

TAP POSITION TRANSDUCER

Application:

The transducer is suitable to convert the ratio of resistors (potentiometer) input to an analog DC voltage/current or a digital RS485 output.

Important features:

- Full digital operation (Icom System).
- Preset delivery or connecting to external device can be set (monlcom option).
- Automatic zero calibration.
- Plug in terminal blocks with screw.
- DIN rail case.
- EMC compliance.

Technical specifications:

Input:

- Nominal input resistance range (total): from 500 ohm to 100 kohm
- Measuring voltage: 2.5 V DC
- Measuring system: 3 wires
- Input insulation voltage: Cat. III. 1 kV (Test: 4300 V_{eff} 1 min)
- Input measuring range: up to 120 %

Output:

- Analog output range: 0..20 mA, ± 20 mA, 4..20 mA, 0..10 V, ± 10 V DC
- Output load: for current: max. 500 ohm, for voltage: min. 2 kohm
- Output limits: max. 20 V, or 30 mA
- Output response time: max. 300 ms
- Digital output: RS485, Modbus-RTU, 9.6 / 19.2 kBaud
- Accuracy (EN 60688): Class 0.5 or Class 0.2 (20 %..120 % input range)
For ± 20 mA and ± 10 V output only ± 0.5 % accuracy can be ordered.
- Temperature coefficient: max. 100 ppm/ $^{\circ}$ C

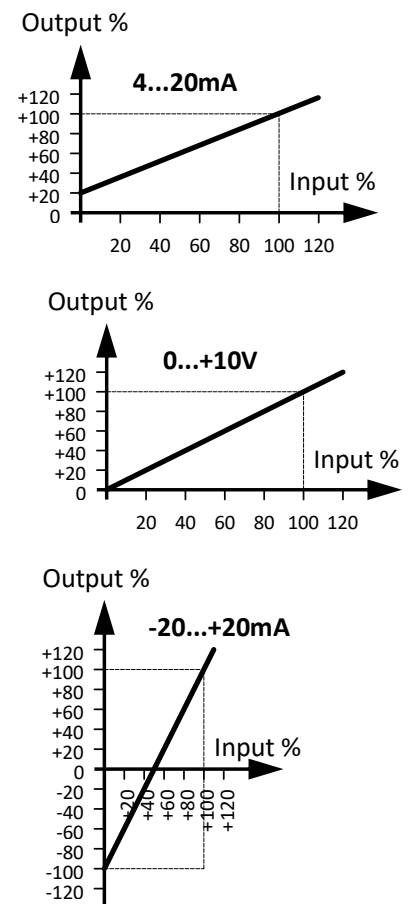
Other:

- Standards applied: IEC/EN 61010-1, IEC/EN 61326, IEC/EN 60688
- Consumption: max. 2 W
- Wire cross-section of terminals: max. 2.5 mm²
- Working temperature: -10...+25...+60 $^{\circ}$ C
- Storage temperature: -40...+80 $^{\circ}$ C
- Humidity: max. 85 %
- Vibration (acceleration): max. 2 g
- Dimension (HxWxD): 101 mm x 22.5 mm x 80 mm
- Case protection: IP 20
- Case material: PC-GF
- Weight (with converter): approx. 0.25 kg



Illustration only.

Typical transfer characteristics:

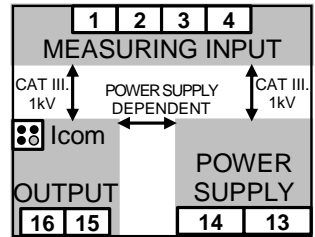


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Auxiliary Supply variations:

| | |
|--|------------------------|
| | (Voltage / Insulation) |
| 5 V, 12 V, 24 V, 48 V DC ±50 %, converter | / 1 kV |
| 55...264 V, 47...440 Hz, and 72...370 V DC, converter | / 3 kV |

Isolation scheme:



Ordering examples:

MD22-TAP _ Input: 20 x 50 ohm _ **Output:** 4...20 mA DC, ±0.2 % _ **Aux:** 55..264 V AC converter
MD22-TAP _ Input: 40...100 ohm _ **Output:** RS485 Modbus _ **Aux:** 24 V DC converter

On request for extra charge special ranges (Input, Output, Auxiliary Supply) are possible.

Outline dimensions and connection diagrams:

