

BRAVO COMMUNICATIONS, INC.

SURE/FIRE® GIGABIT LAN / NETWORK PROTECTOR

MODEL RJ45/LAN8G

Description

Bravo's Sure/Fire Gigabit Ethernet Protector stops all forms of damaging voltage transients (spikes and surges) that are prevalent in typical high-speed unshielded twisted-pair cable (UTP) environments, dedicated to delivering a vast array of media traffic. Applications include Cat.5/Cat.6 LAN, video/control monitoring, and other similar high-speed signaling applications. A shielded version (Model SRJ45/LAN8G) is also available for shielded twisted-pair cable (STP) environments. The mass of copper cable segments exposed in a typical LAN/network cable environment act as antennae for attracting (inducing) damaging lightning and electrostatic discharge (ESD) energy waveforms. This phenomena together with the sensitivity of low voltage LAN, video and control and related circuitry, severely exposes critical systems to the forces of electrical storms, ESD, induced transients, switching transients and various types of line faults.

As part of Bravo's Sure/Fire LAN Protector Product Series, Model RJ45/LAN8G is designed as a Gigabit in-line cable port protector that can be easily installed in close proximity to the circuit needing proper protection. This high-speed unit has a built-in 12 gauge, 9.0-inch-long grounding wire with a #8 stud size ring terminal for fastening to a proper earth ground.

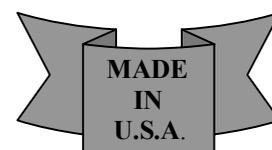
Model RJ45/LAN8G supports 1 Gigabit Ethernet applications (and up to 2 gigabit data speeds). The Protector supports DATA on RJ45 connector pins 1 thru 8.

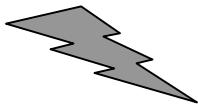
Features

- ◆ Unique hybrid protection protects All Cat.5 / Cat.6 ports up thru Full Duplex Ethernet.
- ◆ Stops all voltage transients greater than ± 8.2 volts and up to 25K Amps per line in less than a pico-second .
- ◆ Meets Gigabit Ethernet 1000Base-T Standard as well as all slower speed legacy Ethernet standards.
- ◆ High-Quality signal design allows UTP speeds up to 250 MHz with straight-thru wiring, protecting 8 signals/wires per port.
- ◆ Solid State circuitry stops all voltage transients repeatedly and then automatically resets itself.
- ◆ Diamond-Shaped Protection Test Light.
- ◆ Comes in a shielded all metal enclosure.
- ◆ Every unit has passed a rigorous set of signal and functional tests.

Benefits

- ◆ The highest performance hybrid network protection dedicated for protecting UTP Gigabit circuits.
- ◆ Stops spikes and surges covering a complete range of voltage, current, waveform speed and pulse duration transients. Saves equipment and prevents downtime costs.
- ◆ Compatible with all half and full duplex Ethernet equipment installations for universality. Reduces quantity of Protectors needed for different system/network requirements.
- ◆ Negligible network loading effect with < 8 pf capacitance, and $< .5$ db insertion loss.
- ◆ Powerful enough to use for both Inter-Building and Intra-Building cable run installations.
- ◆ Ensures foolproof grounding, indicates active protection and provides a valuable LAN circuit monitoring tool.
- ◆ Helps RFI/EMI immunity.
- ◆ Fails short if overstressed sacrificing itself due to an extreme transient effectively disconnecting your unprotected equipment.





SURE/FIRE® GIGABIT LAN / NETWORK PROTECTOR MODEL RJ45/LAN8G

There are Bravo UTP Protectors to protect all major Cat.5 / Cat.6 networks/circuits including LAN, PoE LAN, video and control circuits, and RS-232/422/423/485 Serial in various footprints and connector styles.

Inquire at Bravo or your Bravo Distributor if you need more information regarding your specific protection requirements.

Installation & Operation

- ◆ The Bravo Gigabit LAN Protector simply plugs into the interface port of the equipment you want to protect using the supplied patch cable. You then attach the Protector's ground wire securely to a proper chassis or earth ground. You can remove the Bravo supplied patch cable and supply an equivalent 4-pair Cat.5E or Cat. 6 patch cable if desired.
- ◆ Normal UTP network cable interface signals are allowed to flow passively through the Protector without interruption. If an abnormal voltage level is sensed, the Bravo Gigabit Protector will instantly activate and clamp the damaging voltage transient and divert it through its isolated ground wire to earth ground, thereby safeguarding your valuable equipment. Afterwards, the Protector safely resets itself and assumes its normal guardian/watchdog operation.
- ◆ A Bravo Gigabit Protector is recommended for every cable port/appliance you want to protect. Because damaging voltage transients can originate anywhere on a cable conductor or be induced through the cable jacket anywhere along the cable run path, only equipment ports having properly installed protectors will be safeguarded.

Transient Protection

- ◆ Tripolar gas tube crowbar protection on all lines with a nominal DC breakdown voltage of ± 90 volts for brute force. Maximum impulse discharge current (8/20 us) is 20K Amps. Impulse life (10/1000 us) @ 500 Amps is 100 times.
- ◆ High precision Automatically Resettable Solid State Technology.
- ◆ 1500 Watt Avalanche Diode Fine protection for pico-second clamping nominally @ ± 8.2 volts.
- ◆ Proprietary intermediate stage circuitry acts as a buffer and performs in concert with other protection stages.

Physical

- ◆ Weight: Approximately 3 ounces (0.09 kg.).
- ◆ Dimensions: 1.094"H x 3.031"W x 1.094"D;
27.788 mm H x 76.987 mm W x 27.788 mm D

Environment

- ◆ Operating temperature: -20° to +80° C; -4° to 176° F.
- ◆ Relative Humidity: 0-90% (non-condensing).

Certifications

- ◆ Meets or exceeds all applicable IEEE 802.3ab, Legacy Ethernet, UL, FCC, NEC, CCITT, R.E.A. and worldwide standards.
- ◆ UL 94 V-0 transient voltage suppressors.

Warranty

- ◆ 5-year limited warranty.

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