



The Stelmec's SFPI31 (Indicator) & DCU F1 (Data Concentrator Unit), Remote overhead fault indicator (RFI) monitors the overhead electricity lines in LV, MV power distribution networks. High accuracy current sensors in the SFPI 31, monitors the phase current & upon detecting current level exceeding the user-selected threshold (as a result of a P-P or P-E fault) sends the fault message to the DCU. The DCU transmits the data to the central monitoring station over the cellular network. Combined with GIS and SCADA, the central monitoring station could precisely locate the faulty section.



SFPI31

FAULT PASSAGE INDICATOR (FPI)

Salient Features

- 3 Units/ Set. Installed on (A, B & C) Three Phase Overhead Cables
- Real Time Remote Monitoring of the Load Current Status
- LED Indication with 360° Visibility
- Hot-stick, Line-mountable; Mounting can be performed while the line is energized
- In-built Battery Supply to Power-up SFPI31 for about 10 Years
- Remote Management of Indicator and Data Concentrator
- Communication With Wireless LPRF Module
- User-selectable A) Fault Trip Level; B) Fault Response Time; C) Reset Time after Power Return
- Comes with a DCU Mainly Composed of the Solar Panel, PCB Board with Industrial GPRD/ 3G/ 4G LTE Module, CPU Module and Wireless Receiving Module. Mains Powering Option available.
- Overall System consists of A) Line Fault Indicator B) Data Concentrator Unit C) Central Monitoring Station
- Remote Software Configuration and Upgrade, Significantly Improve the Management Efficiency

Technical Specifications

SFPI 31 (Fault Passage Indicator)

Applicable voltage range	7kV - 13 kV
Applicable current range	Up to 600A
Applicable power frequency range	50Hz \pm 5 %
Angle of visibility	360° flashing insight
Fault flashing interval	5s
Duration of flashing	50ms
Sensitivity & accuracy	(0 - 100)A: \pm 3A (100 - 600)A: \pm 3%
Static power consumption	< 20uA
Auto reset time	(1 - 48)h - User-selectable
Resetting facility	Self reset / Manual / Remote
Identification of fault current duration	(20 - 40) ms
MTBF	> 70000h
Impulse current withstand	31.5kA for 2s
Degree of protection	IP67
Weight	less than 500g
Outline dimension	(75 x 115)mm approx - cylindrical

SFPI-DCU F1 (Data Concentrator Unit)

Short circuit fault upload	Receive and upload fault information and fault current
Ground fault upload	Receive and upload fault information and fault current
Load current	Upload load current value; time 'or' out-of-limit upload
Low battery alarm	Receive and upload Low battery alarm function
Heartbeat function	Timing upload heartbeat information
Fault indicator status measurement	Active measurement switch status and load current
Remote management	Remote management fault indicator, such as parameters, reset etc.
Local and remote maintenance	Have local and remote upgrade function
Stability mechanism	WDT design, to ensure the stability of system
Identification of fault current duration	(20 - 40)ms
IEC support	IEC60870
Shell	304 stainless steel + RAL7305
Protection class	IP67
Outline dimension	(355 x 293 x 255)mm
Weight	5kg approx

- There is continuous effort at Stelmec to keep abreast of latest technology in line with customers' requirements and hence the product specifications are subject to change.
- Products described in this catalogue are manufactured and supplied according to Certified Management System ISO 9001:2015.
- Product variants provide different combinations of features / specifications listed above & need not necessarily be a part of single variant.