

## SL-PSTN-EC90



## Slimline Signal Line Protectors

Novaris SL range provides surge protection for most twisted pair signalling schemes. Ideal for the protection of PLCs, fire and security systems, telecommunications and telemetry systems, railway signalling, SCADA and other industrial monitoring and control equipment.

## Multistage Failsafe Design

A high energy gas discharge tube (GDT) as primary protection plus series impedance and secondary components provide very robust surge protection with high transient suppression offering low let-through voltages.

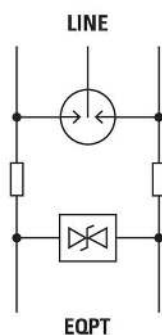
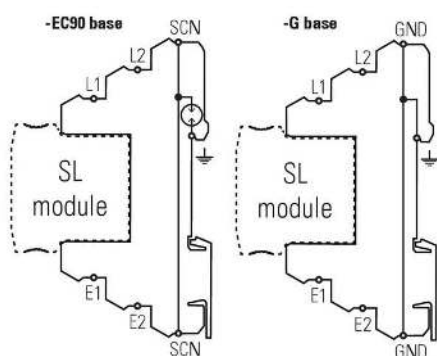
## Two Different Earthing Options

With two different base options the SL protectors offer either direct earthing via DIN rail, for the most effective, low impedance earth connection (-G base) or a connection via GDT to the DIN rail, offering isolation under normal conditions and equipotential bonding during a surge (-EC90 base).

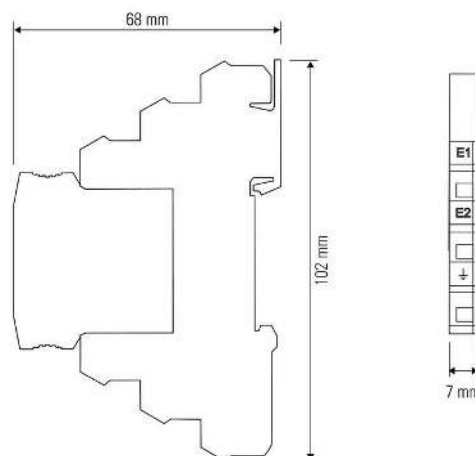
## Slimline Pluggable Modules

The plug-in design provides simple and rapid replacement and testing - no rewiring needed. This also provides a convenient method of field equipment isolation if required.

## Wiring



## Dimensions








## Standards

IEC 61643-21  
AS/NZS 1768  
UL 1499 & UL 497B  
ITU-T K.44  
AS/CA S008  
AS/NZS 4117














SPD connected to telecommunications and signalling networks - Cat C2, D1  
Signalling/Telecommunications surge protection  
Protectors for data communications and fire-alarm circuits  
Resistibility tests for telecommunication equipment exposed to overvoltages and overcurrents  
Requirements for Customer Cabling Products  
Surge Protective Devices for Telecommunications Applications

## Specifications

## Electrical Specifications

|  |   |                       |
|--|---|-----------------------|
| Connection type  |  | Series                |
| Number of lines  |  | 1 pair                |
| Modes of protection                                    |  | Transverse and Common |
| Maximum continuous voltage (DC)                        | $U_c$   | 200V                  |
| Maximum continuous voltage (AC)                        | $U_c$   | 140V                  |
| Maximum discharge current (8/20 $\mu$ s)               | $I_{max}$   | 5kA                   |
| Maximum common mode discharge current (8/20 $\mu$ s)   |   | 10kA                  |
| Maximum discharge current (10/350 $\mu$ s)             |   | 1.25kA                |
| Maximum common mode discharge current (10/350 $\mu$ s) | $I_{imp}$   | 2.5kA                 |
| Impulse durability C2 10x8/20 $\mu$ s                  |   | 5kA                   |
| Impulse durability D1 2x10/350 $\mu$ s                 |   | 2.5kA                 |
| Maximum load current                                   | $I_L$   | 250mA                 |
| AC durability 5x1s                                     |   | 1Arms                 |
| Overstressed fault mode                                |   | Mode 3                |
| Response time  | $t_\lambda$   | <5ns                  |
| Line resistance  |  | 8.2 $\Omega$          |
| Insertion loss @ 150 $\Omega$                          |  | <0.5dB @ <1MHz        |
| 3 dB Frequency @ 150 $\Omega$                          |   | 60MHz                 |

## Mechanical Specifications

|                               |   |                    |
|-------------------------------|---|--------------------|
| Minimum operating temperature |  | -40°C              |
| Maximum operating temperature |  | 70°C               |
| Minimum operating humidity    |  | 5%                 |
| Maximum operating humidity    |  | 95%                |
| Mounting method               |  | TS35 DIN Rail      |
| Environmental rating          |  | IP20               |
| Enclosure material            |  | Polycarbonate      |
| Enclosure finish              |  | Black              |
| Terminal type                 |   | Screw cage         |
| Terminal capacity             |  | 2.5mm <sup>2</sup> |
| Terminal screw torque         |  | 0.5Nm              |
| Earthing                      |   | 90V isolation      |
| Length                        |  | 102mm              |
| Width                         |  | 7mm                |
| Height                        |  | 68mm               |

## Electrical (L-L) Specifications

|  |       |       |
|--|-------|-------|
| Voltage protection level @ 1 kV/ $\mu$ s     | $U_p$ | 220V  |
| Voltage protection level @ 3 kA 8/20 $\mu$ s | $U_p$ | 220V  |
| Voltage protection level @ 100 V/ s          |       | 210V  |
| Capacitance                                  | $\pm$ | <20pF |

## Other Specifications

Product Code  SL-PSTN-EC90

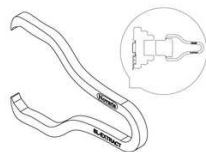
## Electrical (L-PE) Specifications

|  |       |       |
|--|-------|-------|
| Voltage protection level @ 1 kV/ $\mu$ s     | $U_p$ | 350V  |
| Voltage protection level @ 3 kA 8/20 $\mu$ s | $U_p$ | 600V  |
| Voltage protection level @ 100 V/ s          |       | 230V  |
| Capacitance                                  | $\pm$ | <10pF |

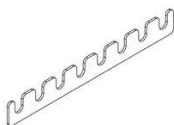
## Shipping Specifications

|                |   |          |
|----------------|---|----------|
| Weight         |  | 35g      |
| Customs tariff |  | 85363000 |

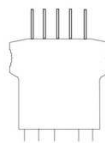
## Accessories



SL-EXTRACT



SL-COMB



SL-TEST



SL-DRIVER

For additional information please refer the SL Accessories Catalogue , No. 0004-D14V1