

## Temperature and humidity sensor LKM445 with output 4..20mA

### Functional Description

The sensor type LKM 445 is an inexpensive ambient temperature and humidity sensor with integrated transducer and two current outputs from 4 to 20mA. By means of this device, the temperature and humidity prevailing in buildings, plants and switch cabinets can be measured. It can directly be connected to evaluation devices with current output just like PC cards or PLC. The LKM 445 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, this room sensor should only be mounted in enclosed rooms. When doing so, attention has to be paid to the correct position of the device. The cable outlet can be found at the rear wall, a lateral cable outlet can be provided optionally. The protection class is IP20. The measuring range for the temperature amounts to 0..50°C, for the relative humidity it is 0..100%. The temperature range can be switched over to -20..80°C.



### Technical Data

Input:	semi-conductor sensor integrated	
Measuring range for temperature:	0..50°C	switchable to -20..80°C
Measuring range for humidity:	0..100%	
Loop voltage:	10..35VDC	
Output:	2x4..20mA	
Load resistance:	max.700Ω at 24V	
Measurement error temperature:	typ. +/- 0.5°C at 25°C	
Measuring error humidity:	<3%	
Operating temp. range:	-20...80°C	
Humidity:	<95%	
Type of terminals:	screw clamps	
Clamping range:	0.13...1.5mm <sup>2</sup>	
Material:	PVC white	
Dimensions:	70x70x25mm (HxWxD)	
Weight:	approx.50g	
EMC Emission and Noise immunity:	EN 61326-1:2006 EN 61326-2-3:2006	

### Schematic Diagram

