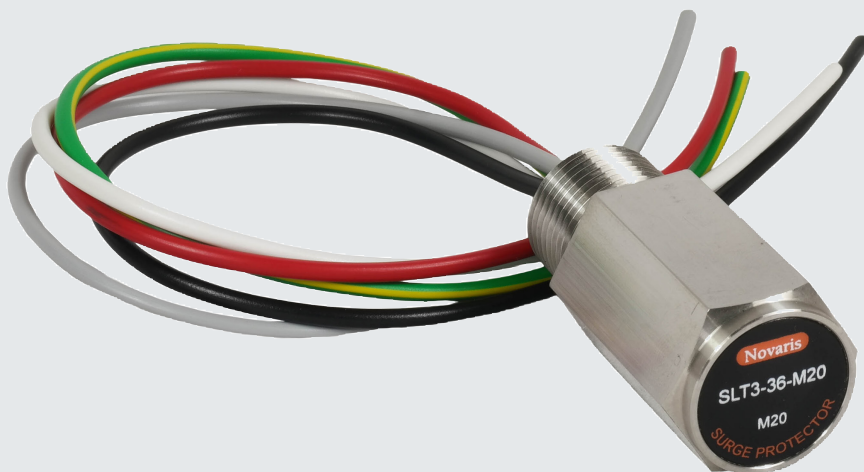


NSLT Threaded Signal Line Protectors

Field instruments protection



NSLT Threaded Signal Line Protectors

Field instruments protection



NSLT-36-M20

Standards

ITU-T K.44: 2012

AS / NZS 1768: 2007

IEC61643-21: 2012

UL 1449 3rd edition & UL 497B



Threaded instrument protectors provide surge protection for most twisted pair signalling schemes and are designed to be installed directly at the field equipment providing protection against induced surge and transients.

M20 and 1/2"NPT threads

The threaded enclosure provides an easy installation by directly screwing into a free cable entry on the instrument. Common thread types such as M20 x 1.5 and 1/2" NPT threads are accommodated for. Other threads are available by request.

Multistage design

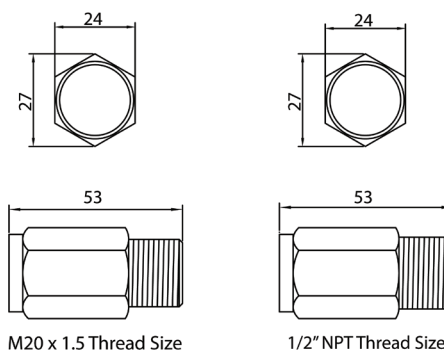
The multistage design provides a high energy gas discharge tube (GDT) as primary protection for common mode disturbances, commonly associated with lightning strikes and power system earth faults and a secondary metal-oxide varistor clamping stage across the signal lines. This combination provides very robust surge protection with high transient suppression and low let-through voltages. In addition protection is provided for cable screens which may be open circuit at the instrument.

SLT-Y Adapter

Where a field instrument has no free cable entry Novaris can supply a Y-piece adapter to accommodate the threaded instrument protector and cable gland. The SLT-Y is available in the same thread types as the SLT protectors.

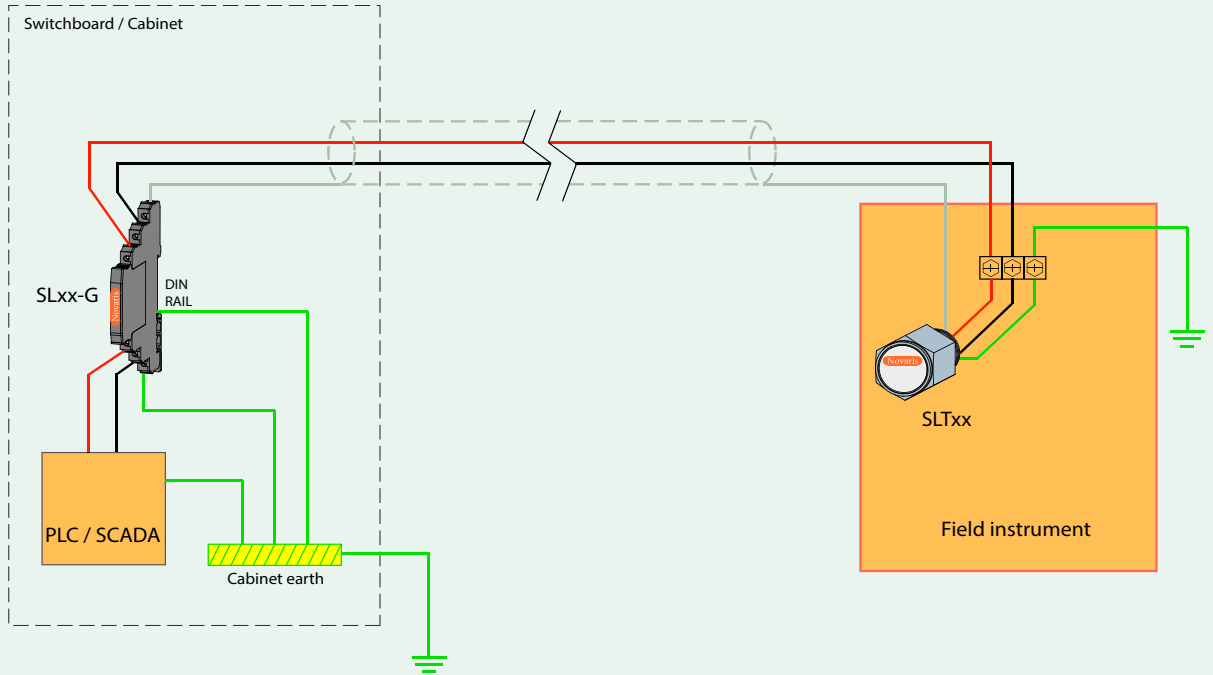


Dimensions



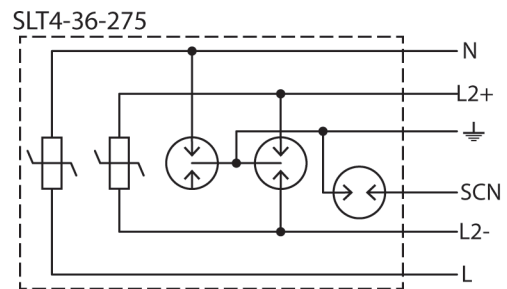
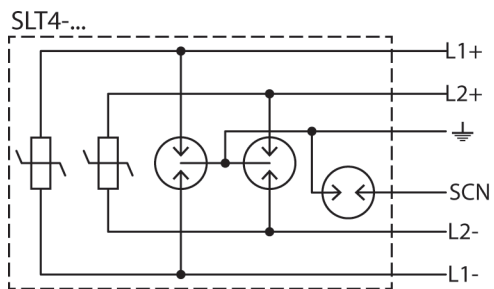
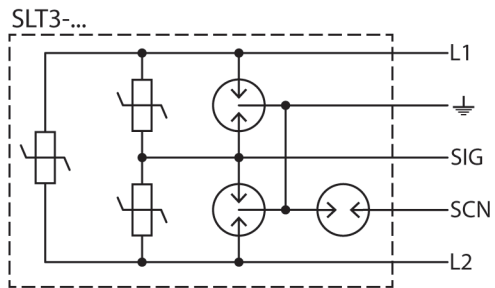
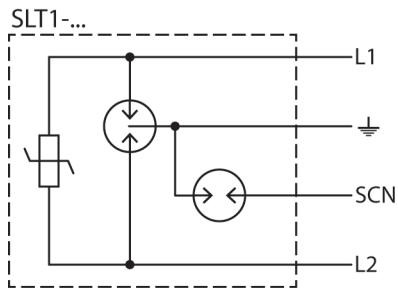
| Type | NSLTx-7v5 | NSLTx-18 | NSLTx-36 | NSLTx-68 | NSLT4-RTD | NSLT4-36-275 | |
|---|--|---|----------|----------|-----------|--|---------------------------------|
| Electrical Specifications | | | | | | | |
| Connection type | Shunt | | | | | | |
| Number of lines | x = 1 → 1 pair x = 3 → 3 lines x = 4 → 4 lines | | | | 4 lines | 1 pair Signal (S) 1 L & N Power (P) | |
| Modes of protection | Transverse and common mode | | | | | | |
| Maximum continuous voltage (DC) | U_c | 7 V | 18 V | 36 V | 65 V | 8 V | 36 V (S) / 350 V (P) |
| Maximum continuous voltage (AC) | U_c | 5 V | 14 V | 30 V | 50 V | 6 V | 30 V (S) / 275 V (P) |
| Maximum discharge current (8/20 μ s) | I_{max} | 5 kA per line (10 kA common mode) | | | | | |
| Maximum discharge current (10/350 μ s) | I_{imp} | 1.25 kA per line (2.5 kA common mode) | | | | | |
| impulse durability | | C2: 10 x 2.0 kA 8/20 μ s D1: 2 x 0.5 kA 10/350 μ s | | | | | C2: 10 x 0.5 kA 8/20 μ s |
| Maximum load current | I_L | - | | | | | |
| L-L Voltage protection level @ 1 kV / μ s | U_P | 45 V | 50 V | 75 V | 100 V | 45 V | 75 V (S) / - (P) |
| L-L Voltage protection level @ 1 kA 8/20 μ s | U_P | 70 V | 75 V | 110 V | 160 V | 70 V | - (S) / - (P) |
| L-L Voltage protection level @ 100 V / s | | 25 V | 30 V | 60 V | 80 V | 25 V | 55 V (S) / - (P) |
| L-PE Voltage protection level @ 1 kV / μ s | U_P | 350 V | 350 V | 350 V | 350 V | 350 V | 350 V (S) / 900 V (P) |
| L-PE Voltage protection level @ 2 kA 8/20 μ s | U_P | 530 V | 530 V | 530 V | 530 V | 530 V | - (S) / - (P) |
| L-PE Voltage protection level @ 100 V / s | | 230 V | 230 V | 230 V | 230 V | 230 V | 230 V (S) / 600 V (P) |
| Overstressed fault mode | | Mode 1 (SLT disconnect, line still operable) | | | | | |
| Response time | t_A | < 5ns | | | | | |
| L-L capacitance | U_T | 20 nF | 10 nF | 7 nF | 1 nF | 20 nF | 7 nF (S) / 60 pF (P) |
| L-PE Capacitance | U_c | < 1 pF | | | | | |
| Insertion loss @ 150 Ω | | - | | | | | |
| 3 dB Frequency @ 150 Ω | f_c | 100 kHz | | | | | |
| Mechanical Specifications | | | | | | | |
| Operating temperature / humidity | -40 to +85°C / 5 to 95 % non-condensing | | | | | | |
| Connection type / capacity | 250 mm, 0.75 mm ² flying leads | | | | | | |
| Terminal screw torque | - | | | | | | |
| Environmental | IP 67 installed | | | | | | |
| Dimensional drawing | Given by thread size | | | | | | |
| Mounting | Thread options: M20 x 1.5 or 1/2" NTP | | | | | | |
| Earthing | Via lead; 90V isolation between earth and shield | | | | | | |
| Enclosure/colour | Stainless steel | | | | | | |
| Weight | 165 g | | | | | | |

SLTxx for protection of field instruments



How to use the NSLT-xx-xx example

Diagram / installation



Ordering information

| Type | Signal Type | | Thread Size | | Art. No. |
|----------------------|--------------------------|--------------|-------------|------------|--------------------------|
| | | | M20 x 1.5 | 1/2" NPT | |
| NSLTx-7v5 | 0-5 VDC analogue | 5 V digital | -M20 | -N12 | B-SLTx-7v5 -* |
| NSLTx-18 | 0-12 VDC analogue | 12 V digital | -M20 | -N12 | B-SLTx-18 -* |
| NSLTx-36 | 0-24 VDC analogue | 4 - 20 mA | -M20 | -N12 | B-SLTx-36 -* |
| NSLTx-68 | 0-48 VDC analogue | 48 V digital | -M20 | -N12 | -B-SLTx-68 -* |
| NSLTx-RTD | RTD applications | Thermocouple | -M20 | -N12 | B-SLTx-RTD -* |
| NSLTx- 36-275 | 4 - 20 mA & Power supply | | -M20 | on request | B-SLTx-36 -275 -* |

X = 1 pair, 3 lines or 4 lines

*** = Thread Size**

Examples art.no. complete: B-SLT1-18-M20; B-SLT3-68-N12

If you need hazardous area products, please contact us.



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