



# Fault Passage Indicator System

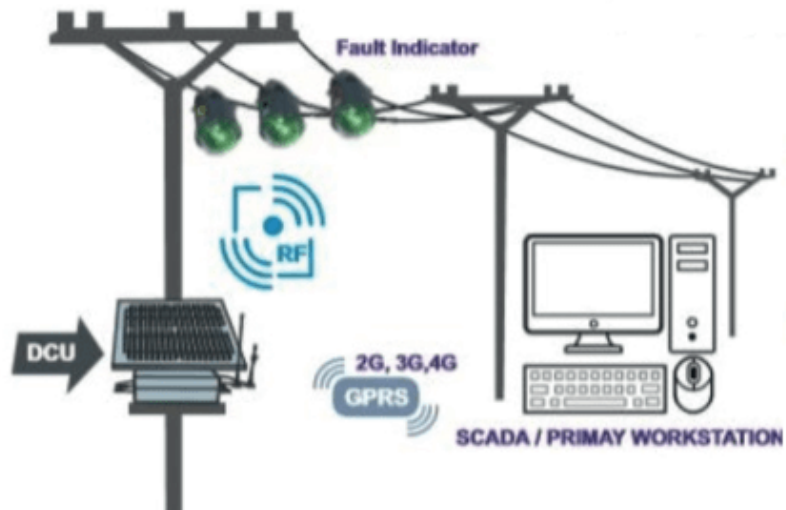
FPI-66-NC/C-V1/V2



## Smart ON Fault Passage Indicator

Fault Passage Indicator system is a useful and reliable electrical equipment to locate fault on the overhead distribution lines. Key functions and features are

- Easy installation
- Different Flashing Indication for Transient & Permanent faults
- Adjustable flashing time
- FPI battery Low Indication
- Detect & Indicate LED for Phase to Phase / Ground faults
- Detect & Indicate Power failure / Line Charged
- Load Current Monitoring
- Compatible for SCADA system with local FRTU over IEC protocols.
- Remote monitoring and configuration



## General Specification

- **Rated Voltage:** 3 ~ 76 kV
- **Rated Current:** up to 1000 A
- **Rated Frequency:** 50 / 60 Hz
- **Fault Detection:** Phase to phase / phase to ground fault indication
- **Effective Communication Range with FRTU :**  $\leq 30\sim 100\text{m}$
- **Inrush Restraint/Automatic Fault triggering current pick up algorithm** integrated (di/dt, I<sub>o</sub>, inrush restrained)




### Different flashing indication for


Transient | Permanent fault | Reclosing in Progress Ready




**White LED flashing**  
(Transient Fault)



**Red LED flashing**  
(Permanent Fault)



**White / Red LED**  
Alternate Flashing  
(Reclosing in Progress)



**White LED 3 Times**  
Flashing (Reset, or Ready)



- Low Battery Indication
- Fault Trigger Flashing Indication Time: ½, 1, 2, 3, 4, 5, 8, 24 hrs (Settable)  
\*Default Setting: 3 hr (Transient Fault) / 4 Hr (Permanent Fault)

### Battery Information

**Battery Type:** Rechargeable 3.7V 4200mAh Li-Ion  
**Self-Power Charging Device Integrated:** DC 3.7 V  
**Battery Life:** up to 10 years



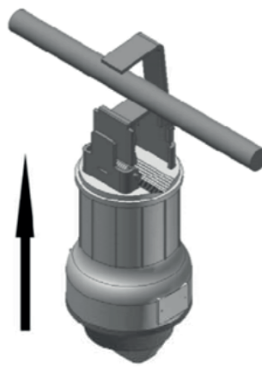
### FPI Installation Layout on Distribution Line



Open up A,B as indicated  
as following the arrow



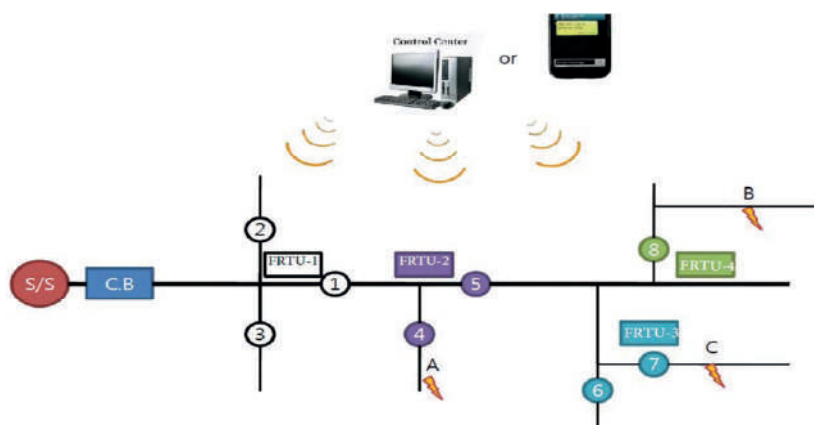
Hold A & B loct at the  
open position by B



Push indicator upward to  
the (live) line to clamp it



Operation Ready



### Example of FPI System Operation Scheme



## TECHNICAL PARTICULARS FOR OVERHEAD FAULT PASSAGE

	Property/Parameter	Units	Technical data
	<b>Brand / Manufacturer:</b>		<b>SmartON / Sharika Enterprises Limited</b>
	<b>Part No.</b>		<b>FPI-66-NC/C-V1/V2</b>
<b>A</b>	<b>Application</b>		
1	Type		Outdoor Type
2	Distribution Network Voltage	kV	(Suitable for 11 KV to 33KV, up to 72 kV)
3	Power Frequency	Hz	50 Hz /60 Hz
4	Short - circuit withstand	kA/ms	(25kA(rms)/170 ms, 25KA/3 sec.)
5	HV Neutral Arrangement		Solidly grounded, Effective Earthing System
6	Diameter	mm	Suitable for Conductor( 5 ~ 32 mm diameter )
<b>B</b>	<b>Fault detection Parameters</b>		
7	Minimum Fault Current setting value	A	Settable 20 ~ 100 A
8	Minimum impulse time	ms	20~1000 ms
9	LED Flash Indication for Fault	Min	10 min, 30, 60,120,240,480 Minutes, settable
10	Fault Trigger Algorithm		No need setting Level(Automatic Trigger Algorithm)
<b>C</b>	<b>Reset (Permanent Fault)</b>		
11	Automatic Reset		YES
12	Timer Reset	Min	10 min, 0.5h, 1.0, 2.0, 4.0, 8.0 hour : Settable
13	Manual reset		YES
<b>D</b>	<b>Fault indication</b>		
14	Indication		Bright Red flash light (LEDs)
15	Light Power	Lumens	30 Lumens
16	Visibility Angle	Degree	360 Degree
17	Flashing Permanent Fault	Sec	RED Color LED, 1 flash every 3~10 sec
18	Flashing Transient Fault	Sec	White Color LED, 1 flash every 3~10 sec
19	Standard total flash	Hrs	800 hrs
<b>E</b>	<b>Power Supply</b>		
20	Battery of FPI		Capacitor with Lithium battery 9000 Mah
21	Self-Charging by Solar Panel		YES/.OPTIONAL
22	Life of the Battery	Years	10 Years
<b>G</b>	<b>Mechanical</b>		
23	Wind Resistance	Kg/sq.mm.	For wind pressure 126kg/sq m up to an elevation of 10 mts