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# **EOC-GDM-CO-10%** Non-dispersive Infrared (NDIR) Gas Sensors

EOC's NDIR-CO-10% VOL sensor is designed using Non-dispersive Infrared (NDIR) technology for the continuous detection of Carbon Monoxide (CO) up to 10% in volume. It is a high-performance, industrial-grade and long-life CO-specific sensor with minimized cross-sensitivities from other gases.



# Product Dimensions



Top View



Side View

All dimensions in mm

(0.3 ~ 0.4 V for Negative Reading)

### Performance

Sensor principle Measurement range Sampling Mode Response time Recovery time Long-term stability Resolution Accuracy non-dispersive infrared (NDIR) 0 ~ 10% CO (reading in ppm) Pumping (300~800ml/min) < 3 seconds @500 ml/min < ±500 ppm/month 10 ppm ±150 ppm @20°C (<5000 ppm) ±1% FS @20°C (10% vol)

### Electrical

Supply voltage Working current Power consumption

Warm-up time

Output voltage

9 ~ 24 VDC < 150 mA at 9 V < 1.0 W Average < 1.5 W @ peak 3 min (±500 ppm ±1% FS) 60 min (±150 ppm ±1% FS) 0.4 ~ 2.0 VDC (0.3~0.4 for negative reading)

### Mechanical

Optical path Solder Weight gilt stainless steel Sn, Ag, Cu 208 grams

# Environmental

Temperature range $-20^{\circ}C \sim +50^{\circ}C$ Pressure range1 atm  $\pm 50\%$ Humidity range0 % ~ 85 % RH non-condensing

# Lifetime

Storage temperature-40 °C ~ 50 °COperating lifetime> 5 yearsStorage life> 5 yearsWarranty18 months

### Approvals

Pending

### Caution

Inappropriate use of the pins in product design will affect the sensor functionality. Exposure to high concentrations of solvent vapors should be avoided under any condition. Mechanical overstress may cause deformation of the sensor enclosure and damage the internal components.

### **Pinout Details**



#### **Safety Note**

If the sensor is used in certain instruments for life critical applications, it is required to read the instrument user's guide carefully and comply with the calibration procedures by using the certified target calibration gas before each use. Failure to do so may cause serious injury and/or fatality. It is highly recommended for customers to validate the sensor performance using this document as a reference for their product designs or applications.