INTELLIGENT SURGE&POWER MONITOR

iSPM-02

The PROSURGE Intelligent Surge & Power Monitor is a multi-function monitoring device for power system and LPS (lightning Protecting System), a core unit for Intelligent LPS or Surge Protective Devices (iSPDs), which is an innovative solution to make your LPS smart and intelligent.

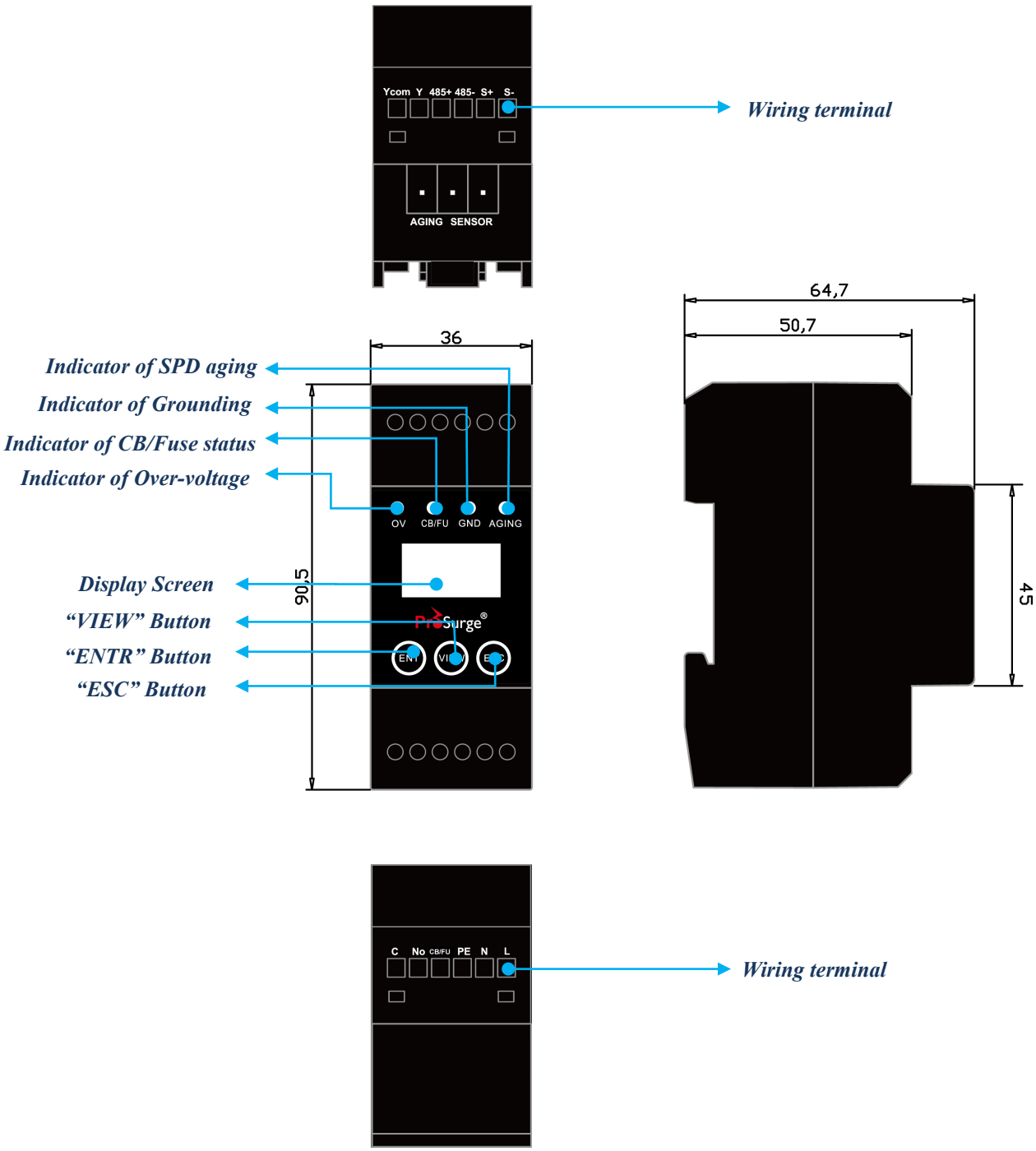
iSPM-02 can be widely used in Telecom, Railway electrical systems, Wind power plant, Photovoltaic power plant, Network Communication system, building electrical system and automatic industrial lightning protection etc.. It has a leading technology and stable functions, through local Man-Machine interface or RS485 half-duplex MODBUS RTU protocol communication mode connecting to remote monitoring center, users can check completed LPS information.

iSPM-02 device will monitor and record power system or LPS system events as listed in real time,

1. SPD working status with alarm
2. SPD's aging with alarm while close to end-of-life
3. Lightning and surge event (polarity, event time, total events quantity)
4. Backup over-current protection device working status (circuit breaker or fuse) with alarm
5. Voltage on SPD in real-time, overvoltage alarm
6. Grounding conditions of SPD with alarm
7. N line monitor (screen light off while lost, alarm by remote signal contact)

iSPM-02 is a compact DIN-rail mountable device for installation in panels, could be used together with SPDs according to end-user's requirements.

- Overview of iSPM-02



- **Wiring terminal of iSPM-02**

Item	Terminal	Wiring & Function
1	L,N,PE	Connect to L (unspecified), N, PE lines, the link points should be upstream of backup over-current device(Refer to installation diagram)
2	CB/FU	Connect to L (same line as item1) line, the link points should be downstream of backup over-current device (Refer to installation diagram)
3	NO,C	Remote signal contact of iSPM, (NO: Normally Open; C: Common point)
4	Ycom. Y	Connect to NO (Y), C(Ycom) of the SPD's remote signal contact
5	Aging Sensor	Connect to aging sensor
6	485- 485+	For RS485 connect
7	S+ S-	Connect to lightning sensor

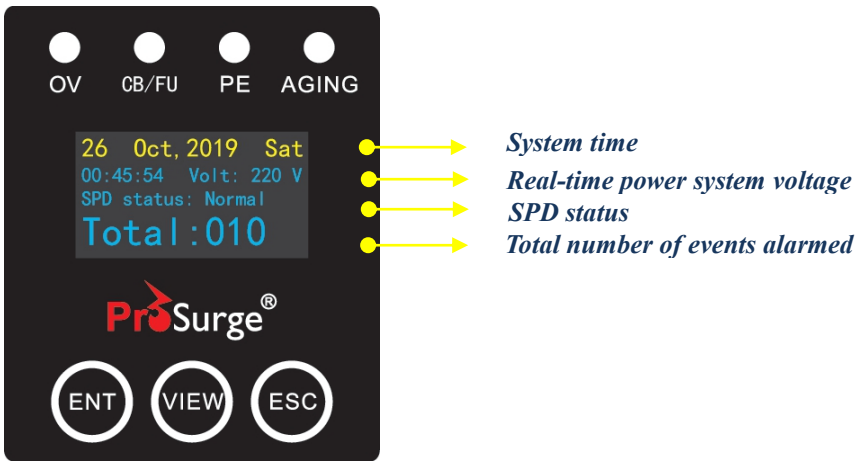
- **User interface of iSPM-02**

Four page user interfaces are available by pressing the button of iSMP as "ENT", "VIEW" and "ESC".

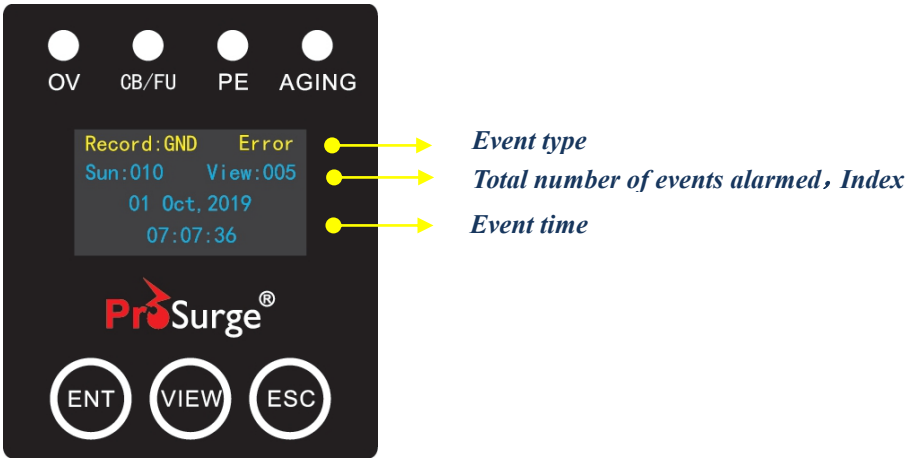
VIEW: Browse, Modification;
ENT: Enter, Confirm;
ESC: Exit, Return;

For examples:

- *Home page of Interface*



- *Brows page of interface*



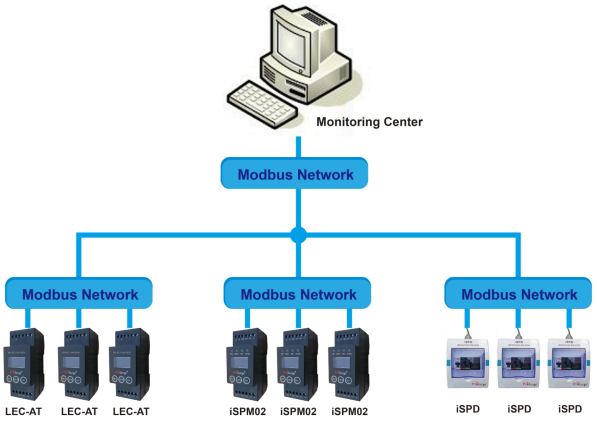
More information of user interfaces, please refer working manual.

- **Technical Specification**

Model No.	iSPM-02
Power Network	TN/TT (WYE, 3ph ,4W+G or 1ph, 2W+G) Note: Specified monitor for other power network is available.
Signal Input	Collect signals below: ● SPD's aging, 1 channel ● Grounding status, 1 channel, ● SPD working status, 1 channel, ● Real-time voltage on SPD, 1 channel, ● Lightning and surge event, 1 channel ● Back up over-current device working status, 1 channel
Power Supply of Device	240V~380V,50(60)Hz 110V~277V,50(60)Hz
Display Screen	OLED screen
Event Logging	999 events
Surge Event Counting	Counting Current ≥ 100A
Communication Interface	RS485
Network	Flexible networking
Connection wire	28 AWG~16 AWG
Screw torque	0.2 Nm
Installation	35mm DIN rail
Operation Temperature Range	-40℃~+70℃
Humidity	30%~90%
Storage Temperature	－40℃~+70℃
Degree of Protection	IP20
Housing Material	Thermoplastic, UL94 V-0
Dimension (mm)	Host: 150(Length)x80.5((Height)x36mm(Width)

The iSPM02 follows the Modbus RTU mode and can efficiently transfer information to remote monitoring center.

Through the "RS485/Ethernet converter", the MODBUS communication protocol can be converted to the Ethernet protocol, allowing iSPM02 to connect to the Internet.



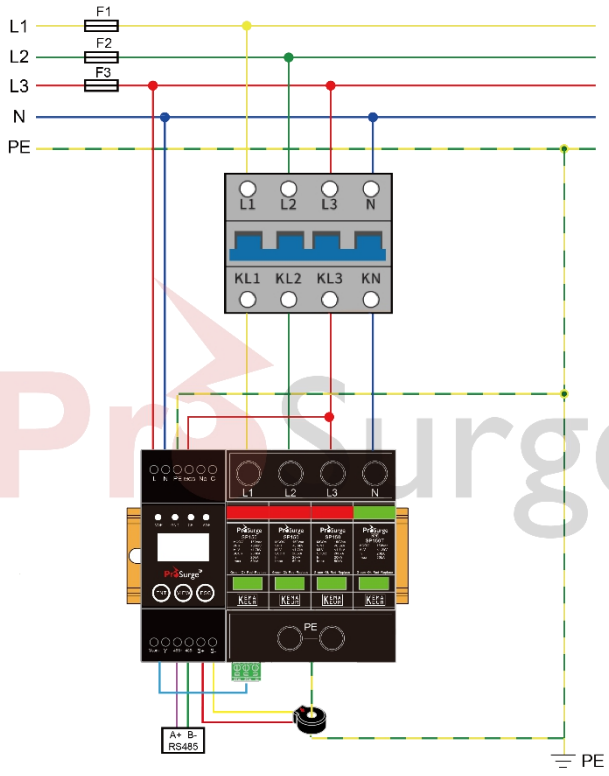
(485 MODBUS)

(485 MODBUS converter to Ethernet)

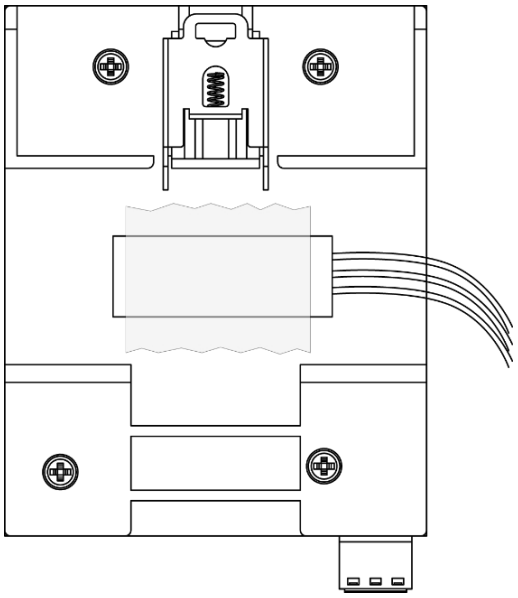
- Typical Installation

A. Install with SPD

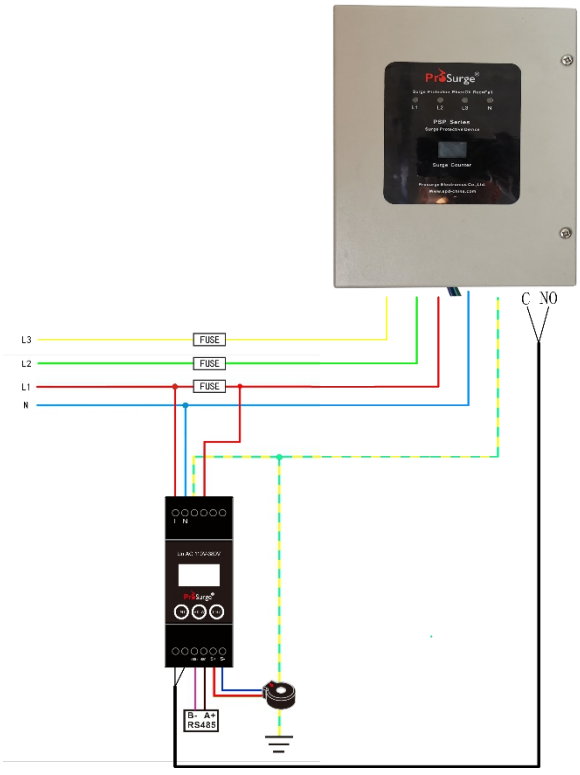
（Install with DIN SPD）



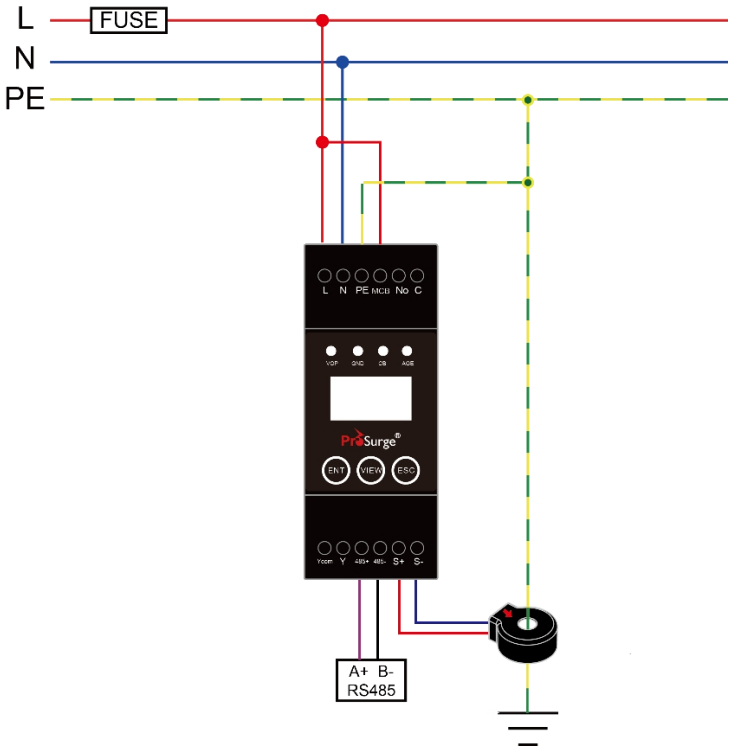
Mount the aging sensor to the SPD base with adhesive



（Install with BOX TYPE SPD）



B. Install without SPD



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