

## FAULT INDICATOR

### TYPE **EKL8000 NG / EKL8001 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 EKL8001 NG is equipped with two remote contact relays to indicate earth-faults and short-circuits separately.



#### 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 to earth-fault sensor
Connector 1-2:	Remote reset input
Connector 3-4:	External blinking lamp (Type BL4.1 and BL6)
Connector 11-13:	Reset input for recovering 230 V AC (not for supply)

##### EKL8000 NG

Connector 5-6:	SCADA remote contact (NC)
Connector 7-8:	SCADA remote contact (NO)

##### EKL8001 NG

Connector 5-6:	SCADA remote contact for earth-fault indication (NO)
Connector 7-8:	SCADA remote contact for short-circuit indication (NO)

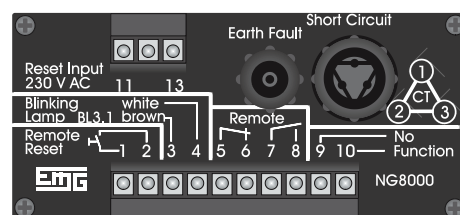


figure 1 - Connectors EKL8000 NG

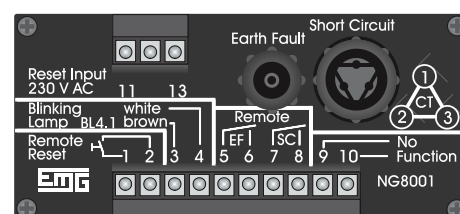


figure 2 - Connectors EKL8001 NG

## General data

Subject	Value
short-circuit trip current (phase to phase)	adjustable (at the sensor): 200 / 400 / 500 / 600 / 800 / 1000 / 1200 amps ( $\pm 10\%$ ) or 200 / 300 / 400 / 500 / 600 / 800 / 1000 amps ( $\pm 10\%$ )
earth-fault trip current (phase to ground)	adjustable (at the sensor): 10 / 20 / 30 / 40 / 60 / 80 / 100 * A ( $\pm 10\%$ )
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 cut out: 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 (LiSOCl2) / 3.6V / 2600 mAh
SCADA contact	<b>EKL8000 NG:</b> 1 x NO and 1 x NC <b>EKL8001 NG:</b> 2 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 (fibre optic cable) one current transformer for a three-core cable diameter: 80-100* mm connection cable length: 3* m

\*PLEASE NOTE: other values can be ordered

