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 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

<table>
<thead>
<tr>
<th></th>
<th>Vdc</th>
<th>mA</th>
</tr>
</thead>
<tbody>
<tr>
<td>OUT1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OUT2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Wiring

24 Vac/dc  G
0 Vac      G0
Humidity output / controller output
Temperature output / controller output

Modbus
RS-485
(M models)

24 Vac 1 A, relay (KL-R)

Technical data:

Supply
24 Vac/dc (*15...28 V), 2 VA

Humidity measurement
Range 0...100 % rH
Accuracy (at 25 °C) typ. ±2 % rH (20...80 % rH)
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
4...20 mA, < 600 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

Ordering guide:

<table>
<thead>
<tr>
<th>Model</th>
<th>Product number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>KLK 100</td>
<td>1132240</td>
<td>duct humidity transmitter</td>
</tr>
<tr>
<td>KLK 100-N</td>
<td>1132241</td>
<td>duct humidity transmitter with display</td>
</tr>
<tr>
<td>KLK-M</td>
<td>1132610</td>
<td>duct humidity transmitter, Modbus</td>
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<tr>
<td>KLK-M-N</td>
<td>1132611</td>
<td>duct humidity transmitter with display, Modbus</td>
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<tr>
<td>KL-R</td>
<td>1132001</td>
<td>option, relay 24 Vac 1 A</td>
</tr>
<tr>
<td>ML-SER</td>
<td>1139010</td>
<td>transmitter commissioning tool</td>
</tr>
</tbody>
</table>

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