



technical datasheet

ZoneBarrier High Energy Ethernet Series

Surge protection for 1000/100/10-Base-T Ethernet Applications

- Rugged 10kA Surge Capacity
- Models for Standard Ethernet, Industrial Ethernet, and PoE
- DIN Rail or Surface Mount
- 3 Stage Hybrid Protection Circuit
- Precise voltage limiting characteristics
- Shielded RJ45 Connectors
- 10 Year "No Fuss" Warranty
- UL497B Listed



The ZoneBarrier High Energy Ethernet Series combines high speed, high surge current capacity, industrial capabilities, and hazardous area capabilities (pending) into a single package.

This product is ideally suited for industrial, process, network, plus security, and surveillance camera applications.

The application of high speed Ethernet and Power over Ethernet (PoE) devices is increasing dramatically in industries such as process, industrial, manufacturing,

intelligent transportation system (ITS), and Security. Due to the application flexibility of these new high speed Ethernet devices many are now being installed in areas very susceptible to lightning and other types of damaging surge events.

Due to the operational criticality of many of these devices, any downtime or loss of function can become a major concern both overall system availability and in functional safety.

The need for a durable high speed protection solution capable of being installed into these harsh and sometimes hazardous locations has become increasingly more in demand.

The ZoneBarrier High Energy Ethernet Series was developed specifically to fit the needs for these types of applications.

901-181 RevA - 050813

**COOPER** Crouse-Hinds

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SPECIFICATION

All figures typical at 77°F (25°C) unless otherwise stated

Maximum surge current

10kA (8/20µs waveform) per wire

Leakage Current

<1µA

Maximum rated load current

1.0A

Maximum Frequency

See table below

Attenuation

Better than: -0.5dB at 250MHz

N.E.X.T.

Worst pair: Better than -37dB

Return Loss

Better than -10dB at 250MHz

Ambient temperature

-40 F to +185 F (working)

-40 C to +85 C (working)

Humidity

5 to 95% RH (non-condensing)

Lines protected

Eight (8) per port

Connector type

SRJ45 (Shielded RJ45)

Compliance

BS EN 61326-1:2006

BS EN 61010-1:2010

IEC 61643.21-2009

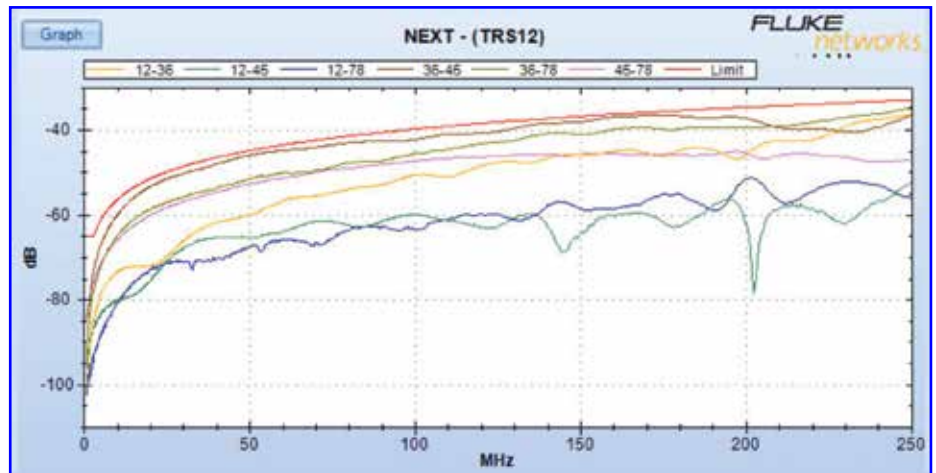
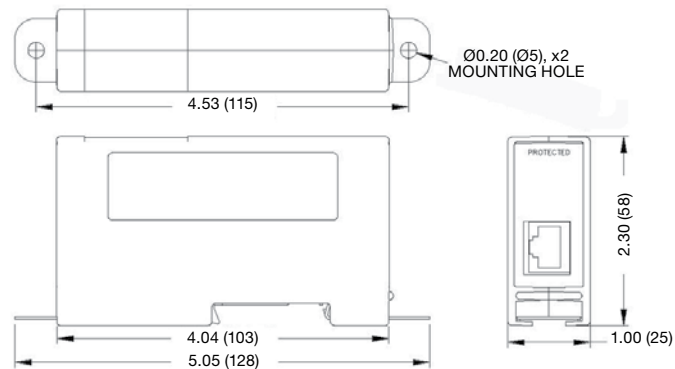
Standards

TIA/EIA-568-B.2-1

IEEE 802.3ab

IEEE 803.3af

IEEE 803.3at



N.E.X.T. Performance

APPROVALS

Authority (Country)	Standard	Certification/ File No.	Approved for	Products
UL (USA)	UL 497B Listed	E175267	Isolated loop communication circuits	ZB24596 ZB24598 ZB24597

To order specify -

Order by model, as listed in the Specification table

Model	ZB24596	ZB24598	ZB24597
Application	Standard 1000-Base-T Ethernet	Industrial 1000-Base-T Ethernet	PoE 1000-Base-T Ethernet
Nominal voltage	5V	12V	48V
Rated voltage	8V	17V	52V
Voltage protection level	10V	20V	90V
Maximum Frequency	300MHz per pair	300MHz per pair	300MHz per pair

The given data is only intended as a product description and should not be regarded as a legal warranty of properties or guarantee. In the interest of further technical developments, we reserve the right to make design changes.



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