

880 Series

HVAC Room Transmitter for CO₂, Relative humidity and temperature

The EE80 series combines CO₂, relative humidity (RH) and temperature (T) measurement in one housing. The snap-in mounting concept stands for easy installation and replacement within seconds.

EE80 series set new standards in CO measurements for HVAC. The operation is based on the infrared principle. A patented auto-calibration procedure compensates for the aging of the infrared source and ensures outstanding long term stability.

The basic EE80 version for CO₂ and T can be easily extended with a RH plug-in module. The well proven E+E sensor technology guarantees accurate and long term stability.

EE80 provides analogue 0 - 10V voltage outputs.

The optional display indicates sequentially the actual measuring data.



Typical Application

building management for residential and office areas
ventilation control

Features

CO₂ / RH / T measurement in one device
RH output with plug-in module
easiest installation
modern design
long term stability
optional display

Technical Data

Measuring values

CO₂

Measurement principle	Non-Dispersive Infrared Technology (NDIR)
Sensor	E+E Dual Source Infrared System
Working range	0 - 2000 ppm
Accuracy at 20 degC	< ± (50 ppm +2% of measure value)
Response time t ₆₃	< 90 sec
Temperature dependence	typ. 5 ppm CO ₂ /degC
Long term stability	typ. 20 ppm / year
Sample rate	ca. 0.5 min

Relative Humidity

Measurement principle	capacitive
Sensor element	HC103
Working range ¹⁾	10...90% RH
Accuracy at 20 degC	±3% RH (30...70% RH) ±5% (10...90% RH)

Temperature

Accuracy at 20 degC	±0.3 degC
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Outputs

0...2000 ppm / 0...100% RH / 0...50 degC	0 - 10V	-1mA < I _L < 1mA
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General

Supply voltage SELV	24V AC ±20%	15 - 35V DC
Power requirement	< 3 W	
Warm up time ²⁾	< 5 min	

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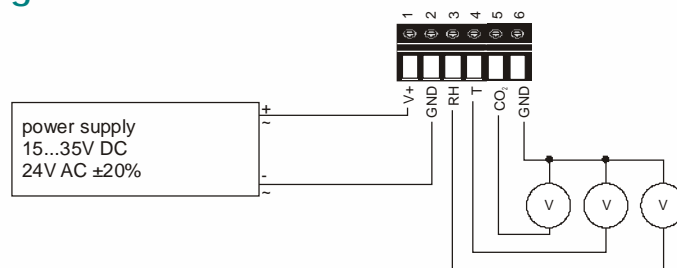
Display	LCD display: alternating CO ₂ (ppm) / T (°C or °F) / RH (% RH)
Electrical connection	screw terminals max. 1.5 mm ²
Electromagnetic compatibility	EN 61000-6-2 EN 61000-6-3
Working temperature range	0...90% RH (non condensing) / -5...55 degC
Storage temperature range	0...90% RH (non condensing) / -20...60 degC



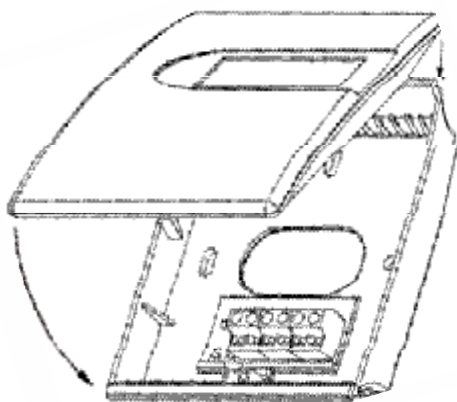
1) refer to the working range of the humidity sensor HC103!

2) warm up time for performance according specification

Connection Diagram



Housing Dimensions (mm)



W x H x D = 85 x 100 x 26

Material of housing: PC
Protection class: IP20

Colour of housing: Cover: RAL 9003 (signal white)
Back: RAL 7035 (light grey)

(other colours upon request)

Order Example

67-9979-02

Working range: 0...2000 ppm
Model: CO₂ + Temperature
Output: 0-10V
T-Scale: 0...50 degC
Display: with display
T-Unit: °C

Ordering Guide

WORKING RANGE	MODEL	OUTPUT	T-SCALE	DISPLAY	T-UNIT
0...2000 ppm (2)	CO ₂ + T (CT) CO ₂ + T + RH (CTF)	0-5V (2) 0-10V (3)	standard (0...50degC) (-) others (Txx)	without display (-) with display (D04)	°C (-) °F (E01)

Humidity plug-in module

EE0301

GasTech Australia Pty Ltd
24 Baretta Rd
Wangara Western Australia 6065
Tel 1800 999 902
Fax 1800 999 903
<http://www.gastech.com.au>

