

- 4..20 mA measuring transducer for Pt100 sensors
- connection in 2-, 3- or 4-wire technology
- precision < 0,25 °C
- correction of the actual value
- automatic/configurable cable resistance compensation (2-wire)
- sensor error detection
- programmable linearization, absorption, information of condition an serial number
- PC datalogging
- excellent temperature stability



### description

The MUK-VG is a programmable measuring transducer for pt100 detectors in a field frame. The power supply occurs about the 4...20 mA bow.

For the resistance measurement the connection in 2-, 3- or 4-conductor technology is possible. At the 2-wire connection an automatic compensation of the cable resistance is possible.

With the help of a PC and the flex-program based on Windows the configuration of the following parameters is possible via the 4...20 mA bow:  
TAG-no., number of wires, cable resistance, error detection level, effective range, absorption, offset and status indication.

The flex-program provides the connection of a data reading registration at the display, which allows the user to guard the measuring results.

The measuring transducer is mounted in a field frame and suitable for the local using.

## technical facts

### input

#### precision

effective range  $\leq 250^{\circ}\text{C}$  < 0,25 °C

effective range  $> 250^{\circ}\text{C}$  0,1% of the range

measuring cyclus < 0,7 sec.

Pt100 standard IEC/DIN/EN 60 751-2

measuring power Pt100 0,3 mA, constant current

type of sensor 2-, 3- or 4-wire

eff. range underflow < -225 °C

eff. range overflow > 875 °C

error detection delay < 10 sec.

compensation for cable error < 0,02 °C/Ohm (3-wire)

cable resistance max. 20 Ohm/wire

effective range -200...850 °C

unit of measurement °C or °F

min. span 25 K

overvoltage protection +/- 35 V DC

line frequency 50...60 Hz

suppression 14 bit

resolution < 0,1 °C

repeatability max. +/- 10 °C

### output

signal range 4...20 mA, 2-wire

precision < 0,1 % of the signal range

auxiliary power 8...35 V DC

ripple immunity 3 V rms

max. burden  $RL \leq (VCC-8)/23$  [kOhm]

signal overflow/underflow 23 mA/3,5 mA

absorption 0...30 sec.

protection protection against incorrect polarity

resolution 12 bit

### environmental conditions

operating temperature -40...85 °C

### EMV facts

immunity fulfill EN 50082-2

emission fulfill EN 50081-1

### mechanical facts

dimensions 58 x 64 x 35 mm

### further facts

temperature influence typ. 0,003 % per °C  
max. 0,01 % per °C

power-on time 10 sec.

## facts of order

### MUK-VG

construction of standard