

## IS-SL18-EC90



## Intrinsically Safe Protectors

Novaris slimline surge protection devices (SPDs) provide surge protection for most twisted pair signaling schemes. Certified to be intrinsically safe Novaris IS SPDs can be installed in the hazardous zone or the field side of the IS barrier. This not only provides protection for the PLC or RTU I/O, it also provides protection for the IS barrier. The IS-SL-## are designed to protect digital and analogue I/O circuits up to the maximum voltages indicated by the part number.

## IEC Ex and ATEX Certified

Novaris 'IS-' products are certified intrinsically safe according to IEC Ex and ATEX; the group IIC T4 certification makes it acceptable for use with all gas/air mixtures.

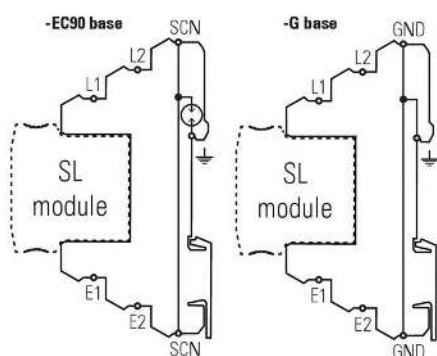
## Two Different Earthing Options

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).

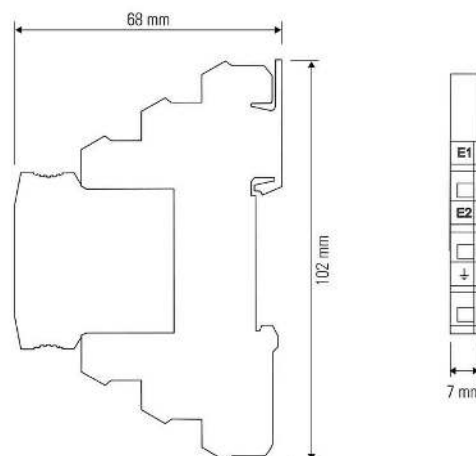
## Slimline Pluggable Modules

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

Directive 94/9/EC

IEC 60079-0

IEC 60079-11

IEC 61643-21

AS/NZS 1768

UL 1449 & UL 497B

ITU-T K.44

Equipment and protective systems intended for use in potentially explosive atmospheres

Explosive atmospheres - Part 0: Equipment - General requirements

Explosive atmospheres - Part 11: Equipment protection by intrinsic safety 'i'

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






## Product Datasheet

## Specifications

## Accreditations Specifications

TÜV 14 ATEX 7569 X	II 1 G Ex ia IIC T4 Ga
IECEX ITA 14.0011X	Ex ia IIC T4

## Electrical Specifications

Connection type		Series
Number of lines		1 pair
Modes of protection		Transverse and Common
Maximum continuous voltage (DC)	$U_c$	16V
Maximum continuous voltage (AC)	$U_c$	11V
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)		1kA
Maximum common mode discharge current (10/350 $\mu$ s)	$I_{imp}$	2kA
Impulse durability C2 10x8/20 $\mu$ s		5kA
Impulse durability D1 2x10/350 $\mu$ s		1kA
Maximum load current	$I_L$	250mA
AC durability 5x1s		1Arms
Overstressed fault mode		Mode 3
Response time	$t_A$	<5ns
Line resistance		8.2 $\Omega$
Insertion loss @ 150 $\Omega$		<0.5dB @ <30kHz
3 dB Frequency @ 150 $\Omega$		120kHz














## Electrical (L-L) Specifications

Voltage protection level @ 1 kV/ $\mu$ s	$U_p$	40V
Voltage protection level @ 3 kA 8/20 $\mu$ s	$U_p$	40V
Voltage protection level @ 100 V/ s		20V
Capacitance	$-  -$	17nF

## Electrical (L-PE) Specifications

Voltage protection level @ 1 kV/ $\mu$ s	$U_p$	40V
Voltage protection level @ 3 kA 8/20 $\mu$ s	$U_p$	40V
Voltage protection level @ 100 V/ s		20V
Capacitance	$-  -$	17nF

## Mechanical Specifications

Minimum operating temperature		-20°C
Maximum operating temperature		40°C
Minimum operating humidity		5%
Maximum operating humidity		95%
Mounting method		TS35 DIN Rail
Environmental rating		IP20
Enclosure material		Polycarbonate UL 94 V-0
Enclosure finish		Blue
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

## Other Specifications

Product Code		IS-SL18-EC90
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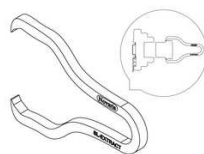
## Safety Specifications

Max. input voltage	30V
Max. input current	1.639A
Max. input power	1.3W
Capacitance	0
Inductance	0

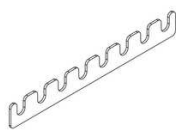
## Shipping Specifications

Weight		40g
Customs tariff		85363000, 85363010

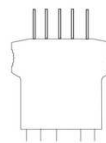
## Accessories



SL-EXTRACT



SL-COMB



SL-TEST



SL-DRIVER

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