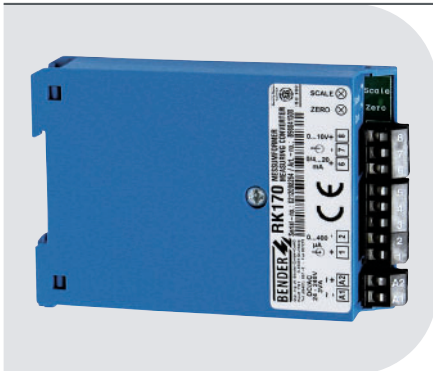


Measuring transducer RK170



Measuring transducer RK170

Product description

The measuring transducer RK170 is designed to convert current signals of measuring instrument outputs of A-ISOMETER®s (0...400 µA) and residual current monitors (RCM, RCMA) into standard current signals 0(4)...20 mA (0...10 V). These currents are usually required in process technology.

Application

- Conversion of DC 0...400 µA current signals into 0(4)...20 mA or 0...10 V signals
- For A-ISOMETER®s and residual current monitors RCM, RCMA utilizing a measuring instrument output of DC 0...400 µA.

RK170 adjustments

The signals at the outputs 0(4)...20 mA and 10 V are simultaneously available and their own nominal load must not be exceeded.

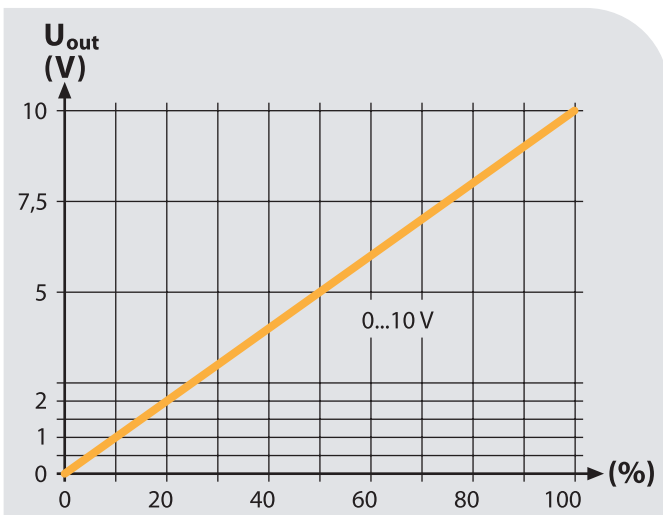
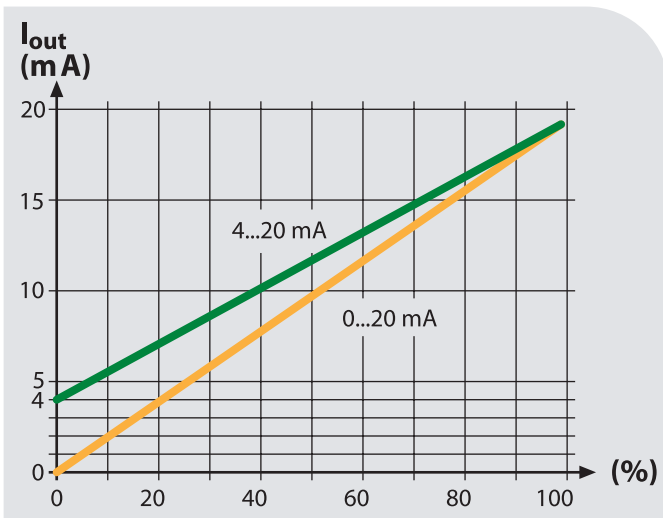
Setting the zero and the full-scale value will have an effect on both outputs. Hence, optimum adjustment is only possible for one output at a time.

The measuring transducer RK170 is factory-set to an input signal of DC 0...400 µA providing a galvanically isolated output signal of 0...20 mA or 0...10 V. When an output signal of 4...20 mA is required or the measuring transducer RK170 is to be adjusted for other reasons, the adjustment can be carried out using the trimmers "zero" and "Scale".

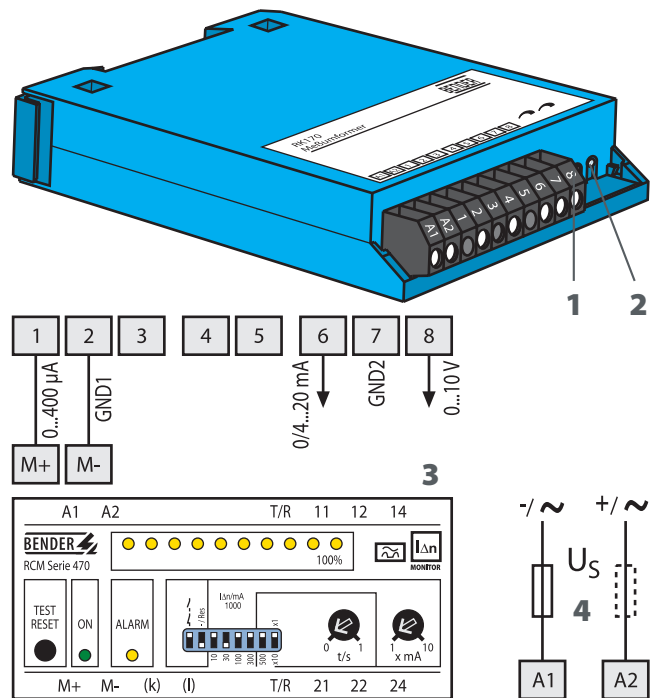
Device features

- Plastic enclosure for DIN rail mounting
- Zero setting 0 or 4 mA
- Electrical separation between the input and output signal

Characteristic curve



Wiring diagram



- 1 - Zero: zero setting
- 2 - Scale: full-scale value
- 3 - Device of the RCM series
- 4 - U_S see nameplate, 2 A fuse recommended

Ordering information

Type	Supply voltage U _S	Art. No.
RK170	AC 19...264 V*/DC 20...297 V*	B 9804 1500

*Absolute value

1.8.6

Technical data measuring transducer RK170

Voltage ranges

Supply voltage U_S	DC 20 ... 297 V/AC 19 ... 264 V
Frequency range U_S	20 ... 120 Hz
Power consumption	≤ 3 VA

Inputs

Current input	DC 0 ... 400 μ A
Permissible current	\leq DC 50 mA
Rated input resistance	approx. 2.5 k Ω

Outputs

Outputs	Two outputs with common ground
Voltage output	DC 0 ... 10 V
Open-circuit voltage	\leq DC 12 V
Load	≥ 1 k Ω
Current output	DC 0/4 ... 20 mA
Short-circuit current	\leq DC 30 mA short-circuit proof
Load	≤ 500 Ω
Accuracy at $T_u = 23$ °C	class 0.2
Temperature coefficient	0.025%/°C
Rated rise time T 0.9	50 ms
Dielectric strength input/output/supply	AC 2500 V

General data

Shock resistance IEC 60068-2-27 (during operation)	15 g/11 ms
Bumping IEC 60068-2-29 (during transport)	40 g/6 ms
Vibration resistance IEC 60068-2-6 (during operation)	1 g/10 ... 150 Hz
Vibration resistance IEC 60068-2-6 (during transport)	2 g/10 ... 150 Hz
Ambient temperature (during operation)	0 °C ... +50 °C
Ambient temperature (during storage)	-20 °C ... +70 °C
Climatic class acc. to DIN IEC 60721-3-3	3K5
Operating mode	continuous operation
Mounting	any position
Connection	screw terminals
Connection properties rigid/flexible	0.5 ... 2.5 mm ² /0.14 ... 1.5 mm ²
Degree of protection, internal components (DIN EN 60529)	40IP40
Degree of protection, terminals (DIN EN 60529)	IP 20
Dimensions	75 x 22.5 x 110 mm
DIN rail mounting acc. to	DIN EN 60715/IEC 60715
Flammability class	UL94V-0
Operating Manual	BP109006
Weight	≤ 200 g

Type of enclosure/dimension diagram

Dimensions are given in mm

