

NOTICE OF PROPRIETARY RIGHTS

THIS DOCUMENT CONTAINS CONFIDENTIAL TECHNICAL DATA, INCLUDING TRADE SECRETS, PROPRIETARY TO TIMES MICROWAVE SYSTEMS. DISCLOSURE OF THIS DATA IS EXPRESSLY CONDITIONED UPON YOUR ASSENT THAT ITS USE IS LIMITED TO USE WITHIN YOUR COMPANY ONLY. ANY OTHER USE IS STRICTLY PROHIBITED WITHOUT THE PRIOR WRITTEN CONSENT OF TIMES MICROWAVE SYSTEMS.

SPECIFICATIONS

DESCRIPTION:

SURGE/LIGHTNING PROTECTOR FOR IEEE 802.3at GIGABIT PoE DC PASS THROUGH OUTDOOR APPLICATIONS.

ELECTRICAL:

CONNECTORS: RJ45 JACK, SHIELDED.
 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 <100V PEAK.
 LINE-GROUND <50V PEAK.
 @ 3kA, 8/20uS:
 LINE-LINE <100V PEAK.
 LINE-GROUND 50V PEAK.

MECHANICAL:

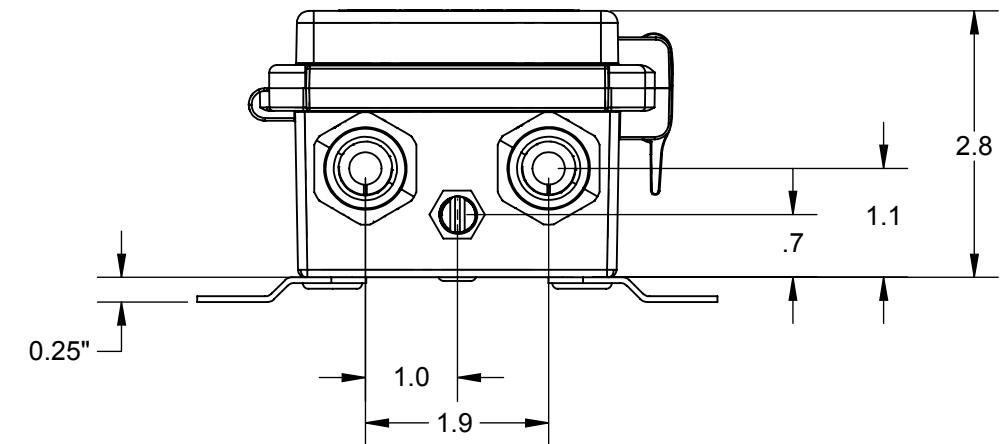
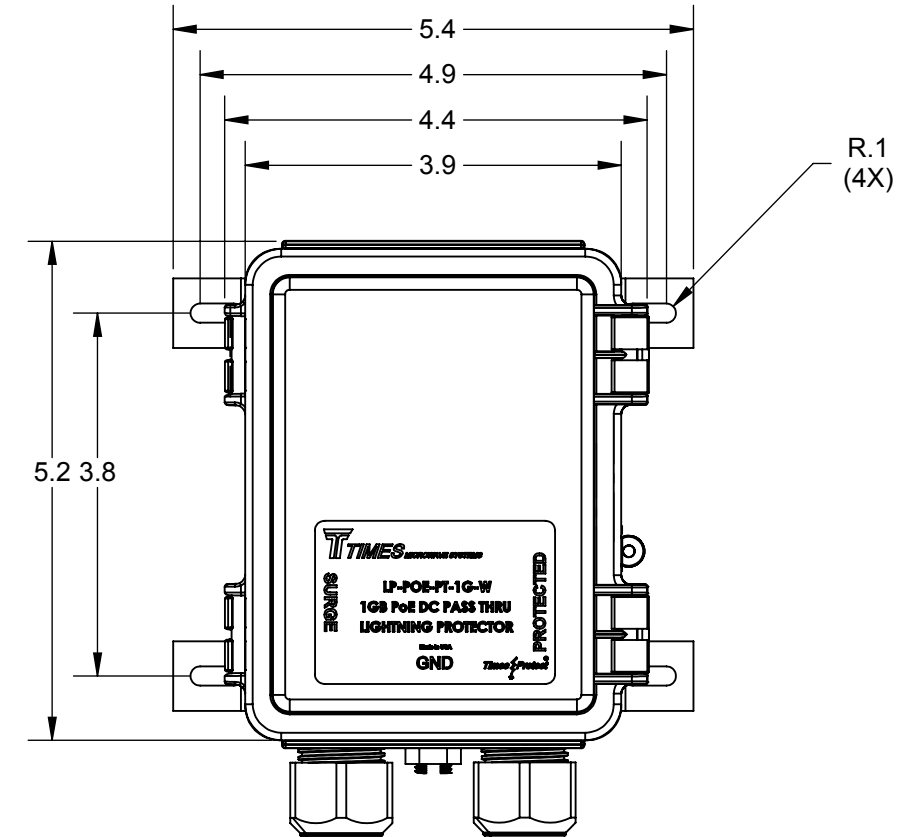
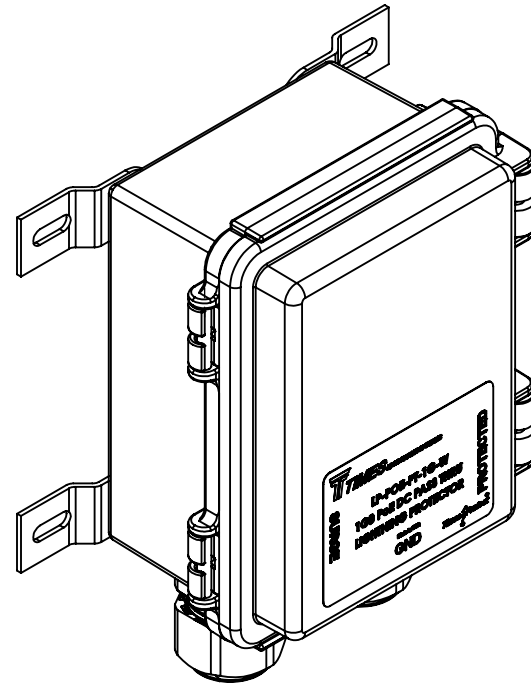
WEIGHT: 11oz.
 MOUNTING: POLE OR PANEL.
 CABLE GRIP SEALING NUT TORQUE:
 1/2" CABLE GRIP, 25-30 in-lb.
 GROUNDING NUT TORQUE: 25-30 in-lbs.

ENVIRONMENTAL:

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

REGULATORY:

RoHS COMPLIANT.
 NEBS LEVEL 3 COMPLIANT.



MATERIAL:	
PBT/PC, UL94-5VA + UV (f1)	
	USED ON ASSY.

DRAFTSMAN		TIMES MICROWAVE SYSTEMS	
CHECKER			
APPROVED			
UNLESS OTHERWISE SPECIFIED		TITLE:	
ALL DIMENSIONS ARE IN INCHES MACHINED SURFACES FINISH 32 RMS MAX. REMOVE ALL BURRS .005 MAX. BREAK MACHINE CORNERS .005 MAX. FILLET R. TOLERANCES ON DECIMALS .XX ± .01 .XXX ± .005 ANGLES ± 1° FRACTIONS ± 1/32		SURGE PROTECTOR - PoE DC PASS THROUGH, 1GB IEEE 802.3at, MODES A & B	
DWG. SIZE	B	DRWG. NO.	LP-POE-PT-1G-W
CODE IDENT.	68999	SCALE:	1:2
		REV. A SHEET 1 OF 2	

NOTICE OF PROPRIETARY RIGHTS

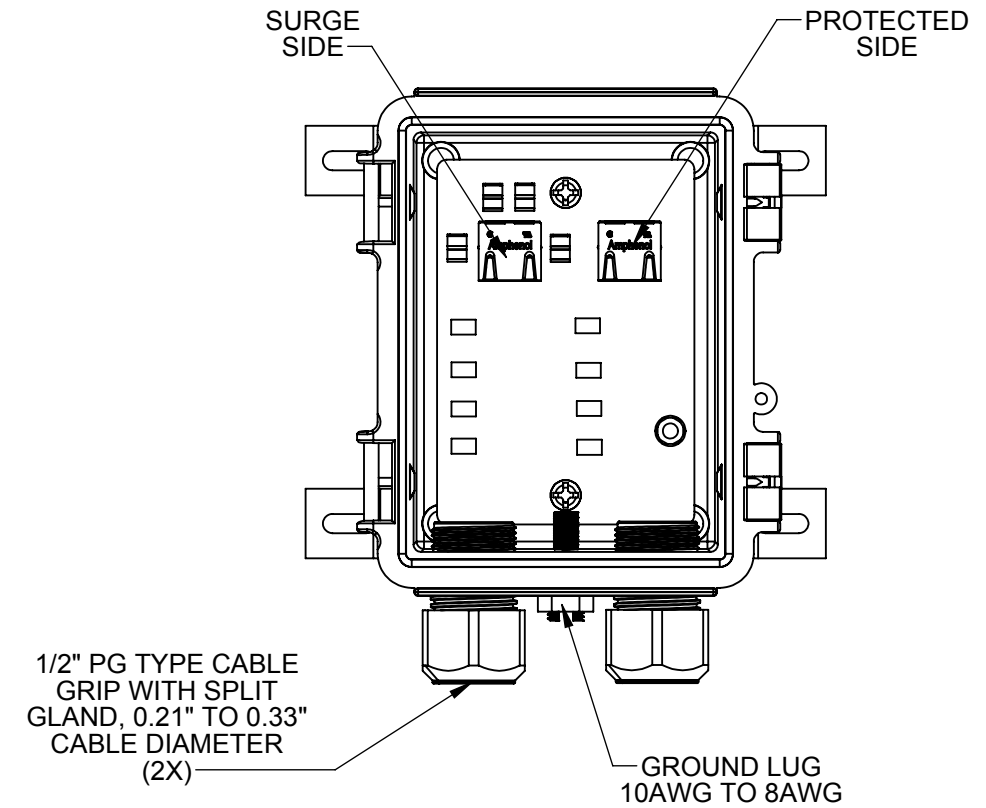
THIS DOCUMENT CONTAINS CONFIDENTIAL TECHNICAL DATA, INCLUDING TRADE SECRETS, PROPRIETARY TO TIMES MICROWAVE SYSTEMS. DISCLOSURE OF THIS DATA IS EXPRESSLY CONDITIONED UPON YOUR ASSENT THAT ITS USE IS LIMITED TO USE WITHIN YOUR COMPANY ONLY. ANY OTHER USE IS STRICTLY PROHIBITED WITHOUT THE PRIOR WRITTEN CONSENT OF TIMES MICROWAVE SYSTEMS.

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 ONTO THE BACK OF THE LP ENCLOSURE AS DESCRIBED IN THIS DRAWING USING THE 4 M4X8 SCREWS 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 FOR ITEM 1.
 - b) IF MOUNTING ONTO A POLE, THEN IT IS RECOMMENDED USING TIMES MICROWAVE POLE MOUNTING KIT P/N TBD LISTED AS ITEM 2 & 3; FOLLOWING THE MOUNTING INSTRUCTIONS THEREOF.
- 2) 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 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.)
- 3) LOOSEN THE 1/2" NUT LOCATED ON THE SPLIT BOLT GROUND LUG. STRIP THE INSULATION FROM AN 8AWG TO 10AWG GROUNDING WIRE AND INSERT INTO THE SLOT OF THE SPLIT BOLT GROUND LUG. TIGHT THE GROUND LUG NUT 30 in-lbs.
- 4) 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.



RECOMMENDED INSTALLATION MATERIALS

ITEM	DESCRIPTION	QUANTITY	NOTES
2	Pole mount kit	1	LP-PMK, optional
1	Dry wall screws, #6 or #8	4	Not included

MATERIAL:	
	USED ON ASSY.

DRAFTSMAN			
CHECKER			
APPROVED			
UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES MACHINED SURFACES FINISH 32 RMS MAX. REMOVE ALL BURRS .005 MAX. BREAK MACHINE CORNERS .005 MAX. FILLET R. TOLERANCES ON DECIMALS .XX ± .01 .XXX ± .005 ANGLES ± 1° FRACTIONS ± 1/32			
DO NOT SCALE DRAWING		TIMES MICROWAVE SYSTEMS	
TITLE: SURGE PROTECTOR - PoE DC PASS THROUGH, 1GB IEEE 802.3at, MODES A & B			
DWG. SIZE	B	DRWG. NO.	LP-PT-1G-W
REV.	A	SCALE:	1:2
CODE IDENT.	68999		SHEET 2 OF 2