
ProSLS
SPD Life Status Indication
L1
L2
L3
Status
IP20
Hard Reset
Raycap

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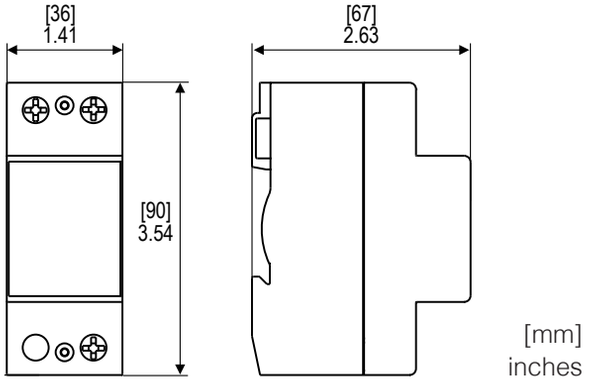
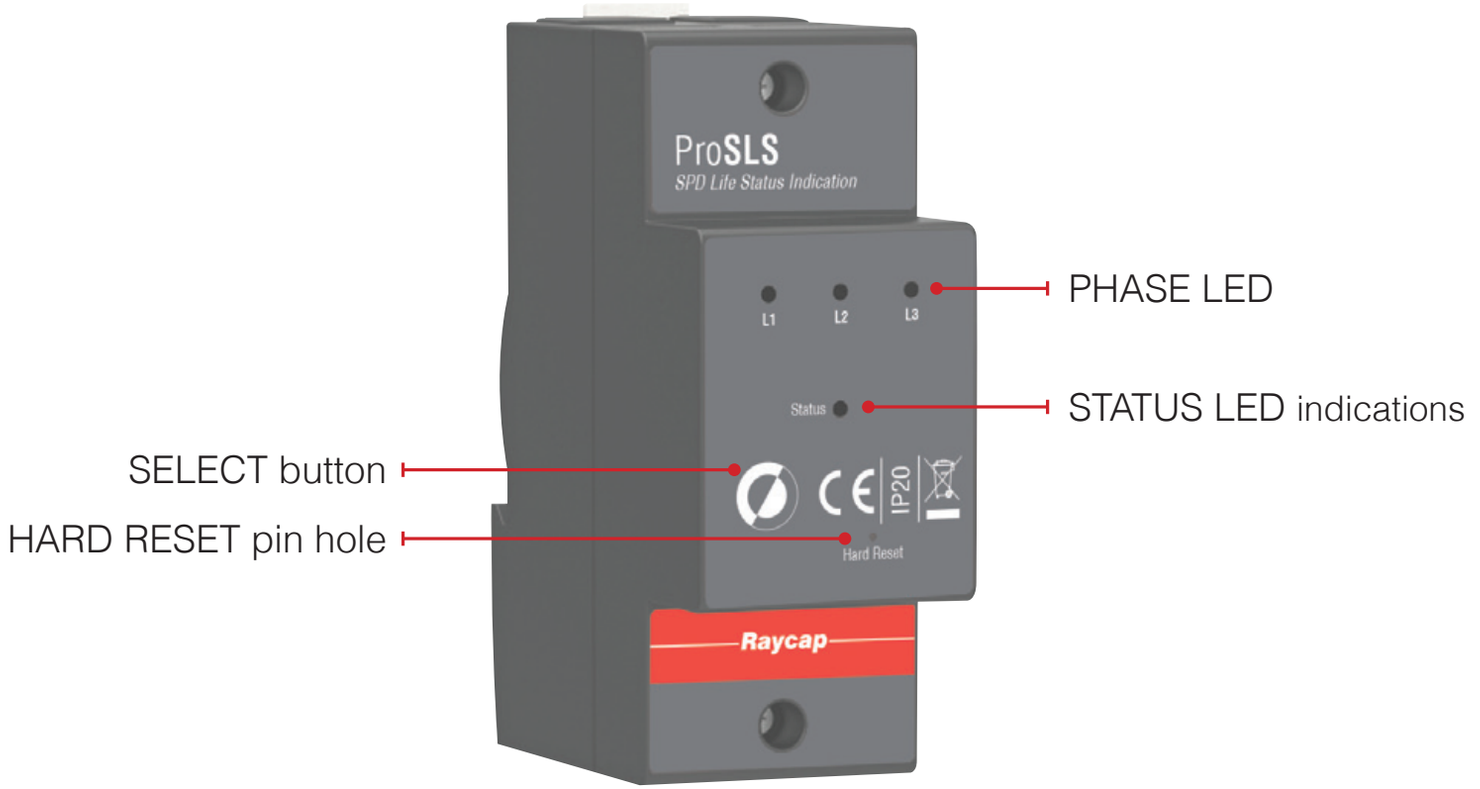
1. Technical Data

Electrical	
ProSLS Model	**130 551**
Lowest Measurable Current (SPD Leakage)	100µA
SPD Degradation Alarm	≥5mA for 1 hour
Power Supply	Replaceable Battery
Remote Contacts	1 A 125 VAC/30 VDC
Mechanical	
Mounting Method EN 60715	35 mm DIN Rail
Maximum Wired Diameter through Current Sensor	0.47" [12 mm]
Sensor Cable	37.4" [1 m]
Operating Temperature (°C)	-30° C to +70° C
Enclosure Material	Thermoplastic; Extinguishing Degree UL 94 V-0
Environmental Ingress Protection (IP) Rating	IP 20
Enclosure Dimension (L × W × D)	3.54" × 1.41" × 2.63" [90 × 36 × 67 mm]
Dimensions DIN 43880	2TE
Packaging Dimensions (L × W × D)	4.17" × 2.28" × 2.89" [106 × 58 × 73.5 mm]
Weight	.88 lbs [440 g]
Standards	
Standards	IEC/EN 61326-1
Certification	RoHS, CE
Product Diagram	



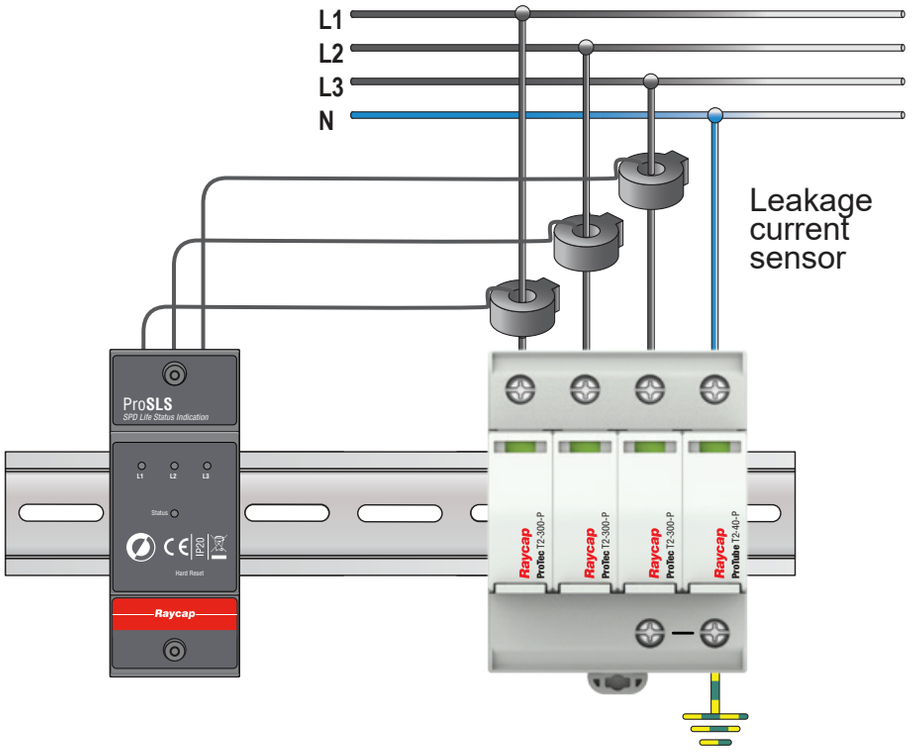
2. Product overview

Parts of ProSLS



	Surge counter part	Comment	
1.	Phase LED	Phase event indication	
2.	Status indications	• GREEN LED • YELLOW LED	• Device is working • Battery Low
3.	SELECT button	For navigating through user interface	
4.	HARD RESET pin hole	Used for reseting device after a malfunction or to restart COMMISIONING phase	

3. Installation manual



- **ProSLS instalation**

ProSLS should be located on a DIN rail near the SPD (Surge Protection Device) to be monitored. The ProSLS sensors (Leakage current sensor) must be placed around each of the three phase conductors connected to the SPD.

Each SPD monitored will have a different leakage current parameter. In order to optimize the degradation measurment, the ProSLS is required to be commissioned for the specific SPD it will be monitoring. This is done via a simple in-built calibration procedure.

4. Main features

- **Normal Operation**

  After completion of the calibration procedure, ProSLS will enter its operating mode. During normal operation, the user needs to check the device status by pressing the button. The green STATUS LED will blink to indicate the circuit is working.

- **Measurement Process**

  The ProSLS makes periodic measurements every 15 minutes. If the phase leakage current is larger than 5mA, the device starts to measure leakage current every minute. If the leakage current is larger than 5mA for one hour period the SPD Degradation alarm state is triggered.
  If the leakage current is not larger than 5mA for an enitre hour, the ProSLS device will enter Normal Operation.

- **ProSLS calibration procedure**

The ProSLS is supplied with a battery inside, but the battery needs to be connected before commissioning! The device needs to be opened and the battery connected to the board (RED connected to +, BLACK connected to -).

The green STATUS LED will blink three times signalling it is ready to initiate the calibration procedure:

1.To begin, the RESET button located beneath a small hole in the lower left part of the front panel, must be depressed using a pin or similar implement.

2. After the RESET has been pressed the green STATUS LED will start to blink three times - before it blinks the third time, the SELECT button must be pressed.

3. The start of commissioning is signalled by the three red PHASE LEDs blinking and the green STATUS LED remaining ON during the calibration procedure.

4. The three PHASE LEDs will turn ON in sequence to signify that the calibration procedure is complete and the green STATUS LED will extinguish.

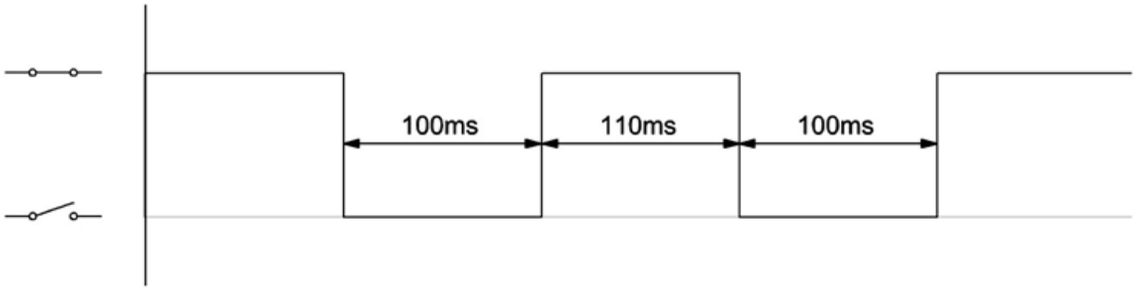
5. Alarm states

- **SPD Degradation**

  If one phase of the SPD being monitored is found to have degraded beyond a certain level, the remote contacts will emit a sequence as shown below:
  (picture)

  The user can manually check which of the phases has degraded by pressing the SELECT button. After pressing the button, the red PHASE LED corresponding to this phase will blink twice in quick succession and the alarm buzzer will also beep.

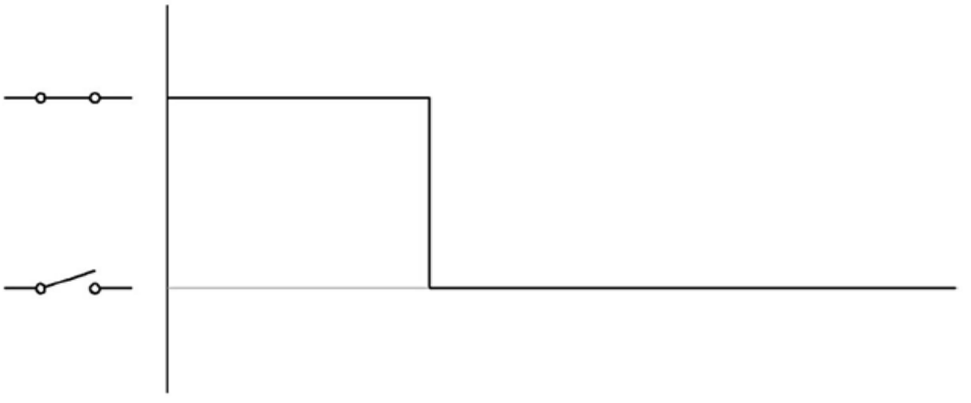
  The limit for SPD Degradation is fixed at approximately 5mA.



- **Battery low**

When the battery power drops, ProSLS will enter a low power SAVING mode to conserve energy and to keep the device active until the battery can be replaced.
The remote contacts will turn ON, and remain ON, until the battery is replaced.
(picture)

Too check the status of the battery, the user needs to press the SELECT button. If the yellow STATUS LED blinks twice, the battery is LOW. If the green STATUS LED blinks twice, the battery is OK.



- **Alarm states in SAVING mode**

  When ProSLS is in its SAVING mode the remote contacts and alarm buzzer are disabled. This means that if a SPD failure or a degradation occurs, it will only be signalled by the red PHASE LEDs on the ProSLS.

  Once the battery is replaced, the ProSLS will return to its normal mode of operation and the status of any alarms are signalled through the remote contacts and the buzzer. Blinking of the yellow STATUS LED is replaced by the green STATUS LED blinking.

- **Replacing the complete SPD**

  If the user replaces the complete SPD, the full calibration procedure described in the section ‘ProSLS startup porcedure’ should be followed. Again, the SPD must be replaced before the calibration.

- **Repeated Calibration**

  Each time the user replaces the SPD being monitored, the calibration procedure must be repeated.
  Replacing a single module in a three phase modular SPD:
  In case only the one sensor corresponding to the replaced module, need be recalibrated.

  In this case, the user is required to press the RESET button and then press and hold the SELECT button. When the red LED corresponding to this phase blinks, the process of recalibrating the leakage current for that channel has begun and the green STATUS LED will turn ON. At that time the BUTTON must be released. The process is ended by the red LED blinking again, the green LED turning OFF and the ProSLS circuit returning to its normal operation.

  Recalibration must only be performed for that channel for which a SPD module has been replaced. The SPD must be replaced before the calibration.

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