Product Datasheet

IS-SL-RTD-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-RTD is specifically designed to protect Resistance Temperature Detector (RTD) devices and Thermocouples. It can be applied to both 3-wire and 4-wire configurations of RTDs.

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.

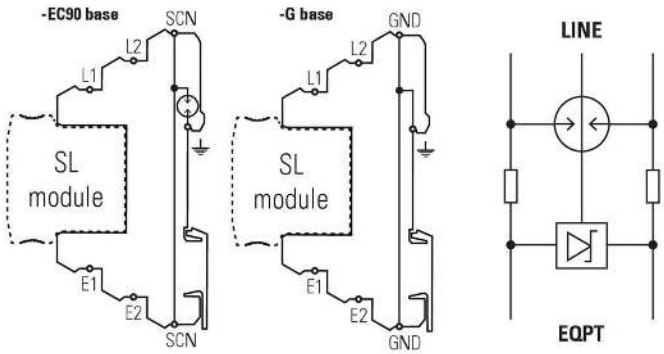
Two Different Earthing Options

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).

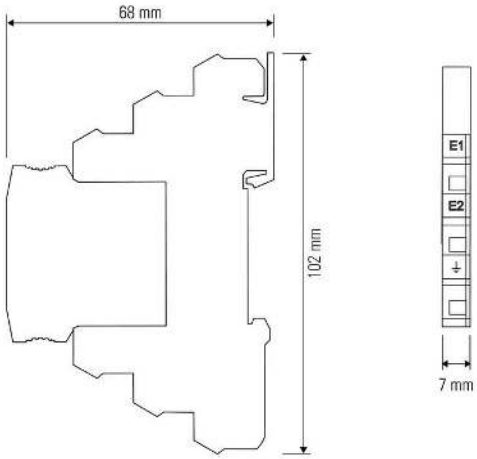
Slimline Pluggable Modules

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	Equipment and protective systems intended for use in potentially explosive atmospheres
IEC 60079-0	Explosive atmospheres - Part 0: Equipment - General requirements
IEC 60079-11	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety 'i'
IEC 61643-21	SPD connected to telecommunications and singalling networks - Cat C2, D1
AS/NZS 1768	Signalling/Telecommunications surge protection
UL 1449 & UL 497B	Protectors for data communications and fire-alarm circuits
ITU-T K.44	Resistibility tests for telecommunication equipment exposed to overvoltages and overcurrents

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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

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		2.5mm²
Terminal screw torque		0.5Nm
Earthing		90V isolation
Length		102mm
Width		7mm
Height		68mm

Electrical Specifications

Connection type		Series
Number of lines		1 pair
Modes of protection		Transverse and Common
Maximum continuous voltage (DC)	U_c	3V
Maximum continuous voltage (AC)	U_c	2V
Maximum discharge current (8/20 µs)	I_{max}	5kA
Maximum common mode discharge current (8/20 µs)		10kA
Maximum discharge current (10/350 µs)		1kA
Maximum common mode discharge current (10/350 µs)	I_{imp}	2kA
Impulse durability C2 10x8/20µs		5kA
Impulse durability D1 2x10/350µs		1kA
Maximum load current	I_L	250mA
AC durability 5x1s		1Arms
Overstressed fault mode		Mode 3
Response time	t_A	<5ns
Line resistance		3.9Ω
Insertion loss @ 150 Ω		<0.5dB @ <1MHz
3 dB Frequency @ 150 Ω		60MHz

Other Specifications

Product Code		IS-SL-RTD-EC90

Safety Specifications

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

Electrical (L-L) Specifications

Voltage protection level @ 1 kV/ µs	U_p	30V
Voltage protection level @ 3 kA 8/20 µs	U_p	30V
Voltage protection level @ 100 V/ s		4V
Capacitance		24pF

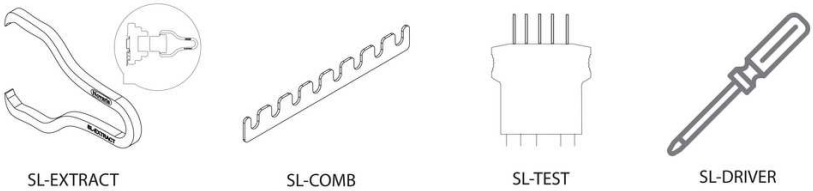
Electrical (L-PE) Specifications

Voltage protection level @ 1 kV/ µs	U_p	350V
Voltage protection level @ 3 kA 8/20 µs	U_p	600V
Voltage protection level @ 100 V/ s		230V
Capacitance		4.5pF

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

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