

## ILK-M - DUCT AIR QUALITY TRANSMITTER/CONTROLLER

ILK-M transmitters are designed for detecting and controlling VOC (Volatile Organic Compound) level, temperature and humidity inside ventilation ducts. MEMS sensing technology ensures accurate and durable VOC measurement that is related to the CO<sub>2</sub> level. With the VOC level information the demand based ventilation can be controlled effectively.

The VOC sensor detects wide variety of hydrocarbons such as cigarette smoke, exhaled breathing air, solvent vapours, building material emissions and cleaning agent vapours.

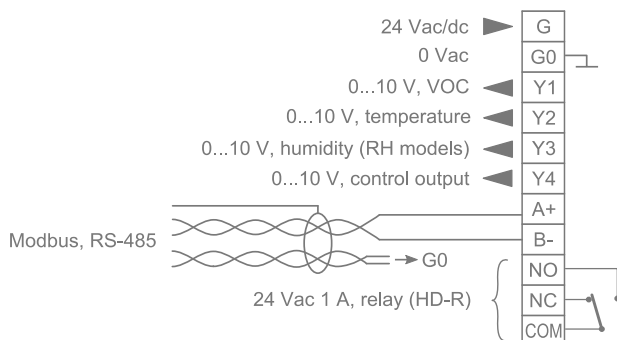
The transmitter can be connected to any system that supports Modbus RTU protocol by using the RS-485 connection. ML-SER tool is needed in commissioning for making the Modbus settings.

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

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.

### Wiring:



### Technical data

Supply	24 Vac/dc (22...28 V) < 2 W
VOC measurement	
range	450...2000 ppm (CO <sub>2</sub> equivalent)
warm up time	15 min
output	0...10 V < 2 mA = 0...2000 ppm
Temperature measurement	
range	0...50 °C
accuracy (25 °C)	±0.5 °C
output	0...10 V < 2 mA = 0...50 °C
Humidity measurement (RH models)	
range	0...100 %rH
accuracy (25 °C)	±2 %rH
output	0...10 V < 2 mA = 0...100 %rH
Control output	0...10 V < 2 mA
Measuring probe	Ø 10 mm x 110 mm; duct insulation < 75 mm
Communication	Modbus RTU
Operating conditions	
temperature	0...+50 °C
humidity	0...85 % RH (non cond.)
Housing	IP54
Dimensions (w x h x d)	105 x 104 x 155 mm

### Ordering guide:

Model	Product number	Description
ILK-M	1135640	Modbus VOC and °C duct transmitter
ILK-M-N	1135641	duct transmitter with display
ILK-M-RH	1135642	Modbus VOC, °C and %rH duct transmitter
ILK-M-RH-N	1135643	duct transmitter with display
HD-R	1135003	option, relay 24 Vac 1 A
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).