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**SPECIFICATIONS**

**DESCRIPTION:**

LIGHTNING/TRANSIENT SURGE PROTECTOR FOR GIGABIT POWER OVER ETHERNET INJECTOR APPLICATIONS.

**ELECTRICAL:**

**CONNECTORS:**  
 DATA, RJ45 JACK, SHIELDED.  
 DC: OST EDSTLZ1555/2, MATING CONNECTOR (P/N EDZ1710/2) INCLUDED.  
 IMPEDANCE: 100 OHMS NOMINAL.  
 DC RESISTANCE: 8 OHMS.  
 DATA RATE: 1000 Mbps, 1000 Base-T PER IEEE 802.3at, MODES A & B.  
 DATA TEST METHOD: EXTENDED RFC2544 TESTS.  
 PROTECTED PIN PAIRS: (1-2), (3-6), (4-5), (7-8).  
 PROTECTED PINS TO CHASSIS GROUND: ALL PINS.  
 DATA PIN PAIRS: (1-2), (3-6), (4-5), (7-8).  
 DC PIN PAIRS: LINE ((1-2), (4-5)), RETURN ((3-6), (7-8)).  
 DC VOLTAGE: +/-48VDC NOMINAL, +/-60VDC MAX.  
 DC CURRENT: 600mA MAX PER MODE.  
**MAXIMUM SURGE CURRENT:**  
 ONE TIME DISCHARGE:  
 300A, 10/1000uS WAVEFORM PER TELCORDIA GR-1089.  
 5kA, 8/20uS WAVEFORM PER IEC 61000-4-5.  
 REPETITIVE DISCHARGE (10 CYCLES):  
 100A, 10/1000uS PER TELCORDIA GR-1089.  
 3kA 8/20uS PER IEC 61000-4-5.  
**SURGE LET THROUGH VOLTAGE:**  
 @ 100A, 10/1000uS:  
 LINE-LINE <30V PEAK.  
 LINE-GROUND <15V PEAK.  
 DC-DC RETURN <100V.  
 DC-GROUND < 50V.  
 @ 3kA, 8/20uS:  
 LINE-LINE <30V PEAK.  
 LINE-GROUND <15V PEAK.  
 DC-DC RETURN <100V.  
 DC-GROUND < 50V.

**MECHANICAL:**

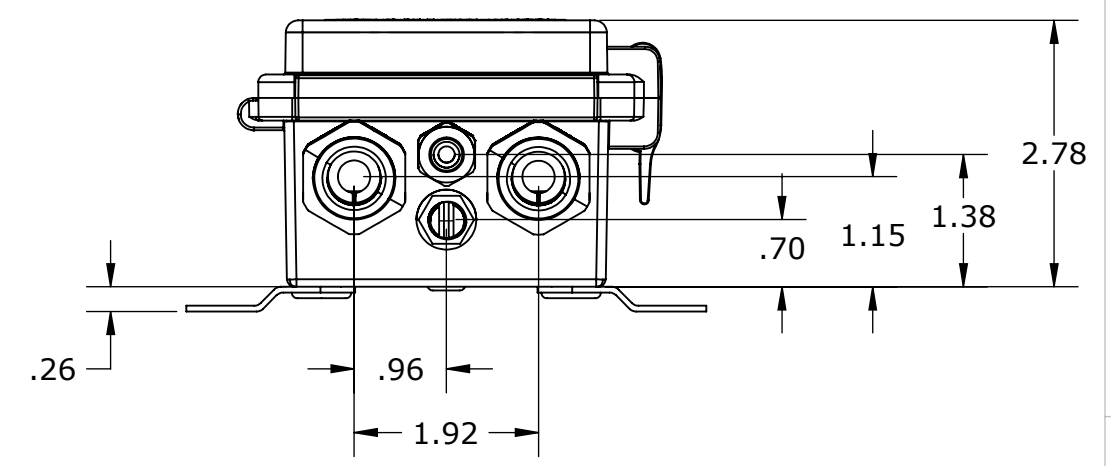
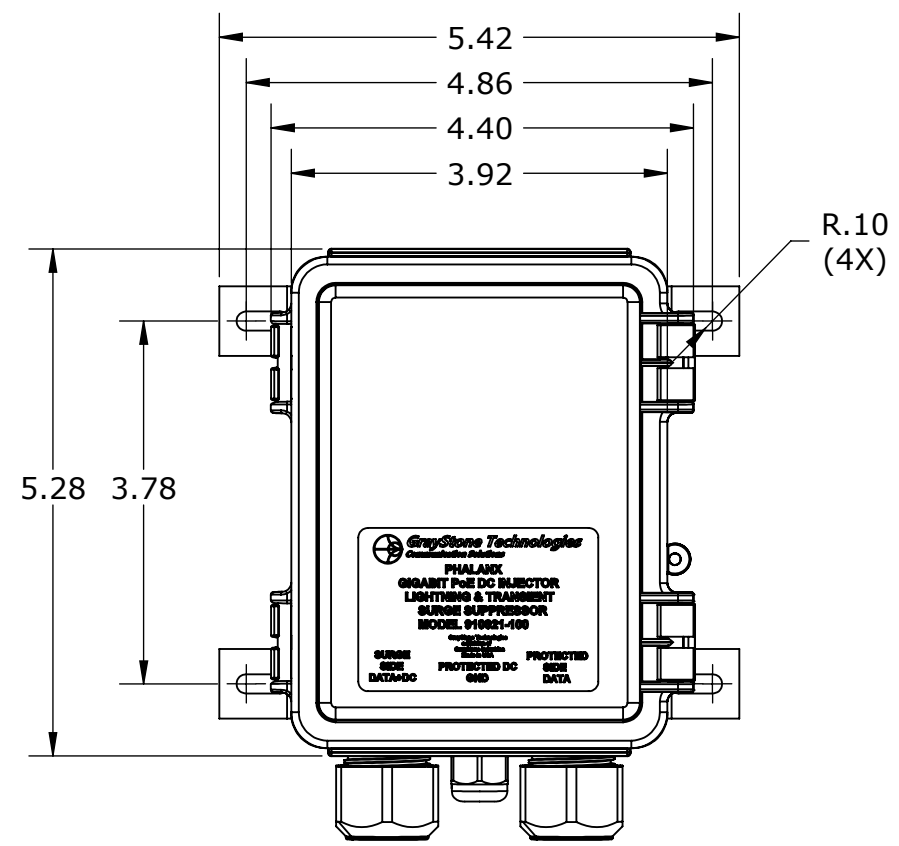
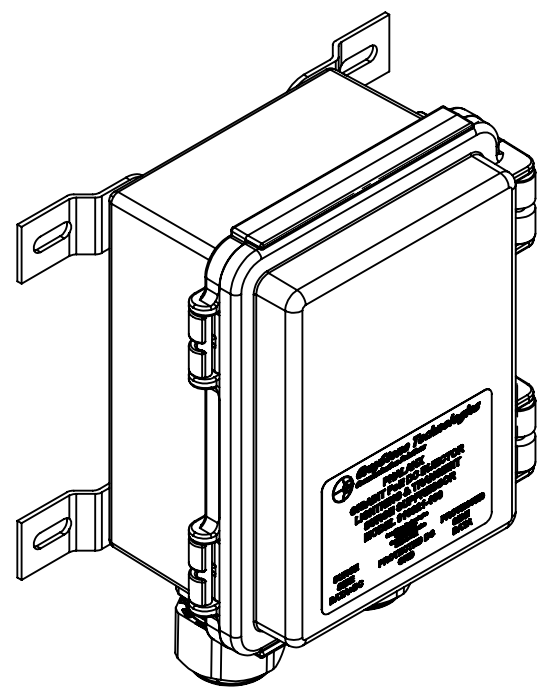
WEIGHT: 11oz.  
 MOUNTING: POLE OR PANEL.  
 CABLE GRIPS:  
 1/2" CABLE GRIP CABLE O.D. RANGE: 0.45" to 0.70"  
 1/4" CABLE GRIP CABLE O.D. RANGE: 0.11" to 0.725  
 SEALING NUT TORQUE:  
 1/2" CABLE GRIP, 25-30 in-lbs.  
 1/4" CABLE GRIP, 15-20 in-lbs.  
 GROUNDING NUT TORQUE: 20-25 in-lbs.

**ENVIRONMENTAL:**

IP68 RATING.  
 OPERATING TEMPERATURE: -40 TO +65 deg-C.  
 RELATIVE HUMIDITY: 0 TO 100% CONDENSING.

**REGULATORY:**

RoHS COMPLIANT.  
 NEBS LEVEL 3 COMPLIANT.



**PROPRIETARY AND CONFIDENTIAL**  
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		UNLESS OTHERWISE SPECIFIED:	NAME	DATE	GrayStone Industries Dayton, Nevada
		DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ±1/64 ANGULAR: MACH ±0.1 BEND ±0.1 TWO PLACE DECIMAL ±0.01 THREE PLACE DECIMAL ±0.001	DRAWN	R.B.	
		INTERPRET GEOMETRIC TOLERANCING PER:	CHECKED		
		MATERIAL PBT/PC, UL94-5VA+UV(f1)	ENG APPR.		
		FINISH	MFG APPR.		
NEXT ASSY	USED ON		Q.A.		
APPLICATION		DO NOT SCALE DRAWING	COMMENTS:		
			TITLE:		SURGE PROTECTOR-ODU, 1GB PoE, DC INJECTOR
			SIZE	DWG. NO.	
			<b>B</b>	05-910021-100	A
			SCALE: 1:2	WEIGHT:	SHEET 1 OF 2

INSTALLATION INSTRUCTIONS:

**WARNING**

THE SURGE SIDE OF THIS LIGHTNING PROTECTION (LP) DEVICE IS DESIGNED TO BE USED WITH SHIELDED CATEGORY 5/6/7 ETHERNET CABLE TERMINATED WITH SHIELDED RJ45 CONNECTORS AND WHEREBY THE CABLE SHIELD IS BONDED TO THE RJ45 CONNECTOR SHIELD.

1) TO MOUNT THE LP, FIRST LOOSLY INSTALL THE 4 HANGERS (ITEM 4) ONTO THE BACK OF THE LP ENCLOSURE AS DESCRIBED IN THIS DRAWING USING THE 4 M4X8 SCREWS (ITEM 5) PROVIDED.

a) IF THE UNIT IS TO BE MOUNTED ONTO A FLAT PANEL, ROTATE THE HANGERS INTO THE DESIRED MOUNTING POSITION, THEN TIGHTEN THE HANGER SCREWS. MOUNT THE UNIT TO THE PANEL USING FASTENERS LISTED (ITEM 1).

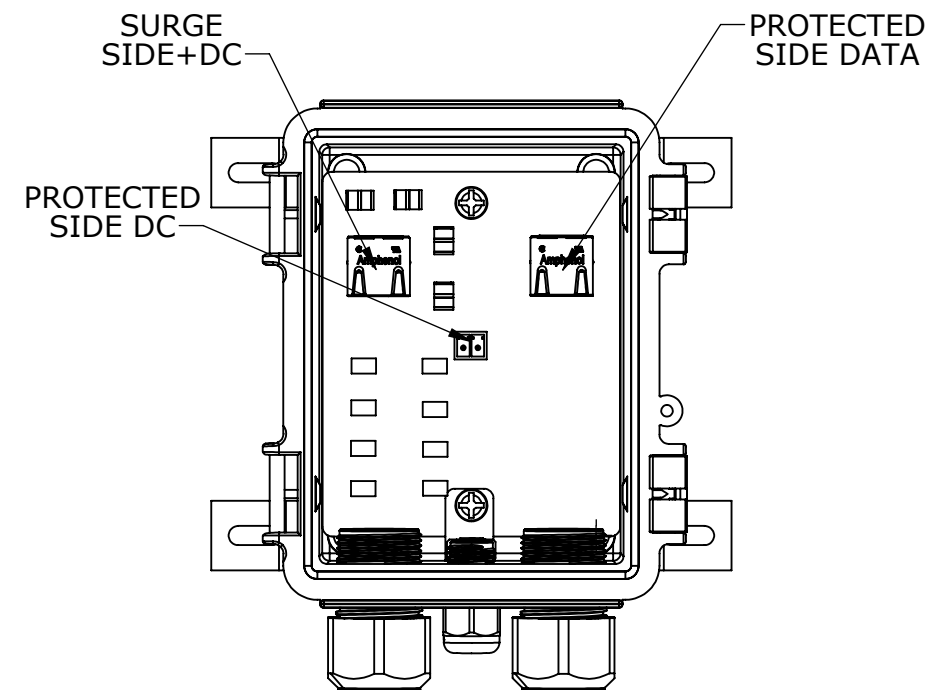
b) IF MOUNTING ONTO A POLE, THEN IT IS RECOMMENDED USING TIMES MICROWAVE POLE MOUNTING KIT P/N 910023-100 (ITEM 2); FOLLOWING THE MOUNTING INSTRUCTIONS THEREOF.

2) LOOSEN THE UPPER 1/4" CABLE GRIP AND PASS THROUGH THE DC CABLE. TERMINATE THE WIRE INTO THE PROVIDED PLUG (ITEM 3) BEING MINDFUL OF THE POLARITY. INSERT PLUG INTO THE TERMINAL BLOCK LOCATED ON THE LP PCB. TIGHTEN THE GRIP NUT 15 TO 20 in-lbs.

3) THE FOLLOWING PROCEDURE APPLIES TO BOTH THE SURGE AND PROTECTED SIDE ETHERNET CABLE INSTALLATION.  
 REMOVE THE CABLE GRIP OUTER NUT THEN REMOVE THE SPLIT GLAND FROM THE LP CABLE GRIP. PLACE CABLE GRIP NUT ONTO THE PRE-ASSEMBLED ETHERNET CABLE THEN PLACE THE SPLIT GLAND AROUND THE PRE-ASSEMBLED ETHERNET CABLE MAKING SURE THE GLAND IS IN FRONT OF THE NUT AND HAS ITS CHAMFERED END POINTING AWAY FROM THE NUT.  
 PASS THE ETHERNET CABLE THROUGH THE GRIP SECTION ATTACHED TO THE LP ENCLOSURE AND CONNECT THE CABLE TO THE APPROPRIATE RJ45 CONNECTOR LOCATED ON THE LP UNIT.  
 SLIDE THE GLAND BACK INTO THE CABLE GRIP (CHAMFERED END FIRST) SECTION ATTACHED TO THE LP ENCLOSURE.  
 SLIDE THE GRIP NUT BACK ONTO THE CABLE GRIP AND TIGHTEN 25 TO 30 in-lbs.  
 (NOTE: IF USING PRE-ASSEMBLED ETHERNET CABLE ASSEMBLIES, THE SPLIT GLANDS USED IN THE LP CABLE GRIPS WILL FACILITATE PASSING THE CABLE ASSEMBLY THROUGH THE GRIPS. HOWEVER, IF THE CABLE ASSEMBLIES ALSO POSSESS A STRAIN RELIEF BOOT, THAT BOOT MUST BE REMOVED IN ORDER TO PASS THROUGH THE CABLE GRIP. THE GRIP ITSELF WILL PROVIDE SUFFICIENT STRAIN RELIEF FOR THE CABLE ASSEMBLY.)

4) LOOSEN THE 1/2" NUT LOCATED ON THE SPLIT BOLT SERVICE POST. STRIP THE INSULATION FROM AN 8AWG to 10AWG GROUNDING WIRE AND INSERT INTO THE SLOT OF THE SPLIT BOLT SERVICE POST. TIGHTEN THE SERVICE POT NUT 20 in-lbs.

5) STRIP THE INSULATION FROM THE FREE END OF THE GROUND WIRE AND SECURE THE FREE END TO AN EXTERNAL SYSTEM GROUND. THE PREFERRED LENGTH OF THE GROUND WIRE IS 12" OR LESS.



ITEM	DESCRIPTION	QUANTITY	NOTES
5	M4 x 8 tap screws	4	Included
4	Hangers	4	Included
3	DC Plug, OST P/N EDZ1710/2	1	Included
2	Pole mount kit	1	910023-100, optional
1	Dry wall screws, #6 or #8	4	Not included

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UNLESS OTHERWISE SPECIFIED:		NAME	DATE	GrayStone Industries Dayton, Nevada	
DIMENSIONS ARE IN INCHES		DRAWN	R.B.	9/19/17	TITLE:  <b>SURGE PROTECTOR-ODU 1GB PoE, DC INJECTOR</b>
TOLERANCES:		CHECKED			
FRACTIONAL ± 1/64		ENG APPR.			
ANGULAR: MACH ± 0.1 BEND ± 0.1		MFG APPR.			
TWO PLACE DECIMAL ± 0.01		Q.A.			SIZE DWG. NO. REV <b>B</b> 05-910021-100 A
THREE PLACE DECIMAL ± 0.001		COMMENTS:			
INTERPRET GEOMETRIC TOLERANCING PER:				SCALE: 1:2	WEIGHT:
MATERIAL PBT/PC, UL94-5VA+UV(f1)				SHEET 2 OF 2	
FINISH					
NEXT ASSY	USED ON				
APPLICATION		DO NOT SCALE DRAWING			