

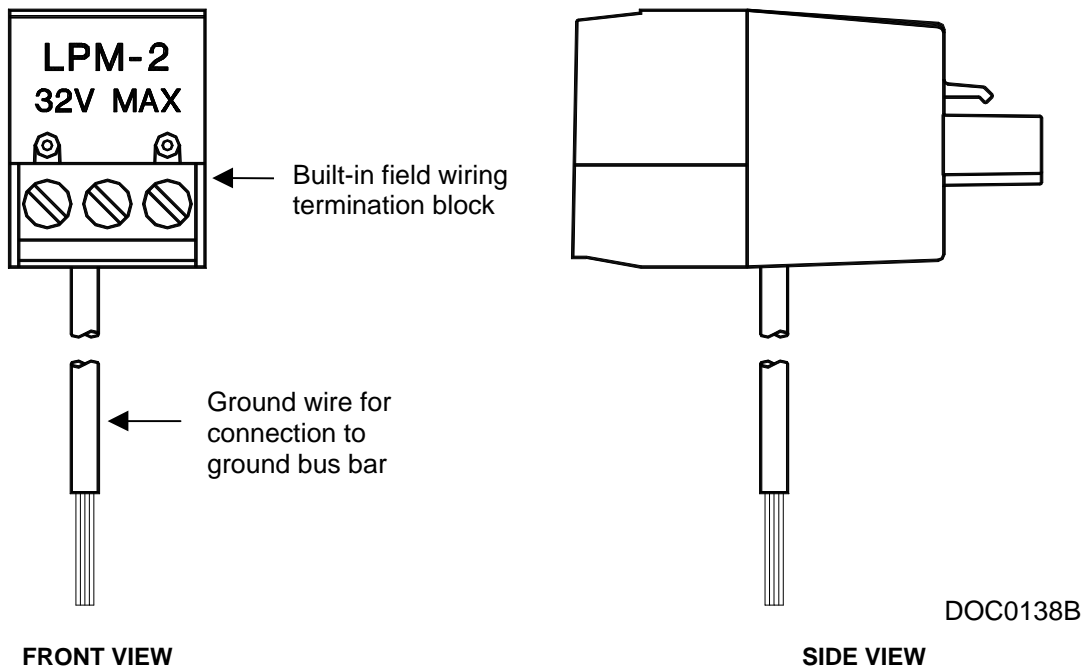
Lightning Protection Module

The Lightning Protection Module (LPM) is designed to prevent high-voltage transients, which can occur in field wiring during a lightning storm, from damaging the input/output circuitry of a Remote Operations Controller (ROC) or a FloBoss™ Flow Manager. The LPM plugs into the field wiring termination sockets of the ROC or FloBoss unit.

In general, one LPM is required for each field input or output (built-in or modular). Using LPMs, even on non-critical inputs and outputs, helps to protect the other I/O circuits. LPMs are not required for the 500-Series I/O Card; however, they may be used to provide extra protection for the Analog Inputs.

The LPM can be used with any type of input or output as long as the normal operating range of the input or output is less than the clamping release voltage of the module. Please note that as a result, it can not be used with a 120-Volt ac signal on a DO Relay Module. Due to physical constraints, it also can not be used in a two-terminal socket, such as a built-in discrete output.

The Lightning Protection Module provides screw terminals for connecting to field wiring, just like the field wiring termination block it replaces when installed. The module also has sockets for plugging in a range resistor.



Lightning Protection Module

Specifications

ELECTRICAL

Series Resistance: 10 ohms from input to output, each terminal.

DC Clamping Voltage: 72 to 108 Volts.

100 V/ms Impulse Clamping Voltage: 500 Volts maximum.

Clamping Release Voltage: 52 Volts minimum.

10 KV/microsecond Impulse Clamping Voltage: 900 Volts maximum.

Surge Life: Module can withstand 300 surges of 10 to 1000 microseconds duration at 500 Amps minimum.

Insulation Resistance: 10,000 Megohm minimum.

Capacitance: 1.0 picofarad maximum @ 1 MHz, each terminal.

CASE

Material: ABS polycarbonate thermoplastic.

Dimensions: 17 mm H by 21 mm W by 40 mm D (0.65 in. H by 0.84 in. W by 1.58 in. D).

Length of Ground Wire: 1.2 m (48 in.) nominal.

SURGE WITHSTAND

Meets surge requirements IEEE C62.31.

ENVIRONMENTAL

Meets the Environmental specifications of the ROC or FloBoss unit in which the module is installed, including Temperature, Humidity, and Transient Protection.

WEIGHT

34 grams (1.2 ounces).

APPROVALS

Approved by CSA for hazardous locations Class I, Division 2, Groups A, B, C, and D.

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