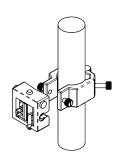
# Rotor indicator

#### Short-circuit indicator





#### Rotor indicator



## 

Response characteristic

#### **Product features**

- Mechanical design
- Installation on cables or busbars
- Fault indication by pivoted rotor
- Retrofit ready

### Your advantages

- Universal use
- Reliable fault detection during re-energising
- Maintenance-free, no battery

The rotor indicator is a mechanical short-circuit indicator. It is designed to detect short-circuit currents in medium voltage distribution networks.

The indicator is tripped by a magnetic field strength "H" which is induced by trip values I>>. The pivoted rotor with reset pin uses a two-colour indication to inform the user of the state of the Rotor Indicator. "Black" means that the indicator has not been tripped whereas "red" indicates that the indicator has been tripped.

Technical data	Rotor indicator
Short-circuit indicator	•
Earth fault detection method	Earth short-circuit
I>> Short-circuit trip current	150-2,000 A (factory setting)
tl>> Response delay	100 ms at rated trip value
Accuracy	±10 %
Reset	Manual reset with hot stick
Material	<ul> <li>Housing and fixing screws made from polyamide</li> <li>Yoke made from ferromagnetic steel</li> </ul>
Temperature range	-40 to +85 °C

Dimension drawing in catalogue on page 158, M1

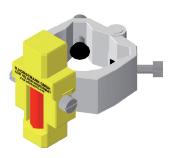
I <sub>min</sub> [A]	for Ø [mm]	Order no.	Accessories
150	8-16	20-0101-0011)	Hot stick
200	16-20	20-0102-001	
200	20-30	20-0103-001	
200	30-40	20-0104-001	
200	40-50	20-0105-001	
300	50-60	20-0106-001	
300	60-80	20-0108-001	
I <sub>min</sub> [A]	for □ [mm]	Order no.	
150	$20 \times 4 - 25 \times 6$	20-0122-0011)	
150	$25 \times 4 - 30 \times 6$	20-0123-0011)	
200	$30 \times 4 - 40 \times 10$	20-0120-0011)	
300	45 x 4-60 x 12	20-0121-0011)	

1) Screws for fixing the conductor made of steel Combined rotor/fluid type short-circuit indicators are available on request.

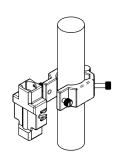
# Fluid indicator

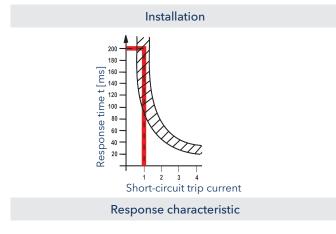
#### Short-circuit indicator





#### Fluid indicator





#### **Product features**

- Mechanical design
- Installation on cables or busbars
- Fault indication by fluid with red coloured particles
- Retrofit ready

#### Your advantages

- Universal use
- Automatic reset
- Maintenance-free, no battery

The fluid indicator is a mechanical short-circuit indicator which is designed to detect short-circuit currents in medium voltage distribution networks.

The indicator is tripped by a magnetic field strength "H" which is induced by trip values I>>. When a short-circuit occurs, the mixer is pulled up by the magnetic field stirring up red particles in the fluid. The indication resets automatically after six to eight hours once the red particles have set to the bottom of the mixer.

Technical data	Fluid indicator
Short-circuit indicator	•
Earth fault detection method	Earth short-circuit
I>> Short-circuit trip current	400, 600, 1,000 A (factory setting)
tl>> Response delay	200 ms at rated trip value (100 ms are available on request)
Accuracy	±20 %
Reset	Automatic reset by time after approx. 6–8 h
Material	<ul> <li>Housing and fixing screws made from polyamide</li> <li>Yoke made from ferromagnetic steel</li> </ul>
Temperature range	-40 to +85 °C

Dimension drawing in catalogue on page 158, M2

I <sub>min</sub> [A]	for Ø [mm]	Order no.
400	8-16	20-0401-000
400	16-20	20-0402-000
400	20-30	20-0403-000
400	30-40	20-0404-000
600	40-50	20-0405-000
600	50-60	20-0406-000
1,000	60-80	20-0408-000
I <sub>min</sub> [A]	for □ [mm]	Order no.
400	30 x 4-40 x 10 <sup>1)</sup>	20-0420-000
400	20 x 4-25 x 6 <sup>1)</sup>	20-0422-000
400	$25 \times 4 - 30 \times 6^{1)}$	20-0423-000
600	45 x 4 – 60 x 12 <sup>1)</sup>	20-0421-000
I <sub>min</sub> [A]	for 🛮 [mm]	Order no.
400	30 x 4-40 x 15 <sup>1)</sup>	20-0410-000

1) Screws for fixing the conductor made of steel Combined rotor/fluid type short-circuit indicators are available on request.

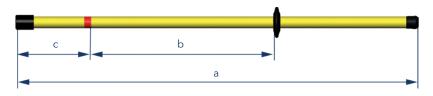
# Hot sticks

Manual operation of live parts



#### **Product features**

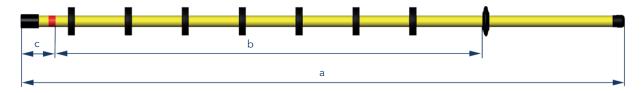
- Designed according to DIN VDE 0681-1
- Material: fibreglass reinforced epoxy resin tube
- Types: bayonet or hexagonal fitting
- Application for indoor ♠ or outdoor installation ♠ ♠



#### Indoor application hot stick

Nominal voltage	Dimensions [mm]			Order no.	Order no.	
range [kV]	a <sup>1)</sup>	b	c <sup>1)</sup>	Bayonet fitting	Hexagon fitting	
1-24	1,117	500	217	65-0101-001	65-0201-001	
1-36	1,217	525	242	65-0101-002	65-0201-002	
1-52	1,517	720	197	65-0101-003	65-0201-003	
1-72.5	2,017	905	312	65-0101-004	65-0201-004	

1) Dimensions apply to hot sticks with bayonet fitting. Hot sticks with hexagonal fitting are 12 mm longer.



### Outdoor application hot stick

Nominal voltage range	Dimensions [mm]			Order no.
[kV]	a	b	c	Bayonet fitting
1-36	1,707	1,200	107	65-0102-001
1-72.5	2,317	1,600	117	65-0102-002

### With hook for applications in dry weather conditions a

The hook serves to mount and dismount elbow connectors and for overhead faulted circuit indicator installations and removals.



#### Hot stick with hook

Nominal voltage range	Dimensions [mm]			Order no.
[kV]	a	b	c	Order no.
1-24	1,200	500	310	65-0301-001
1-36	2,000	900	310	65-0301-002
1-36	3,000	900	1,310	65-0301-003
1-52	2,000	900	310	65-0301-004