



## NE8FDH-M-Mb

etherCON Magnetics are horizontal PCB etherCON chassis connectors with integrated magnetics providing galvanic isolation and overvoltage protection.

These features save PCB space within the device design and provide improved frequency response when compared to standard designs.

**Attention: this product is strictly not intended for use in PoE systems. Use in PoE systems may damage the connector.**

## Features & Benefits

- Integrated magnetics circuitry within the chassis connector
- Space-saving design, as it removes the need for HF part otherwise required on the customer motherboard.
- Components used: transformers, ferrite core and Bob Smith termination for the automatic termination in case of no cable connection
- Saving costs on PCB (~20 parts) Support voltage mode applications
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- In case of overvoltage harm, the connector can be exchanged, and the main board is still safe.
- Cat 5e (100Mbps and 1Gbps) transmission performance according to IEEE 802.3, 802.3b, and 802.3ab standards
- Lowest crosstalk attenuation with the use of machined-designed transformer
- Overvoltage protection up to 2 kV Ground-panel connection
- Ground-panel connection
- Overvoltage protection >2 kV for 1Gb/s available via optional customer-installed capacitor

**Note: not compatible with etherCON Cat 6 NE8MC6-MO**

## Technical Information

| Product |             |
|---------|-------------|
| Title   | NE8FDH-M-Mb |
| Gender  | Female      |

| Electrical                    |  |
|-------------------------------|--|
| Dielectric strength           | 1 kVdc   |
| Insulation resistance         | > 0.5 GΩ   |
| Number of electrical contacts | 5  |
| Rated current per contact     | 1.5 A  |
| Rated voltage                 | < 50 V   |
| Transmission performance      | 100 Mbps (Class D)   |
| Frequency range               | 1-100 MHz  |
| PoE                           | <b>This product is strictly not intended for use in PoE systems.</b> |

| Mechanical      |                      |
|-----------------|----------------------|
| Insertion force | ≤ 20 N               |
| Withdraw force  | ≤ 20 N               |
| Lifetime        | > 1000 mating cycles |
| Panel thickness | Maximum 4 mm (0.16') |
| Wiring          | Horizontal PCB mount |
| Locking device  | Latch Lock           |
| Chassis shape   | D                    |

| Material        |              |
|-----------------|--------------|
| Contact plating | Gold (Au)    |
| Contacts        | Bronze       |
| Insert          | PBTP         |
| Shell           | Zinc diecast |
| Shell plating   | Nickel (Ni)  |

| Environmental                             |   |
|---|---|
| Temperature range                         | -30 °C to +80 °C                                      |
| Maximum Operating Temperature             | +80 °C  |
| Flammability according to UL 94           | V-0   |
| Protection class according to IEC 60529   | IP 40   |
| Pollution degree according to IEC 60664-1 | Pollution degree 2                                    |
| Solderability                             | Complies with IEC 60068-2-20                          |
| Explosion environment                     | Not intended to be used within explosive environments |