



**Electro Optical Components, Inc.**

5464 Skylane Boulevard, Suite D, Santa Rosa, CA 95403

Toll Free: 855-EOC-6300

[www.eoc-inc.com](http://www.eoc-inc.com) | [info@eoc-inc.com](mailto:info@eoc-inc.com)



**Edinburgh  
Sensors**

Experts in Gas Detection

Infrared gas sensors: Chillcard NG Range  
**SPECIAL CHILLCARD NG**

For CO & CO<sub>2</sub>



**FAST  
ACCURATE  
RELIABLE**

## KEY FEATURES

- Modern electronics platform with the increased power and versatility of fast microprocessors
- On-board Barometric Pressure Correction in the range 800mbar - 1150mbar
- Extensive Temperature compensation
- Silicon micro-machined IR source
- Long Term Stability
- Low operating voltage (7V) and wide operating minimum voltage range (7V - 30V)
- True RS232 communications for control and data logging
- Optional on-board LAN support
- Expansion port supporting both simple 4.5 Digit and 128 x 64 pixel Graphic Display Modules

## A NEW GENERATION OF GAS SENSORS

The OEM Chillcard NG range of infrared gas sensors has been extended to include two new gases, CO (carbon monoxide) and CO<sub>2</sub> (carbon dioxide). The equivalent Gascard NG sensors for these gases are designed for use in air-like atmospheres and have reduced source lifetimes when exposed to high levels of hydrogen in the sample stream.

The Chillcard NG range uses a micro-machined thermal infrared emitter which has a longer lifetime in these challenging environments giving less downtime and a reduced overall cost of ownership. The Chillcard NG has been designed for easy integration into a wide range of gas detection systems. High quality, long term stability, repeatability and reliable measurement of various gases mean that the Chillcard NG is, like its cousin the Gascard NG, applicable in a wide range of gas sensing solutions.

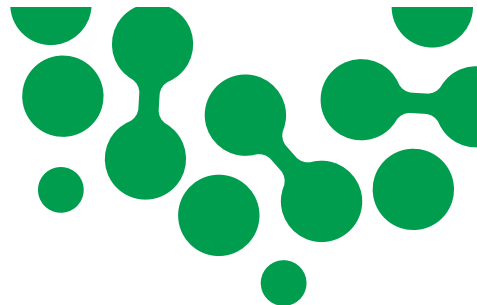
The Chillcard NG can be customised to cover a wide range of gases and gas ranges that include not only CO and CO<sub>2</sub> but also refrigerants and other halogenated hydrocarbons.

The Chillcard NG series now provides solutions for measuring and analysing many industrial and environmental gases.

Automatic Temperature and Pressure corrections are included and enable real-time environmental condition measurements thus providing true concentration readings and reliable measurement of the target gases.

The Gascard NG sensor head and electronics are mounted on a Eurocard PCB with several bit-switches which enable the user to control various aspects of the sensors behavior including analogue output and electronic filter type.

# SPECIAL CHILLCARD NG

For CO & CO<sub>2</sub>

## TECHNICAL SPECIFICATIONS

### GAS MEASUREMENT RANGE

MODEL	CO <sub>2</sub>	CO
Special Chillcard NG	-	0 - 3%
Special Chillcard NG	0 - 30%	0 - 10%
Special Chillcard NG	0 - 100%	0 - 30%
Special Chillcard NG	-	0 - 50%
Accuracy	±2% of range*	
Zero Stability	±2% of range (over 12 months)	
Repeatability	At zero: generally <±1% of range. At span: <±2% of range	
Response time	Bit-switch selectable T90 = variable (determined by bit-switch and firmware)	
Operating temperature	0 - 45°C	
Zero Drift due to ambient temperature	<± 0.1% range per C	
Operating Pressure	800 - 1150mbar (lower pressures with reduced accuracy)	
Power Requirements	24V DC (7 - 30V)	
Warm-up time	Operation time: 1 minute (initial) Full specification: 30 mins	
Humidity	Measurement unaffected by 0-90% RH non-condensing	
Output	Linear 4-20mA, 0-20mA (bit-switch selectable) up to 500Ω or voltage output load	
Controls	Bit-switch selection of various options zero and span adjust buttons	

The Special Chillcard NG can also be supplied with an Ethernet option and additional accessories which include a digital display kit and a 24 V pump.

\*Not including calibration gas tolerance

## PRODUCT APPLICATIONS

- Heat Treatment
- Endothermic Gas
- Process Control
- Gasification