EE80 Series

HVAC Room Transmitter for CO_2, Relative Humidity and Temperature

The EE80 series combines CO_2, 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_2 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 CO_2 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.


EE80

Typical Applications

building management for residential and office areas
ventilation control

Features

CO_2 / 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

CO_2

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

Outputs

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

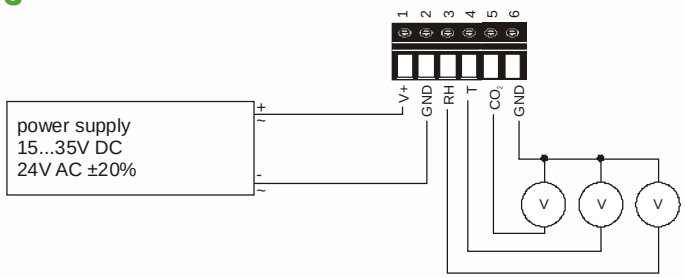
General

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

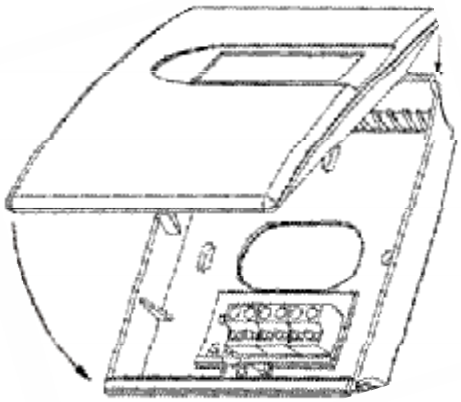
Display	LCD display: alternating CO_2 (ppm) / T (°C or °F) / RH (% RH)
Electrical connection	screw terminals max. 1.5 mm²
Electromagnetic compatibility	EN 61000-6-2 EN 61000-6-3
Working temperature range	0...90% RH (non condensing) / -5...55 degC
Storage temperature range	0...90% RH (non condensing) / -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

EE80-2CT3D04

Working range:	0...2000 ppm
Model:	CO_2 + 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)	0-5V (2)	standard (0...50degC) (–)	without display (--)	°C (–)
	CO_2 + T + RH (CTF)	0-10V (3)	others (Txx)	with display (D04)	°F (E01)
EE80-					

Accessories

Humidity plug-in module	EE0301

Contact

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