

## SEC Gas Sensor

### HYDROGEN SULFIDE 500 HS 4S

### Technical Specification

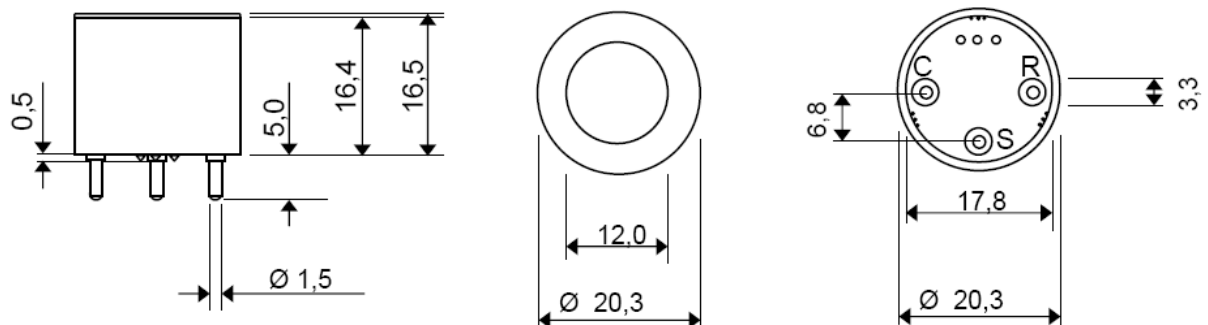
Sensor Type	H <sub>2</sub> S 500 HS Sensor 4S
Detectable Gases	Hydrogen Sulfide
PN single sensor	01-04-20-03
Measuring Principle	Amperometric 3-electrode sensor
Contact	3 gold pins * non solderable
Standard Range	0 – 200 ppm
Lower Detectable Limit (LDL)	1 ppm
Maximum Range	500 ppm
MAK/TLV	10 ppm
Long Term Sensitivity Drift	< 1 % / month
Linearity at standard range	linear
Repeatability	> 98 % of signal
Zero current at normal conditions	+/- 20 nA
Sensitivity	60 ... 160 nA/ppm
Response time at target level	
T50	< 10 s
T90	< 30 s
Sensor warm up time typically	60 s
Operating conditions	- 20°C ... +60°C 10 ... 95 % r. h.
Expected sensor life time	3 years



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### Dimensional Drawing

Sensor dimensions 6,5 mm x 11,4 mm x 14,4 mm ± 0,15 mm tolerance



\* Soldering to the pins will damage the sensor

**SEC Gas Sensor****HYDROGEN SULFIDE 500 HS 4S****Temperature Dependency**

3%/°C (October 2010)

Will be updated soon

**HYDROGEN SULFIDE 500 HS 4S****Cross Sensitivity**

<i>Gas</i>	<i>Formula</i>	<i>Test Gas Concentration</i>	<i>Reading in ppm</i>
Ammonia	NH <sub>3</sub>	25 ppm	0
Carbon Dioxide	CO <sub>2</sub>	5000 ppm	0
Carbon Monoxide	CO	50 ppm	3
Chlorine	Cl <sub>2</sub>	1.0 ppm	n/a
Hydrocarbons unsaturated	-	1 %	0
Hydrogen	H <sub>2</sub>	100 ppm	3
Isopropanol	C <sub>3</sub> H <sub>7</sub> OH	1000 ppm	0
Nitric Oxide	NO	20 ppm	?
Nitrogen Dioxide	NO <sub>2</sub>	10 ppm	-2
Ozone	O <sub>3</sub>	0.5 ppm	n/a
Sulphur Dioxide	SO <sub>2</sub>	20 ppm	n/a

**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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