

# ISD-1100-T/1200-T Series

## Data line surge protectors



- > Plug and play
- > Surge protection for serial data lines
  - ISD-1110-T/1130-T: EN 61000-4-5 Level 4
  - ISD-1210-T/1230-T: IEC 61632-21 C2 (20 kV protection)
- > Supports RS-232 or RS-422/485
- > Compact size for easy installation
- > Wide temperature model available for -40 to 85°C environments



## : Introduction

The ISD-1100-T/1200-T series provides surge protection for serial data lines to prevent damage to devices such as modems, fax machines, I/O ports, terminals, instrumentation, hubs, and any other devices that use

serial data connections. The ISD-1100-T/1200-T can add serial data line protection to a variety of serial connections: RS-232, RS-422, and RS-485.

## : Specifications

### Data Line Surge Protection

#### Maximum Power Protection:

ISD-1110-T/1130-T: 400 watts

ISD-1210-T/1230-T: 5000 watts

#### Number of Protected Lines:

ISD-1110-T: 7

ISD-1130-T/1210-T/1230-T: 4

#### Surge Capacity:

ISD-1110-T/1130-T: 4 kV, 8/20  $\mu$ s impulse per line

ISD-1210-T/1230-T: 20 kV, 8/20  $\mu$ s impulse per line

#### Working Voltage:

ISD-1110-T/1210-T: 15 V

ISD-1130-T/1230-T: 5 V

#### Maximum Load Current:

ISD-1110-T: 0.1 A (23°C), 0.05 A (85°C)

ISD-1130-T: 0.12 A (23°C), 0.07 A (85°C)

ISD-1210-T/1230-T: 0.4 A (20°C), 0.13 A (85°C)

#### Response Time: < 1 ns

#### Protection Mode: Line to line, line to ground

#### Protection Rating: IP30

#### Bandwidth: 10 MHz loss < 1 dB

### Connectors

#### ISD-1110-T:

Data in: DB9 male

Data out: DB9 female

#### ISD-1130-T:

Data in: Terminal block

Data out: Terminal block

#### ISD-1210-T/1230-T:

Data in: Terminal block

Data out: Terminal block

### Physical Characteristics

#### Housing:

ISD-1110-T/1130-T: Plastic

ISD-1210-T/1230-T: Metal

#### Weight:

##### Product only

ISD-1110-T: 58 g

ISD-1130-T: 30 g

ISD-1210-T: 214 g

ISD-1230-T: 212 g

##### Packaged

ISD-1110-T: 119 g

ISD-1130-T: 96 g

ISD-1210-T: 276 g

ISD-1230-T: 274 g

#### Dimensions:

ISD-1110-T: 53 x 37 x 20.6 mm (2.01 x 1.46 x 0.81 in)

ISD-1130-T: 53 x 37 x 20.6 mm (2.01 x 1.46 x 0.81 in)

ISD-1210-T: 95 x 53 x 25 mm (3.74 x 2.01 x 0.98 in)

ISD-1230-T: 95 x 53 x 25 mm (3.74 x 2.01 x 0.98 in)

### Environmental Limits

**Operating Temperature:** -40 to 85°C (-40 to 185°F)

**Storage Temperature:** -40 to 85°C (-40 to 185°F)

**Ambient Relative Humidity:** 95% max, non-condensing

**Altitude:** Up to 2000 m

**Note:** Please contact Moxa if you require products guaranteed to function properly at higher altitudes.

### Standards and Certifications

#### EMS:

ISD-1110-T/1130-T: EN 61000-4-5 Level 4 (4 kV)

ISD-1210-T/1230-T: IEC 61643-21 C2 (20 kV 1.2/50, 10 kA 8/20)

### Warranty and RMA Policy

**Warranty Period:** 5 years (limited to 1-time use)

**Warranty Details:** See [www.moxa.com/warranty](http://www.moxa.com/warranty)

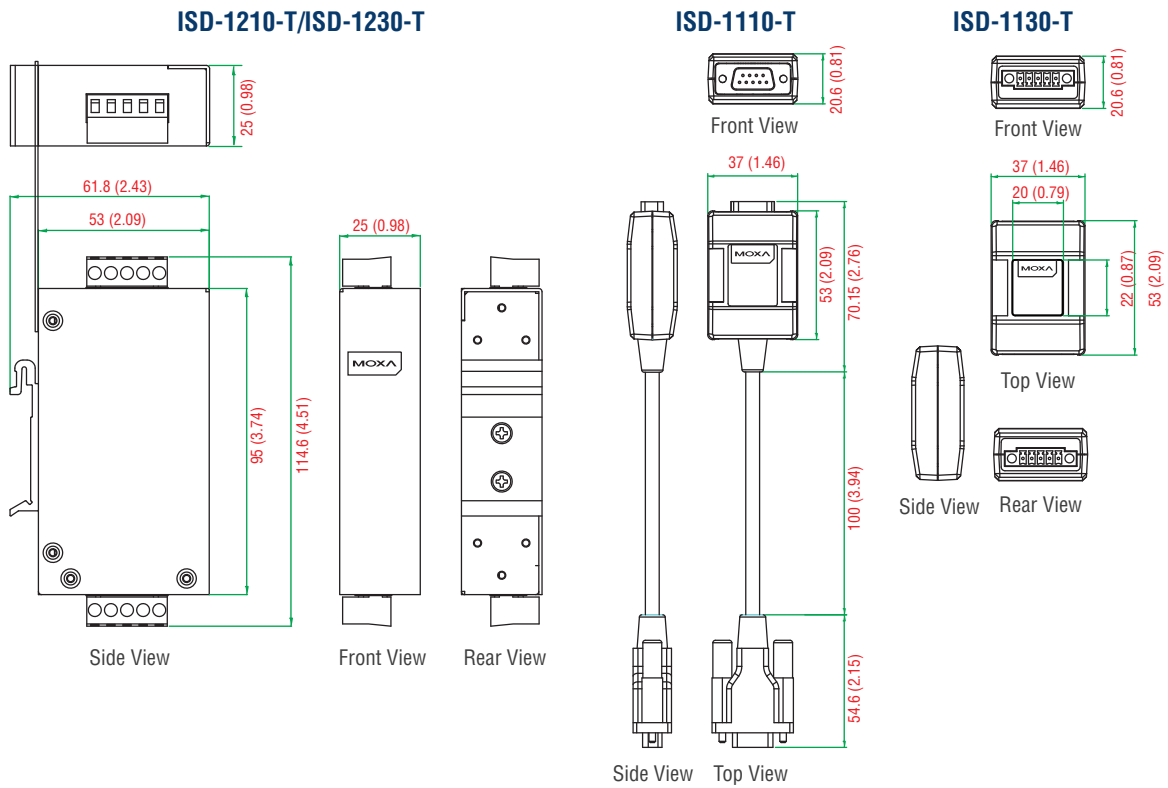
**Note:** ISD products will only be repaired once within 5 years of purchase. After the first repair, the product's warranty will no longer be valid.

**RMA Policy:** Moxa does not provide RMA service for ISD products whose PCB board was destroyed by a surge.

**Note:** Be sure to purchase the ISD product with maximum surge protection suitable for your environment.

**Dimensions**

Unit: mm (inch)



**: Ordering Information**

**Available Models**

**ISD-1110-T:** 7 data line entry surge protector, RS-232, 4 kV surge protection, -40 to 85°C operating temperature

**ISD-1130-T:** 4 data line entry surge protector, RS-422/485, 4 kV surge protection, -40 to 85°C operating temperature

**ISD-1210-T:** 4 data line advanced surge protector, RS-232, 20 kV surge protection, -40 to 85°C operating temperature

**ISD-1230-T:** 4 data line advanced surge protector, RS-422/485, 20 kV surge protection, -40 to 85°C operating temperature

**Package Checklist**

- 1 surge protector
- Hardware installation guide (printed)
- Warranty card