

EE89 Series

Miniature CO₂ Module for OEM / HVAC Applications

alterations according to customer specifications possible

The EE89 series CO₂ miniature module is designed especially for mass production and OEM applications.

The measuring principle is based on infrared technology (NDIR).

The EE89 series is maintenance free because of the patented E+E auto-calibration feature, compensating for the effects of aging and therefore warrants outstanding long term stability.

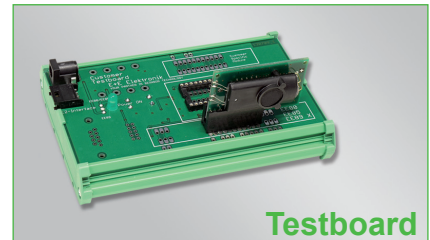
The output of the digital interface allows easy signal processing.

Contact pads at the edge or contact pins provide multiple ways of mounting the board.

With the EE89 testboard it is possible to display and save the measured values of the EE89 on the PC. An E2-RS232 adapter, a power supply unit and the EE89 evaluation software are included in the scope of supply.



EE89



Testboard

Typical Applications

OEM
 building management
 demand HVAC installations

Features

maintenance free
 autocalibration
 highest accuracy
 excellent long term stability
 small dimensions
 digital interface

Technical Data

Measuring values

CO₂

Measurement principle	Non-Dispersive Infrared Technology (NDIR)		
Sensor	E+E Dual Source Infrared System		
Working range	0...2000 / 5000 / 10000ppm		
Accuracy at 25°C (77°F) and 1013mbar	0...2000ppm:	< ± (50ppm +2% of measuring value)	
	0...5000ppm:	< ± (50ppm +3% of measuring value)	
	0...10000ppm:	< ± (100ppm +5% of measuring value)	
Response time t ₆₃	< 195s		
Temperature dependence	typ. 2ppm CO ₂ /°C (0...50°C / 32...122°F)		
Long term stability	typ. 20ppm / year		
Sampling rate	approx. 15s		

Output

0...2000 / 5000 / 10000ppm	digital E2 interface (details: www.epluse.com)
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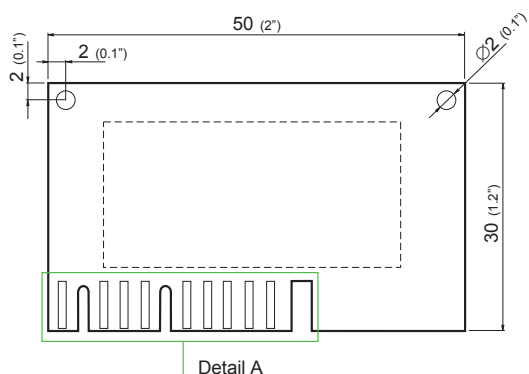
General

Supply voltage	4.75 - 7.5V DC		
Current consumption	typ. 7mA max. 0.5A for 0.3s		
Warm up time ¹⁾	< 5 min		
Electrical connection	contact pads or contact pins, grid 2.54mm (100mil)		
Working conditions	-20...60°C (-4...140°F)	5...95% RH (not condensating)	85...110kPa
Storage conditions	-20...60°C (-4...140°F)	5...95% RH (not condensating)	70...110kPa
Dimensions	50 x 30mm (2 x 1.2")		
Weight	approx. 15g (0.5oz)		

1) warm up time to reach specification values

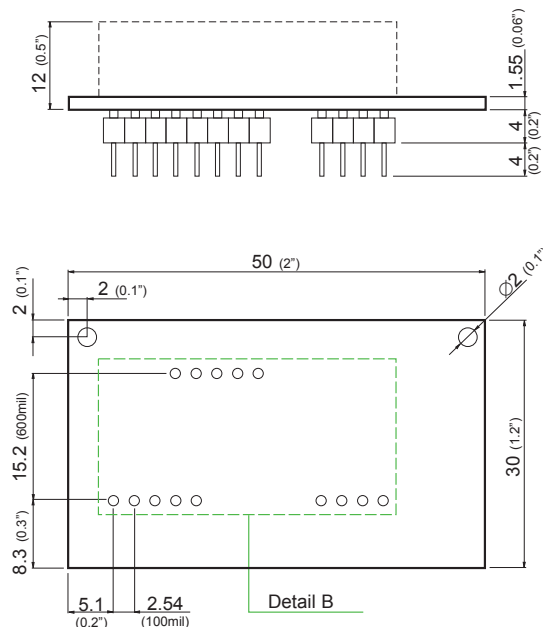
Connection Diagram / Dimensions (mm)

Mounting X (Contact Pads)

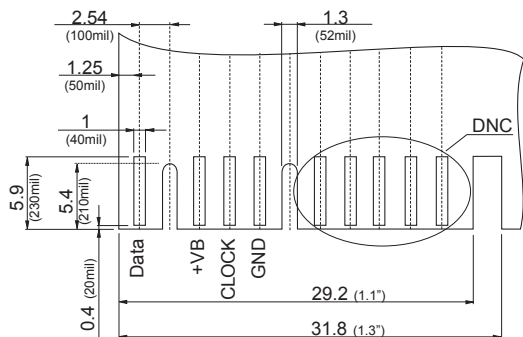


Mounting Y (Contact Pins)

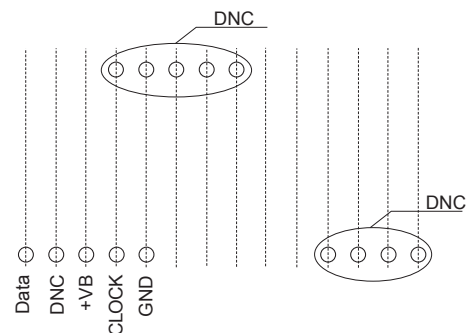
designed for 28 pin socket or PCB soldering



Detail A / Connection Diagram:



Detail B / Connection Diagram:



DNC...do not connect

Ordering Guide

MEASURING RANGE	TYPE	OUTPUT	MOUNTING
0...2000ppm (2)	CO ₂ (C)	digital interface (9)	contact pads (X)
0...5000ppm (5)			contact pins (Y)
0...10000ppm (10)			
EE89-			

Order Example

EE89-2C9Y

measuring range: 0...2000ppm
type: CO₂
output: digital interface
mounting: contact pins

Accessories

EE89 testboard (HA011010)