

## SL68-EC90



## Slimline Signal Line Protectors

Novartis 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.

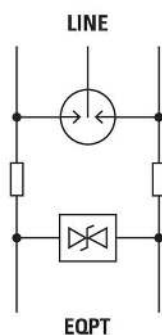
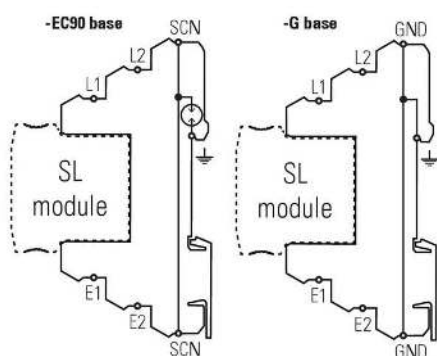
## Two Different Earthing Options

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).

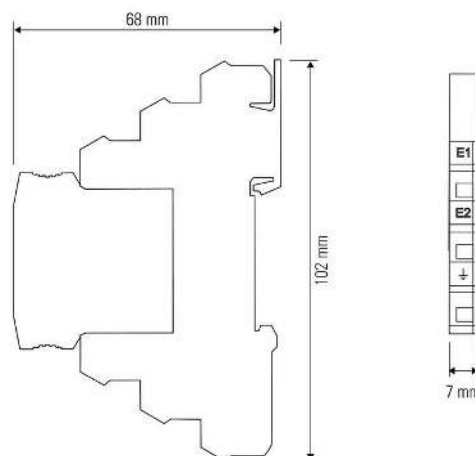
## Slimline Pluggable Modules

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)	$U_c$	65V
Maximum continuous voltage (AC)	$U_c$	46V
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	$U_p$	80V
Voltage protection level @ 3 kA 8/20 $\mu$ s	$U_p$	80V
Voltage protection level @ 100 V/ s		72V
Capacitance	$\pm$	<20pF

## Other Specifications

Product Code  SL68-EC90

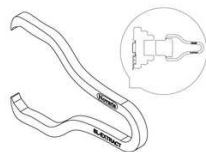
## Electrical (L-PE) Specifications

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

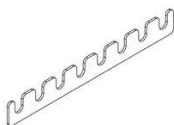
## Shipping Specifications

Weight		35g
Customs tariff		85363000

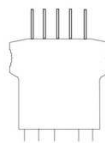
## Accessories



SL-EXTRACT



SL-COMB



SL-TEST



SL-DRIVER

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