



Klimasensor - Temperatur und Feuchtigkeit

Dieser Klimasensor ist zum Anschluss an das Sensormodul des ELM Systems geeignet. Er kann zur Messung von Temperatur und Luftfeuchtigkeit im Innen- und Außenbereich eingesetzt werden.

3000-U25-00 Kabelende mit offenen Kontakten

3000-U25-01 mit Stecker 19"-Einschub RMS 490 oder Sensor Unit 3000-U13-02

Technische Änderungen vorbehalten.



Climatic Sensor - Temperature and Humidity

This climatic sensor can be connected to a sensor module of the ELM system. It is used to measure temperature and humidity in indoor and outdoor applications.

3000-U25-00 cable end with open contacts

3000-U25-01 with connector plug for 19"-racks RMS 490 or Sensor Unit 3000-U13-02

Subject to technical changes.



Plug front side view	Pin number of plug	Signal	Wire color
	1	+7.5...27 V DC	red
	2	Temperature	green
	3	Ground	blue
	4	Humidity	yellow

Fig. 1: 3000-U25-01

Characteristics

- Temperature measurement range: ... -20...+80 °C (-4...+176 °F), accuracy ±0.5 K at 25°C
- Humidity measurement range: 0...100% rel., accuracy ±3.5% at 20...80% relative humidity (r.h.)
- Supply voltage: +7.5 ... 27 V DC, current consumption approx. 0.8 mA
- Output voltage of temperature: -20°C: 500 mV, +80°C: 5500 mV
- Output voltage of humidity: 0%: 500 mV, 100%: 5500 mV
- Protection level: sensor IP 30, electronic IP 65
- Standards: EMC and ESD acc. to EN 50082-1 and EN 50082-2
- Dimensions: 65 x 31 x 22 mm
- Cable length: 2 m

Using with ELM sensor module 3000-U13

Resulting output voltage for temperature and humidity is calculated according to below formulas:

$$\text{Temperature [}^\circ\text{C]} = (\text{voltage [mV]} * 0.020) - 30$$

$$\text{Temperature [}^\circ\text{F]} = (\text{voltage [mV]} * 0.036) - 22$$

$$\text{Humidity [\%]} = (\text{voltage [mV]} * 0.020) - 10$$

Parameters for ELMcontrol:

lower value	lower limit	upper value	upper limit	fitting scale	fitting offset
-20 °C	500 mV	+80 °C	5500 mV	0.020	-30
-4 °F	500 mV	+176 °F	5500 mV	0.036	-22
0% r.h.	500 mV	100% r.h.	5500 mV	0.020	-10