

Beskrivelse

En mini sensor med forskellige optioner.

0201 – Low cost temperaturføler med Modbus

0202 – CO₂ , temperature & fugtigheds føler til Modbus

0203 – CO₂ - Temperature føler til Modbus

0204 - Fugtigheds føler til Modbus



Betjeningskomponenter

Konstrueret til real time måling af atmosfærens kuldioxid, temperatur og relativ luftfugtighed. Systemet anvender NDIR infrarød teknologi en CO₂-sensor med særlig ABC selvstændig kalibrering, hvilket gør CO₂-måling mere præcise og mere pålidelige. Der er mere end 15 års forventede levetid for CO₂-sensoren.

Model 0202 – CO₂, temperature & fugtigheds føler til Modbus. Med en høj nøjagtighed i måling af temperatur og luftfugtighed på baggrund af anvendelsen af en kombineret temperatur og fugtighed sensor.

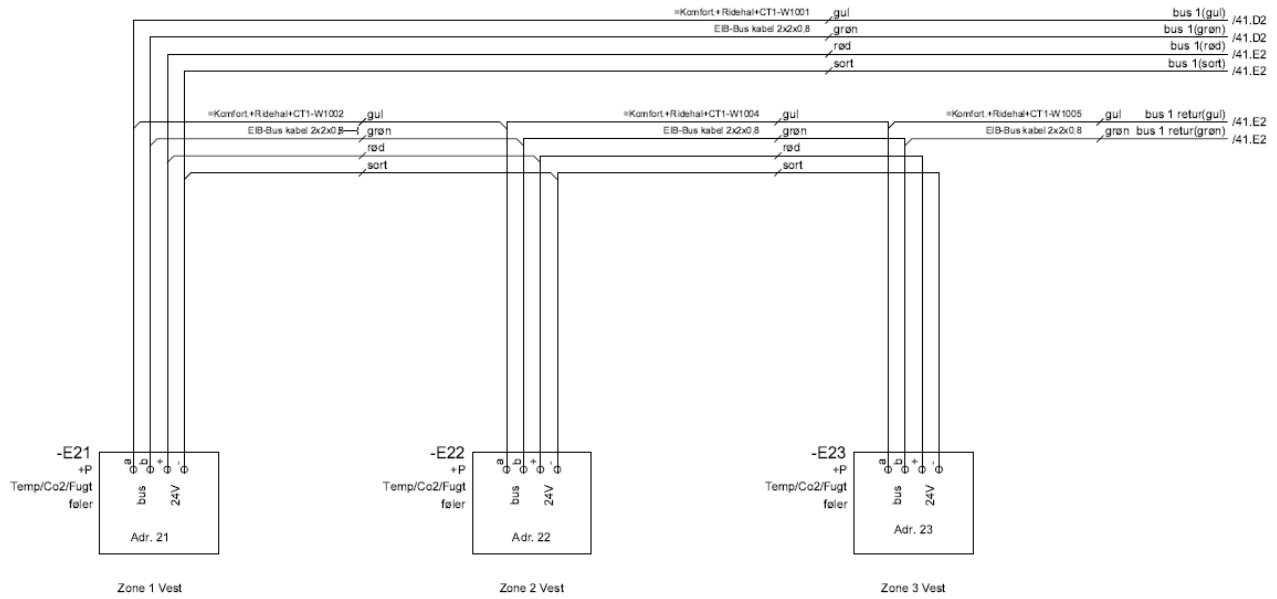
Model 0203 – CO₂ & temperature føler til Modbus anvender en lave omkostnings temperatur føler ($\pm 0,6$ ° C), ingen fugtighed.

4 farver LED indikatorer til at vise "Udmærket", "Optimal", "Moderat" og "Dårlig" ambient luft for nem visuel bevidsthed og interaktion. Grænseværdierne for indikatorerne kan indstilles via Climatic avancerede softwarestyring gennem Modbus netværket.

Der anvendes RS485 seriel kommunikation, der fungerer som en slave i Modbus RTU-netværket. Der er mulighed for udvidede ModBus adressering indenfor 1-65.535.

Udstyret er kalibreret og klar til brug direkte efter installationen. Installationen er som vægmontering. Produktet er CE-godkendelse.

Indstillinger



Vedligeholdelse:

Nænsom rengøring af føleretlementet med almindeligt rengøringsmiddel

Technical specification

General Performance:

Storage Temperature	-10 to +50 °C
Sensor Life Expectancy	> 15 years
Maintenance Interval	no maintenance required, see note 1
Self-Diagnostics	complete function check of the sensor modules
Warm-up Time	≤ 2 min
Conformance with the standards	Emission: EN61000-6-3:2001, Immunity: EN61000-6-2:2001, RoHS directive 2002/95/EG
Operating Environment	Residential, commercial, industrial spaces Normally used in HVAC (Heating Ventilation and Air-Conditioning) systems.

Electrical / Mechanical:

Power Input	15-30 VDC
Current Consumption	18 mA at 24VDC average < 15 mA normal < 60 mA puls current (during IR lamp ON, 120 msec every 2 seconds)
Electrical Connections	Terminal blocks: 24VDC, GND, RS485-A, RS485-B and GND.
Dimensions	72 x 72 x 28 mm (Length x Width x Height)

CO₂ Measurement:

Sensing Method	non-dispersive infrared (NDIR) waveguide technology with ABC automatic background calibration algorithm
Sampling Method	diffusion
Response Time (T1/e)	20 sec diffusion time
Measurement Range	0 - 5 000 ppm vol.
Repeatability	± 20 ppm ± 1 % of measured value
Accuracy, see note 1	± 30 ppm ± 3 % of measured value
Pressure Dependence	+ 1.6 % reading per kPa deviation from normal pressure, 100 kPa
Operating Temperature Range	0 to 50 °C
Operating Humidity Range	0 to 95% RH (non-condensing)
Calibration support	Please, contact your local dealer for further information!

Low-cost Temperature Measurement:

Sensing Method	National semiconductor LM35D
Measurement Range	-10 °C to +50 °C
Accuracy	typical ±0.6 °C at 25 °C
On-board calibration support	none

High precision Temperature and Humidity Measurement:

Sensing Method	Sensirion SHT11-V4
Temperature measurement Range	-10 °C to +50 °C
Temperature accuracy	typical ± 0.4 °C at 25 °C
Temperature repeatability	typical ± 0.1 °C at 25 °C
Temperature long term drift	< 0.04 °C/year
Humidity measurement Range	0 to 100 %RH
Humidity accuracy	typical ± 3 %RH at 25 °C
Humidity repeatability	typical ± 0.1 %RH at 25 °C
Humidity hysteresis	typical ± 1 %RH at 25 °C
Humidity long term drift	< 0.5 %RH/year
Calibration support	Please, contact your local dealer for further information!

UART Serial com port:

Protocol	MODBUS open RTU protocol, refer specification and registers definitions
Hardware interface	RS485
Baud Rate	9600,N,8,2 (default), changeable

Note 1: Accuracy is defined after minimum 3 weeks of continuous operation. However, some industrial applications do require maintenance. Please, contact your local dealer for further information!