

GPS™ PROTECTOR SERIES

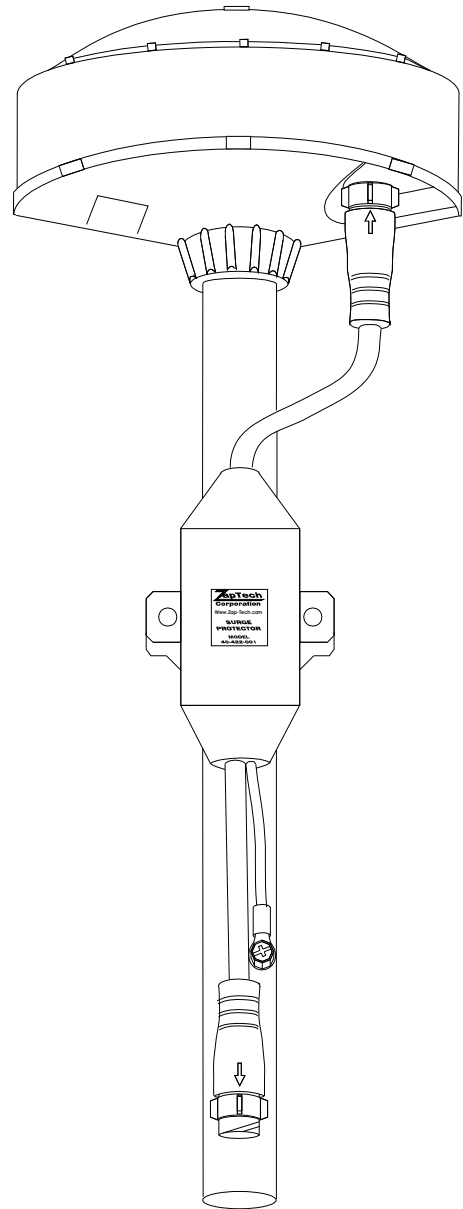
Zap-Tech Lightning / Surge Protection for GPS Antenna Interfaces.

**Coaxial Antenna and Data Interface Protection for
Positioning, Timing and Synchronization Antennas
and Connected Equipment.**

The Zap-Tech Series 40 protection devices were specifically designed to protect GPS antenna interfaces from damage caused by lightning storms, secondary effects of power surges and transient ground potential energies.

As a primary measure to prevent electrical damage to your system, surge suppression also extends the life of sensitive GPS equipment while improving system reliability. GPS surge suppressors are best applied as near as physically practical to sensitive electronic equipment, components and system ground references. The ILM series 40 devices are specifically configured to provide protection for the time source and power supply lines as well as RS422 or RS232 communication interfaces. They are available with a wide range of options including choices of clamp voltage, pin configuration, connectorization and grounding methods. Mounting options include: mast clamp mounts for direct installation at the antenna, or mounting flanges for installation directly to an equipment rack or chassis at the system synchronization interface connector. It is essential that one series 40 protector be installed at each end of the time source interface cable. Each protection ground wire must be connected directly to a properly grounded equipment chassis or antenna mast.

The series 40 protector will repetitively protect and reset without degradation up to and including maximum repetitive self-reset surge. If it is subjected to more than its maximum repetitive self-reset surge, the device will fail in a clamped mode, keeping the equipment safe from subsequent surges up to its maximum fail safe surge until removed or replaced.



*ZapTech ILM series 40 protector,
Shown installed on a Trimble® Acutime™
GPS antenna.*

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**Zap-Tech
Corporation**

ZAP-TECH

GPS PROTECTOR SERIES

Electrical Specifications

Mechanical Specifications

(Electrical Specifications below apply to P/N 40-422-001 and 40-422-251 only. Contact Factory for 30 and 70-xxx-xxx series coaxial device data sheet and specifications).

MAXIMUM REPETITIVE SELF RESET SURGE:

3500Volts, 1750 Amps for 100 pulses using 2V source. per: EN61000-4-5 Specification.

MAXIMUM FAIL SAFE SURGE:

6000 Volts 3000 Amps for 100 pulses using 2V source. per EN61000-4-5 Specification. Exceeds EN6100-4-5, level 4.

CLAMPING VOLTAGES:

RS422: 7.5 Volts, RS232: 18 Volts, Power supply: 36 Volts, Common Mode - (Line to Line) and Differential Mode - (Line to Ground) For RS 485 applications, contact factory for special instructions.

CAPACITANCE:

Line/Line: <40pF
Line/Ground: <40pF

COMPONENT RESPONSE TIME:

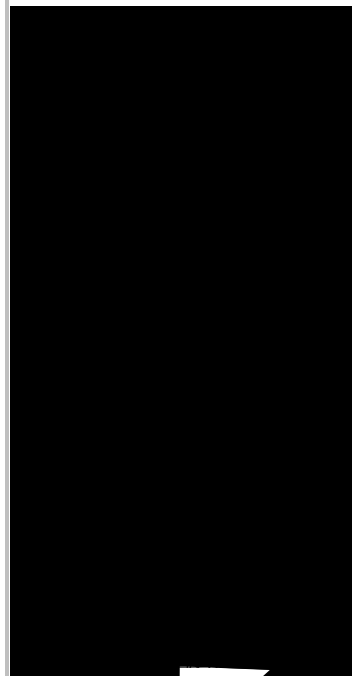
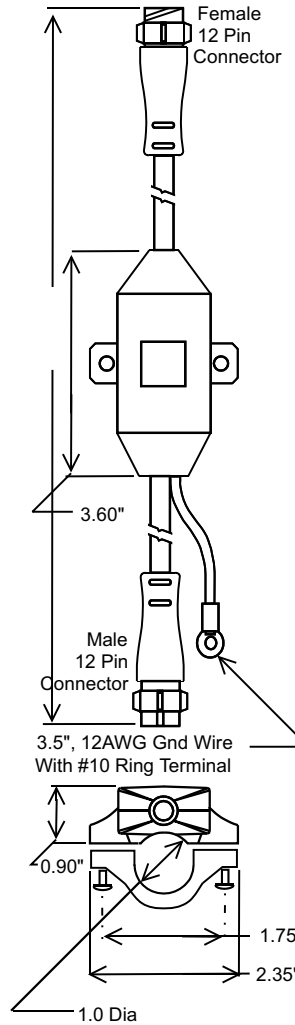
Less than 10 Nanoseconds

OPERATING ENVIRONMENT:

(-40°C TO +85°C) Max Continuous Power Limit: 3 Watts

PART NUMBER SELECTION:

Antenna to be Protected	Protector Part Number	Connector Interface & gender	Antenna End or Sync end
Encore™ Acutime™ Palisade™	40-422-001	12 pin Circular (M / F)	Antenna
Encore™ Acutime™ Palisade™	40-422-250	DB-25 (M/F)	Sync
Bullet™ (F) Bullet™	70-225-200	F - F/F	Both



Zap-Tech Coaxial F type GPS Protector