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



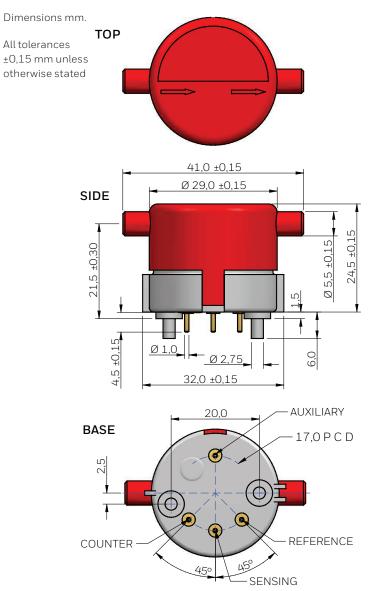
High capacity filter



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 µA/ppm ±0.012 µA/ppm
Resolution	1 ppm
Temperature Range	
continuous	-20°C to 50°C
intermittent	-20°C to 55°C
Pressure Range	1.0 atm ±0.1 atm
Differential Pressure Coefficient	< 0.03 % signal/mBar
Absolute Pressure Coefficient	< 0.01 % signal/mBar
T ₉₀ 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)	$10~{\rm min.}$ in 500 ppm NO or $10~{\rm min.}$ in 1000 ppm ${\rm SO_2}$
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

Product Dimensions



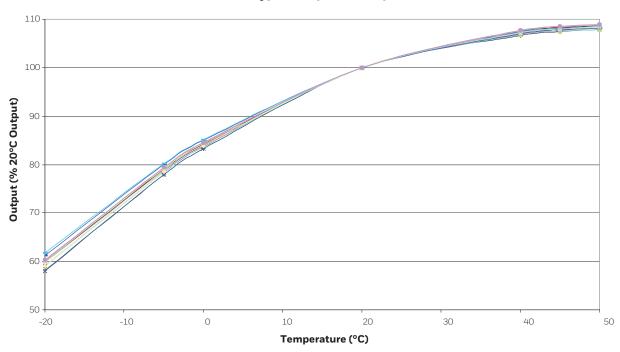
Cross Sensitivity Data

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 %

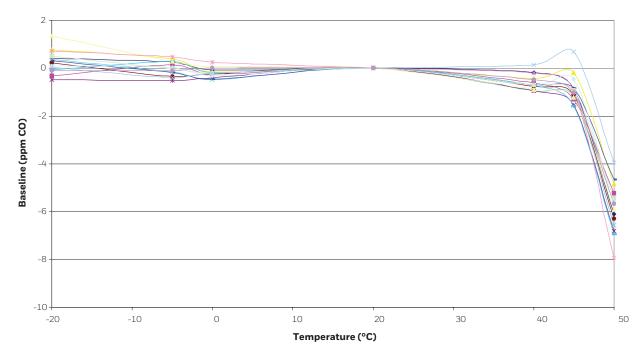
N.B. The specification is based on measurements made with cylinder gases using a flow rate of 500 mls min⁻¹. Conditions at 20°C, 50 %rH, and 1013 mBar unless otherwise noted.

TCO CiTiceL[®] Carbon Monoxide Gas Sensor Technical Specifications



TCO CiTiceL - Typical Ouput 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 <u>website</u> or call:

USA/Canada	+1 302 613 4491
Latin America	+1 305 805 8188
Europe	+44 1344 238258
Japan	+81 (0) 3-6730-7152
Singapore	+65 6355 2828
Greater China	+86 4006396841

Honeywell

Advanced Sensing Technologies

830 East Arapaho Road Richardson, TX 75081 sps.honeywell.com/ast

