

## Components and accessories

### Transmitter

#### Transmitter LKM 231



#### Transmitter for thermocouples - DIN rail mounting - with galvanic isolation

The LKM 231 is an analog transmitter for several thermocouples acc. to DIN EN 60584 and DIN 43710. It changes the temperature-dependent thermovoltage of the sensors in an analog standard output current signal of 4...20mA. It has an galvanic isolation from input to output. The cold-junction compensation happens inside the transmitter by self. The transmitter LKM 231 will be delivered with the configuration as desired.

The alignment takes place depending upon measuring range and type of thermocouple in such way that the arising temperature errors are minimized. A voltage-linear alignment for the subsequent treatment of the measured values in PC or SPS can be made likewise. This should be indicated for the order as. The final adjustment takes place by means of span and zero regulators.

#### Input

thermocouple K, J(L), T(U), N, E;  
S B with higher fault

#### Output

4 ... 20mA

#### Range

> 200 °C\*

#### Zero point

-200 °C ... +600 °C\*

#### Loop voltage

10...35VDC, reverse protection

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**Sensor fracture**

>20 mA

**Shorted Sensor**

room ambient temperature

**Auxiliary supply**

24V DC  $\pm$  10%, reverse protection

**Permissible ripple**

< 10 %

**Reaction time**

< 0.1s

**Vibration**

5g/10-200Hz

**Insulation voltage**

1 kV

**Linearity error**

<0.1% FS\*

**Error of compensation**

< $\pm$  0.5°C

**TCR**

<100ppm/°C

**Operating temperature range**

-25°C ... +85°C

**Terminal type**

screw terminal

**Clamping range**

0.2...2.5mm<sup>2</sup>

**Humidity**

< 95%

**EMC emission**

EN 61000-6-3:2001

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**EMC interference rejection ratio**

EN 61000-6-3:2001

**Mounting**

35mm DIN rail

**Current consumption**

max. 40 mA

**Case**

EMG25-LG

**Case material**

Polycarbonat

**Case dimension (HxWxD)**

75 x 25 x 53 mm

**Weight**

approx. 60g

\*depend on thermocouple