

IKI-20

Short-circuit/ earth-fault indicator
Current Monitor



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-H) or the method of pulsation (use of IKI-PULS) is recommended.

Current Monitor

Measurement and remote monitoring of load currents in distribution networks

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)

Analog and digital outputs

digital dry contacts optionally 1,2 or 3 relays

optional:

analog 0(4)..20mA or serial communication for load current measurement



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www.kries.com



Technical data

parameters adjustable by DIP-switches located behind front panel

Pick-up 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 $tI_{>>}$: adjustable: 60, 80, 150 or 200 ms
Pick-up time $tI_{E>}$: adjustable: 60, 80, 150 or 200 ms

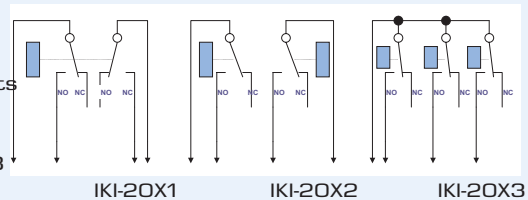
Reset: adjustable: 2h, 4h, manually/externally, automatically

Inputs:
- remote reset by external dry contact
- 4 signal inputs for current transformers (2pole)
- remote test by external dry contact

Outputs:
- type IKI-20X1
- type IKI-20X2

- type IKI-20X3

dry contacts (wipe pulse or permanent contact):
1 relay with 1 NO + 1 NC contact for all fault types
2 relays with 1 NO or 1 NC contact for short-circuits and 1 NO or 1 NC for earth-faults
3 relays with 1 NO or 1 NC contact, common root. phase selective monitoring of faults at L1, L2, L3



special versions:
- type IKI-20X1a analog output $O(4)..20mA$; output of load current values
- type IKI-20X1s serial output of load current and maximum load current on request, for use with POnline-Butler

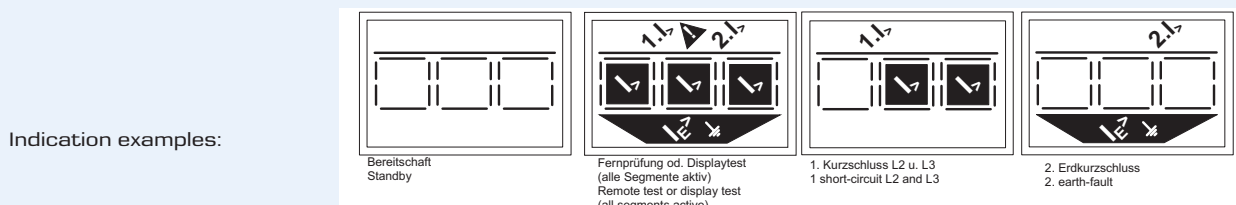
Power supply: by current transformers: partly at primary currents above 1 A; completely above 5 A; internal buffering depending on version

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

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	2500976	2500979
y=3 NO	2501973	2501976	2501979

Current transformers: Input 1, 2, 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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