

Product Specification of:

NO₂ - Industrial Sensor / Type I-52



:: KEY FEATURE ::

Amperometric gas sensor with low interferences to nitric oxide and other gases, designed to detect low NO₂ concentrations.

All characteristics are based on conditions at 25°C, 50% RH, 1013 hPa and gas flow 1 N L/min. The BIAS voltage must be applied all the time to fulfill the characteristics.

Operating Principle:	3-electrode potentiostatic driven cell (delivered without potentiostat)		
Measurement Range:	1 to 500 ppm		
Maximum Overload:	up to 1500 ppm		
Electrical Connector:	3-pin Molex®		
Bias Voltage:	0 mV		
Warm-up Time:	1 h, when connected to bias		
Mechanical Mating Connector:	fits for M16x1 DIN 13 or 5/8-24 UNEF		
Sensor Lifetime:	2 years, depending on application		
Sensitivity:	- 200 to -450 nA/ppm		
Response Time t₉₀:	< 7 s		
Drift:	< 10 % signal/year		
Zero Offset:	< ± 1 ppm		
Reproducibility:	< 1.5% @ 500ppm NO ₂ (180s test gas - 180s dry ambient air - 180s test gas, constant environmental conditions)		
Operating Temperature:	0 to 50 °C		
Temperature Compensation:	signal not temperature compensated		
Pressure Range:	600 to 1250 hPa		
Humidity Range:	30 to 90 % RH		
Interferences:	Lambda-Mix	[high, A1]:	< 0.2 % of NO ₂ response
	NO	[795ppm]:	< 3% of NO ₂ response
	SO ₂	[1020ppm]:	- 1.5% < x < 0 of NO ₂ response
	H ₂ S	[504ppm]:	- 12% < x < 0 of NO ₂ response
	CO	[249ppm]:	< 0.2% of NO ₂ response
Weight:	approximately 13 g		
Material in Contact with Media:	PP, PPS, PTFE, stainless steel		



:: STORAGE CONDITIONS IN UNOPENED ORIGINAL PACKAGE ::

Temperature Range:	recommended: 5 to 30 °C
	maximum: -20 to 50 °C
Ambient Pressure:	600 to 1250 hPa
Humidity:	10 to 98 % RH (non-condensing)

:: RELATED PRODUCTS ::

Product	Part-No.	Housing Colour	Remarks
NO ₂ - Sensor I-52	48 00 32	grey	potentiostat not integrated
NO ₂ - Sensor I-53	48 00 46	grey	potentiostat integrated

This data sheet is subject to change without prior notice. [I-52-Rev_04-2019_0603.doc]