

Nitrogen Dioxide Sensor 0-20 ppm

Performance Characteristics

Part Number	CLE-0321-700
Nominal Range	0 to 20 ppm
Maximum Overload	250 ppm
Sensitivity	-0.60 ± 0.15 µA/ppm
Baseline (20 °C)	< ± 0.4 µA
Baseline Drift (-20 to 50 °C)	0 to -0.5 ppm equivalent
Resolution	0.1 ppm
Response Time (T90)	≤ 30 seconds
Linearity	Linear
Long Term Output Drift	< 2% signal/month

Operation Conditions

Temperature Range	-20 °C to 50 °C
Operating Humidity	15 to 90%RH non-condensing
Pressure Range	90 to 110 kPa
Bias Potential	0 mV
Storage Life	6 months in sealed container
Storage Temperature	0 °C to 20 °C
Expected Operating Life	2 years in air
Warranty	12 months from date of despatch

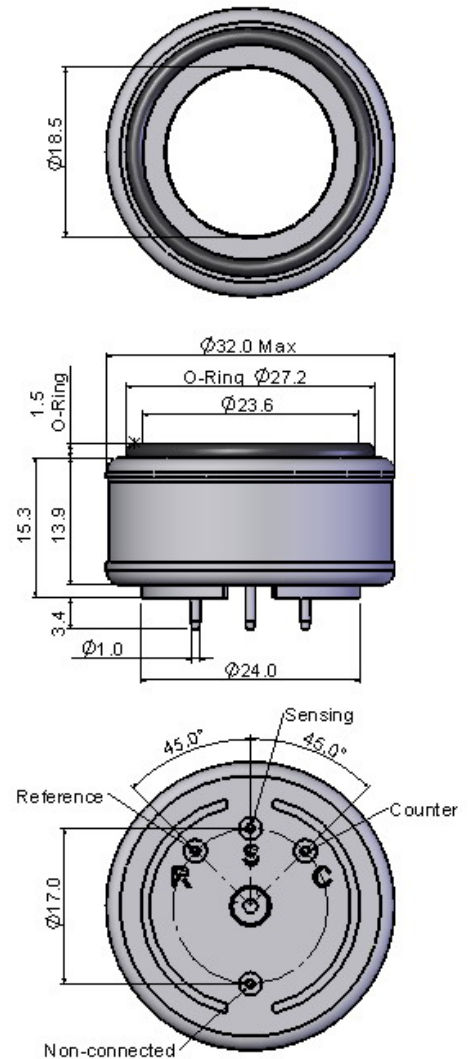
Physical Characteristics

Weight	8 g (approx)
Orientation Sensitivity	None

Note:

All performance specifications are based upon the following environment conditions: 20°C, 50% relative humidity and 1 atm (1013 mBar or ambient pressure).

Outline Dimensions



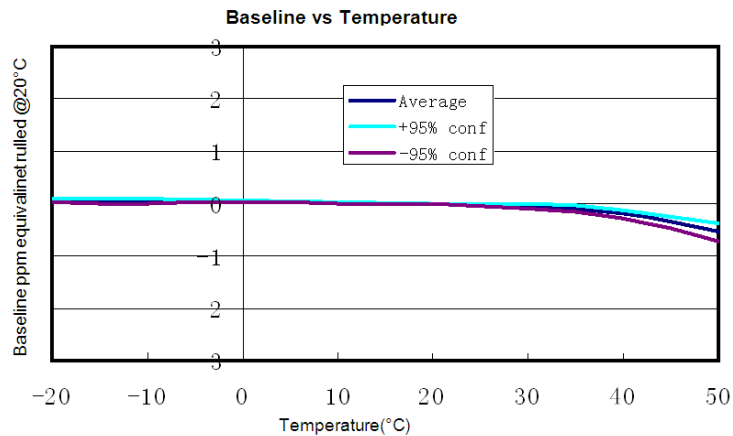
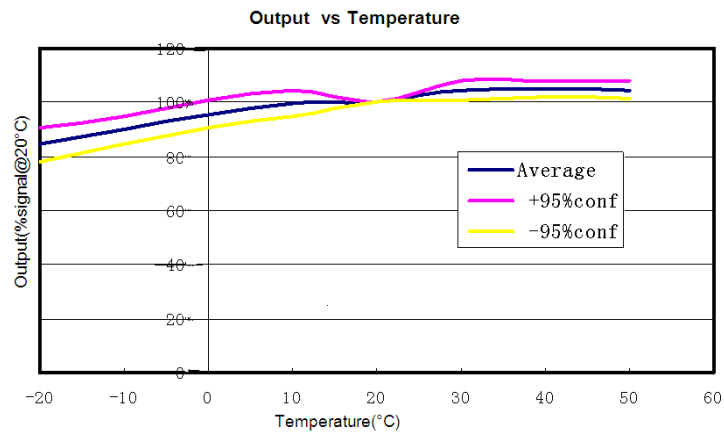
All dimensions are in millimeters.
All tolerances are ± 0.2 mm.

Note: PCB sockets are recommended for the sensor pin connection. Soldering to the sensor should be avoided.

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Temperature Dependence



Cross-sensitivity Data (20 °C)

Gas	Concentration (ppm)	Output Signal (ppm NO ₂ equivalent)
Carbon Monoxide	300	0
Sulphur Dioxide	5	-5
Nitric Oxide	35	0
Hydrogen sulfide	15	5
Chlorine	1	0
Hydrogen	100	0
Hydrogen Cyanide	10	0
Hydrogen Chloride	5	0
Ethylene	100	0

Notes: 1. Calibration with cross sensitivity gas is not recommended.
 2. The cross sensitivity may fluctuate between +/- 30% and may differ from batch to batch or from sensor's life time.
 3. The cross sensitivities are including but not limited to the above gases. It may also respond to other gases