Components and accessories
Transmitter

Transmitter LKM 231

DIN rail transmitter LKM 231 for thermocouples with output signal 4...20mA, with galvanic isolation

The LKM 231 is an analog transmitter for various thermocouples according to DIN EN 60584 and DIN EN 43710. It converts the temperature-dependent thermoelectric voltage of the sensors into a standard signal of 4...20mA. The temperature compensation of the reference junction is done in the transmitter itself. It has a galvanic isolation between input and output. The transmitter is delivered from the factory calibrated to customer specifications. Depending on the measuring range and thermocouple type, the calibration is carried out in such a way that the occurring temperature errors are minimized. A voltage-linear adjustment for further processing of the measured values in the PC or PLC can also be carried out. This should be specified when ordering. A span and zero controller allows subsequent fine adjustment. The supply can be made from a voltage source.

* depends on thermocouple

Input
Thermocouples K, J (L), T (U), N, E S and B with higher fault
Output
4 ... 20mA
Range
> 200 °C*
Zero point
-200 °C ... +600 °C*
Loop voltage
10...35VDC, reverse protection
Sensor fracture
>20 mA
Shorted Sensor
room ambient temperature
Auxiliary supply
24V DC ±10%, reverse protection
Permissible ripple
< 10 %
Reaction time
< 0.1s
Vibration

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	5g/10-200Hz
Insulation voltage	
	1 kV
Linearity error	
	<0.1% FS*
Error of compensation	
	<±0.5°C
TCR	
	< 100 ppm/°C
Operating temperature range	
	-25 °C ... +85 °C
Terminal type	
	screw terminal
Clamping range	
	0.2...2.5mm²
Humidity	
	< 95%
EMC emission	
	EN 61000-6-3:2001
EMC interference rejection ratio	
	EN 61000-6-3:2001
Mounting	
	35mm DIN rail
Current consumtion	
	max. 40 mA
Case	
	EMG25-LG
Case material	
	Polycarbonat
Case dimension (HxWxD)	
	75 x 25 x 53 mm
Weight	
	approx. 60g

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