EAT•N

Submittal Spec Sheet

**ERAK Series
Data Line Surge Protection**

Ideal for 19" Relay Racks Supporting LAN Hubs, Concentrators, and Multi-Port Interfaces

Introduction

The ERAK Series of Rack-Mount and Wall-Mount Standoff protectors will ensure the reliable operation of networked equipment connected to 10Base-T and 100Base-T Ethernet, PoE, Cable, CCTV, RS-422, RS-232, ISDN, T1, DDS, Dial-up, and most other communication interfaces.

ERAKs Offer

- State-of-the-art, avalanche diode and thyristor technology
- Compact, in-line installation
- High speed, high energy handling capability
- Low shunt capacitance to reduce signal loss

You Receive

- Affordable, superior, equipment protection
- Improved reliability and maximized system up-time
- Protection at the interface card
- Adaptability to most industry applications

Transient surges can enter electronic equipment through any pathway provided. Facilities with reliable AC power protectors can still experience surge-related, system downtime. Transient surge energies from sources such as inductive load switching, ground loop currents and electrostatic discharge are clamped by AC protectors into the shared communication ground, resulting in damage to expensive communication hardware.

Eaton's ERAK Series includes 16 port, 19" relay rack protectors, as well as 16 and 32 port, 5" standoff units for wall-mount protection or environments where 19" relay rack space is limited. A wide variety of communication interfaces are supported that include 10Base-T and 100Base-T Ethernet, ATM155, CDDI, 100VG-AnyLan, RS-232, RS-422 and high speed LAN/WAN applications. For telco requirements, we offer protection for Dial-up, T1, DDS, ISDN and other lease line environments. These devices exhibit an extremely fast response time of less than 5 nanoseconds.

All these features make ERAK protectors the most cost-effective and versatile devices of their kind available today. Whether you need to protect a single network concentrator, or an entire relay rack full of voltage sensitive equipment, Eaton ERAK Series protectors are an easy, cost-effective solution to overvoltage problems.

Installation

To install, insert the protector in series between the incoming communication line and the I/O port of the equipment to be protected. The protector ground wire must be connected to the metal chassis of the equipment being protected. Units should be installed at both ends of the data cable for the most effective protection.

Caution!

Ground wire MUST be grounded directly to the metal chassis of the equipment being protected. The equipment chassis MUST be connected to earth through a properly grounded AC power receptacle.

Warranty

Eaton Corporation offers a standard 5-year warranty for data communications surge protection. For more information, visit www.EatonElectrical.com.

Electrical Specifications

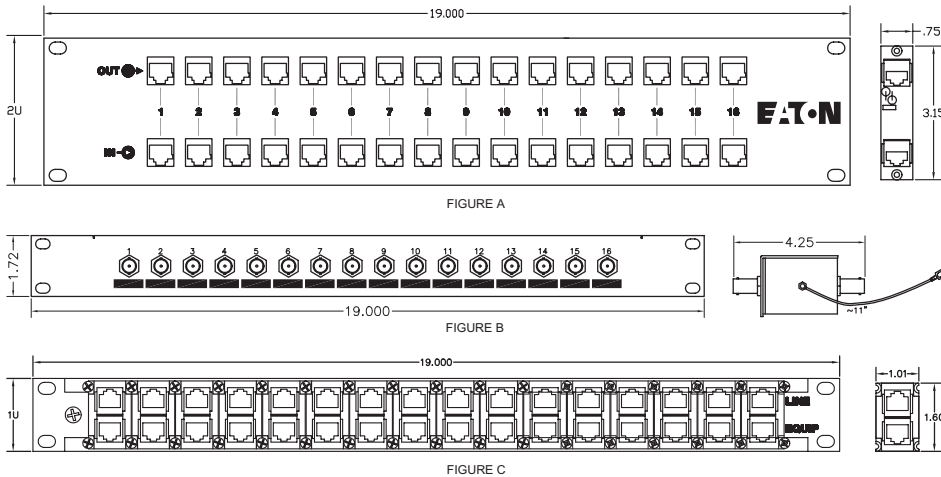| Specification	Standard Clamp Voltage	Peak Pulse Current (10/1000 us s.c. Waveform @ Vcl)	Response Time	Maximum Shunt Capacitance
10/100Base-T RS-422, RS-485, RS-423, Ethernet	7.5 Volts	132 Amps	< 5 Nanoseconds	<40 pF
RS-232	18 Volts	60 Amps	< 5 Nanoseconds	<40 pF
ISDN, T1, DDS (Fused)	60 Volts	50 Amps	< 5 Nanoseconds	<75 pF
Dial-up/Modem/Fax (Fused)	240 Volts	75 Amps	< 5 Nanoseconds	<95 pF
Power over Ethernet	Pins 1, 2, 3 & 6 – 7.5 Volts Pins 4, 5, 7 & 8 – 60 Volts	Pins 1, 2, 3 & 6 – 132 Amps Pins 4, 5, 7 & 8 – 50 Amps	< 5 Nanoseconds	<25 pF (Ethernet Lines Only)
CCTV	7.5 Volts	132 Amps	< 5 Nanoseconds	<30 pF
Cable TV/Satellite	90 Volts	20 kA (8/20 msec Waveform)	< 5 Nanoseconds	1 pF

System Application and Catalog Number [1]

Connector Type		10/100Base-T, RS-422, RS-485 RS-423, Ethernet	RS-232	ISDN, T1, DDS (Fused)	Dial-up/ Modem/Fax (Fused)	Power over Ethernet	CCTV	Cable TV/ Satellite
16-Port Flush-mount Unit (Figure A)	All Pins	ERAK16-E ERAK16-E-C5E	ERAK16-T	ERAK16-B	—	ERAK16-PoE-60V	—	—
	Center 2 Pins	—	—	—	ERAK16-G	—	—	—
16-Port Stand-off Unit (Not Shown)	All Pins	ERAK16-E-SO ERAK16-E-C5E-SO	ERAK16-T-SO	ERAK16-B-SO	—	—	—	—
	Center 2 Pins	—	—	—	ERAK16-G-SO	—	—	—
32-Port Stand-off Unit (Not Shown)	All Pins	ERAK32-E-SO ERAK32-E-C5E-SO	ERAK32-T-SO	ERAK32-B-SO	—	—	—	—
	Center 2 Pins	—	—	—	ERAK32-G-SO	—	—	—
16-Port Flush-mount Unit (Figure B)	Coax	—	—	—	—	—	ERAK16-BNC	ERAK16-CMS
16-Port Flush-mount Unit Front-Accessible Modules (Figure C)	—	—	—	ERAK16-T1-LP [2]	—	—	—	—

[1] See Ordering Guidelines below.
[2] UL® listed.

Note: Special configurations available.

FIGURE A

FIGURE B

FIGURE C

Ordering Guidelines

Note: Do not include any dashes, brackets or hyphens in the catalog numbers when ordering.

Example: ERAK32T-SO = ERAK32TSO.

Note: All specifications and dimensions are subject to change without notice.

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