

TCO CITICEL[®] SENSOR

Carbon Monoxide (CO) Gas Sensor

The purpose of this document is to present the performance specification of the TCO carbon monoxide (CO) sensor.

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Product Code: AB605-Y0T

FEATURES AND BENEFITS



Unique snap-fit design



Compensated for H₂



Integrated gas manifold



High capacity filter

Honeywell

TCO CiTiceL® Carbon Monoxide Gas Sensor Technical Specifications

TECHNICAL SPECIFICATIONS

MEASUREMENT

| | |
|--|---|
| Target Gas | carbon monoxide |
| Nominal Range | 0 ppm to 2000 ppm |
| Maximum Overload | 10,000 ppm |
| Expected Operating Life | 2 years in air |
| Output Signal | 0.062 μ A/ppm \pm 0.012 μ A/ppm |
| Resolution | 1 ppm |
| Temperature Range | |
| continuous | -20°C to 50°C |
| intermittent | -20°C to 55°C |
| Pressure Range | 1.0 atm \pm 0.1 atm |
| Differential Pressure Coefficient | < 0.03 % signal/mBar |
| Absolute Pressure Coefficient | < 0.01 % signal/mBar |
| T₉₀ Response Time | < 25 seconds |
| Relative Humidity Range | 15 %rH to 90 %rH, non-condensing |
| Baseline Range (pure air) | -3 ppm to +17 ppm equiv. |
| Maximum Zero Shift (20°C to 40°C) | < 3.5 ppm equiv. |
| Long-term Output Drift | < 2 % signal/month |
| Recommended Load Resistor | 10 Ω |
| Bias Voltage | not required |
| Repeatability | 2 % of signal |
| Output Linearity | linear |
| Filter Lifetime | 275,000 ppm hours |
| Filter Breakthrough (signal < 5 ppm) | 10 min. in 500 ppm NO or 10 min. in 1000 ppm SO ₂ |

PHYSICAL

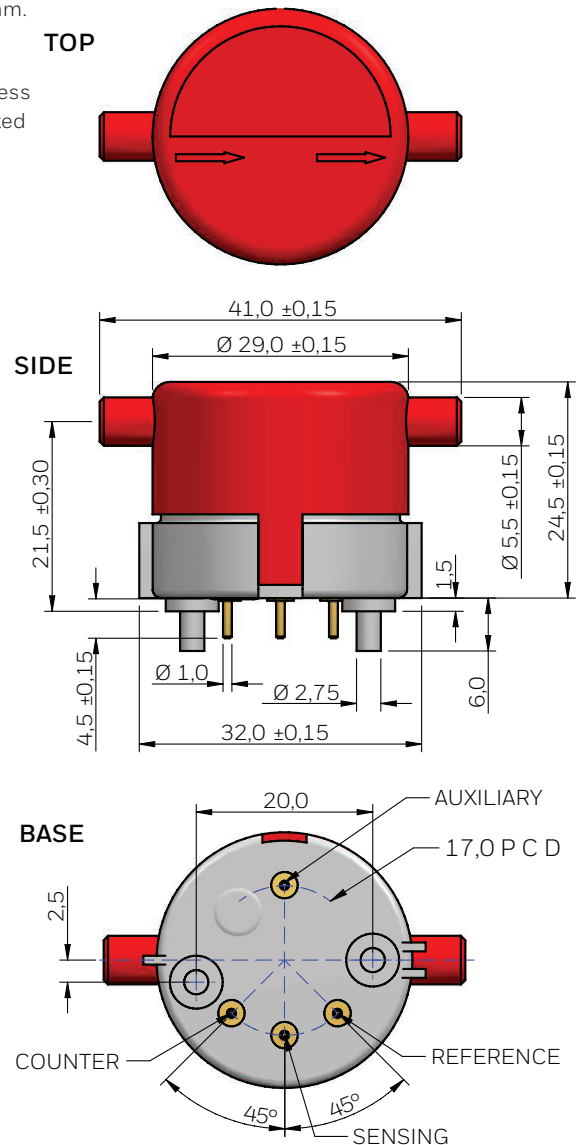
| | |
|--|---------------------------------|
| Colour of Top | red |
| Weight | 16 g |
| Orientation Sensitivity | none |
| Storage Life | 6 months in package |
| Recommended Storage Temperature | 0°C to 20°C |
| Warranty Period | 12 months from date of dispatch |

N.B. The specification is based on measurements made with cylinder gases using a flow rate of 500 mls min⁻¹. Conditions at 20°C, 50 %rH, and 1013 mBar unless otherwise noted.

Product Dimensions

Dimensions mm.

All tolerances \pm 0,15 mm unless otherwise stated



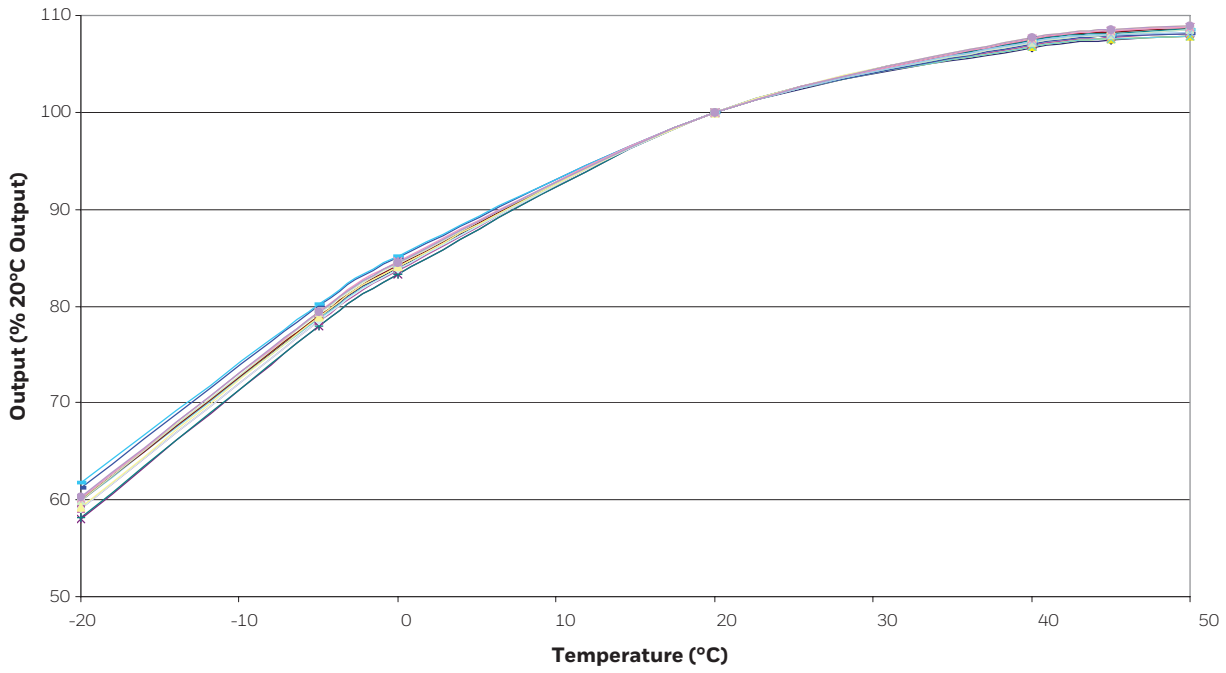
Cross Sensitivity Data

CiTiceLs may exhibit a response to certain gases in a sample other than the target gas. The table below shows the typical response of TCO sensors to a number of common cross-interfering gases. The figures are expressed as a percentage of the primary sensitivity (i.e. carbon monoxide = 100%).

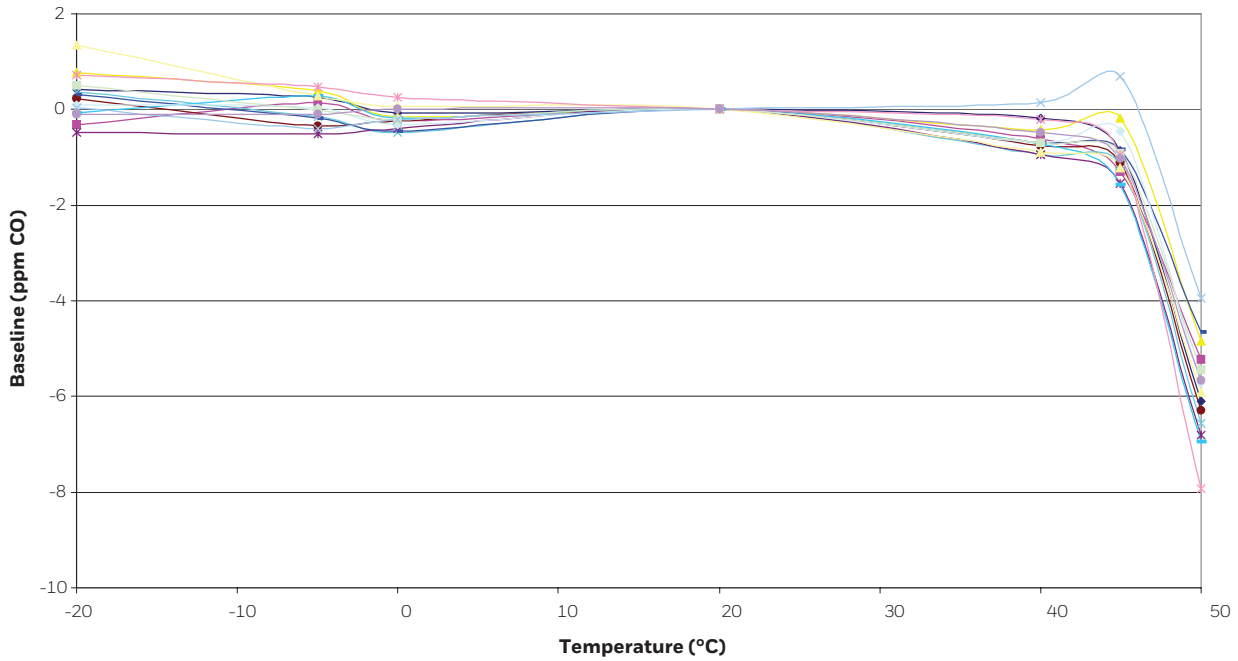
| Gas | Response |
|------------------|----------------------------|
| Hydrogen | < 1 % (after compensation) |
| Sulphur Dioxide | < 1 % |
| Nitric Oxide | < 2.5 % |
| Nitrogen Dioxide | < 2 % |

TCO CiTiceL[®] Carbon Monoxide Gas Sensor Technical Specifications

TCO CiTiceL - Typical Output vs Temperature



TCO CiTiceL - Typical Baseline vs Temperature



WARRANTY/REMEDY

Honeywell warrants goods of its manufacture as being free of defective materials and faulty workmanship during the applicable warranty period. Honeywell's standard product warranty applies unless agreed to otherwise by Honeywell in writing; please refer to your order acknowledgment or consult your local sales office for specific warranty details. If warranted goods are returned to Honeywell during the period of coverage, Honeywell will repair or replace, at its option, without charge those items that Honeywell, in its sole discretion, finds defective. **The foregoing is buyer's sole remedy and is in lieu of all other warranties, expressed or implied, including those of merchantability and fitness for a particular purpose. In no event shall Honeywell be liable for consequential, special, or indirect damages.**

While Honeywell may provide application assistance personally, through our literature and the Honeywell web site, it is buyer's sole responsibility to determine the suitability of the product in the application.

Specifications may change without notice. The information we supply is believed to be accurate and reliable as of this writing. However, Honeywell assumes no responsibility for its use.

WARNING MISUSE OF DOCUMENTATION

- The information presented in this product sheet is for reference only. Do not use this document as a product installation guide.
- Complete installation, operation, and maintenance information is provided in the instructions supplied with each product.

Failure to comply with these instructions could result in death or serious injury.

FOR MORE INFORMATION

Honeywell Advanced Sensing Technologies services its customers through a worldwide network of sales offices and distributors. For application assistance, current specifications, pricing or the nearest Authorized Distributor, visit our [website](#) or call:

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