

N-Male to N-Female Bulkhead 0-3 GHz Coaxial Lightning Protector Model: AL-NMNFB

Applications

- Outdoor coaxial installations
- Protection of wireless devices
- Communication towers
- IEEE 802.11b/g wireless LAN applications

Features

- Reliable performance from DC ~ 3 GHz
- Bi-directional protection
- Protector will pass DC
- Replaceable gas tube element
- Available in 90V, 230V, 350V and 600V models



Description

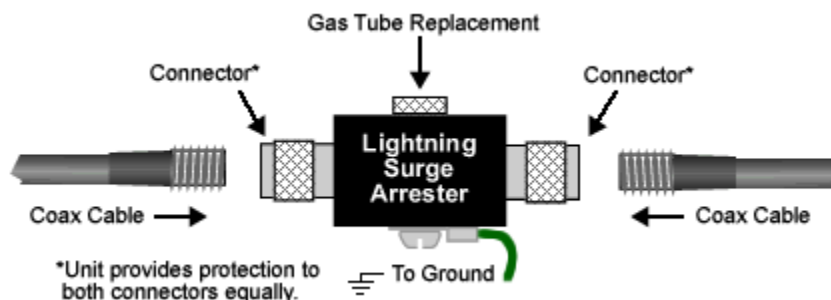
The AL-NMNFB is a gas discharge tube suppressor featuring wide-band operation up to 3 GHz. This unit features an N-Male to N-Female Bulkhead connector with a rubber "O"-ring seal for mounting through an enclosure wall or with the included aluminum mounting bracket.

Due to its low cost and superior RF performance, this unit is ideal for IEEE 802.11b and 802.11g Wireless LAN applications, as well as ISM, MMDS, Cellular, and PCS applications. Since this protector will pass DC, it is suitable for applications where DC is carried through the coax cable, such as remote amplifiers and LNAs.

Both connector ports of this unit are equally protected. This provides protection no matter which way it is installed. Either port can face the antenna and either port can face the equipment.

The unit's replaceable gas tube element, multi-strike capability, and fast response time make it suitable for a wide range of applications. A ground lug and terminal are supplied directly on the lightning protector housing, which provides superior grounding.

Replacement gas tube elements are available on the L-com web site.



Specifications

Electrical Specifications

| | | | | |
|---|-------------------------|-------------------|-------------------|-------------------|
| Models | AL-NMNFB-9 | AL-NMNFB-2 | AL-NMNFB-3 | AL-NMNFB-6 |
| Frequency Range | 0 – 3 GHz | | | |
| VSWR | 1:1.3 Max. (0 – 3 GHz) | | | |
| Insertion Loss | 0.4 dB Max. (0 – 3 GHz) | | | |
| Impedance | 50 Ohm | | | |
| Gas Tube Element: DC Breakdown Voltage Indicated | 90V 20% | 230V 20% | 350V 20% | 600V 20% |
| Gas Tube Impulse Breakdown Voltage | 1000V 20% | | | |
| Gas Tube Insulation Resistance | 10,000 MΩ | | | |
| Maximum Withstand Current | 5 KA | | | |

RF Power Rating

| Models | Voltage Rating | DC ~ 30 MHz | | 30 ~ 500 MHz | | 500 MHz ~ 3 GHz | |
|-------------------|----------------|------------------|-----------------|------------------|-----------------|------------------|-----------------|
| | | PEP ¹ | CW ² | PEP ¹ | CW ² | PEP ¹ | CW ² |
| AL-NMNFB-9 | 90 Volt | 110W | 55W | 65W | 32W | 20W | 10W |
| AL-NMNFB-2 | 230 Volt | 280W | 140W | 110W | 55W | 40W | 20W |
| AL-NMNFB-3 | 350 Volt | 650W | 325W | 260W | 130W | 100W | 50W |
| AL-NMNFB-6 | 600 Volt | 2KW | 1KW | 800W | 400W | 320W | 160W |

Notes:

1 - Peak Envelope Power (PEP): The average power supplied to the antenna transmission line by a transmitter during one radio frequency cycle at the crest of the modulation envelope taken under normal operating conditions.

2 - Continuous Wave (CW): A wave of constant amplitude and constant frequency.

Mechanical Specifications – All Models

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|--|--------------------------------------|
| Connectors | N-Male to N-Female Bulkhead |
| Connector Body Material | Nickel Plated Brass |
| Body Material | Aluminum |
| Pin Material | Gold Plated Brass |
| O-Ring Material | Rubber |
| Bracket Material | Aluminum |
| Ground Lug | 10 AWG Max. |
| Dimensions (L x H x W) | 3.2 x 1.6 x 0.8 in. (82 x 40 x 20mm) |
| Max. Panel Thickness (Bulkhead Connector) | 0.31 in. (7.93mm) |
| Weight | 3.17 oz (89.8g) |
| RoHS Compliant | Yes |