DPR

Specifications

DPR-F140 SHOWN

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Introduction

The DPR Series is engineered for high performance, compact versatile surge protection of Gigabit Ethernet, 10/100BT, PoE, and T1/E1 equipment used for communications circuits. This is a product line that will reduce installation time and expense on the job site while giving your system the protection performance it needs.

Features and Benefits

- Single-tool design means reduced installation time and fewer tools for the installer to carry.
- An individual module can be used as a stand alone surge protection device that is an inline component and can be mounted to the wall or 35mm DIN rail (clip included and functions as ground connector).
- When configured in the 19" rack chassis, the array of 16 modules can also serve as a cross connect.
- The 16 module wide array unit consists of individual protection modules that mount onto the 19", 1RU rack chassis with connections from the front face (LINE) through to the back face (protected EQUIP).
- Lightning protection circuits utilize high energy dissipation characteristics of gas discharge tube (GDT) technology, fast response time and repeatable low clamping characteristics of silicon avalanche suppression diodes (certain models only).
- Low insertion loss and high return loss to support full Gigabit Ethernet bandwidth with zero frame loss. Compatible with Category 5, Category 5e and Category 6 cable. (DPR-B120, DPR-L130, and DPR-F140 models only)
- Cost effective, light weight, easy to install and replace.

Grounding

The stand-alone DIN rail clip and/or 19" rack housing must be securely grounded for proper operation. Unit shall be grounded per the installation instructions. Failure to do so will result in voided warranty and possible equipment damage.

Specifications

DPR ACCESSORY PART NUMBERS:

PART DESCRIPTION	PART NUMBER
DPR Rack Mount Chassis (no protection included)	1000-1206

	DPR Base	DPR Lite	DPR Fit	DPR 100BT PoE	DPR 10/100BT	DPR T1/E1	DPR ESD
Part Number	DPR-B120	DPR-L130	DPR-F140	1101-905-1	1101-828-1	1101-830-1	1101-882-1
Electrical							
Data Rate	1 Gb/s (Gigabit Ethernet)	1 Gb/s (Gigabit Ethernet)	1 Gb/s (Gigabit Ethernet)	100 MB/s	100 MB/s	1.544 / 2.048 MB/s	1 GB/s (Gigabit Ethernet)
Protocols	GbE, PoE	GbE, PoE, PoE+	GbE, PoE, PoE+, PoE++	10/100 Base-T Ethernet, PoE	10/100 Base-T Ethernet	T1/E1	GbE
Characteristic Impedance	100 Ω	100 Ω	100 Ω	100 Ω	100 Ω	100 Ω	100 Ω
Nominal Voltage	48 Vdc	48 Vdc	48 Vdc	48 Vdc	5 V	3 V	3.3 V
Maximum Continuous Operating Voltage	60 Vdc	60 Vdc	60 Vdc	60 Vdc	6 Vpeak	6 Vpeak	6 Vpeak
Maximum PoE Current (per pin)	300 mA	600 mA	1.5 A	Not Specified	N/A	N/A	N/A
Maximum PoE Power	15 W	51 W	100 W	Not Specified	N/A	N/A	N/A
Surge Suppression Technology	Gas Discharge Tube	Gas Discharge Tube	Hybrid Gas Discharge Tube and Silicon Avalanche Diode	Silicon Avalanche Diode	Silicon Avalanche Diode	Silicon Avalanche Diode	Silicon Avalanche Diode
Pins Protected	[1,2] [3,6] [4,5] [7,8] {Shield}	[1,2] [3,6] [4,5] [7,8] {Shield}	[1,2] [3,6] [4,5] [7,8] {Shield}	[1,2] [3,6] [4,5] [7,8]	[1,2] [3,6] [4,5] [7,8]	[1,2] and [4,5]	[1,2] [3,6] [4,5] [7,8]
Protection Modes	Line to Ground Shield to Ground	Line to Ground Shield to Ground	Line to Line Line to Ground Shield to Ground	Line to Line Line to Ground	Line to Line Line to Ground	Line to Line Line to Ground	Line to Line
Unprotected Pins	N/A	N/A	N/A	N/A	N/A	3,6,7,8	N/A
Surge Suppression (Line to Line)	N/A	N/A	<75 Vpk @ 100 A 8/20 µs	<100 Vpk @ 100 A 10/1000 µs	<50 Vpk @ 100 A 10/1000 µs	<50 Vpk @ 100 A 10/1000 µs	<50 Vpk @ 100 A 2/10 µs
Maximum Surge Current *(per pin) Line to Ground 8/20 µs*	1 kA	1 kA	2 kA	Not Specified	Not Specified	Not Specified	Not Specified

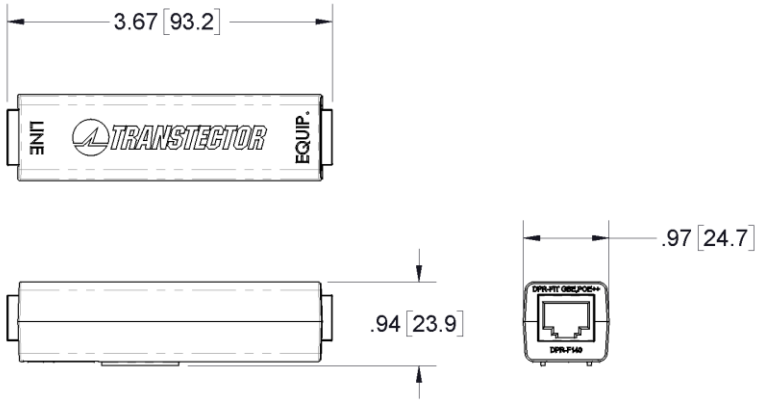
Part Number	DPR-B120	DPR-L130	DPR-F140	1101-905-1	1101-828-1	1101-830-1	1101-882-1
Maximum Surge Current *Shield to Ground 8/20 µs*	20 kA	20 kA	20 kA	N/A	N/A	N/A	N/A
Response Time	< 75 ns	< 75 ns	< 5 ns	< 5 ns	< 5 ns	< 5 ns	< 5 ns
Connectors	RJ45 Cat5e Shielded	RJ45 Cat5e Shielded	RJ45 Cat5e Shielded	RJ45 Cat5 Unshielded	RJ45 Cat5 Unshielded	RJ45 Cat5 Unshielded	RJ45 Cat5 Unshielded
Environmental							
Operating/Storage Temperature	-40°C to +75°C						
Relative Humidity	99% (non-condensing)						
Mechanical							
Weight, Individual Module, Maximum	0.20 lbs (90 g)						
Module Dimensions	0.94” x 0.97” x 3.67” (approximate)						
Module Case Material	Impact Resistant Black Plastic UL 94-V0 Flammability Rating						
Weight, Fully Populated Rack	5.2 lbs (2.4 kg)						
Rack Chassis Dimensions	19” Wide, 1U high (1.73” x 19.0” x 3.67”)						
Rack Chassis Material	12 gauge aluminum, black powder coat						
Installation Hardware	Combination drive screw						
Regulatory Compliance & Industry Standards							
UL Certification	497B	497B	497B	N/A	N/A	N/A	N/A
IEC	60950-1	60950-1	60950-1	N/A	N/A	N/A	N/A
RoHS	Compliant	Compliant	Compliant	N/A	N/A	Compliant	Compliant
Bonding & Grounding	NEC 800.100 and 830.100						
Surge Suppression	GR-1089-2006						
Ethernet Communication Protocol	IEEE 802.3						
T1/E1 Communication Protocol	ITU 703						
Warranty							
Warranty	1 year	2 year	3 year	10 year	10 year	10 year	10 year

Installation

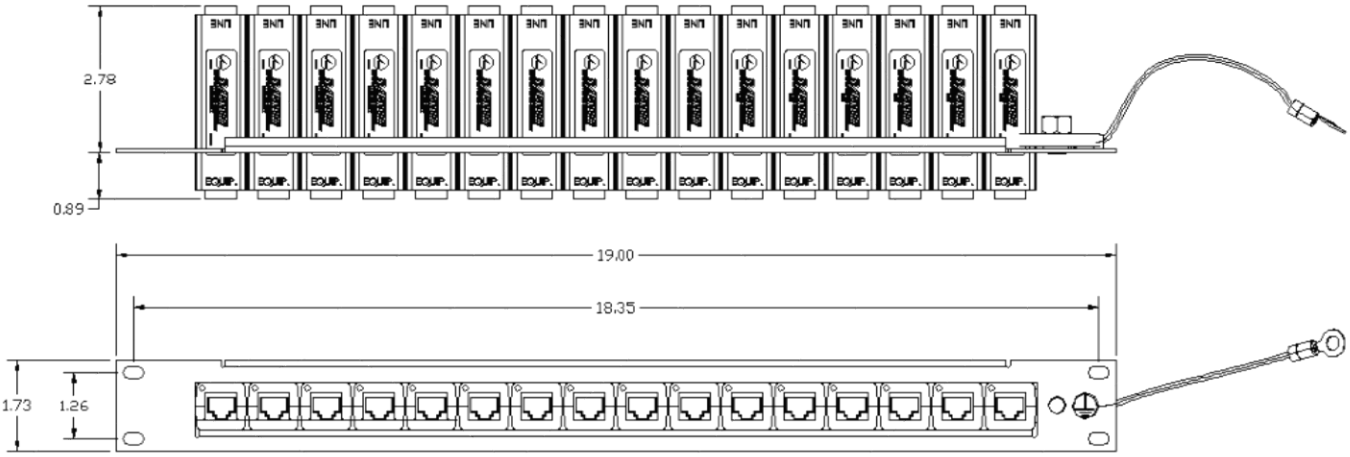
The DPR is intended to be installed indoors, mounted to a DIN rail or wall, or using one rack space within a 19” RS-310-C standard rack frame. Attach the DPR into the 19” rack using the four each 10-32 screws at each corner of the rack chassis (hardware provided). A dedicated ground strap on the front of the unit must be connected to the nearest master ground bar system. All data cabling is connected through the front and rear of the DPR rack chassis. Each protection module is marked with the respective signal type. Individual protection modules can be installed or replaced by access to the screw attachment along the bottom of the rack. The module mounting screw must be securely fastened to assure proper grounding and surge protection. Torque per the included installation sheet. It is up to the user to swap between the Transmit and Receive wire pairs if required. Cable management products are available from Transtector for 19” rack applications with high cable count e.g. server room environments.

Each module may be installed as a stand alone protector on standard 35mm DIN rail strut. The individual protection modules are provided with a ground clip that must be securely snapped onto a well grounded DIN strut. Ensure the strut is bonded back to the best local master ground system and that paint does not obscure the fastener and bonded surfaces. Bare metal copper DIN is suggested for optimum integrity.

Dimensions



DPR-B120, DPR-L130, and DPR-F140 Outer Dimensions



Transtector Systems, Inc.
10701 Airport Drive, Hayden ID 83835
(TF) 800.882.9110 | (FX) 208.762.6034
www.Transtector.com

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