

## MODEL:- TLP-48HM-XX-XXX

Transtech Lightning Protector - Head Mounted  
for both Analogue and Digital Field Transmitters

### GENERAL DESCRIPTION

The **TLP-48HM-XX-XXX** lightning/transient protector provides protection for field mounted transmitters or electronic digital devices mounted in exposed areas. The **TLP-48HM-XX-XXX** consists of a high speed solid state switching network which protects all signal lines and common earth. The front end protection has a gas discharge tube with a 10kA rating.

The housing material is ANSI 25mm Hex 316 stainless steel to assist mechanical mounting. The unit is encapsulated in high temperature casting epoxy which offers high impact resistance with excellent electrical properties and high temperature stability. The standard male thread is the M20mm (20mm ISO, M20 x 1.5), however we also stock ½" NPT and PG13.5 as Standard.

The **TLP-48HM-4W** is designed to be added to standard installations of field transmitters which usually have two entries, one is used to connect the data/signal cable and the spare can be used for the **TLP-48HM-XX-XXX** connection. Under most field installations no additional connection boxes are required. Should no spare entry be available then a simple conduit tee can be used as close as possible to the field device.

The **TLP-48HM-XX** connection is a simple parallel connection for **BOTH supply and signal lines** (see connection schedule below). Care must be taken to correctly earth the green/yellow earth wire from the **TLP-48HM-XX**. This earth wire must be earthed to the local general/structural metal work, all leads to be kept as short as possible at all times.

### TECHNICAL DATA

|                          |                                      |
|--------------------------|--------------------------------------|
| Voltage Rating           | See Table below                      |
| Current/Impedance Rating | See Table below                      |
| Response time:           | Less than 10ns                       |
| EMC Compliance:          | EN50082 part 2 C-tick / CE compliant |
| Field Bus:               | 31.25kbit/s                          |

### GENERAL SPECIFICATION

|                      |  |
|----------------------|--|
| Operating Temp:      | -20 to 60°C  |
| Storage Temp:        | -40 to 80°C  |
| Humidity:            | 5% to 95% RH<br>(Non-condensing)   |
| Termination:         | Flying Leads(250mm 1.0mm <sup>2</sup> )<br>Blue & Blue for 24V supply<br>Black for 4-20mA signal<br>Green / Yellow for earth |
| Housing Material:    | ANSI 316 Stainless Steel<br>Laser printed Part No and connection details.  |
| Dielectric Strength: | 25°C, 50kHz, 19kV/mm   |
| Thread:              | a) 20mm ISO (M20 x 1.5)<br>b) ½" NPT c) PG13.5   |
| Weight:              | 250g   |
| Dimensions:          | 75mm (L) x 25mm Hex c/- 250mm coloured leads   |

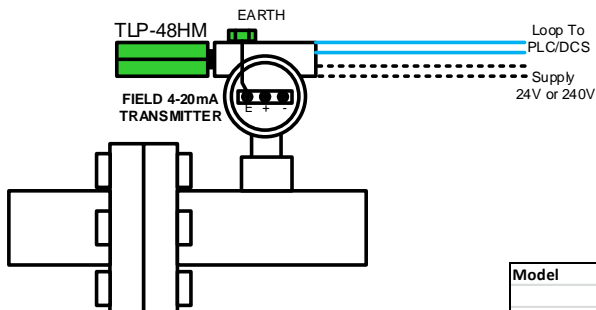


### FEATURES

- ◆ ESD Protection
- ◆ Low "let thru" voltage
- ◆ Protection between ALL lines (including 24Vdc supply)
- ◆ Field proven technology
- ◆ Simple field mounting
- ◆ Field Bus compatible
- ◆ Parallel Connection (No loop impedance)
- ◆ Designed and manufactured to ISO 9001
- ◆ C-Tick/CE compliant
- ◆ Meets AS/NZS 1768:2003 Class B
- ◆ Meets IEC 6421.1:2005 Class I & II
- ◆ Auto resetting
- ◆ High 10kA discharge

**NOTE: This device must be installed by a Qualified Electrician.**

| MODEL            | LOOP +ve | LOOP -ve | Supply L | Supply N | Earth  |
|------------------|----------|----------|----------|----------|--------|
| TLP-48HM 2W      | Black    | Black    |          |          | Ylw/Gm |
| TLP-48HM 4W/24V  | Black    | Black    | Brown    | Blue     | Ylw/Gm |
| TLP-48HM 4W/240V | Black    | Black    | Brown    | Blue     | Ylw/Gm |



### CONNECTION SCHEDULE

| Model            | Working Voltage Frequency. |         | Imax | In<br>15x8/20us | Let Thru V<br>1p @ 1Amp | Response Time | Available<br>Threads |
|------------------|----------------------------|---------|------|-----------------|-------------------------|---------------|----------------------|
|                  | Line - Neutral             |         |      |                 |                         |               |                      |
| TLP-48HM-2W      | N/A                        | N/A     | 10kA | 2.5kA           | -                       | 25nS          | M20-NPT-PG13.5       |
| TLP-48HM-4W-24V  | 24VDC                      | DC      | 10kA | 2.5kA           | -                       | 25nS          | M20-NPT-PG13.5       |
| TLP-48HM-4W-240V | 240VAC                     | 40-60HZ | 10kA | 2.5kA           | -                       | 25nS          | M20-NPT-PG13.5       |
|                  |                            |         |      |                 |                         | 25nS          |                      |

Specify the required Thread as a suffix: eg TLP-48HM-4W-240/M20.

Other Voltages available please contact factory

**TABLE No 2**