#### AVAILABLE MODEL NUMBERS

Application	Nominal Voltage	Configuration	
		1-Pair (2W + Shield + G)	2-Pair (4W + Shield + G)
RS422	5V	TSdt TS D01 005	TSdt TS D02 005
RS232; RS485	12V	TSdt TS D01 012	TSdt TS D02 012
4-20mA	24V	TSdt TS D01 024	TSdt TS D02 024
iSDN; RSDN	48V	TSdt TS D01 048	TSdt TS D02 048
Phone, Fax, DSL	150V	TSdt TS D01 150	TSdt TS D02 150

### **ELECTRICAL SPECIFICATIONS**

Nominal Voltage	10 Options
Max. Operating Voltage (MCOV)	10 Options
Max. Surge Current	40kA
Max. Line Current (OCPD Size)	30A
Max. Frequency	> 3MHz
Max. Data Rate	10/100bps
Insertion Loss	< 1dB
Operating Temperature	-40°C to 60°C

## **MECHANICAL SPECIFICATIONS**

Termination Method	Screw Terminals (#16 - #22AWG)	
Disconnect Indication	Transmission Interrupt	
Housing	Themoplastic NEMA 2 (IP20)	
Dimensions	2 Options	
Mounting	35mm Symmetrical DIN Rail	
Outdoor Use	No	
ROHs Compliant	Yes	

#### LIMITED SUPPRESSION WARRANTIES

THOR SYSTEMS, INC. warrants to the original purchaser/ end user that this Surge Protective Device (SPD/TVSS), if purchased and used solely in the continental United States, will be free from defects in materials and workmanship for a period of five (5) years from the date of purchase. During such limited warranty period, THOR SYSTEMS will not charge the original purchaser/end user to repair or replace the product, or a part or component therein (with the same or a similar product, part or component) at THOR SYSTEMS' option, any product, part or component which proves to have a defect in materials or workmanship, provided the product, part or component is returned prepaid, at the cost and expense of the purchaser/end user, to THOR SYSTEMS, INC.'S manufacturing facility in Richmond, Virginia, within the limited warranty period. All costs and expenses incurred in connection with the removal, shipment, handling and reinstallation of the repair or replaced product, part or component, as well as diagnosis, shall be borne by the purchaser/end user. A Return Material Authorization (RMA) number must be obtained from the Company's customer service department before returning any products.

At the request of the purchaser/end user, and at the cost and expense of the purchaser/end user (at our currently published rates, portal-to-portal), and with reasonable expectation of payment, THOR SYSTEMS, INC. will: (a) provide assistance in the diagnosis, removal, and reinstallation of a repaired or replaced product, part or component; (b) undertake to repair or replace any product, part or component at a location other than THOR SYSTEMS' manufacturing facility in Richmond, Virginia.

The foregoing limited warranties shall not apply unless a Warranty Registration Card is completed and returned via mail, fax, or email to THOR SYSTEMS, INC. within thirty (30) days of the date of purchase. The foregoing limited warranties shall not apply if the product, or any parts or components, are modified, tampered with, misused, misapplied, or subjected to abnormal working conditions (including, but not limited to, water or other overexposure). The limited warranty for repaired product or replacement product, parts or components will be only the remaining portion of the original limited warranty.

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# Series TSdt TS D

## **Operation Manual**



\*\* Image is not model specific \*\*

THOR SYSTEMS continuously strives to improve its products. Occasionally there may be changes in features or optional equipment. All information contained in this printed material is based on the latest product information available at the time of printing. THOR SYSTEMS reserves the right to implement changes, without notice, in specifications and equipment services.

# Fig. A\_\_ - CONNECTION METHOD

## Fig. B - TECHNOLOGY / SCHEMATIC

**1-Pair Schematic** 

Plug-in

Module

Gas Tube

Line Input

Ē

mhn

Pair #1

(1-2)

(+

(-)

2

TVS Diode

Load Output

÷

mhm

Pair #1

(1-2)

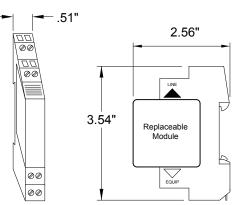
(+)

(-)

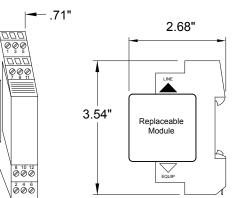
2

## Fig. C - DIMENSIONS

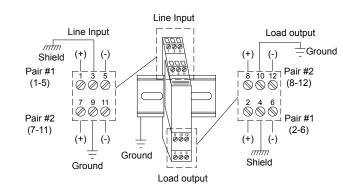




2-Pair Models

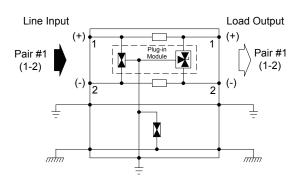


#### 2-Pair Wiring



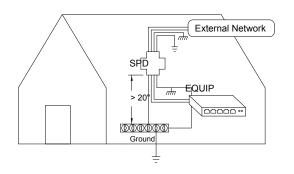
# 1-Pair Schematic

+



# **SPD FAILURE INDICATION**

- 1-Pair Models A indiction that you SPD has failed will be an Interruption with your Network Service. Replace or bypass the failed SPD to restore service.
- 2-Pair Models A indiction that you SPD has failed will be an Interruption with your Network Service. Remove Module to restore service until a replacement is available.



## 1-Pair Wiring

