

Overhead type Short circuit & Ground Fault Indicator

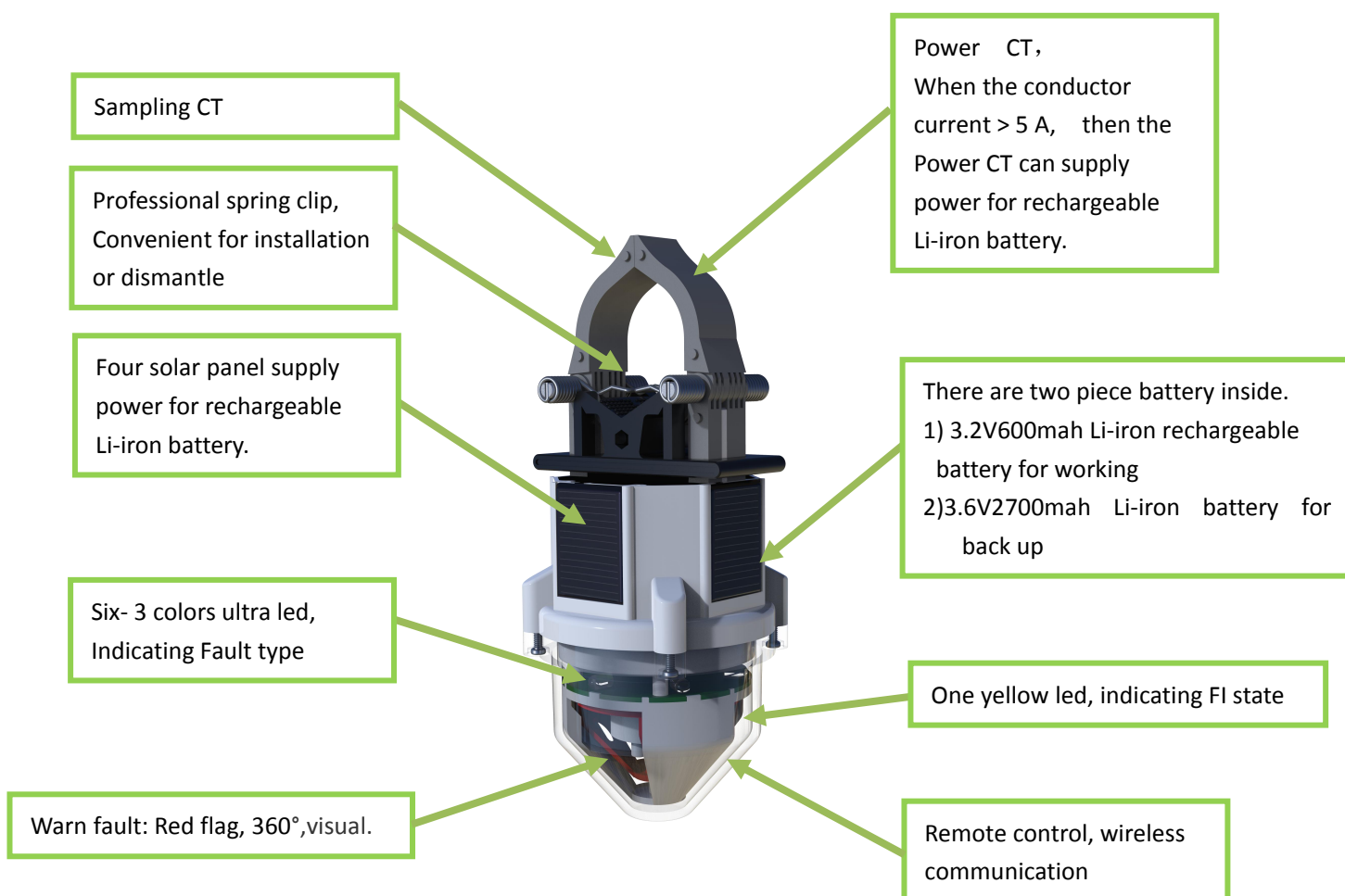
Specification

FAULT INDICATOR

TYPE : Flag type SNV308.1

for overhead lines

Indicator Outlook.



SUMMARY

SNV308.1 series overhead type Fault Indicator system is based on the Sensor that through CT get the (6KV-50KV) line's current signal, through smart computer chip(IC) by program calculating, Analysis ,judge the short circuit or ground fault. When Sensor detect the fault happen, then the Fault indicator warn the manager through turn red flag, and shine 3 color ultra-led. It is good for power managing user to find the fault happen reason and place, then fast solve the problem and make the power restore.

*SNV308.1 Fault Indicator with the aid of the remote control PDA(SNV306.1), User can read, reset the indicator's setting parameter, and can read the online real time current etc

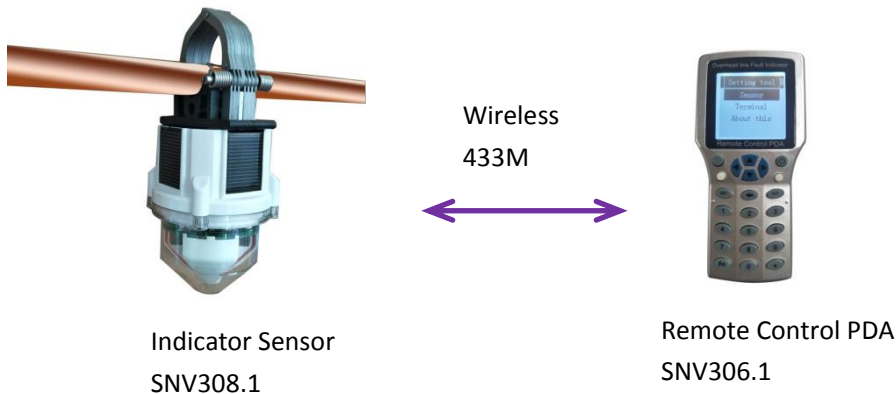
*SNV308.1 Fault Indicator with the aid of the professional control terminal equipment(SNV309.1) and Web server, it can achieve to remote read and manage the Fault indicator state on times.

There are two channels for reading and managing the remote fault indicators. One is through GSM mobile phone SMS command control. Second is user computer software control. Power managing user, can get the fault indicator information on times

Install on site



Working principle and structure



DESCRIPTION

SNV series indicators suitable for overhead lines network under a 50KV, for remote short circuit & Earth fault indicator, through measuring the current of a conductor cable, to judge the fault on the power lines according to the change of current, grounding fault, and the fault state, real time current, battery voltage and other information. is uploaded to the remote server, which provides reliable data for the various types of fault diagnosis and location of overhead lines

Production Character:

- real-time sampling of current per cycle;
- ultra low power real-time sampling;
- When line current value $\geq 5A$, CT can supply meet the indicator power requirement
- Sampling accuracy: $I < 10A \pm 1\%$, $I > 10A \pm 2\%$
- Sensor factory automatic calibration, to ensure consistency;
- intelligent motor control flop;
- Support remote, telemetry, remote control, remote adjust;
- There are two piece LI-iron battery inside. Battery life:8-10year
 - 1) 3.2V,600mah lithium -iron rechargeable battery for working
 - 2)3.6V,2700mah lithium -iron battery for back upBattery life:8-10year

Part of test character:

- Temperature affect test: 2 hours, $-40^{\circ}c \sim +70^{\circ}c$
- Moisture and heat performance test,24hours. high temp. $55^{\circ}c$, low-temp $25^{\circ}c$, humidity 93%
- Short circuit current impact test, 16KA, 2 second
- Insulator Test: 1) Insulator resistance test $\geq 10 M\Omega$ 2) Dielectric strength test, 1min,AC 2KV.
- IP protection level test, IP67: Anti -dust IP6X Anti-water: IPX7
- Spring clip strong: 8 times self-weight.
- fire-protection rating: 5 grade

Function character

- a. real time measurement of three-phase on line current;
- b. Detection and judgment of short circuit fault;
 - a) support the judgment of the threshold fault current, short circuit fault;
 - b) supports Judgment of mutated incremental currents delta for short-circuit faults;
 - c) supports the judgment of the percentage of short circuit faults that can be set by the percentage of mutated currents(*already canceled this judgment);
 - d) support for reclosing identification;
- c. Detection and judgment of grounding fault;
- d. Data Upload function;
 - a) periodically upload real-time online current, zero sequence current, and battery voltage;
 - b) Upload the fault status, the fault elimination status and the fault current value in real time;
- e. Parameter setting
 - a) Available to change the parameter setting through Web server.

- b) Available to change and set the parameter through Remote control PDA;
- c) Support RS232 port for parameter modification and maintenance;
- f. Support communication through remote control PDA;
 - a) Available reading and change setting parameter;
 - b) PDA can read Indicator sensor state , Real time line current, battery voltage data.
 - c) PDA can simulate the online fault test through setting Indicator's parameter.
- g. Intelligent motor control flop to red flag;
- h. Six piece, 3colors-color led indicating; (red, green, blue)
- i. One yellow state led light;
- j. Support line CT power charge for battery;
- k. Support timing reset, power on auto reset, remote reset;
- l. can be efficiently mounted and unloaded;
- m. The structure parts are made of antirust and anticorrosion material;
- n. *In waking up state(wireless setting model),During 7 minutes, without operate, there will be auto reset.(Tips: in waking up state, FI prohibited fault test)*

Function display

Flag state

- 1) Normally, Flag is on blanket position. Every 3 hours, Flag will reset one times for avoiding un-fault turn to red flag.
- 2) When short circuit fault happen, it will turn to red flag state; After reaching reset time or when the line current restore, Fault indicator will turn back to blanket state;
- 3) when the earth fault happen, it will turn to red flag state. It will be automatically turn back blanket state when line power off and current restore, or wait until reach reset time.

Fault indicating Led light:

- 1) short circuit permanent fault indicating: Six piece 3-color led will shine flash red color, and four times, every 2 second, And turn to red flag at same time。
- 2) short circuit temporary fault indicating: Six piece 3-color led will shine flash green color, and four times, every 2 second, And turn to red flag at same time。
- 3) Earth Fault indicating: Six piece 3-color led will shine Blue color, and four times, every 2 second. And turn to red flag at same time.

yellow state Led light:

Battery voltage too low: Shine 1 time, every2second

Battery voltage low: shine 2 time, evey2second

Wireless setting state: shine 4 times, every 2 second