

FAULT-X

FAULT INDICATOR



FAULT-X

Description

Fault-X is a current sensor equipped with specific communication and functions for fault detection. The sensor provides local indication of fault occurrence through a high-intensity lighting system, and it is equipped with the chosen communication module among LTE - CAT M, LoRa, or NB-IoT for remote indication.

Features:

- Identifies faults, sending instant alerts through operational logic;
- With measured RMS current data and operational status, it recognizes normal operation;
- Detection of permanent and temporary faults.

The equipment is easy to install as it is non-intrusive, using a semi-open current transformer for loading and another for current transduction. This can be done using a pole-mounted tool on energized networks.

All equipment parameterization is done via the application, available for download on the Play Store.

Operation

First, the FAULT-X must be powered on using the magnet provided with the equipment. It will be considered on if the LED flashes twice. If it flashes three times, it indicates that the equipment is off.

Once the equipment is powered on, parameterization should be performed via the application.

After completing the previous step, the installation of the equipment on the network begins. It is recommended that the installation be carried out at a distance of 0.9 m to 1.8 m from the crossarm of the pole.

The FAULT-X should be inserted into the operating pole through the anchor, securing it with the claw. The equipment must have the current transformer (CT) open enough so that the indicator can be easily lifted onto the phase conductor of the network.

ATTENTION! The current transformer must be fully closed during the operation of the device, preventing a gap that could lead to the burning of the CT, and consequently to the non-loading of the equipment.

The operator must close the current transformer as much as possible by rotating the operating pole until the cable is fully embraced.



Technical Specifications

Standards	IEC 60529, IEEE Std. 495, IEC 60255-21, IEC 60068-2, IEC 60060-1, IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-5, IEC 61000-4-6, IEC 61000-4-8	
IP Protection degree	IPx5, IP6x	
Operation temperature	-40°C to 85 °C (-40°F to 185 °F)	
Cable gauge	Up to 38 mm	
Dimensions	151 mm x 220 mm x 83 mm (5,44" x 8,66" x 3,25")	
Weight	1,7 kg (3,7 lb)	
Battery	3,7 VDC (induction self-recharging)	
Brazil certifications	ANATEL	
Communication	• LTE	IGSM/GPRS/EDGE 850/900/1800/1900 MHz
	• NB-IoT	GPRS/EDGE 850/900/1800/1900 MHz
	• LoRa	902 - 928 MHz
	• Bluetooth (parameterization)	2,402 – 2,480 GHz
Current measurement	5 A – 10 kA; accuracy 5%	
Voltage measurement	6,58 – 79,67 kV (phase); accuracy 10% (depending on cable insulation)	
Required current for correct charging	depending on the choice of transformation ratio	
Rated voltage	Up to 138 kV (line)	
Fault detection	Current level or maximum di/dt variation	
Trip current range	50 A – 10 kA	
di/dt variation range	80 A/ms – 10 kA/ms	

Technical Specifications

Signalable events	Permanent fault and Transient fault
Non-signalable events	Inrush, current surge and load increase
Protection test IPx5 and IP6x	IEC 60529
Load supportability test	IEEE Std. 495
Vibration and impact resistance test	IEC 60255-21
Thermal cycle test	IEC 60068-2
Applied voltage and energization test	IEC 60060-1
Atmospheric impulse test	IEC 60060-1
Electrostatic discharge immunity test	IEC 61000-4-2
Radiated radio frequency immunity test	IEC 61000-4-3
Surge immunity test	IEC 61000-4-5
Conducted radio frequency immunity test	IEC 61000-4-6
Magnetic field immunity test	IEC 61000-4-8

Transformation ratio

3000:1	120 A to 400 A
200:1	30 A to 300 A

We provide solutions for improvement of electrical energy generation, transmission and distribution efficiency, quality and reliability. With a highly specialized and experienced team in research, development and innovation, HVEX develops tailor-made solutions for Brazilian and foreign markets. Wide range of products with solutions focused on signal transduction, measurement, monitoring and protection.



Boosting the Innovation



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