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DATA SHEET

HDK

Produal

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HDK - Duct CO_2 transmitter / controller





HDK transmitters are designed for detecting and controlling carbon dioxide concentration, temperature and humidity inside ventilation ducts. 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.

The device uses automatic CO_2 measurement calibration function (ABC algorithm). The function eliminates the possible long term drift. The automatic calibration function can be turned off by using the ML-SER tool.

The control output 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 a HD-R relay (24 Vac, 1 A). The relay output can be controlled either according to a one measurement value or according to the all measured values. The relay switching point can be adjusted by using ML-SER tool.

Technical specifications

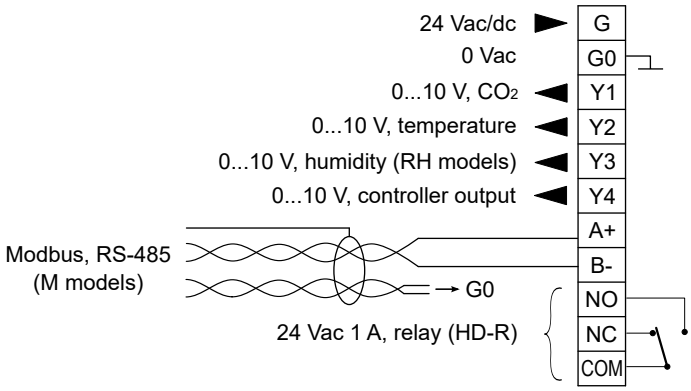
Property	Value
Supply	24 Vac/dc (22…28 V) < 2 VA
CO_2 measurement	
Range	0...2000 ppm
Range, 10K models	0...10000 ppm
Accuracy (25 °C)	typ. ±40 ppm +3 % from reading (automatic calibration)
Accuracy (25 °C), 10K models	typ. ±200 ppm +3 % from reading (automatic calibration)
Long term stability / year	< 2 % FS (automatic calibration)
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

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Property	Value
Measuring probe	Ø10 mm x 110 mm; duct insulation < 75 mm
Outputs	0...10 V / 2...10 V / 0...5 V, < 2 mA
Cable entry	M16
Communication, M models	Modbus RTU
Operating conditions	
Temperature	0...50 °C
Humidity	0...85 %rH (non-condensing)
Storage temperature	-20...70 °C
Wiring terminals	1,5 mm^2, tilted screw terminals
Housing	IP54, cable entry downwards
Dimensions (w x h x d)	105 x 104 x 155 mm

Wiring

CAUTION **CAUTION:** Device wiring and commissioning can only be carried out by qualified professionals. Always make the wirings while the power is switched off.

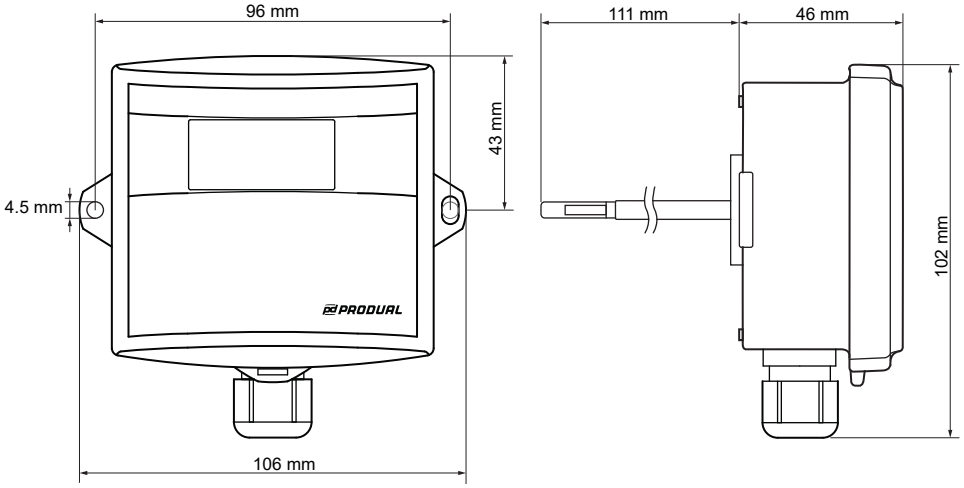


Ordering information

	Type	Product number	Description
	HDK	1135050	Duct transmitter / controller, CO_2 and temperature measurement, range 0...2000 ppm
	HDK-N	1135051	Duct transmitter / controller, CO_2 and temperature measurement, display, range 0...2000 ppm
	HDK-RH	1135054	Duct transmitter / controller, CO_2, temperature and humidity measurement, range 0...2000 ppm
	HDK-RH-N	1135055	Duct transmitter / controller, CO_2, temperature and humidity measurement, display, range 0...2000 ppm
	HDK-M	1135120	Modbus duct transmitter / controller, CO_2 and temperature measurement, range 0...2000 ppm

	Type	Product number	Description
	HDK-M-N	1135121	Modbus duct transmitter / controller, CO_2 and temperature measurement, display, range 0...2000 ppm
	HDK-M-RH	1135122	Modbus duct transmitter / controller, CO_2, temperature and humidity measurement, range 0...2000 ppm
	HDK-M-RH-N	1135123	Modbus duct transmitter / controller, CO_2, temperature and humidity measurement, display, range 0...2000 ppm
	HDK 10K	1135130	Duct transmitter / controller, CO_2 and temperature measurement, range 0...10000 ppm
	HDK 10K-N	1135131	Duct transmitter / controller, CO_2 and temperature measurement, display, range 0...10000 ppm
	HDK 10K-RH	1135132	Duct transmitter / controller, CO_2, temperature and humidity measurement, range 0...10000 ppm
	HDK 10K-RH-N	1135133	Duct transmitter / controller, CO_2, temperature and humidity measurement, display, range 0...10000 ppm
	HDK 10K-M	1135140	Modbus duct transmitter / controller, CO_2 and temperature measurement, range 0...10000 ppm
	HDK 10K-M-N	1135141	Modbus duct transmitter / controller, CO_2 and temperature measurement, display, range 0...10000 ppm
	HDK 10K-M-RH	1135142	Modbus duct transmitter / controller, CO_2, temperature and humidity measurement, range 0...10000 ppm
	HDK 10K-M-RH-N	1135143	Modbus duct transmitter / controller, CO_2, temperature and humidity measurement, display, range 0...10000 ppm
	HD-R	1135003	Relay option, 24 Vac / 1 A
	ML-SER	1139010	Transmitter commissioning tool

Dimensions



Supported standards and directives

Standard	Description
2014/30/EU	Electromagnetic Compatibility (EMC).
2011/65/EU	Restriction of Hazardous Substances (RoHS2) Directive.
EN 61000-6-3:2007/ A1:2011	Electromagnetic compatibility (EMC) - Part 6-3: Generic standards - Emission standard for residential, commercial and light-industrial environments.
EN 61000-6-2:2006	Electromagnetic compatibility (EMC) - Part 6-2: Generic standards - Immunity for industrial environments.

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