	1 %	0.0
Hydrogen Sulphide	H ₂ S	10 ppm	440
Isopropanol	C ₃ H ₇ OH	1000 ppm	nA
Nitric Oxide	NO	20 ppm	0
Nitrogen Dioxide	NO ₂	10 ppm	nA
Ozone	O ₃	0.5 ppm	0
Sulphur Dioxide	SO ₂	20 ppm	0

Note:

Test conditions at 20°C/ 1013 hPa, Flow Rate > 500 qcm/min
 Cross sensitivity gases are not target gases. Relation can change with aging.

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