



Line Troll[®] LT111K

Fault Passage Indicator for overhead lines (6-132kv)

LineTroll[®]111K Pole mounted Fault Indicator indicates earth- and short circuit-faults by detection of changes in the magnetic field set up by the fault current. The indicator can detect and independently indicate both permanent and transient faults. A super intensity white LED for permanent fault and high intensity red LED for transient fault. An yellow LED will give indication on low battery status. High visibility.

Features LineTroll[®]111K:

- Suitable for single circuit lines
- Programmable operating parameters
- Indication with super intensity white LED, 40 lumens, 360°
- Usable on all Medium Voltage distribution networks 6-132KV.
- Dual indications, permanent fault (white) and transient fault (red)
- Resistant to tough weather conditions
- Battery capacity monitoring
- Mounts on the pole 3-5 meters below the conductor



Functional Description

LineTroll[®]111K continuously monitors the line voltage and phase current, the sources of information it needs to operate. The unit is fully self-contained, no external transformers or connections is required.

During normal line conditions, LineTroll[®]111K remains extinguished.

The indicator is looking for a specific sequence of line conditions to happen before it starts flashing. The general sequence is as follows:

- A. The line should be energised (voltage) for a minimum of 5 seconds.
- B. Line current increasing by at least 100% within 20 ms (or 60ms) and reaching a level that exceeds the programmed trip level
- C. Circuit Breaker tripping within 5 sec. after the fault occurrence (can be disabled).

The user may program the criteria for operation to suit his local requirement by manipulating a bank of micro-switches inside the indicator.



Technical Specifications

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|---|---|---|
| Application: | Pole mounted Short circuit and Earth fault* indicator for overhead lines. | |
| | System Voltage: | MV– voltage network (6-132kV) |
| | Grounding system: | Isolated, resistor and solidly grounded |
| Fault-detection: | Sensitivity Di/Dt (50Hz): | 4, 7, 15 or 50A* |
| | Duration: | > 60ms, >20* |
| | Inrush-blocking: | 5 sec |
| | CB-tripping: | Within 5 sec |
| Reset: | Automatic: | Re-energized line (Voltage). |
| | Timer Permanent Fault: | 1.5, 3, 6, or 12 hours * |
| | Timer Transient Fault: | 24 hours * |
| | Manual: | By test-reset tool |
| Note *: All threshold, timers etc. are selectable and programmable by micro-switches. | | |
| Indication: | Permanent faults: | 1 super intensity white LED, 40 Lumens |
| | Transient faults: | 1 high intensity red LED, 40 Lumens |
| | Visibility: | 360° |
| | Low battery indication: | 1 yellow LED |
| Power supply: | 1 Lithium Cell | D-size total capacity: 16,5 Ah |
| | Battery change: | 2000 flash hours/10 years shelf life |
| Mounting: | One the pole 3-5 meter below the conductors | |
| Temp: | -40 to +70°C | |
| Housing: | Top-cap | Super tough nylon, UV stabilized |
| | Lence: | Lexan, UV stabilized |
| | Bracket: | Aluminium |
| | Volume: | 3,2 dm3 (270 x 170 x 70 mm) |
| | Weight: | 0.526g (including bracket and battery) |
| | Degree of protection: | IP68 |

Ordering Information

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|------------------------|----------------------------|
| Product nr: 04-1110-00 | LineTroll®111K |
| Product nr: 1056 | KBB-11 replacement battery |
| Product nr: 1070 | TBX-10 |

About Nortroll AS

Your Representative

Since the foundation in 1976, Nortroll AS has devoted its activities to the development of equipment aiming to reduce electric utilities outage times. We offers a wide range of products for fault detection and remote operation in the MV Distribution Network.

LineTroll®