

# LineTroll R400D

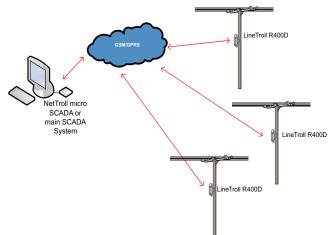
Fault Passage Indicator for overhead lines (6-132kv) with built in GSM communication Module

LineTroll R400D Fault Indicator indicates earthand short-circuit faults and can distinguish between permanent and transient faults. The indicator has two sensors and use both the electrical field and the magnetical field to detect faults on all three phases.

A high intensity red strobe-flash LED indicates permanent faults and with the adjustable lens, the indication can be seen from long distance both in day– and night-time. Transient faults and low battery warning are indicated by separate LED's.

LineTroll R400D has a built in GSM modem which will send SMS to one or more recipients upon a fault situation and is one important part in NORTROLL's system for **Smarter Network Man**agement.

Version with GPRS/DNP3 modem is also available as well as a version with a relay interface for connection to 3.party RTUs.





LineTroll R400D continuously monitors the line voltage and current, and detects faults either when the current exceeds an absolute configurable threshold or variation in current within a specific time (di/dt). The units has a built-in load current compensator which allows for detection of very low phase-to-earth faults. The unit has inrush current filtering to avoid false indication when line is energized.

The unit is fully self-contained, no external transformers or connections is required and can be mounted in all types of poles and line configurations.

Highly visible local indication Indicates both transient and permanent faults (Configurable) Detects phase-to-phase and low phase-to-earth faults Low power -> long battery lifetime Two-way communication Automatic reset feature Easy configuration without any DIP -switch settings

Remotely configurable (Wireless or GSM)

Time-stamped alarms and event log

Built-in GPS for positioning and time-synchronization (option)



LineTroll®

DS LineTroll R400D

#### **Technical Specifications**

Application:	Short circuit and Earth System Voltage: Grounding system:	<b>fault indication for overhead lines.</b> MV– voltage network (6-132kV) Isolated, resistor and solidly grounded. Impedance grounded networks with restrictions.
Fault-detection:	Sensitivity PtG di/dt:	2.5, 4, 7, 15, 20, 30, 40 or 50A (load current compensated)
	PtP threshold: PtP di/dt	50,100,200,500 or 1000A 50%, 100% or 200% relative current increase
Innrush-blocking: Reset:	Fault Duration: Configurable Automatic: Timer: Manual: Remotely:	>60 ms or >120ms (configurable) 5 to 15 sec Renergized line (Voltage), delay 15 to 30 sec 1.5, 3, 6, or 12 hours Rotating display unit to "reset" posistion. From SCADA or hand-held unit from ground
Indication:		1 Green LED for transient fault (Can be switched off) High visibility red strobe-flash for permanent fault
Devuer everthu	Intensity:	Low battery indication LED (amber) > 40 lumens (permanent fault)
Power supply:	Battery life time:	3 pcs Lithium D-size primary batteries >1500 hours flashing (8 years of operation).
Mounting:		3-5 meters below the conductor
Temp: Housing:	Dimension: Weight: Degree of protection:	-25 to +70 deg Polycarbonate, UV stabilized 100 x 380x200mm 1300g (including box and 3 pcs battery) IP55, IK09 & V-0 UL
Communication	Wireless	2,4 GHz short range radio for configuration/ programming
	GSM	SMS messaging for alarms and remote configuration/programming
	GPS	For positioning data and real-time-clock syncronization (Option)

## Ordering Information

Product nr:04-0400-00LineTroll R400D with internal SMS modemProduct nr:04-0400-10LineTroll R400D for GPRS/DNP3 ModemProduct nr:04-0400-11LineTroll R400D with Relay Card

#### About Nortroll AS

LineTroll®

Since the foundation in 1976, Nortroll AS has devoted its activities to the development of equipment aiming to reduce electric utilities outage times. Since 2012 Nortroll is a subsidiary of SICAME Group

#### Your Representative

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