

SL4-RTD

High Energy Signal Line Protection

The Novaris SL4 range provides 20kA high energy surge protection for two balanced pair signaling circuits with line currents up to 500mA. The SL4-RTD is especially designed to provide protection at the controlling equipment end of RTD temperature measuring circuits in process control applications.

Multiple configurations

The SL4-RTD can be used to protect 2, 3 and 4 wire RTD configurations.

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 in both the common and transverse modes.

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 SL4 range utilizes a base which can be locked in position on the DIN rail by a screw to allow for high vibration locations. The DIN rail provides the primary low impedance earth connection. The earth screw can also be terminated if specifications call for a visible earth wire to be used.

Failsafe design

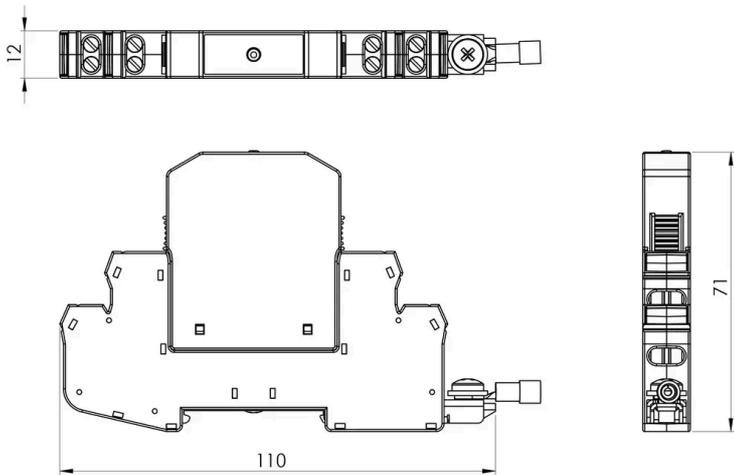
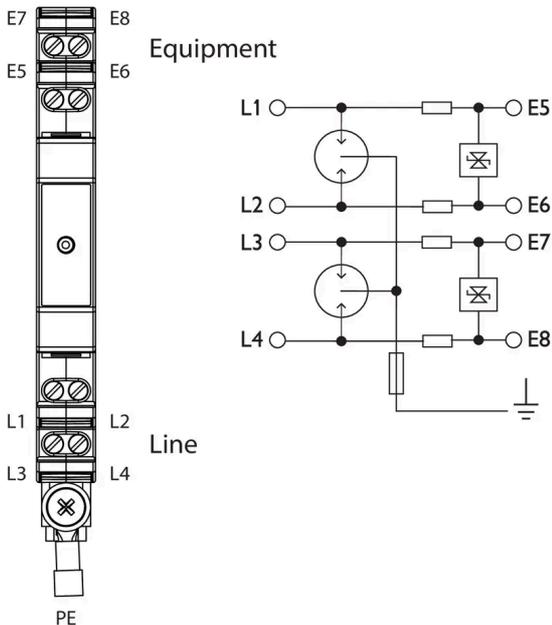
In the event of excessive common mode surge current, an internal fuse will rupture, preventing an unrevealed short circuit to earth. A red indicating flag on the top module will be activated and will pop up indicating this to the maintainer.



Image for illustrative purposes only

Wiring

Dimensions



Product Datasheet

Electrical Specifications

Connection type		Series
Number of lines		2 pair
Modes of protection		Transverse & Common
Maximum continuous voltage (DC)	U_c	7V
Maximum continuous voltage (AC)	U_c	5V
Maximum discharge current (8/20 μ s)	I_{max}	10kA
Maximum common mode discharge current (8/20 μ s)		20kA
Maximum discharge current (10/350 μ s)	I_{imp}	2.5kA
Maximum common mode discharge current (10/350 μ s)	I_{imp}	5kA
Impulse durability C2 10x8/20 μ s		10kA
Impulse durability D1 2x10/350 μ s		5kA
Maximum load current	I_L	500mA
AC durability 5x1s		1A rms
Overstressed fault mode		Mode 3
Line resistance		3.9 Ω
Insertion loss @ 150 Ω		<0.5dB @ <1MHz
3 dB Frequency @ 150 Ω		60MHz
Earthing		Direct

Electrical (L-L) Specifications

Voltage protection level @ 1 kV/ μ s	U_p	15V
Voltage protection level @ 100 V/ s		9V
Capacitance	\pm	32pF
Response time	t_A	1ps

Electrical (L-PE) Specifications

Voltage protection level @ 1 kV/ μ s	U_p	350V
Voltage protection level @ 3 kA 8/20 μ s	U_p	600V
Voltage protection level @ 100 V/ s		230V
Capacitance	\pm	2pF

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
Terminal type		Screw cage
Terminal capacity		2.5mm ²
Terminal screw torque		0.5Nm
Length		110mm
Width		12mm
Height		71mm
Dimensional tolerance		0.5mm

Standard Specifications

IEC 61643-21	SPD connected to telecommunications and signalling networks - Cat C2, D1
AS 1768	Lightning protection
UL 497A, B	Protectors for telecommunications, data and fire alarm circuits
AS/NZS 4117	Surge Protective Devices for Telecommunications Applications
AS 7708	Signals Earthing and Surge Protection

Shipping Specifications

Weight		75g
Customs tariff		85363000, 85363010

Other Specifications

Product Code		SL4-RTD
--------------	--	---------