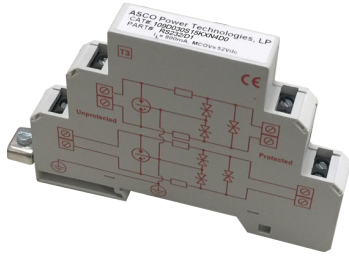


Surge Protective Device

Technical Documentation



The **ASCO Model 109** is intended for use on a wide range of low voltage applications inside appropriate enclosures, including high speed communication circuits. Terminals are finger-safe.

Model 109 includes three stage high-energy surge suppression in a Pi (π) configuration:

- 1st Stage: Parallel-connected Gas Discharge Tubes
- 2nd Stage: Series-connected impedance
- 3rd Stage: Parallel-connected Transorbs

Key Specs

- **Operating Voltage:** 12 - 60VDC
- **Clamping Voltage:** 15 - 64VDC
- **Operating Current:** 800mA
- **Connection:** Wiring Terminals
- **Mounting:** 35mm DIN-Rail

General Technical Specifications

Surge Current Rating	15kA
Rated Operating Current I_L (mA)	800mA
IEC Max. Discharge Current I_{max}	15kA
IEC Max. Discharge Current I_n	10kA
IEC Max. Lightning Pulse Imp (10 x 350 μ s)	2.5kA
Number of Wires Protected	Up to 4 wires (2 pair)
Wire Size	14 AWG - 26 AWG
Response Time	<1 ns
Temperature Rating	-40°F to 185°F (-40°C to 85°C)
Enclosure Material	Thermoplastic UL 94-V0
Enclosure	NEMA 1 (IP 20)
Dimensions (in / mm)	3.91" x 2.56" x 0.47" [99mm x 65mm x 12mm]
Weight (oz / g)	4.75oz [135g]
Warranty	5 years

Features

- Each SPD Protects Two (2) Pairs of Wire
- Circuit schematic printed on side of SPD
- Ground Wire Lug

Certifications

- IEEE C62.41-2002, Cat C, B & A
- IEC 61643-21 Compliant
- CE

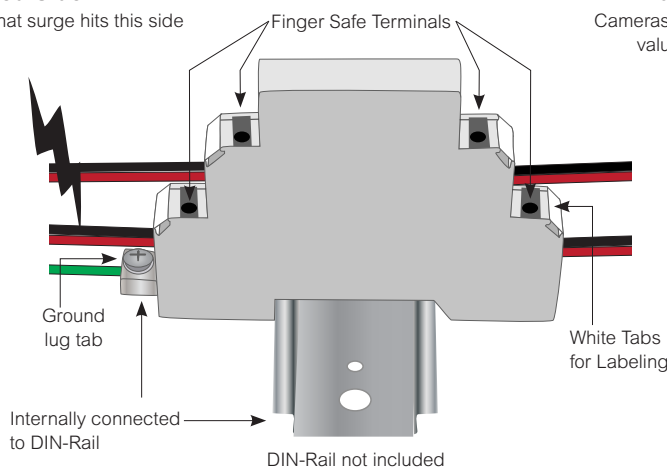
Product Information & Typical Installation

Unprotected Side

Install such that surge hits this side

Protected Side

Cameras, MVDS or other valuable equipment



Ground Lug internally connects to tab contacting DIN-Rail. We recommend cable connection from Ground Lug to Verified Ground.

⚠ DANGER!

Only qualified personnel should install or service this system. Electrical safety pre-cautions must be followed when installing or servicing this equipment. To prevent risk of electrical shock, turn off and lock out all power sources to the unit before making electrical connections or servicing.

Seulement le personnel qualifié doit installer ou maintenir ce système. Des précautions de sécurité en électricité doivent être suivies lors de l'installation ou de la maintenance de cet équipement. Pour éviter tout risque de choc électrique, débranchez et verrouillez toutes les sources d'alimentation de cet équipement avant de.

Ordering Information

Two or Four Wire Data Lines such as Camera PTZ or Vehicle Detectors

Model / Former Model	Application	Protocol Operating Voltage	SPD Max Cont Op Volt (MCOV)	Clamping Voltage (VDC)	Typical Breakdown Voltage (VDC)	Maximum Leakage Current (μ A)
109D030S15KXN4D0 <i>RS232/D1</i>	RS-232	+/- 25V	28VDC	<46V	33V	5 μ A
109D018S15KLN4D0 <i>RS422/D1</i>	RS-422	-0.25V – +6V	15VDC	<27V	18V	5 μ A
109D027S15KXN4D0 <i>RS485/D1</i>	RS-485	-7V – +12V	15VDC	<27V	18V	5 μ A
Low Voltage Power Protection						
109D027S15KXN4D0 <i>12VDC/D1</i>	12VDC	12VDC	15VDC	<27V	18V	5 μ A
109D046S15KXN4D0 <i>24VDC/D1</i>	24VDC	24VDC	28VDC	<46V	33V	5 μ A
109D060S15KXN4D0 <i>24VAC/D1</i>	24VAC	24VAC	36VAC	<60VAC	32VAC	5 μ A
109D085S15KXN4D0 <i>48VDC/D1</i>	48VDC	48VDC	52VDC	<85V	61V	5 μ A

Dimensions

