



LineTroll R400D

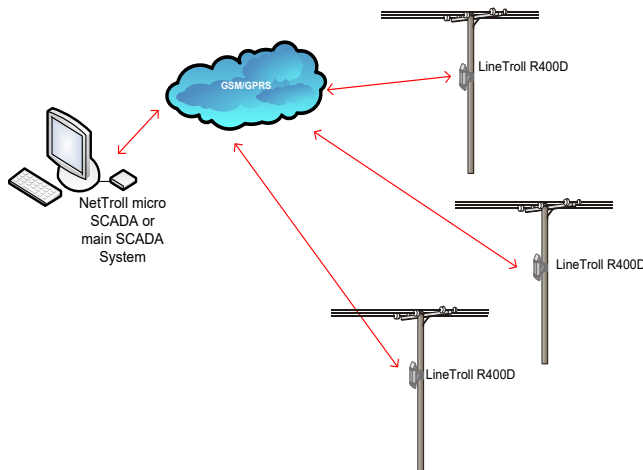
Fault Passage Indicator for overhead lines (6-132kv) with built in GSM communication Module

LineTroll R400D Fault Indicator indicates earth- and 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 set up a GPRS connection and/or send SMS to one or more recipients upon a fault situation and is one important part in NORTROLL's system for **Smarter Network Management**.

The fault passage indicators can be integrated into SCADA systems running IEC60870-5-104 and DNP3.



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 unit 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.**

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DS LineTroll R400D





Technical Specifications

Application:	Short circuit and Earth fault indication for overhead lines.	
	System Voltage:	MV– voltage network (6-132kV)
	Grounding system:	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:	50,100,200,500 or 1000A
	PtP di/dt:	50%, 100% or 200% relative current increase
Innrush-blocking:	Fault Duration:	60ms, 80ms or 100ms (configurable)
Reset:	Configurable:	5 to 15 sec
	Automatic:	Reenergized line (Voltage), delay 15 to 30 sec
	Timer:	1.5, 3, 6, or 12 hours
	Manual:	Rotating display unit to "reset" position.
	Remotely:	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 Low battery indication LED (amber)	
Power supply:	Intensity:	> 40 lumens (permanent fault)
	Battery life time:	3 pcs Lithium D-size primary batteries 1500 hours indication time, 7 years of operation @20°C.
Mounting:	3-5 meters below the conductor	
Temp:	-40 to +85 deg	
Housing:	Polycarbonate, UV stablized	
	Dimension:	100 x 380x200mm
	Weight:	1300g (including box and 3 pcs battery)
	Degree of protection:	IP55, IK09 & V-0 UL
Communication	Wireless	2,4GHz short-range radio for configuration/ programming
	GSM	GPRS/SMS messaging for alarms and remote configuration/programming
	GPS	For positioning data and real-time-clock synchronization

Ordering Information

Product no: 04-0400-00 LineTroll R400D Fault Passage Indicator with integrated GSM modem
 Product no: 17-0015-00 FDP-15 Handheld test, reset and installation tool with radio link

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. Since 2012 Nortroll is a subsidiary of SICAME Group

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