

IKI-20

Short-circuit/ earth-fault indicator



▪ Short-circuit / earth-fault indicator IKI-20

Detection, indication and remote monitoring of short-circuits in high voltage networks. Additionally indication of earth-faults in networks with solidly, low resistive or shortly low resistive earthed termination and non-directional indication of earth-faults in networks with petersen coil or isolated networks.

For earth-fault location in isolated networks or in case of using petersen coils, directional earth-fault indicators (type IKI-EDI-W or IKI-10EDI-I) or the method of pulsation (use of IKI-PULS) is recommended.

▪ Fault detection and indication features

- reliable fault detection with independent overcurrent-time characteristic
- true current measurement
- self-explaining LCD display, additional ultra bright LED for fault indication

▪ User adjustable parameters

- pick-up current and pick-up time for short-circuit and separately for earth-fault
- reset mode and reset time

▪ Self test function

activation by test button or remotely by dry contact

▪ Applicable in closed loop or radial networks

Display of first and second alarm event without any change of settings.
Requirement: automatic reclosure

▪ Free of maintenance, powered by current transformers, internal buffering depending on versions:

1) IKI-20T: power supply by auxiliary power 110..230VAC;
additional buffer by capacitor for at least 12 h

2) IKI-20U: power supply by auxiliary power 24..230V AC/DC;
additional buffer by capacitor

3) IKI-20B: buffered by integrated lithium battery
(life cycle at least 17 years)

▪ Digital outputs

digital dry contacts optionally 1,2 or 3 relays

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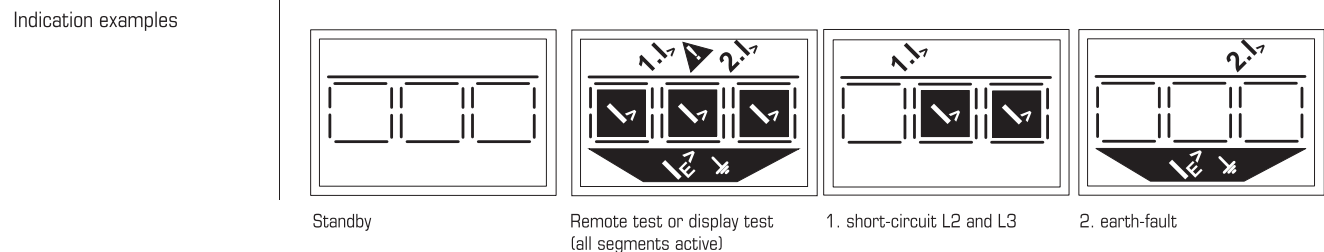
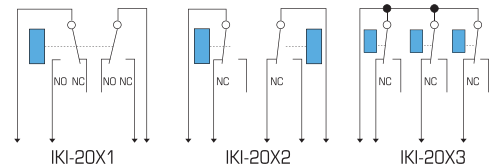
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Technical data

parameters adjustable by DIP-switches located behind front panel

Pickup current $I_{>>}$	adjustable: 100, 200, 300, 400, 600, 800, 1000 or 2000 A																								
Pick-up current I_E	adjustable: 40, 80, 100 or 150 A																								
Pick-up time $t_{>>}$	adjustable: 60, 80, 150 or 200 ms																								
Pick-up time t_{IE}	adjustable: 60, 80, 150 or 200 ms																								
Reset	adjustable: 2h, 4h, manually/externally, automatically																								
Inputs	- remote reset by external dry contact - 4 signal inputs for current transformers (2pole) - remote test by external dry contact																								
Outputs	dry contacts (wipe pulse or permanent contact): - type IKI-20X1 - type IKI-20X2 - type IKI-20X3																								
Power supply	by current transformers: partly at primary currents above 1 A; completely above 5 A; internal buffering depending on version																								
Housing	standard housing according to DIN 43700 for front panel mounting dimensions: 96 x 48 x 80 mm (w x h x d) recommendet cut: 92 x 45 mm (w x h) optionally: installation in wall housing type IKI-WG, part no. 3500955																								
Protection class	IP 40																								
Operating temperature	-25 ... +55 °C																								
Storage temperature	-30 ... +70 °C																								
Part numbers	<table border="1"> <thead> <tr> <th>Relay contact</th> <th>IKI-20By</th> <th>IKI-20Ty</th> <th>IKI-20Uy</th> </tr> </thead> <tbody> <tr> <td>y = 1 switchover</td> <td>2500971</td> <td>2500974</td> <td>2500977</td> </tr> <tr> <td>y = 2 NC</td> <td>2500972</td> <td>2500975</td> <td>2500978</td> </tr> <tr> <td>y = 2 NO</td> <td>2501972</td> <td>2501975</td> <td>2501978</td> </tr> <tr> <td>y = 3 NC</td> <td>2500973</td> <td></td> <td></td> </tr> <tr> <td>y = 3 NO</td> <td>2501973</td> <td></td> <td></td> </tr> </tbody> </table>	Relay contact	IKI-20By	IKI-20Ty	IKI-20Uy	y = 1 switchover	2500971	2500974	2500977	y = 2 NC	2500972	2500975	2500978	y = 2 NO	2501972	2501975	2501978	y = 3 NC	2500973			y = 3 NO	2501973		
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Current transformers	Input 1, 2 u. 3: split core transformer type IKI-10 LU or specifically for bushings of different manufacturers Input 4: split core transformer for balanced current measurement type depending on diameter																								



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