### SL2-18-EC90



### **High Energy Signal Line Protection**

The Novaris SL2...-EC90 range provides 20kA high energy surge protection for balanced pair signaling circuits with line currents up to 500mA.

### Multistage protection

Following the primary GDT is a series coordinating impedance followed by a high-speed clamping diode circuit providing a safe voltage protection level for the connected equipment.

### Pluggable design

The protection circuitry is contained within a removable top module. This pluggable design allows for easy removal and replacement. Reliable gold-plated connectors are used between top and base modules.

#### Earthing

The SL2...-EC90 range utilizes a base which can be locked to the DIN rail by a screw that also provides an earth termination. The -EC90 gas discharge tube located in the top module allows screened cable to be protected without the screen being directly earthed, thereby avoiding noise caused by "earth loops".

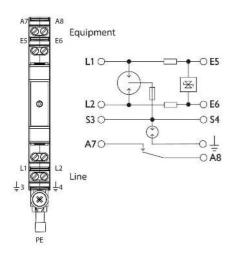
### Failsafe design

In the event of excessive surge current, a fuse will rupture, preventing a short circuit to earth.

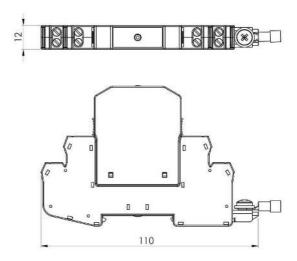
### Indication and alarm

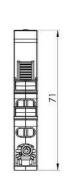
In the event of a failure a red indicating flag on the module will be activated. A normally closed alarm contact will open providing a means for remote condition monitoring.

## Wiring



### **Dimensions**





## **Standards**

IEC 61643-21 SPD connected to telecommunications and signaling networks – Cat C2, D1
AS/NZS 1768 Lightning Protection
UL497, A, B Protectors for telecommunications, data and fire alarm circuits
AS/NZS4117 Surge protective devices for telecommunications applications
AS7708 Signals earthing and surge protection

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# **Product Datasheet**

### **Electrical Specifications**

| Connection type                                   | ¥                | Series              |
|---|------------------|---------------------|
| Number of lines                                   | ≔                | 1 pair              |
| Modes of protection                               | h                | Transverse & Common |
| Maximum continuous voltage (DC)                   | U <sub>c</sub>   | 16V                 |
| Maximum continuous voltage (AC)                   | U <sub>c</sub>   | 11V                 |
| Maximum discharge current (8/20 μs)               | l <sub>max</sub> | 10kA                |
| Maximum common mode discharge current (8/20 μs)   |                  | 20kA                |
| Maximum discharge current (10/350 μs)             |                  | 2.5kA               |
| Maximum common mode discharge current (10/350 μs) | l <sub>imp</sub> | 5kA                 |
| Impulse durability C2 10x8/20µs                   |                  | 10kA                |
| Impulse durability D1 2x10/350µs                  |                  | 5kA                 |
| Maximum load current                              | I <sub>L</sub>   | 500mA               |
| AC durability 5x1s                                |                  | 1Arms               |
| Overstressed fault mode                           |                  | Mode 3              |
| Response time                                     | t <sub>A</sub>   | <5ns                |
| Line resistance                                   | <b>-</b> W-      | 3.9Ω                |
| Insertion loss @ 150 Ω                            | .al              | <0.5dB @ <70kHz     |
| 3 dB Frequency @ 150 Ω                            |                  | 60MHz               |

### **Mechanical Specifications**

| Minimum operating temperature | B                 | -40°C               |
|-------------------------------|-------------------|---------------------|
| Maximum operating temperature | I                 | 70°C                |
| Minimum operating humidity    | 8                 | 5%                  |
| Maximum operating humidity    | <b>&amp;</b>      | 95%                 |
| Mounting method               | <b>₽</b> C        | TS35 DIN Rail       |
| Environmental rating          | ŵ                 | IP20                |
| Enclosure material            | •                 | Polycarbonate       |
| Terminal type                 |                   | Screw cage          |
| Terminal capacity             | •                 | 2.5mm²              |
| Terminal screw torque         | G                 | 0.5Nm               |
| Terminal labels               |                   | Klemsan 505850 DB 5 |
| Earthing                      |                   | 90V isolation       |
| Length                        | ~                 | 110mm               |
| Width                         | $\leftrightarrow$ | 12mm                |
| Height                        | 1                 | 71mm                |
| Dimensional tolerance         |                   | 0.5mm               |

## Electrical (L-L) Specifications

| Capacitance                             | ⊣⊢             | 32pF |
|---|----------------|------|
| Voltage protection level @ 100 V/ s     |                | 20V  |
| Voltage protection level @ 3 kA 8/20 µs | U <sub>p</sub> | 25V  |
| Voltage protection level @ 1 kV/ µs     | U <sub>p</sub> | 25V  |

## Electrical (L-PE) Specifications

| Voltage protection level @ 1 kV/ μs     | U <sub>p</sub> | 350V |
|---|----------------|------|
| Voltage protection level @ 3 kA 8/20 µs | U <sub>p</sub> | 600V |
| Voltage protection level @ 100 V/ s     |                | 230V |
| Capacitance                             | ⊣⊢             | 2pF  |

## Other Specifications

| Product Code |
|--------------|
|--------------|

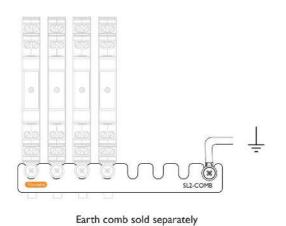
### **Indication Specifications**

| Alarm           | $\triangle$ | Impulse overload current and thermal |
|-----------------|-------------|--------------------------------------|
| Alarm isolation | 23          | 100V                                 |

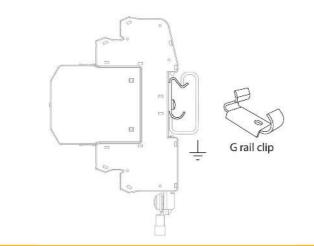
### **Shipping Specifications**

| Weight         | Â | 70g                |
|----------------|---|--------------------|
| Customs tariff | * | 85363000, 85363010 |

# **Earth Comb Option**



G Rail Mounting Clip Option (-G)



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