

## KLK 100 - DUCT HUMIDITY AND TEMPERATURE TRANSMITTER

KLK 100 humidity and temperature transmitters are designed to detect duct air humidity and temperature.

The M models have RS-485 connection for Modbus RTU communication. ML-SER tool is needed at commissioning for making the Modbus settings.

The output signals can be selected at the commissioning to be either 0...10 V or 4...20 mA signals. More output signal possibilities are available by using the ML-SER tool.

The transmitter settings can be changed by using the ML-SER commissioning tool. The tool can be used to make one point field calibration and to change the OUT1 or OUT2 output to a controller output. Accordingly, the controller settings can be changed 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.

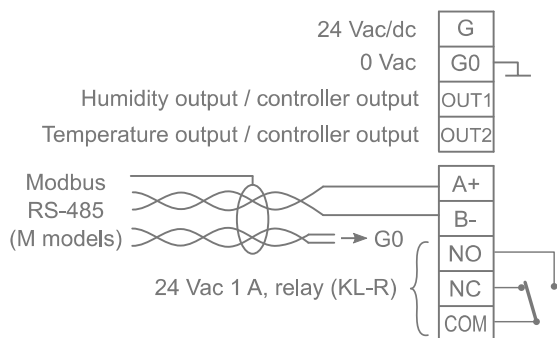
The N models have a backlit display. The measurement values are shown on the N model display simultaneously. One measurement value view can be selected also.

The transmitter can be equipped with a relay option (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.

### Selecting the output format

|      | Vdc                      | mA                       |
|------|--------------------------|--------------------------|
| OUT1 | <input type="checkbox"/> | <input type="checkbox"/> |
| OUT2 | <input type="checkbox"/> | <input type="checkbox"/> |

### Wiring



### Technical data:

|                          |   |
|--------------------------|---|
| Supply                   | 24 Vac/dc (*21...28 V), 2 VA                          |
| Humidity measurement     |   |
| Range                    | 0...100 % rH  |
| Accuracy (at 25 °C)      | typ. ±2 % rH (20...80 % rH)<br>max. ±3 %rH            |
| Long term stability      | ±0,5 % rH / 24 months                                 |
| Temperature measurement  |   |
| Range                    | -50...+50 °C  |
| Accuracy (at 25 °C)      | ±0,5 °C   |
| Outputs                  | 0...10/2...10/0...5 Vdc, < 2 mA<br>4...20 mA, < 500 Ω |
| Display (N models)       | backlit dot matrix display                            |
| Communication (M models) | Modbus RTU  |
| Protection class         |   |
| Transmitter              | IP54 (probe or cable gland downwards)                 |
| Sensor                   | IP20  |
| Operating conditions     |   |
| Temperature              | -30...+50 °C  |
| Humidity                 | 0...90 % rH (non cond.)                               |
| Mounting                 | with a flange, adjustable probe depth                 |
| Dimensions (w x h x d)   | 70 x 98 x 220 mm                                      |
| Materials                | PBT, PC, PA and stainless steel                       |

\* = Relay output requires 24 Vac/dc supply voltage.

### Ordering guide:

| Model     | Product number | Description                                    |
|-----------|----------------|--|
| KLK 100   | 1132240        | duct humidity transmitter                      |
| KLK 100-N | 1132241        | duct humidity transmitter with display         |
| KLK-M     | 1132610        | duct humidity transmitter, Modbus              |
| KLK-M-N   | 1132611        | duct humidity transmitter with display, Modbus |
| KL-R      | 1132001        | option, relay 24 Vac 1 A                       |
| 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).