

**Novaris**<sup>®</sup>

PART OF THE POWERCOM GROUP

# Surge Indicator Panel

## Installation Instructions



**IMPORTANT:** Please read these instructions carefully. Whilst straightforward, the installation of these devices is critical to their performance. Installation should only be carried out by a suitably qualified person in accordance with all relevant standards.

### 1. Introduction

- 1.1 These installation instructions apply to the Novaris range of Surge Indicator Panels:

Cat No.: **SIP-110**  
**SIP-230**

- 1.2 The Novaris Surge Indicator Panel allows remote monitoring of any Novaris product featuring external alarm contacts. Visual and audible indicators provide at-a-glance surge protection status. Designed to fit in standard 72mm panel meter cutouts, integration into switchboards is simple.



Figure 1: SIP-230

### 2. Before Installation

- 2.1 The Surge Indicator Panel is powered from the mains supply, before connection of the unit ensure that the mains supply voltage is within the following range specific to each model variation:

SIP-110	90 → 130 VAC RMS (L-N)
SIP-230	200 → 275 VAC RMS (L-N)

- 2.2 The Surge Indicator Panel requires hard-wiring into a mains supply. Therefore, it is required that installation is performed by a qualified person.
- 2.3 Connection of the Surge Indicator Panel must be through a circuit breaker or fuse. Novaris recommends a circuit breaker of 6A. Circuit breakers or fuses greater than 6A must not be used.

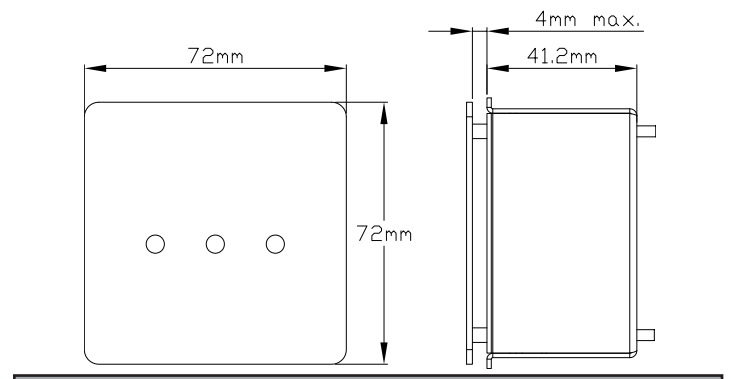


Figure 2: SIP-xxx Dimensions

### 3. Installation

- 3.1 **Mounting:** The Surge Indicator Panel is designed to be flush mounted into a panel up to 4mm thick. The cut-out for mounting is 68mm by 68mm as for a standard 72mm panel meter.
- 3.2 For installation the rear part of the enclosure has to be removed. Remove each of the terminal plugs from the unit.

Unscrew and remove each of the four nuts and associated washers holding the rear enclosure to the face plate and remove the rear enclosure. Disconnect the earth wire from the spade terminal inside the rear enclosure.

**Do not remove the printed circuit board from the front panel.**

- 3.3 With the rear enclosure removed, feed the front panel through the panel cut-out, ensuring face panel orientation is correct.

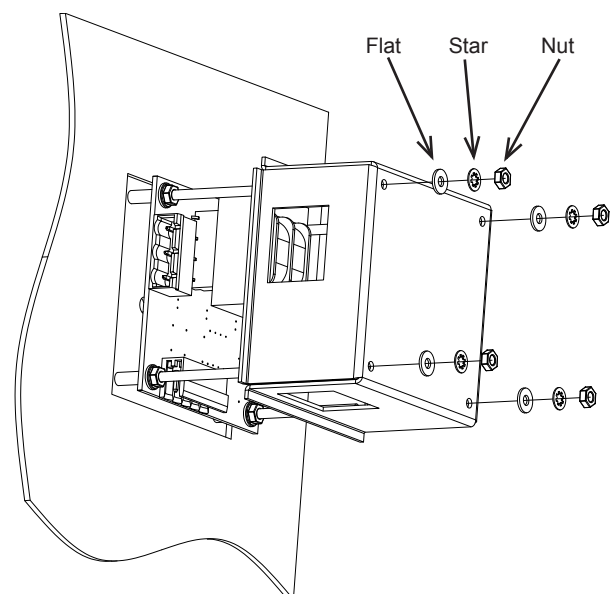


Figure 3: Installation of SIP-xxx

- 3.4 Re-connect the earth wire to the spade terminal inside the rear enclosure.
- 3.5 Taking into account the correct orientation of the rear enclosure, feed the rear enclosure over the threaded rods extending from the face panel, figure 3.
- 3.6 Following the correct washer arrangement, install each of the nuts onto the threaded rod and tighten to secure the Surge Indicator Panel to the mounting surface. **Do not over-tighten nuts.**
- 3.7 **Wiring:** The Surge Indicator Panel is to be wired into the mains supply via a series isolating circuit breaker or fuse. It is permissible for only the active (or line) connection to be isolated by the circuit breaker or fuse.

Novaris recommends that 3-core 0.75mm<sup>2</sup> mains cable is used for wiring of the mains supply.

- 3.8 The Surge Indicator Panel can be connected to a single surge protection device (SPD), figure 4, or daisy-chained to multiple SPDs, figure 5. Connection of the input is such that under normal operating conditions the input connections are closed. Therefore, connection to the Novaris SPDs is via the normally-open (NO) and common (C) terminals.
- 3.9 **External Alarm:** Additional alarm contacts are provided on the Surge Indicator Panel to provide connection of external alarms or monitoring equipment. The terminals are configured as follows:
  - NC = Normally closed: Closed under fault conditions or when power is off, otherwise open.
  - NO = Normally open: Open under fault conditions or when power is off, otherwise closed.
  - C = Common

- 3.10 **Terminal Connection:** Never connect or disconnect the terminal plugs with power supplied to the unit. Ensure mains supply is switched off first.

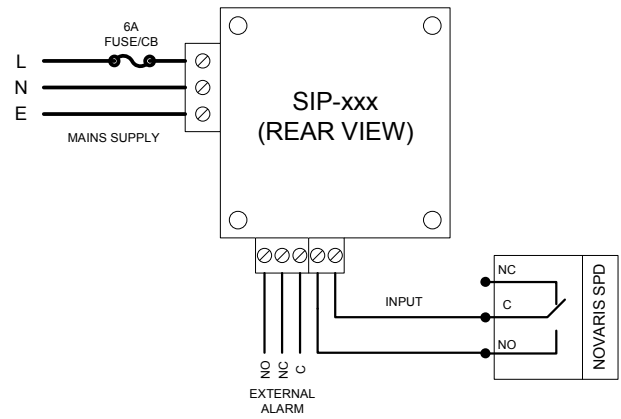


Figure 4: SIP-xxx connection to single SPD

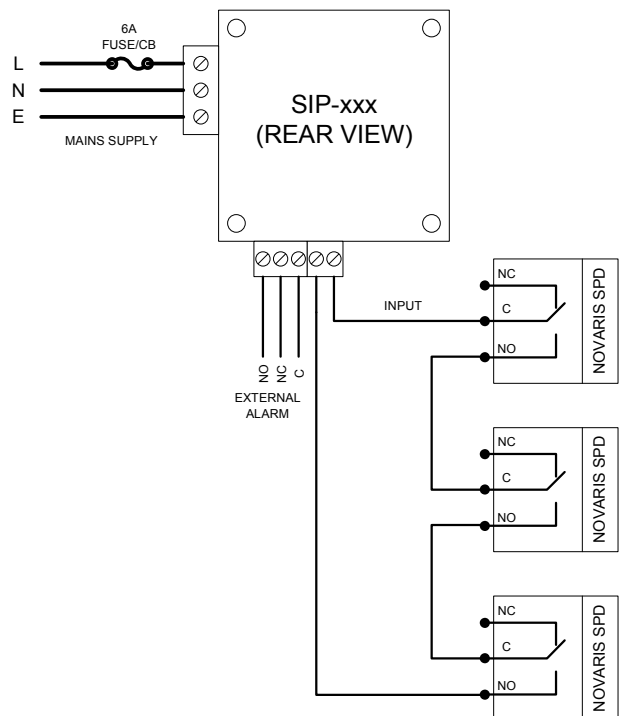


Figure 5: SIP-xxx connection to multiple SPD

### 4. After Installation

- 4.1 Check installation by switching on the mains supply to the unit. Immediately, the POWER light should illuminate. If not check mains supply to unit.
- 4.2 Under normal operating conditions and power is supplied to the monitored SPD the NORMAL light will illuminate, figure 6.
- 4.3 Under fault conditions, or the power is disconnected from the monitored SPD, the ALARM light will illuminate and a warning buzzer sound, figure 7. This state can be simulated by removing the INPUT terminal from the Surge Indicator Panel. Please adhere to the warning stated in part 3.10 of this manual.

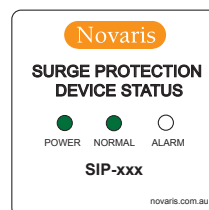


Figure 6: Normal operating conditions. SPD OK.

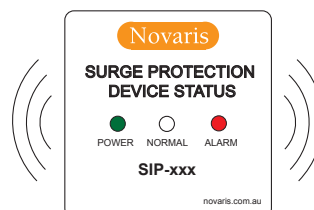


Figure 7: Alarm condition. SPD has fault.



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