

# IKI-20

Short circuit and earth fault indicator



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

Detection, indication and remote monitoring of short circuits in high voltage networks. Additional indication of earth faults in networks with solid, low resistive or short 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 pulsation method (use of IKI-PULS Petersen coil only) are 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

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

## ▪ Self test function

activation by means of 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 ... 230 VAC;  
additional buffer by capacitor for at least 12 h
- 2) IKI-20U: power supply by auxiliary power 24 ... 230 VAC/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

# IKI-20

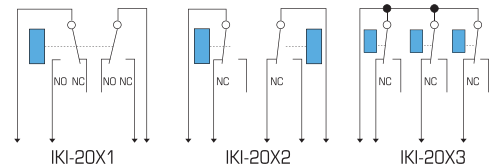
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### Technical Data

parameters adjustable by DIP-switches located behind front panel

Pickup current $I_{>>}$	adjustable: 100, 200, 300, 400, 600, 800, 1000 or 2000 A																								
Pickup current $I_{E>}$	adjustable: 40, 80, 100 or 150 A																								
Pickup time $t_{I>>}$	adjustable: 60, 80, 150 or 200 ms																								
Pickup time $t_{I_{E>}}$	adjustable: 60, 80, 150 or 200 ms																								
Reset	adjustable: 2 h, 4 h, 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) recommended 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																								



Indication examples	
	<p>Standby</p> <p>Remote test or display test (all segments active)</p> <p>1. short circuit L2 and L3</p> <p>2. earth fault</p>



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