pd PRODUAL
measure - be sure.

HDH-PIR - CARBON DIOXIDE TRANSMITTER/CONTROLLER

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

ABCLogic™ self-calibration method eliminates the possible long term drift. The ABCLogic™ function can be turned off by using the ML-SER tool.
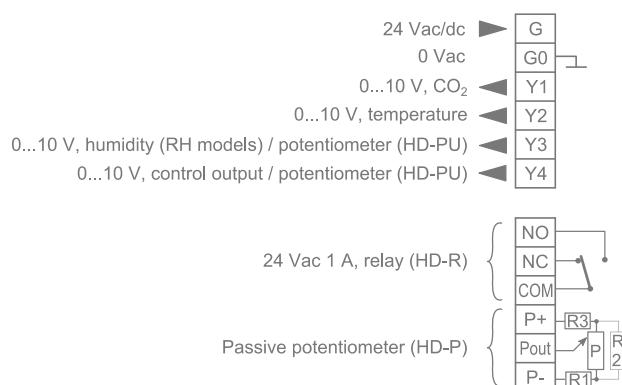
The control output (0…10 V, 2…10 V or 0…5 V) can be controlled either according to a one measurement value or according to the maximum selection of all values. The controller settings can be changed by using the ML-SER tool. The control output can also be set to a static value during commissioning, for example.

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-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:

24 Vac/dc ►	G
0 Vac	G0
0...10 V, CO_2 ◄	Y1
0...10 V, temperature ◄	Y2
0...10 V, humidity (RH models) / potentiometer (HD-PU) ◄	Y3
0...10 V, control output / potentiometer (HD-PU) ◄	Y4
24 Vac 1 A, relay (HD-R)	NO / NC / COM
Passive potentiometer (HD-P)	P+ R3 / Pout P R2 / P- R1

Technical data

Supply	24 Vac/dc (22…28 V), < 2 VA
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)	typ. ±2 % rH (20…80 % rH) max. ±3 %rH
Control output (Y4)	0…10 V / 2…10 V / 0…5 V, < 2 mA
Outputs (Y1, Y2, Y3)	0…10 V, < 2 mA
Operating conditions	
Temperature	0...+50 °C
Humidity	0...85 % RH (non cond.)
Housing	IP20, ABS plastic
Mounting	60 mm mounting hole distance
Dimensions (w x h x d)	87 x 86 x 30 mm

Ordering guide:

Model	Product number	Description
HDH-PIR	1135240	CO_2 and °C room transmitter with PIR
HDH-PIR-N	1135241	room transmitter with display
HDH-RH-PIR	1135250	CO_2, °C and %rH room transmitter with PIR
HDH-RH-PIR-N	1135251	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 (Emission) and EN61000-6-2 (Immunity).