

## CARBON DIOXIDE TRANSMITTER/CONTROLLER HDH

HDH 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 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:

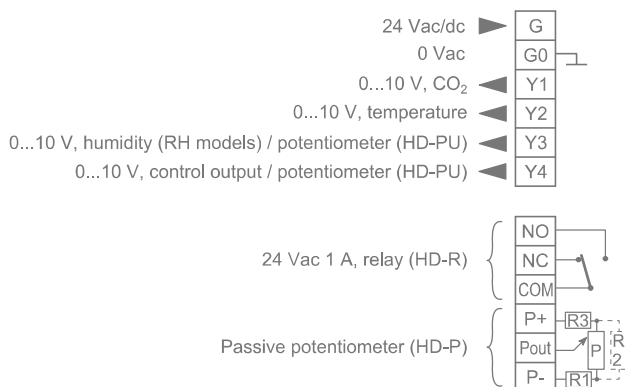
- HD-AL3 (not available for N models): Carbon dioxide level indicator lights (3 pcs). As a factory setting, the lights are illuminated as follows:
  - Green: 0...750 ppm
  - Yellow: 751...1250 ppm
  - Red: 1251...2000 ppm

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

- HD-P: Passive potentiometer
- 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 the 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      | 1135040        | CO <sub>2</sub> and °C room transmitter       |
| HDH-N    | 1135041        | room transmitter with display                 |
| HDH-RH   | 1135044        | CO <sub>2</sub> , °C and %rH room transmitter |
| HDH-RH-N | 1135045        | room transmitter with display                 |
| HD-P     | 1135001        | option, passive potentiometer                 |
| 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 2004/108/EC and are in accordance with the standards EN61000-6-3: 2001 (Emission) and EN61000-6-2: 2001 (Immunity).