

EARTH-FAULT INDICATOR

TYPE TERRA

panel-mounted

General description

The earth-fault indicator type TERRA can be used in radial networks with one input and open-ring networks which are solidly earthed or low resistance-earthed. The indication of the earth-fault is done by a flag indicator.

The indicator consists of one display unit and one sensor (CT) for the detection of fault currents. The sensor is connected to the indication unit by copper cables and must be mounted on screened cables. It is divisible and can be retrofitted on the cable.

The device is power supplied by a 230V AC power supply which can fail during fault situations. Due to the bistable flag indication the power supply can fail after the occurrence of a fault.



Features and options

- No internal power supply: Due to the bistable flag indication no fail-safe power supply and no batteries are necessary for operation. The indicator is able to indicate and to reset by a 230V AC power supply, that can fail during fault condition.
- Reset by recovering network: The indicator is able to automatically reset by a recovering 230V AC power supply or by recovering network current (in case the 230V AC does not fail during fault condition).
- Remote indication: The indicator is able to remotely indicate faults via potential-free contacts.
- Remote reset: The indicator has potential-free reset inputs for remotely resetting the indicator.
(230V AC must be available to perform remote resets.)
- Optional reset time: When the 230V AC power supply does not fail, the indicator will reset after a pre-adjusted time.

External connectors

- Connector 6 - 7: earth-fault sensor (CT)
- Connector 8 - 9: remote reset input
- Connector 12 - 13: SCADA contact NO
- Connector 14 - 15: SCADA contact NC
- Connector 16 - 17: external power supply

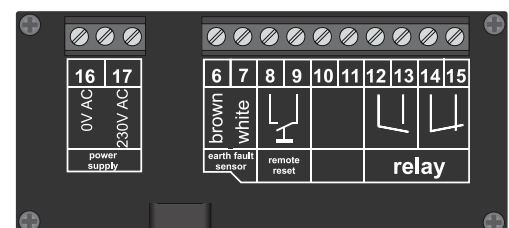
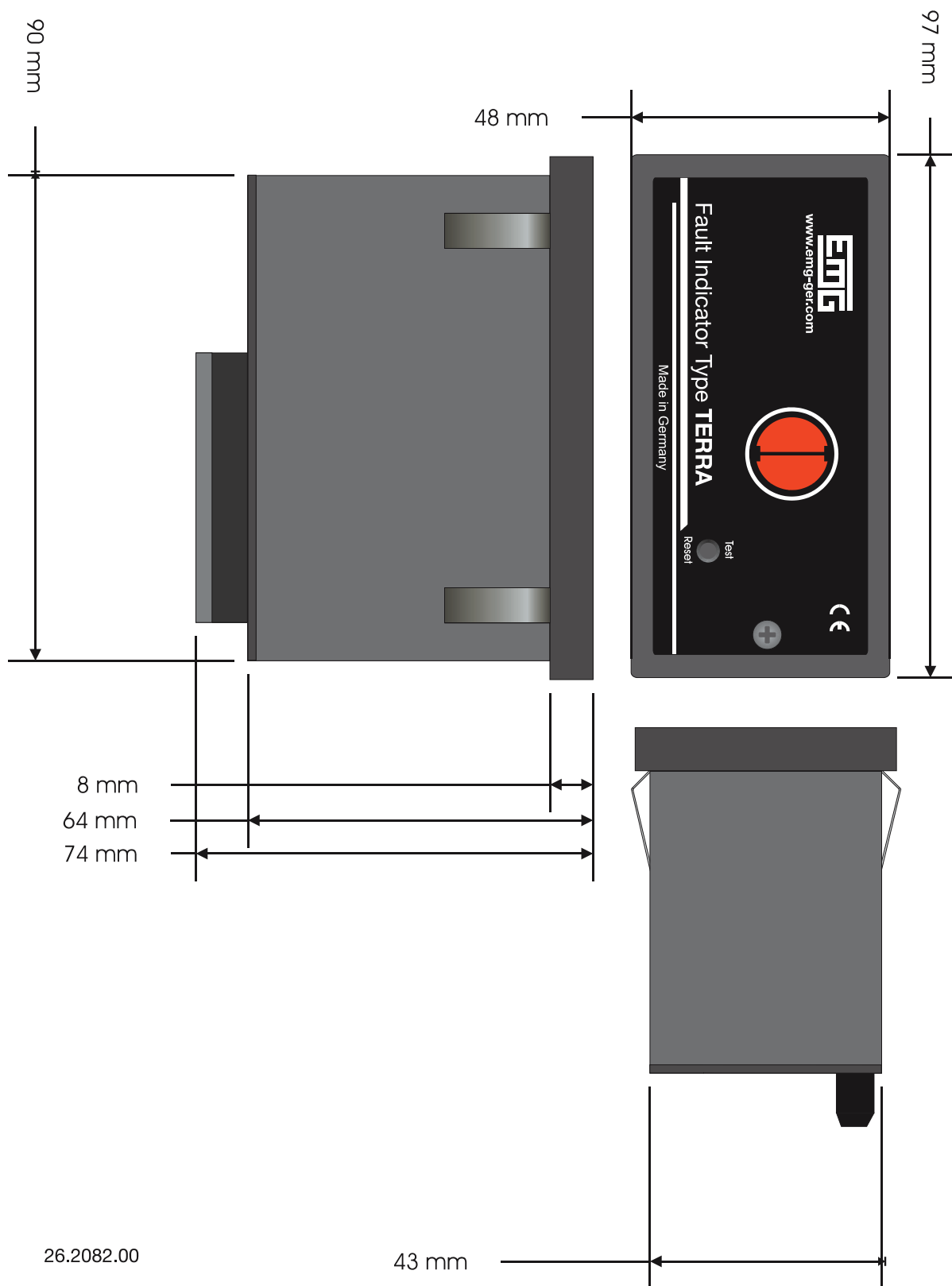


figure 1 - External connectors

General Data

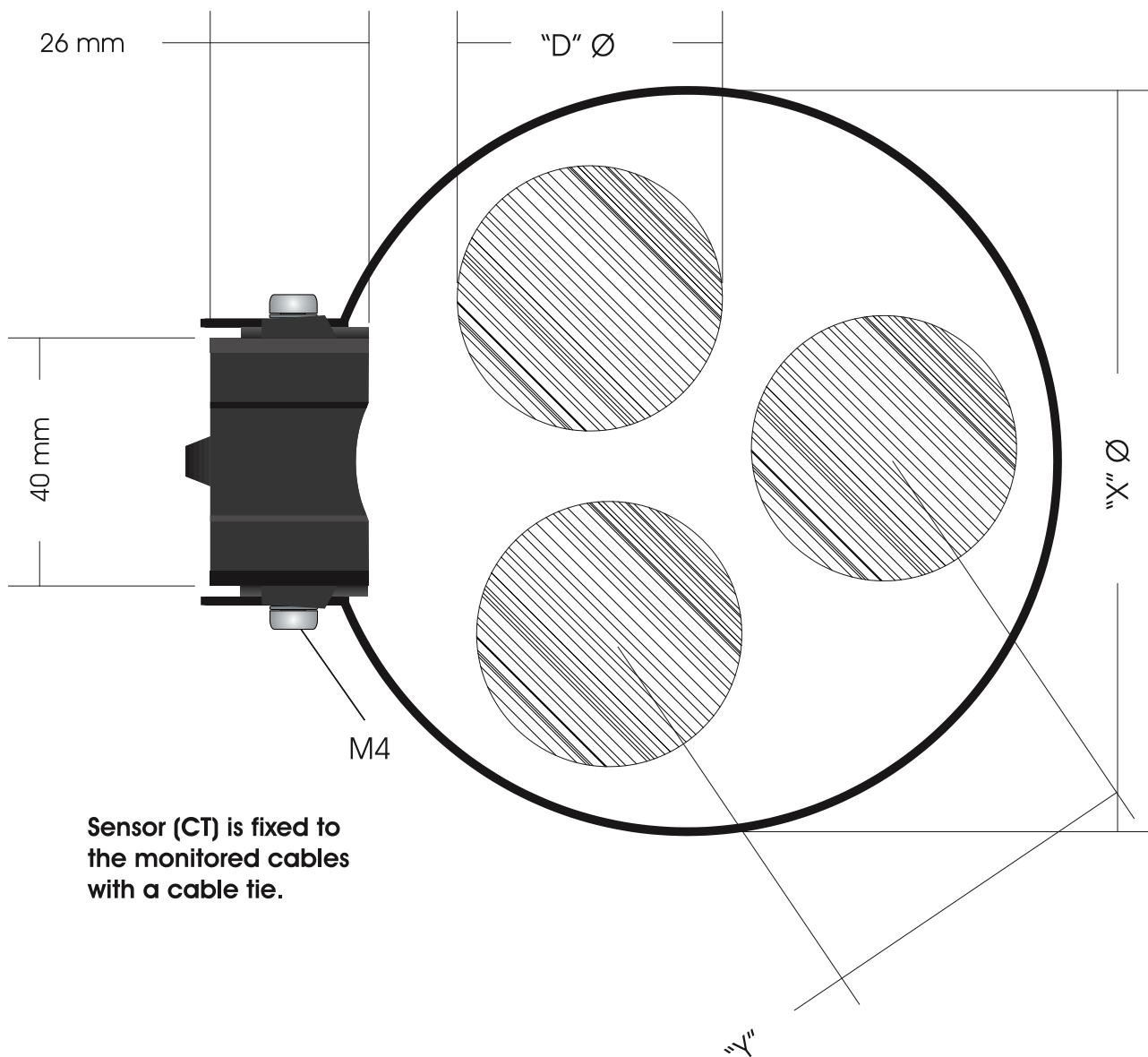
Subject	Value
earth fault current (phase to ground)	adjustable: 40 / 60 / 80 / 100 / 125 A ($\pm 10\%$) *
response delay	20 / 40 / 80 / 160 ms *
indication unit	suitable for panel installation
indication	flag indication
reset of the indicator	a) manual by push-button (only if 230V AC power supply is available) b) self-acting by 230 V AC (the 230 V AC connector is for reset and for supply) c) self-acting by recovering network current (unbalanced current of approx. 4A and 230V AC power supply required) d) reset by time: 1 / 2 / 3 / 4h * (only if 230V AC power supply does not fail during fault condition)
power supply	110 / 230V AC (can fail during fault condition)
dimensions: indication unit	(WxHxD) 97 mm x 48 mm x 74 mm (dimensions of the cut out: 92 $_{+0.8}$ x 45 $_{+0.6}$ mm / IEC 61554 / DIN43700)
Protection class: indication unit	IP40
Protection class: earth-fault sensor	IP67
internal type test	according to IEEE 495-2007
operation temperature range	-25°C to +70°C
SCADA contact	1 x NO and 1 x NC permanent / wipe contact (100 * ms) (contact type can be selected on site by a dip switch) max. 230 V AC / max. 2 A / max. 30 W
earth-fault sensor (CT)	one earth-fault sensor type SE (current transformer for a three-core cable or three single core cables) diameter: 80-100* mm. connection cable length: 3* m

*PLEASE NOTE: other values can be ordered



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43 mm



Sensor (CT) is fixed to the monitored cables with a cable tie.

Verbindungskabel/connection cable:

- LIYY 2 x 0,5 mm²
- PB-free
- Ø = 5 mm
- length customer specific

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