FAULT INDICATOR
TYPE EKL8002 NG
panel-mounted

General description

The earth-fault and short-circuit indicator can be used in radial networks with one input and ring networks. For earth-fault detection, the network has to be solidly earthed or low resistance-earthed.
The potential-free connections between the short-circuit sensors, the earth-fault sensor and the display unit are done by fibre optic cables. The short-circuit sensor can be mounted on screened and unscreened cables. The earth-fault sensor must be mounted on screened cables.
All sensors are divisible and can be retrofitted on the cable. The fault indicators of the NG-Series have a compact design with low installation depth.
The earth-fault and short-circuit indicator type EKL8002 NG is equipped with three remote contacts. Two remote contacts are used to indicate earth-faults and short-circuits separately. The additional third remote contact is used to remotely indicate low battery status.

Features and Options

Permanent earth-faults:	Indication of permanent earth-faults by double blinking of the earth-fault LED.
2nd short-circuit pass-through:	Indication of a second short-circuit passing through by double blinking of the respective short-circuit LED.
Separate response delays:	The response delay for short-circuits and earth-faults can be adjusted separately.
Optional reset input:	For reset by recovering 230 V AC

External connectors

Optical terminal (triple):	Connectors for short-circuit sensors L1, L2 and L3
Optical terminal (single):	Connector for earth-fault sensor
Connector 1-2:	Remote reset input
Connector 3-4:	External blinking lamp (Type BL4.1 and BL6)
Connector 5-6:	SCADA remote contact for earth-fault indication NO
Connector 7-8:	SCADA remote contact for short-circuit indication NO
Connector 9-10:	SCADA remote contact for low battery indication NO
Connector 11-13:	Reset input for recovering 230 V AC (not for supply)

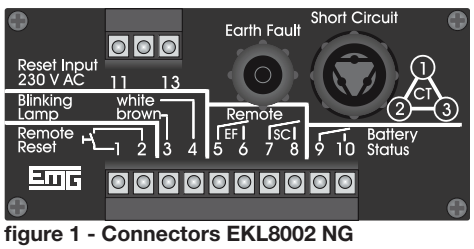

figure 1 - Connectors EKL8002 NG

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Ringstr. 4 - D-42553 Velbert / Germany
Tel: +49 2053 422890 - Fax: +49 2053 422899
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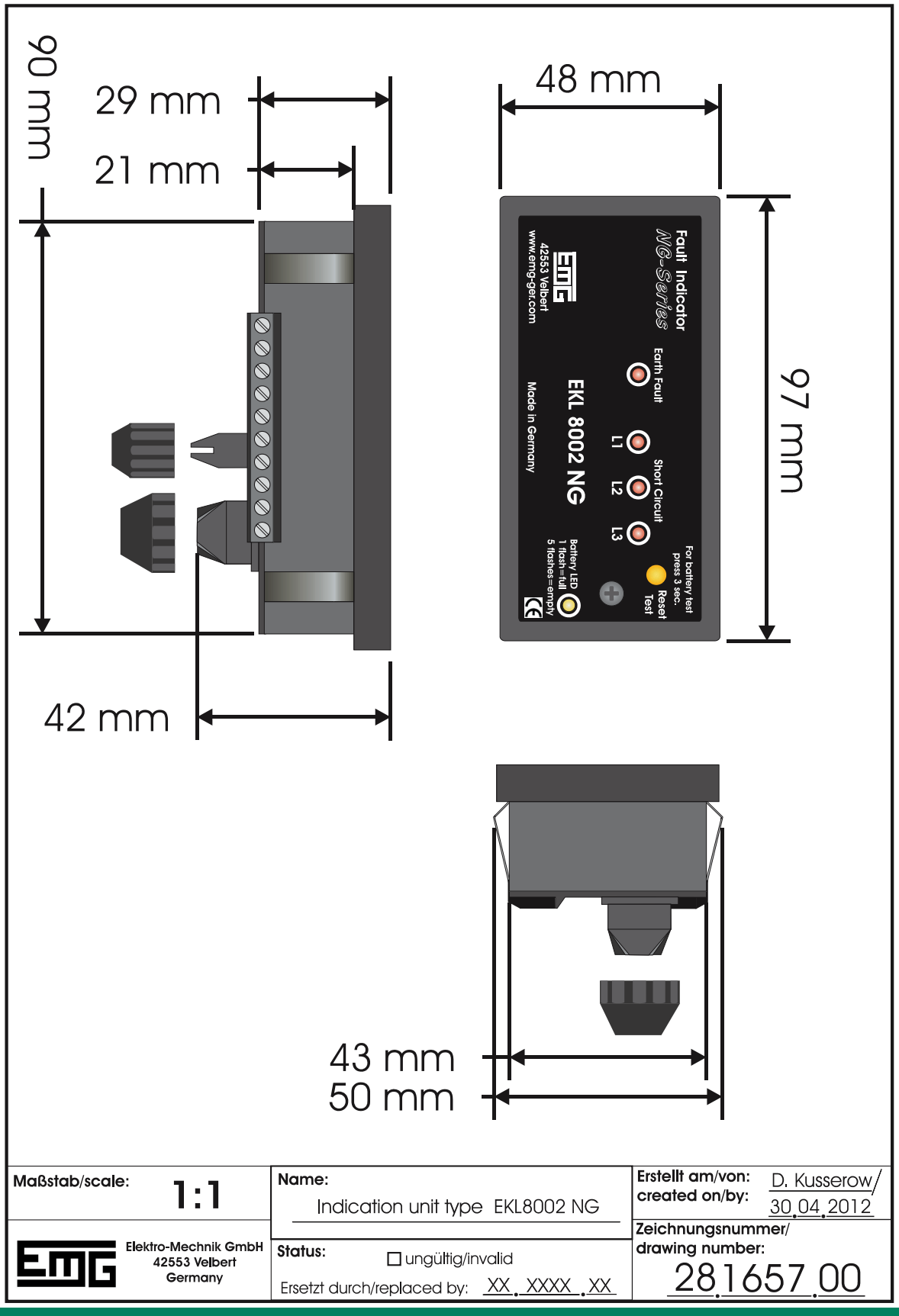
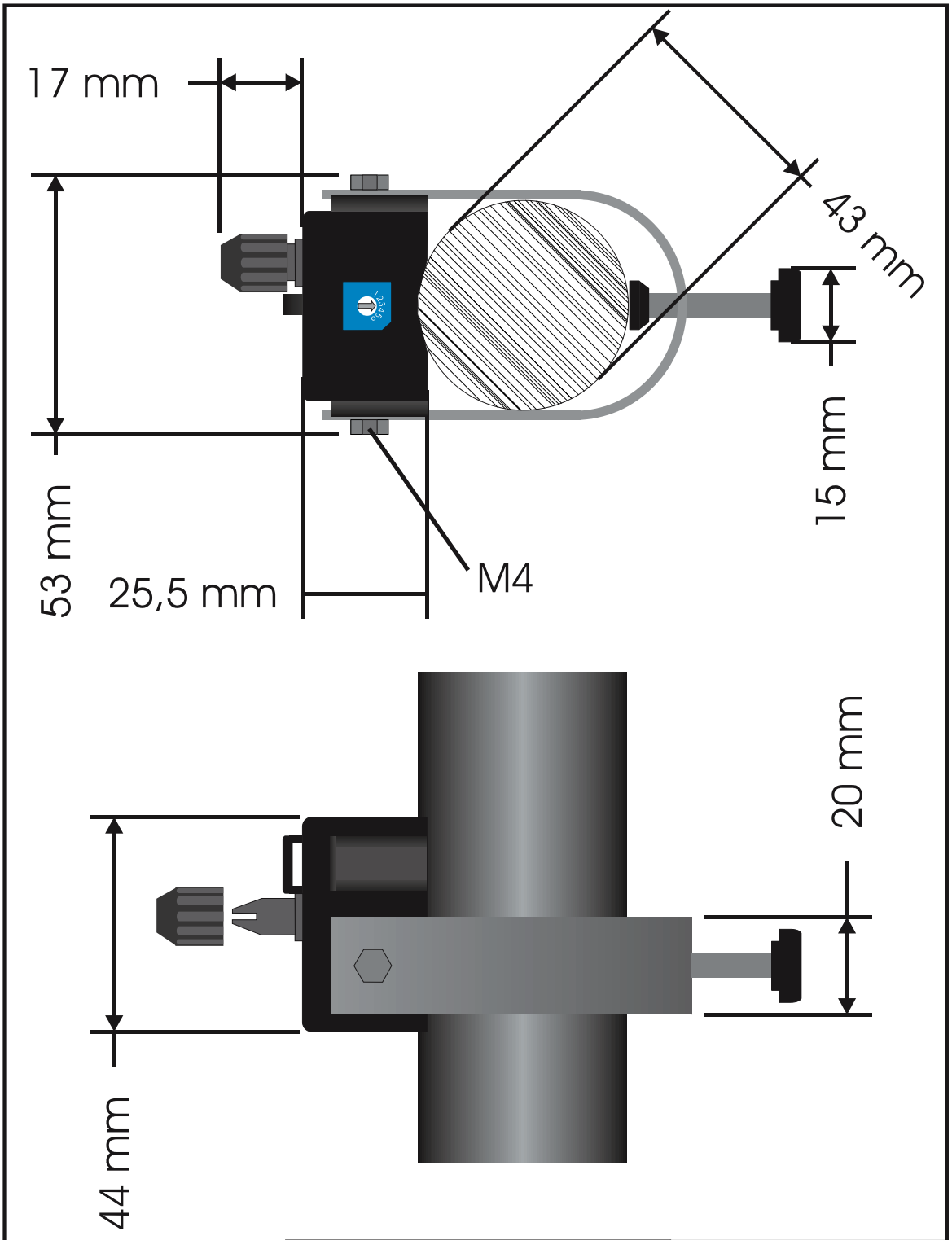
General data

Subject	Value
short-circuit trip current (phase to phase)	adjustable (at the CT): 200 / 400 / 500 / 600 / 800 / 1000 / 1200 amps (±10 %) or 200 / 300/ 400 / 500 / 600 / 800 / 1000 amps (±10 %)
earth-fault trip current (phase to ground)	adjustable (at the CT): 10 / 20 / 30 / 40 / 60 / 80 / 100 * A (±10 %)
response delay short-circuit	adjustable: 40 / 60 / 80 / 160 * ms
response delay earth-fault	adjustable: 40 / 60 / 80 / 160 * ms
indication unit	suitable for panel installation
indication of a) short-circuit b) earth-fault c) battery	 a) one red LED for each phase b) one red LED for earth-fault c) one yellow LED
reset of the indicator	a) manual by push-button b) connection for a potential-free remote reset c) time*: 1 / 2 / 4 / 8 (+/-1%) hours after fault d) self-acting after recovering of 230 VAC (the 230 VAC connector is only for reset, not for supply!)
on site function test a) function test b) battery test	by push-button a) the button has to be pressed for 1 second b) the button has to be pressed for 3 seconds
dimensions: indication unit	(WxHxD) 97 mm x 48 mm x 42 mm (dimensions of the cutout: $92^{+0.8}$ x $45^{+0.6}$ mm / DIN43700)
Protection class: indication unit	IP40
Protection class: short-circuit sensor	IP67
internal type test	according to IEEE 495-2007
operation temperature range	-25°C to +70°C
power supply	lithium battery ($LiSOCl_2$) / 3.6V / 2600 mAh
SCADA contact	3 x NO permanent / wipe contact (100ms) (can be selected on site by a dip switch) max. 230 V AC / max. 2 A / max. 30 W
short-circuit sensor (CT)	three short circuit sensors type LK three current transformers for single-core cable diameter: 22-42* mm connection cable length: 3* m (fibre optic cable)
earth-fault sensor (CT)	one earth-fault sensor type LE one current transformer for a three-core cable diameter: 80-100* mm connection cable length: 3* m (fibre optic cable)

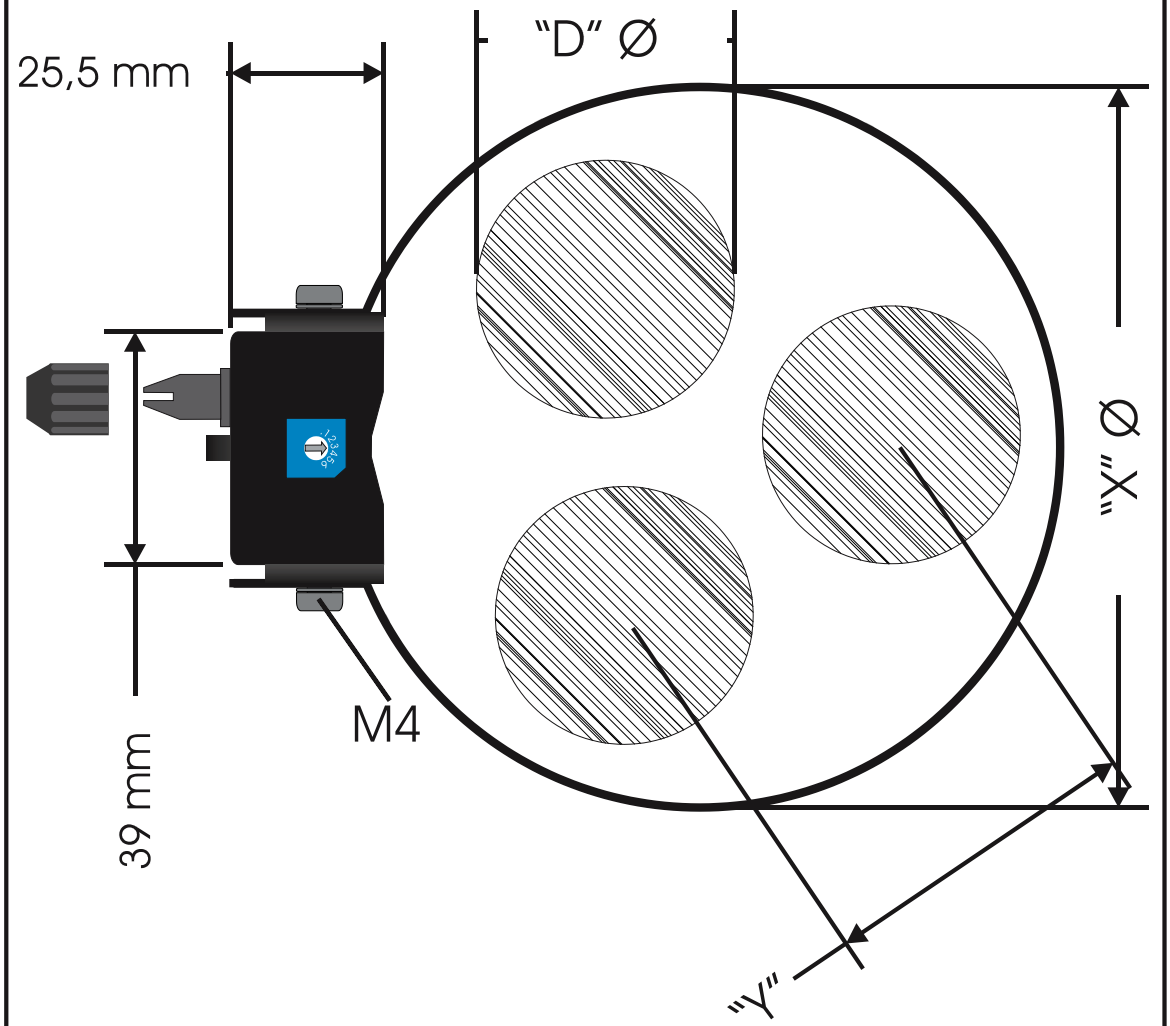
*PLEASE NOTE: other values can be ordered



Maßstab/scale: 1:1	Name: Indication unit type EKL8002 NG	Erstellt am/von: created on/by: D. Kusserow / 30.04.2012
Elektro-Mechnik GmbH 42553 Velbert Germany	Status: ☐ ungültig/invalid Ersetzt durch/replaced by: XX.XXXX.XX	Zeichnungsnummer/ drawing number: 281657.00



Maßstab/scale: 1:1	Name: Short-circuit sensor type LK	Erstellt am/von: created on/by: T. Sprenger / 18.02.2015
Elektro-Mechnik GmbH 42553 Velbert Germany	Status: ☐ ungültig/invalid Ersetzt durch/replaced by: XX.XXXX.XX	Zeichnungsnummer/ drawing number: 121424.08



Maßstab/scale: 1:1	Name: Earth-fault sensor type LE	Erstellt am/von: created on/by: T. Sprenger / 18.02.2015
Elektro-Mechnik GmbH 42553 Velbert Germany	Status: ☐ ungültig/invalid Ersetzt durch/replaced by: XX.XXXX.XX	Zeichnungsnummer/ drawing number: 121556.01