

Outdoor temperature and humidity sensor LKM 455 with integrated transducer, output 4..20mA

Functional Description

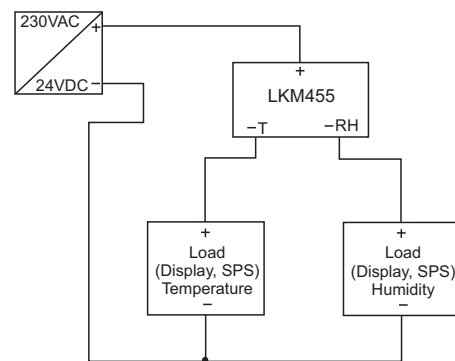
The sensor type LKM 455 is an inexpensive outdoor temperature/humidity sensor with integrated transducer and two 4...20mA current outputs. By means of this device, the temperature and humidity prevailing both inside and outside buildings, plants and switch cabinets can be measured. It can directly be connected to evaluation devices with current output just like PC cards or PLCs. The LKM 455 sensor typically presents an accuracy of $\pm 0.5^{\circ}\text{C}$ and 3% relative humidity. The sensor is supplied entirely adjusted. Two controllers allow minor corrections to be carried out on site. Due to its structure (protection class IP64), the sensor is suited for being mounted both in enclosed rooms and outside. During mounting, attention has to be paid to the correct position of the sensor. The protection class is IP64. The measuring range for the temperature amounts to $-20...80^{\circ}\text{C}$, for the relative humidity it is 0...100%. The temperature range can be switched over to $0...50^{\circ}\text{C}$



Technical Data

| | |
|----------------------------------|---|
| Input: | semi-conductor sensor integrated |
| Measuring range for temperature: | $-20...80^{\circ}\text{C}$ switchable to $0...50^{\circ}\text{C}$ |
| Measuring range for humidity: | 0..100% |
| Loop voltage: | 10..35VDC |
| Output: | 2x4..20mA |
| Load resistance: | max.700 Ω at 24V |
| Measurement error temperature: | typ. +/- 0.5 $^{\circ}\text{C}$ at 25 $^{\circ}\text{C}$ |
| Measuring error humidity: | <3% |
| Operating temp. range: | $-30...85^{\circ}\text{C}$ |
| Humidity: | <95% |
| Type of terminals: | screw clamps |
| Clamping range: | 0.13...1.5mm ² |
| Material: | polyamide white fibre glass reinforced |
| Dimensions: | 65x60x30mm (HxWxD) |
| Weight: | approx.100g |
| EMC | |
| Emission and Noise immunity: | EN 61326-1:2006 EN 61326-2-3:2006 |

Schematic Diagram



Load resistance

load diagram

