

CARBON DIOXIDE TRANSMITTER/CONTROLLER HDH-M

HDH-M transmitters are designed for detecting and controlling carbon dioxide concentration, temperature, and humidity in room spaces. The transmitter information can be used for demand-based ventilation control, for example.

The transmitter can be connected to any system that supports Modbus RTU protocol by using the RS-485 connection. ML-SER tool is needed in commissioning for making the Modbus settings.

The measurement values scroll on the N model display. The wanted value can be locked to view continuously.

ABCLogic™ self-calibration method eliminates the possible long-term drift. The ABCLogic™ function can be turned off by using the ML-SER tool.

The control output (0...10 V or 2...10 V) can be controlled either according to a one measurement value or according to the maximum selection of all values. The controller settings can be changed by using the ML-SER tool.

The transmitter can be equipped with following options:

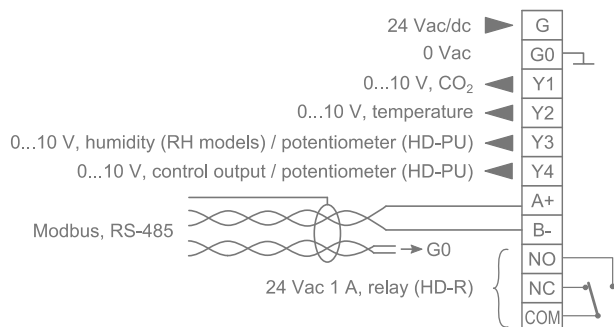
- HD-AL3: Carbon dioxide level indicator lights (3 pcs). As a factory setting, the lights are illuminated as follows:
 - Green: 0...750 ppm
 - Yellow: 751...1250 ppm
 - Red: 1251...2000 ppm

The indicator light limits can be changed by using the ML-SER tool.

- HD-PU: Active 0...10 V potentiometer. The potentiometer information can be directed to output (Y3 or Y4) or used to adjust the internal controller set point.
- HD-R: Relay (24 Vac, 1 A) that switches according to the one measurement value or according to all values. The relay switching point can be adjusted by using ML-SER tool.

See more information about options from the HDH order form.

Wiring:



Technical data

Supply	24 Vac/dc (22...28 V), < 2 W
Carbon dioxide measurement	
Range	0...2000 ppm
Accuracy (25 °C)	typ. ±40 ppm +3 % from reading (ABCLogic™)
Long term stability / year	< 2 % FS (ABCLogic™)
Time constant	< 2 min
Temperature measurement	
Range	0...50 °C
Accuracy (25 °C)	±0.5 °C
Humidity measurement (RH models)	
Range	0...100 %rH
Accuracy (25 °C)	±2 %rH
Outputs	0...10 V < 2 mA
Operating conditions	
Temperature	0...+50 °C
Humidity	0...85 % RH (non cond.)
Housing	IP20, ABS plastic
Mounting	on the wall surface or on the standard flush mounting box (60 mm hole distance)
Dimensions (w x h x d)	87 x 86 x 30 mm

Ordering guide:

Model	Product number	Description
HDH-M	1135100	CO ₂ and °C Modbus room transmitter
HDH-M-N	1135101	Modbus room transmitter with display
HDH-M-RH	1135102	CO ₂ , °C and %rH Modbus room transmitter
HDH-M-RH-N	1135103	Modbus room transmitter with display
HD-PU	1135002	option, 0...10 V potentiometer
HD-R	1135003	option, relay 24 Vac 1 A
HD-AL3	1135048	option, indicator lights, 3 pcs
ML-SER	1139010	transmitter commissioning tool

Products fulfil the requirements of directive 2014/30/EU and are in accordance with the standards EN61000-6-3 (Emission) and EN61000-6-2 (Immunity).