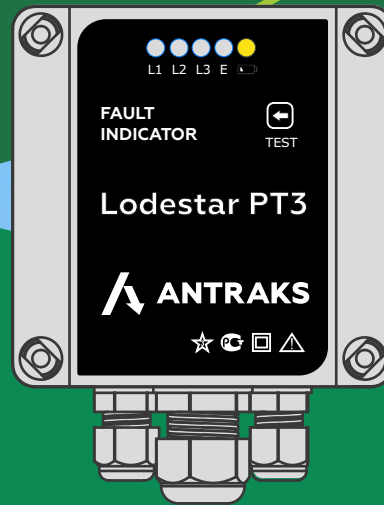


Fault Indicator Lodestar PT3



Lodestar fault indicator is intended for detection of fault localization on overhead and cable power distribution lines of 6-35 kV. The indicator can operate in networks with insulated and resistance neutral. The Device is mounted in switchgear and control gear cell on the control board.

The Device abilities

- phase-to-phase short-circuits and phase-to-ground faults recording with separation of fault types;
- damaged phase detection;
- transmission of information to dispatching and telemechanics system by means of adjustable relay outputs or RS-485 interface;
- saving up to the last 10 faults in the event log and time tag;
- fault indication by switching on one or several appropriate LEDs;
- the indicator is powered from DC or AC voltage source 220/110 V and 220 V respectively;
- standby power supply of LEDs (at the time of fault indication);
- control of standby battery charge level;
- changing of setpoints by DIP switch and client software.

The sensors of Lodestar fault indicator (based on the Rogowski coil) are mounted directly on cable phase conductors and transmit data to the indicator box. The indicator is installed on the board of relay compartment of switchgear and control gear cell.

Technical specifications

Parameters	Values
Event registration	
Types of registered faults	<ul style="list-style-type: none"> 2- and 3-phase short circuits phase-to-ground faults separation of fault types damaged phase detection at short circuits
General description of the Devices	
Voltage class of overhead and cable power distribution lines	6-35 kV
Visual fault indication	LEDs with high intensity brightness
Number of last faults stored in the internal memory	10
Power supply	Powered from: <ul style="list-style-type: none"> an auxiliary services supply with any type of voltage = 220 V, = 110 V or from the mains ~ 220 V standby power supply (lithium battery) for fault indication (LEDs blinking time is more than 900 hours)
Fault Indication Reset by	<ul style="list-style-type: none"> the external command (by closing of dry contacts (voltage free output relay contacts) timer button on the Device
Communication	RS-485 MODBUS protocol (in option)
Trigger control	<ul style="list-style-type: none"> visual on MODBUS protocols (if the power supply is available) Relay output
Mean time between failures	At least 110 000 hours
Additional features	<ul style="list-style-type: none"> changing of setpoints by DIP switch RS-485 (in option)
Parameters	
Current threshold range (short-circuits)	200 ÷ 2000 A
Current threshold range (phase-to-ground fault)	10 ÷ 160 A
Fault observation time at phase-to-ground fault	60 ÷ 300 ms
Inrush current response time	0.02 s
Fault observation time at short-circuit	40 ÷ 300 ms
Preparing for reactivation	no more than 30 s
Design	
Installation place	in switchgear and control gear cell, on the control board
Sensors	sensors based on the Rogowski coil
Temperature range	standard from -40 ° C to +50 ° C
Indicator protection degree	IP 65
Impact of external climatic factors	S4 design group according to the requirements and Moderately Cold Climate design of placement category 3.1 according to IEC 721-2-1, but for operation at ambient air temperature from -40 to +50°C
Impact of mechanical factors	M7 design according to IEC 721-3-3-87, design group N2 according to the requirements