

# FM-SURGE

## Fluidmesh RJ-45 to RJ-45 Inline Surge Suppressor

### Features

- Silicon avalanche diode technology
- RJ-45 protection circuits for GigE data
- Outdoor installation
- Outdoor qualified NEMA 3R type enclosures with easymounting flanges for pole or wall mounting
- Built-in cable retention

### Application

The Fluidmesh RJ-45 to RJ-45 Inline Surge Suppressor is designed to protect Fluidmesh Volo, Mito, and Endo radios to provide maximum network reliability.

The protection circuits utilize silicon avalanche diode technology. The unit has a NEMA 3R cast aluminum enclosure with easy mounting flanges.

The enclosure is an outdoor qualified NEMA 3R type enclosure with easy mounting flanges.

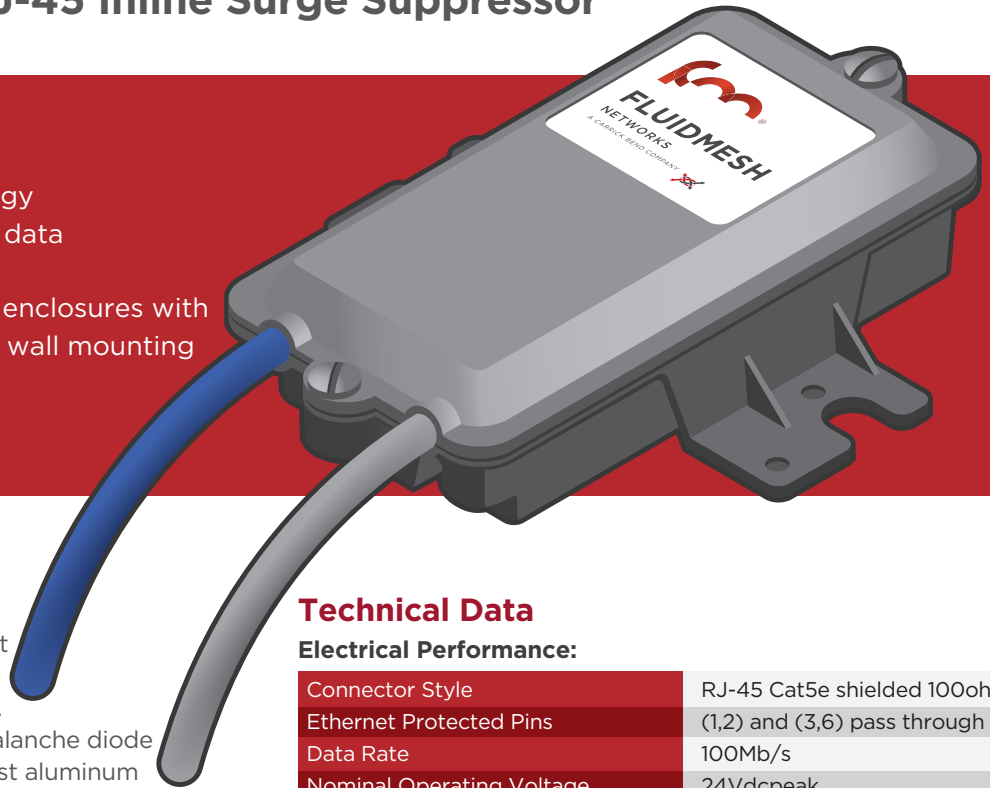
The FM-SURGE features RJ-45 protection circuits for the Ethernet data pairs pins (1,2) (3,6) and DC un-polarized power pins (4,5) (7,8) for any combination of circuits up to 24Vdc MCOV. The unit is intended to be wall mounted and an optional bracket is available to allow a wide range of pole mount applications. Design incorporates a dedicated ground stud that must be bonded to the nearest grounding system (or Master Ground bar) for proper surge protection function.

The system wiring is installed with RJ-45 type connectors that can feed directly into the chassis without having to cut or splice or route through strain relief holes.

The enclosure includes a built in cable retention feature for improved cable management. The enclosure has screw down clamps for maximum cable retention. In the unlikely event of surge protection self sacrifice, the individual protection cards will fail short to disrupt communication. The protection cards can be replaced for ease of service.

### Standards

- NEC 800.100 and 830.100
- GR-1089-2006
- IEEE 802.3af
- RoHS compliant
- CE compliant



### Technical Data

#### Electrical Performance:

Connector Style	RJ-45 Cat5e shielded 100ohm
Ethernet Protected Pins	(1,2) and (3,6) pass through
Data Rate	100Mb/s
Nominal Operating Voltage	24Vdcpeak
Max. Continuous Operating Voltage	30Vdcpeak
Impedance	85 to 115ohms
Frame Transmission	100% Transmission @ 100Mb/s
Attenuation	< -1dB @ 16MHz
Surge Suppression (per GR-1089)	<50Vpeak @ 100A 10/1000ms
DC Power Protected Pins	(4,5) and (7,8) pass through
Nominal Operating Voltage	24Vdcpeak
Max.Continuous Operating Voltage	30Vdcpeak
Surge Suppression (per GR-1089)	<50Vpeak @ 100A 10/1000ms
Max. Line Current	1 Amp
Peak Surge Current	100A @10/1000QS
Response Time	<5nS
Capacitance	<50pF

#### Environmental:

Operating/Storage Temperature	-40°C to +80°C
Relative Humidity	99% (non-condensing)

#### Mechanical:

Weight	0.8lbs (0.36kg)
Product Material	Die-Cast Aluminum

#### Applicable Industry Standards:

Bonding and Grounding	NEC 800.100 and 830.100
Surge Suppression	GR-1089-2006
Power over Ethernet Protocol	IEEE 802.3af
CE Mark Compliant	
RoHS Compliant	