

Product Specification of:

## H2S - Industrial Sensor / Type I-40P

### .: KEY FEATURE .:

#### Amperometric gas sensor designed for biogas applications with no H<sub>2</sub> cross interference.

*All characteristics are based on conditions at 25°C, 50% RH and 1013 hPa.  
The sensor must be kept at a constant Bias of +300mV all the time to fulfill the characteristics.*

<b>Operating Principle:</b>	3-electrode potentiostatic driven cell
<b>Measurement Range:</b>	0 to 2000 ppm
<b>Maximum Overload:</b>	5000 ppm
<b>Electrical Connector:</b>	3-pin Molex®
<b>Bias Voltage:</b>	+ 300 mV
<b>Mechanical Mating Connector:</b>	fits for M16x1 DIN 13 or 5/8-24 UNEF
<b>Sensitivity:</b>	80 to 200 nA/ppm
<b>Sensitivity Drift:</b>	< 10% signal/year, depending on application
<b>Response Time t<sub>90</sub>:</b>	< 35 s
<b>Operating Temperature:</b>	10 to 45 °C 45 to 55 °C (intermittent)
<b>Zero Offset Current:</b>	≤ 400 nA
<b>Linearity error:</b>	< 5 % @ 0 to 500 ppm < 15 % @ 501 to 2500 ppm
<b>Warm-up Time:</b>	8h after connecting to Bias
<b>Ambient Pressure Range:</b>	600 to 1250 hPa
<b>Humidity Range:</b>	20 to 85 % rH
<b>Interferences:</b>	H <sub>2</sub> (100%) none O <sub>2</sub> (100%) none CO (100%) none CO <sub>2</sub> (100%) none N <sub>2</sub> O (100%) none NH <sub>3</sub> (1000ppm) none (short-term exposure only) NO (800ppm) < 100 nA/ppm NO <sub>2</sub> (1010ppm) < 30 nA/ppm SO <sub>2</sub> (1020ppm) < 10 nA/ppm
<b>Weight:</b>	approximately 13 g
<b>Material in Contact with Media:</b>	PP, PPS, PTFE, FPM, stainless steel

### .: STORAGE CONDITIONS .:

<b>Temperature Range:</b>	-10 to 45 °C 5 to 25 °C recommended 45 to 55 °C intermittent
<b>Ambient Pressure:</b>	600 to 1250 hPa
<b>Humidity:</b>	0 to 100% rH, non condensing, original packed
<b>Shelf Life:</b>	< 6 months recommended

### .: RELATED PRODUCTS .:

Product	Part-No.	Housing Colour	Remarks
H <sub>2</sub> S - Sensor I-40P	48 00 07	grey	potentiostat not integrated

*This data sheet is subject to change without prior notice. [I-40P-Rev03-2015\_1126.doc]*

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