MicroSENS 140-HS
IR carbon dioxide sensor

Micro-Hybrid gas sensor for reliable and accurate CO_2 measurement in incubators

Photo is illustrative and does not represent the stock model.

PRELIMINARY

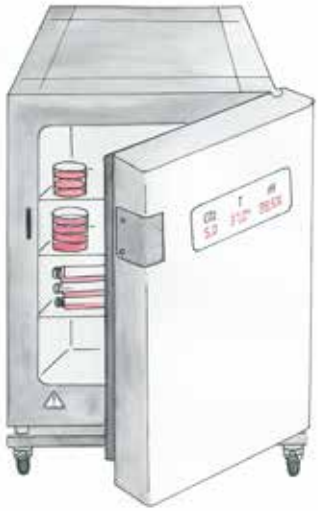
CONFIDENTIAL

This IR CO_2 sensor has been specially optimized for the measurement of 5 Vol-% CO_2 in cell incubators to manage ideal cell and tissue growth.

The sensor can be placed directly in the incubation chamber to measure the exact cell experienced environment. It determines the CO_2 concentration based on its characteristic infrared absorption.

ADVANTAGES

- IR dual beam technology
- Temperature and pressure compensated
- Heat-sterilizable up to 150° C
- Long lifetime
- Humidity correction



Visit us at www.microhybrid.com or call us at +49 36601 5920

GAS SENSORS

Technical specification

General	
Order number	
Measuring gas	CO_2
Measurement range	0 – 20 Vol.-%
Gas supply	Diffusion
Warm up time	< 1 minute (start-up) < 15 minutes (full spec)

Measurement	
Accuracy[1]	± 0,2 Vol.-% ± 2 % of reading
Response time (t_{90})	≤ 30 s
Digital resolution	0,001 Vol.-%
Temperature dependence[2]	
Pressure dependence[3]	≤ ± 0,05 Vol.-%
Long term stability[4]	≤ ± 0,4 Vol.-% at 5 Vol.-% / year
Humidity correction	0 ... 200 hPa H_20

Electrical	
Supply voltage	12 – 24 V_{DC}
Power consumption	< 2 W
Digital output	RS232, Micro-Hybrid industrial protocol

Climatic conditions	
Operating temperature	0° C ... 60° C
Humidity	< 100 % relative humidity (rH), not condensing
Storage temperature	-25° C ... 85° C
Maximum temperature for heat sterilization (only sensor)[5]	150° C

[1] at 37° C, 1013 hPa, dry test gas, excludes calibration gas tolerance of ± 1 %
[2] with compensation at 1 Vol.% ... 20 Vol.% CO2 and 20° C ... 60° C, 1013 hPa
[3] with compensation at 600 – 1200 hPa, 37° C and 5 Vol.-% CO_2
[4] stability at 37° C, without heat sterilization
[5] maximum humidity ≤ 1 % rH, ≥ 85° C auto standby – no CO_2 measurement

Micro-Hybrid-Shop

Micro-Hybrid products available at www.microhybrid.com/shop. Filter products simply by selecting the desired properties and request your quotation. We ship from stock and on demand.