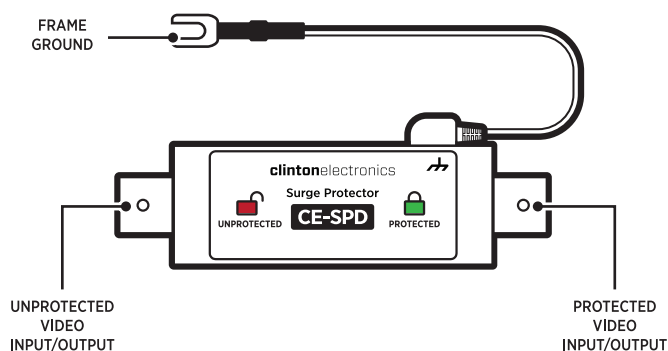


CE-SPD User Guide

EX-SDI & Analog Surge Protector

The CE-SPD is an in-line surge protection device designed to protect coax based CCTV installations from inductive power surges caused by indirect lightning strikes and surges from power-hungry appliances, or bad wiring.

This device will not protect against a direct lightning strike. This product is only rated for 20~25kA, lightning is 100,000kV or more.



Connections are Non-directional: can be used as an Input or an Output

Video Formats (In/Out)	EX-SDI 2.0, 1.0 / Analog / HD Analog (CVI, TVI, AHD)
Nominal Line Voltage	48VDC
Max. DC Operating Voltage	60VDC
Max. Current	750 mA
Max. Frequency	≤ 270 MHz
Insertion Loss	≤ 2 dB
Nominal Discharge Current (In) 8/20μs impulse - 10 times	20kA
Max. Discharge Current (Imax) 10/350μs impulse - 1 time	25kA
Lightning Impulse Current (Iimp) 10/350μs impulse - 2 times	5kA
Clamping Voltage	20V
Band Pass Range	270MHz

Nominal Discharge Current: The peak value of the current flowing through the surge protector has a current waveform of 8/20, which can withstand up to 10 times of 20KA.

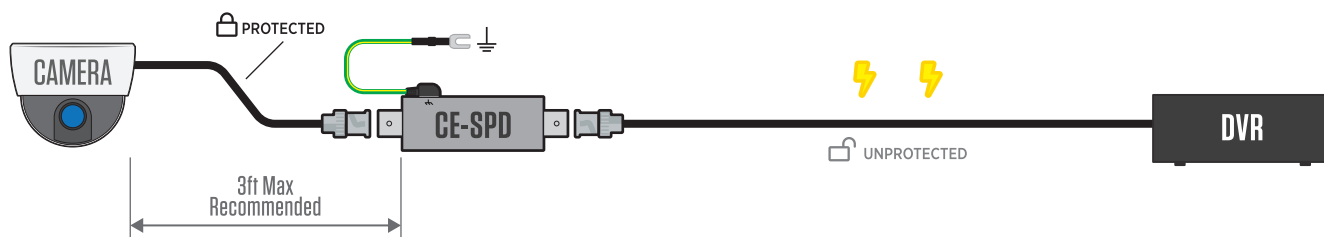
Maximum Discharge Current: The peak value of the current flowing through the surge protector has a waveform and amplitude of 8/20 and can withstand 25KA once.

Lightning Impulse Current: At lightning impact, 5KA can withstand up to 2 times.

INSTALLATION: **Intended for Indoor Use Only or Outdoors with Weather Resistant Enclosure*

Basic Connection - (Camera protected)

1. Connect the output from the camera to the connection marked **PROTECTED**. Try not to exceed a 3' cable length for this connection.
2. Connect the CE-SPD to the DVR from the connection marked **UNPROTECTED**.
3. Connect Frame Ground. If not connected the device may fail in the event of a surge, causing damage to connected equipment. Ground resistance value should be less than 10Ω.



To ensure both the camera side and DVR/head-end side of the installation are protected it is recommended to use two CE-SPD Surge Protectors.

Optimal Connection - (Camera & DVR protected)

4. Connect the output from the camera side to the DVR side Surge Protector connection marked **UNPROTECTED**. Try not to exceed a 3' cable length for this connection.
5. Connect the CE-SPD to the DVR with the connection marked **PROTECTED**.
6. Connect Frame Ground. If not connected the device may fail in the event of a surge, causing damage to connected equipment. Ground resistance value should be less than 10Ω.

