# **Product Specification of:**

# O<sub>2</sub> - Industrial Sensor / Type P-31



# .: KEY FEATURE :.

#### Sensor designed to detect trace amounts of oxygen.

All characteristics are based on conditions at 25°C, 50% RH and 1013 hPa.

Measurement Range:  $100 \text{ to } 210,000 \text{ ppm } O_2$ Expected Operating Life:  $\sim 75,000 \text{ Vol.\% h}$ 

Sensor Lifetime: 1 year, depending on humidity and O<sub>2</sub> concentration

**Electrical Connector:** 2 x slip-rings on PCB

Response Times (in operation): < 180 s from 21 Vol.% down to 1000 ppm < 20 min from 21 Vol.% down to 250 ppm

< 20 min from 21 Vol.% down to 250 ppi < 1 h from 250 ppm down to 100 ppm

**Linearity Error:**  $\pm$  3 % of signal (above 1000 ppm)

Pressure Dependency:partial pressureOperating Temperature:- 8 to 50 °CTemperature Compensation:none

Weight: approximately 35 g

Material in Contact with Media: PVDF, PTFE, stainless steel



# .: STORAGE CONDITIONS :.

Packaging: air tight coated plastic bag
Temperature Range: recommended: 5 to 25 °C

maximum: 0 to 45  $^{\circ}$ C

Ambient Pressure: 600 to 1750 hPa Humidity: up to 100 % RH

**Shelf Life:** < 3 months recommended

# .: RELATED PRODUCTS :.

Product	Part-No.	Measurement Range	<b>Output Signal</b>	Other Specifics
O <sub>2</sub> - Sensor P-21	48 01 12	100 to 210.000 ppm	$200~\mu A \pm 60~\mu A$	
O <sub>2</sub> - Sensor P-21A	48 02 12	100 to 210.000 ppm	$200~\mu A \pm 60~\mu A$	resistance to acid gases, hydrocarbons, hydrogen
O <sub>2</sub> - Sensor P-31	48 04 12	100 to 210.000 ppm	$315~\mu A \pm 70~\mu A$	high output
O <sub>2</sub> - Sensor P-41	48 01 13	1 to 10.000 ppm	$460~\mu$ A $\pm$ $120~\mu$ A	
O <sub>2</sub> - Sensor P-41A	48 02 13	1 to 10.000 ppm	$400$ μA $\pm$ $60$ μA	resistance to acid gases, hydrocarbons, hydrogen

This data sheet is subject to change without prior notice. [P-31-Rev\_012012.doc]

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