

# measuring transducer

## measuring transducer in field housing MUFG

### features

- transmitter for resistance thermometers installed in plastic field housing
- due to its robust polyamide housing, the MUFG is also suitable for aggressive environmental conditions of the industry applicable
- position of the screw connection freely selectable
- monitoring of sensor break
- available with: measuring transducer DMU50 (4..20mA 3-wire/ OLED display)  
measuring transducer KMU100 (4..20mA 2-wire)  
measuring transducer KMUS100 (0..10V 3-wire)

### technical data housing

- dimensions housing: 58 x 64 x 34 mm
- material housing: plastic polyamide
- protection class: IP 65 according to DIN 60529
- torque min. 1,25 Nm up to max. 2,0 Nm

### technical data DMU 50

- operating temperature: -30 °C bis +70 °C
- operating voltage:  $U_B = 10..35 \text{ V DC}$
- electricity demand: 7,3 mA ( $U_B=24\text{V}$ ) + 4..20mA output
- input: PT1000 2-wire
- measuring range max.: -100°C bis +650°C
- measuring span min.: 10K
- accuracy: <math>\pm 0,1\%</math> from final value
- output: 4..20mA 3-wire active (underflow 3,5mA, overflow 20,5mA)  
21mA
- sensor break: 4mA = -50°C, 20mA = 150°C  
(more temperature range parameterizable)
- max. permissible load:  $R_{max} = [(U_B - 6V) / 0,021 \text{ A}] \Omega$
- display: high-resolution OLED display 0,96 Zoll
- alignment display: 0° oder 180°
- display-digits: 4-digits
- displayrange: -99,9 bis +999,9°C
- electrical connection: 5x terminal connection 1,5 mm<sup>2</sup>
- configuration: commercial USB Typ C cable (no programming adapter necessary)  
windows application for configuration („pmtKonfigTool“)



**MUFG-C1-DMU**



**MUFG-A1-KMU**

### technical data KMU 100

- operating temperature: -40 °C..+85 °C
- operating voltage:  $U_B = 10..36\text{VDC}$
- current requirement: 4..20mA output
- input: PT100 or PT1000 2, 3, 4 wire
- measuring range max. Pt100: -200°C..+850°C; Pt1000: -200°C ... +250 °C
- measuring span min.: 10 K
- measuring deviation: across the entire range: 0.15 K or 0.07% of span\*  
n the range -50°C ... +250°C: 0.1 K or 0.07% of the measuring span\*
- output: 4-20mA (underflow linear drop of 4.0 ... 3.8 mA,  
linear increase of 20.0 ... 20.5 mA)
- sensor break:  $\leq 3.6 \text{ mA}$  ("Low") or  $\geq 21 \text{ mA}$  ("High") can be selected
- standard configuration 4mA = -50°C, 20mA = 150°C  
(wide temperature range can be parameterized)
- electrical connection: 6x screw terminals 1.5mm<sup>2</sup>
- configuration: PXU01 programming adapter  
Windows application for configuration ("PXU01")

\* the larger value is valid

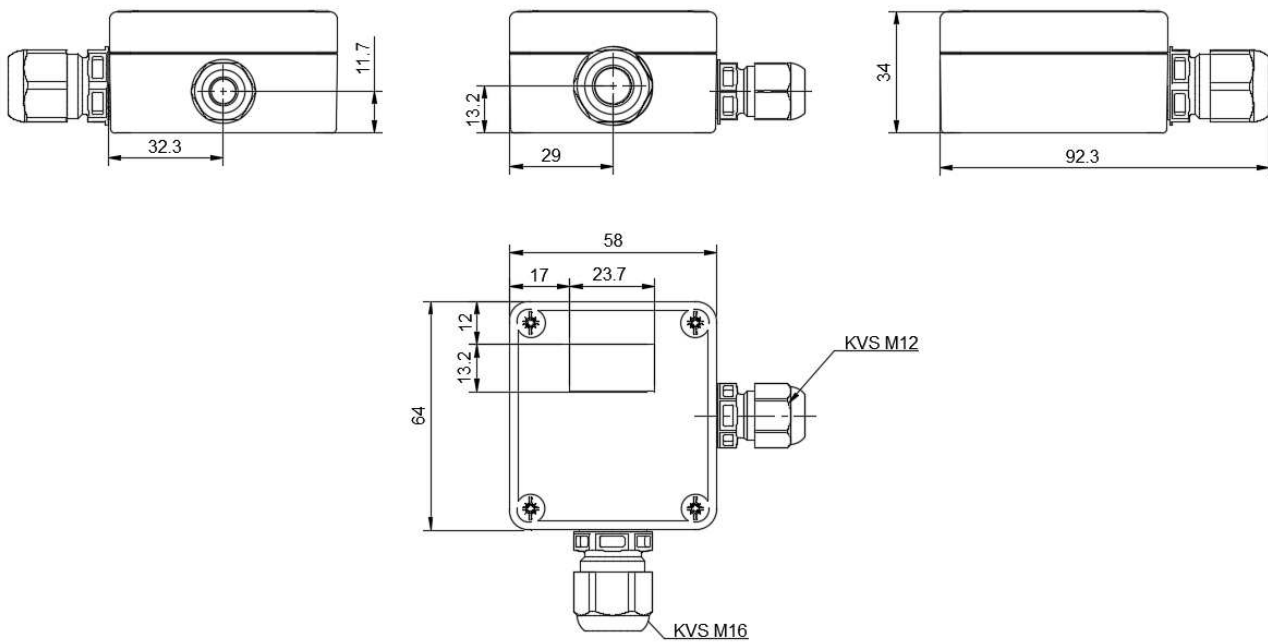
### technical data KMUS 100

- operating temperature: -40 °C bis +85 °C
- operating voltage:  $U_B = 15..35 \text{ V DC}$
- electricity demand: max. 10mA
- input: PT100/PT1000 2-, 3-, 4-wire
- measuring range: 12 measuring ranges, see page 3
- accuracy: <math>\pm 0,3\%</math> from measuring range
- output: 0..10V 3-wire
- sensor break: >10V
- standard configuration: 0V = -20°C, 10V = 150°C
- electrical connection: 6x screw terminal 1,5mm<sup>2</sup>
- configuration: DIP-switch (12 different measuring ranges)

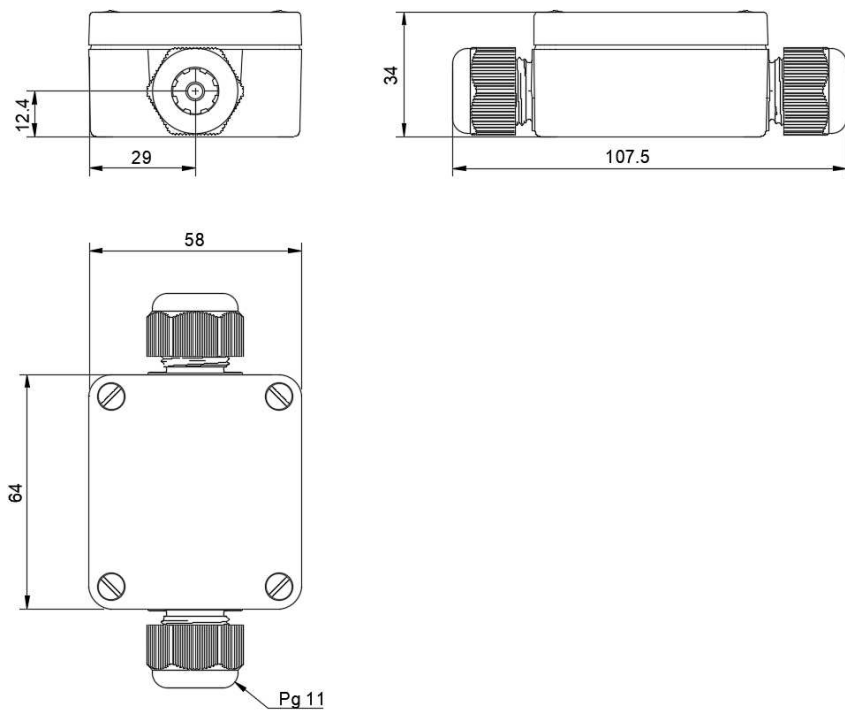
# measuring transducer

technical drawing

## MUFG-C1-DMU



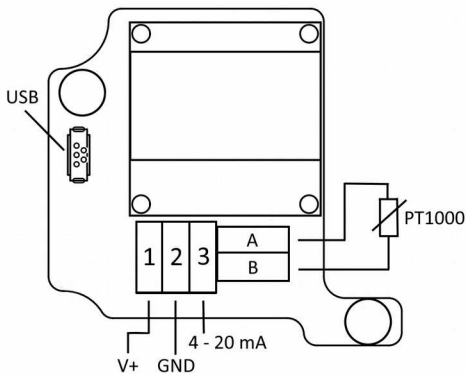
## MUFG 100-A1-KMU/ MUFG 100-A1-KMUS



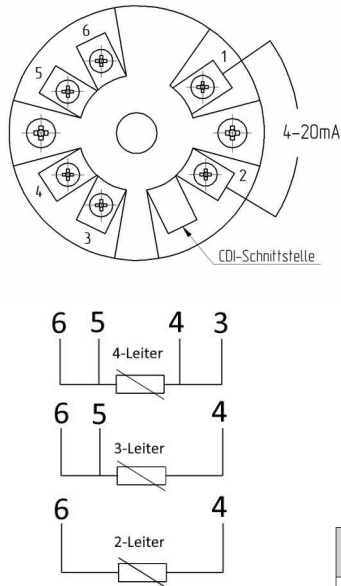
# measuring transducer

## connection charts

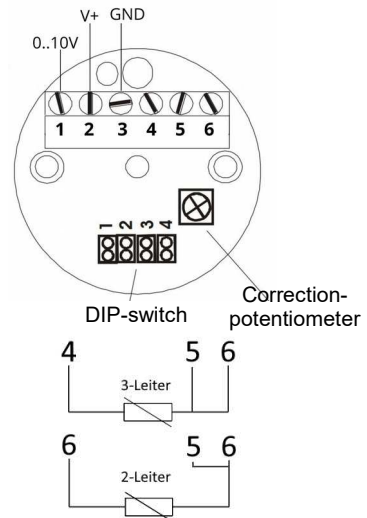
### MUFG with DMU



### MUFG with KMU



### MUFG with KMUS



No.	measuring range	Dip-swi. 1 2 3 4
MB1:	- 20°C .. +150°C	1-1-1-1
MB2:	0°C .. + 50°C	0-1-1-1
MB3:	0°C .. +100°C	1-0-1-1
MB4:	0°C .. +200°C	0-0-1-1
MB5:	0°C .. +300°C	1-1-0-1
MB6:	0°C .. +400°C	0-1-0-1
MB7:	0°C .. +500°C	1-0-0-1
MB8:	0°C .. +600°C	0-0-0-1
MB9:	- 50°C .. + 50°C	1-1-1-0
MB10:	-100°C .. +100°C	0-1-1-0
MB11:	- 30°C .. + 70°C	1-0-1-0
MB12:	- 40°C .. + 60°C	0-0-1-0

jumper = 1: plugged, jumper = 0: not plugged  
**Attention:** For Pt1000 only the ranges 1..5 are available.

## order-code MUFG

order-example: MUFG-A1-DMU (0..150°C)

## Alignment of screw fitting and protective fitting (sensor)

- A1 screw connection outlet top, screw connection inlet bottom (not possible with DMU)
- B1 screw connection outlet right, screw connection inlet left (not possible with DMU)
- C1 bottom outlet screw connection, right inlet screw connection

## measuring transducer

- DMU with measuring transducer DMU50 (PT1000 2-wire, 4..20mA 3-wire, OLED display)
- KMU with measuring transducer KMU100 (PT100 2-, 3-, 4- wire, 4..20mA 2-wire)
- KMUS with measuring transducer KMUS100 (PT100/1000 2-, 3-, 4- wire, 0..10V 3-wire)

## order-code parameterization software Kit PXU01 for KMU

order-example: PXU01

- parameterization software kit PXU01, consisting of
- software on CD
  - interface converter to USB-port
  - plug adapter for SME and temperature sensor WTR 4XX series