

# IKI-Overhead

Overhead line fault indicator

Complete solution for on-site and remote indicating types



## Local indication IKI-Overhead

- **Detection of all typical types of faults in overhead lines**  
Short circuits, transients and earth-faults
- **Ultra-bright LED indication**  
Visibility 360°, even visible in extreme sunlight
- **Easy installation and self-test by operation rod**  
integrated indication for correct installation; no special tools required due to integrated torque control indicator with green flag.
- **Reliable fault detection**  
Microcontroller-based independent overcurrent-time characteristic; short circuit and earth fault detecting; suitable for high-impedance earth faults via  $dI/dT$  detection; inrush-restrain feature; fault-confirmation via switch-off detection with voltage sensor.
- **Easy parameterisation by DIP-switches**  
Pickup current (automatic or fixed 200-600 A). Reset (2-8 h, manually or automatic after return of minimum load current). Easy access to DIP-switches without tools.
- **Long life cycle**  
Due to high-quality lithium battery (included) and nanowatt technology; non-corrosive housing (without metallic parts).



Torque indicator: open



Torque indicator: closed

## Remote indication IKI-Overhead Butler/Radio

- **Easy installation**  
All communication components are integrated in IKI-Overhead, thus no additional pole-mounted RTU has to be added for communication.
- **Easy connection to SCADA via IEC 60870-5-104 or DNP3**  
Via optional available SMS-Gateway an easy interface to SCADA or PONLINE-Systems is available.
- **Broken line detection**  
Detects broken overhead lines with no fault current (high ohmic fault)
- **Transmission of load-values**  
Momentary or mean-values of load current are transmitted cyclically to SCADA
- **Remote configuration of settings possible**



# IKI-Overhead



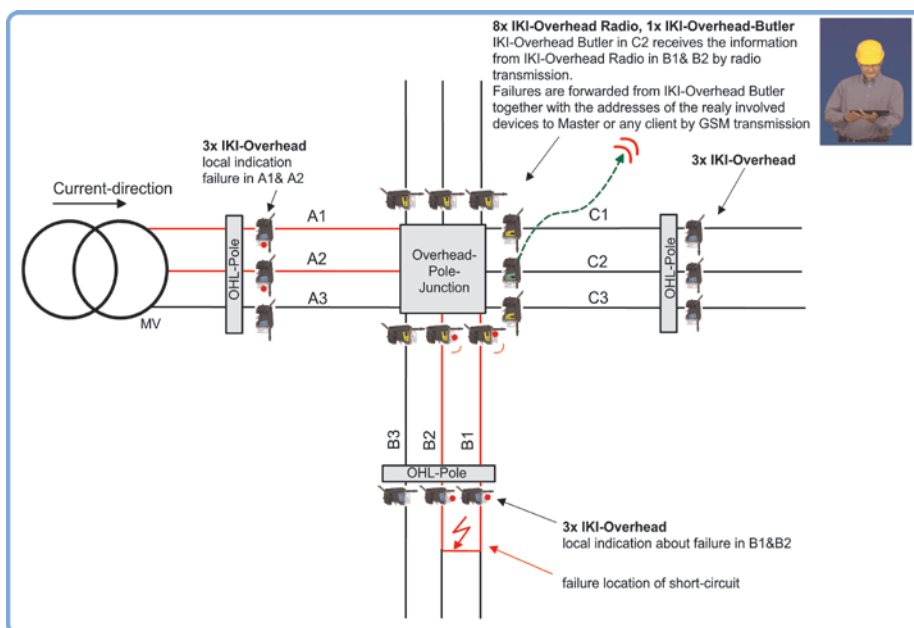
- Communication principle**

Up to 8 IKI-Overhead-Radio communicate with one IKI-Overhead Butler via short distance RF connection. IKI-Overhead Butler communicates by GSM with PON-LINE-Master or any SMS-client. PONLINE-Master can be linked to any existing SCADA-System



- Principle of fault detection with remote indication**

Failures are indicated up to the failure location



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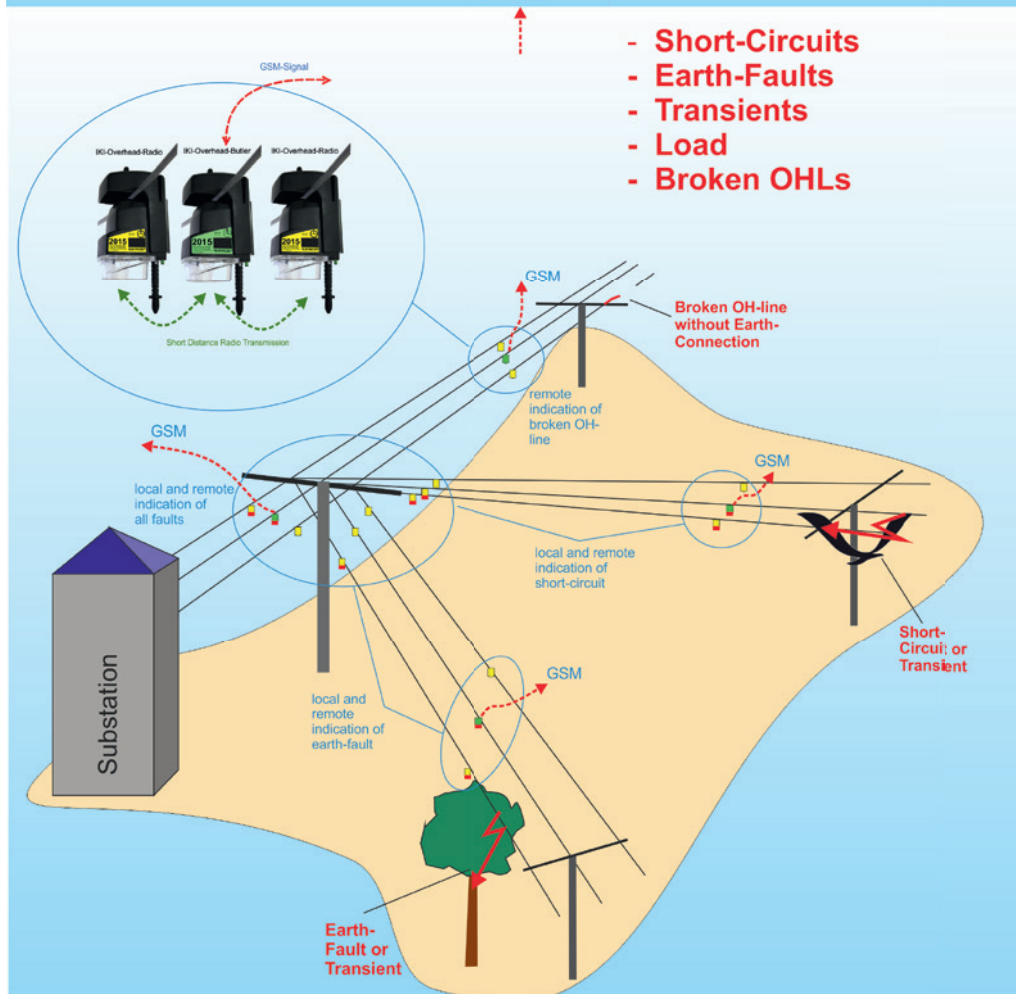
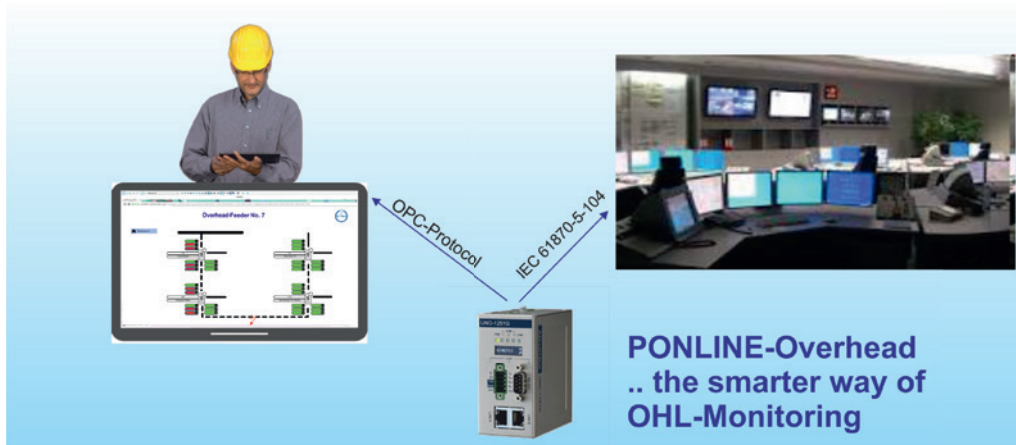
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- **Showing all relevant status information**

Together with PONLINE<sup>®</sup>-System, IKI-Overhead shows you all needed information from your overhead line distribution network including all types of faults and load information:





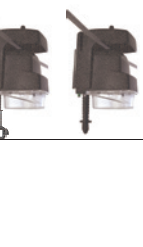
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## Technical data

Power supply:	lithium battery (life time approx. 15 years); for IKI-Overhead Radio and IKI-Overhead Butler battery life-time min. 10 years; Standard replacement battery available off the shelf.	
Pickup current I <sub>&gt;&gt;</sub> :	Absolute: Automatic, 200, 400, 600 A dI/dt: automatic, 20 A, 100 A, 200 A at 50 ms	
Pickup time tI <sub>&gt;&gt;</sub> :	80 ms, 150 ms	
Reset:	2 h, 4 h, 8 h, manually, automatically after return of minimum primary current 3 A for at least 10 s	
Visibility:	approx. 50-100 m at bright sunlight; approx. 500 m at night	
Light intensity:	13 Candela	
Flashing rate per Minute:	30	
Total indicating time	2,880 hrs (120 days)	
Dimensions:	h = 210 mm; Ø = 130 mm	
Installation:	by operating rod (bajonet or ring)	
Self-test:	by operating rod and magnet	
Protection class:	IP 67	
Rated nominal voltages:	1 kV to 36 kV	
Rated power frequency	50-60 Hz	
Operating temperature:	-30 °C to +75 °C	
Storage temperature:	-30 °C to +80 °C	
Maximum wind load:	70 m/s	
Maximum installation altitude	4,500 m a.s.l.	
Conductor rope cross:	20 mm <sup>2</sup> to 490 mm <sup>2</sup> , corresponding sectional area: to a diameter of 5 mm to 35 mm	
Short-term max. current	25 kA for < 300 ms	
Housing:	plastics, UV stable CT-Type	
IKI-Overhead R2 Item no. 2501302	Standard device with local LED indication	
IKI-Overhead R2 Puls Item no. 2501308	Standard device with local LED indication and earth-fault detection via pulsation method for Peterson-Coil networks	
IKI-Overhead Radio Item no. 2501304	Device with short-distance radio connection up to 70 m. Failure information will be forwarded from IKI-Overhead Radio to IKI-Overhead Butler	
IKI-Overhead Butler Item no. 2501306	Device with short-distance radio connection for communication with up to 8 pcs IKI-Overhead Radio. With additional GSM-Modem to forward information to POnline-Master or any SMS-client; GSM-SIM-card not included.	
Mounting: Item no. 25xyyzz Item no. 25xyyzz_H001	Standard type: by means of operation rod with bajonet adapter Clamp-stick type: by means of operation rod with clamp (shot-gun-hotstick)	
Extended battery life-time Item no. 25xyyzz_H02x	Prolonged battery life-time of IKI-Overhead Butler and Radio with 15 years life-time.	



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