

PO2ES-103PD 25vol.% Digital Oxygen Industrial Sensor

KEY FEATURES

Lead free sensor, RoHS conform, long life-expectancy, fully CO₂ resistant, digital sensor output signal.

All characteristics are based on conditions at 25°C, 50% RH and 1013 hPa and gas flow ≥ 2.5 litre/min. All digital values are based on a gain factor of 4 (AD-Converter)

Measurement Range:	0.01 to 25 Vol.%O ₂
Resolution:	15 Bit used (16 Bit processor, 1 Bit for algebraic sign)
Output signal	0 to 32768 Digits
Initial Output Signal Range:	10184 to 17820 Digits @ dry ambient air (gain factor of AD-Converter 4)
Electrical connector	4-pin Molex (digital sensor output signal, I ² C interface)
Power Consumption:	< 15 mW @ dry ambient air
Supply Voltage:	+3.3 V (verified), +5.0 V (possible), > 5.5 V (PCB damage)
Mechanical Mating Connector:	fits for M16x1 DIN 13 or 5/8-24 UNEF
Nominal Sensor Life:	~ 1,200,000 Vol.%O ₂ h
Expected Operating Life:	< 6 years @ ambient air, depending on application
Response Time t₉₀:	< 10 s
Drift:	< 1% per month, averaged across 12 months
Linearity Error:	0 to 35 Vol.%O ₂ : ± 0.1 Vol.%O ₂ (absolute) or ± 0.5% (relative), whichever is greater
Repeatability:	± 1 Vol.%O ₂ @ 100 Vol.%O ₂ , applied for 5 min
Operating Temperature:	0 to 45 °C
Ambient Pressure Range:	700 to 1250 mbar
Zero Offset:	< 127 Digits @ 100 Vol.%N ₂ applied for 5 min (< 100 µV)
Influence of Humidity:	- 0.03 % rel. O ₂ reading per % RH
Temperature Compensation:	NTC on sensor PCB (read out of sensor signal is already temperature compensated, no separate temperature compensation necessary)
Weight:	approximately 25g
Material in contact with media:	PPS, PTFE, ABS, FPM, stainless steel



STORAGE CONDITIONS IN UNOPENED ORIGINAL PACKAGE

Temperature Range:	recommended:	5 °C to 30 °C
	maximum (≤ 10h):	-20 to 50 °C
Humidity:	up to 100% RH, non condensing	
Ambient Pressure Range:	600 to 1250 mbar	
Shelf Life:	< 6 months recommended	

We are here for you. Addresses and Contacts.

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