ISD-1100-T/1200-T Series

Data line surge protectors

ISD-1230-T

ISD-1210-T

ISD-1110-T

ISD-1130-T

> 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 61643-21 C2 (20 kV protection)
> Supports RS-232 or RS-422/485
> Compact size for easy installation
> Wide temperature range 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 μs impulse per line
ISD-1210-T/1230-T: 20 kV, 8/20 μs 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

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)
Weight:
Product only
 ISD-1110-T: 58 g (0.13 lb)
 ISD-1130-T: 30 g (0.07 lb)
 ISD-1210-T: 214 g (0.47 lb)
 ISD-1230-T: 212 g (0.46 lb)
Packaged
 ISD-1110-T: 119 g (0.26 lb)
 ISD-1130-T: 96 g (0.21 lb)
 ISD-1210-T: 276 g (0.61 lb)
 ISD-1230-T: 274 g (0.60 lb)

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

Standards and Certifications
EMS:
ISD-1110-T/1130-T: EN 61000-4-5 (Surge): Signal: 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)
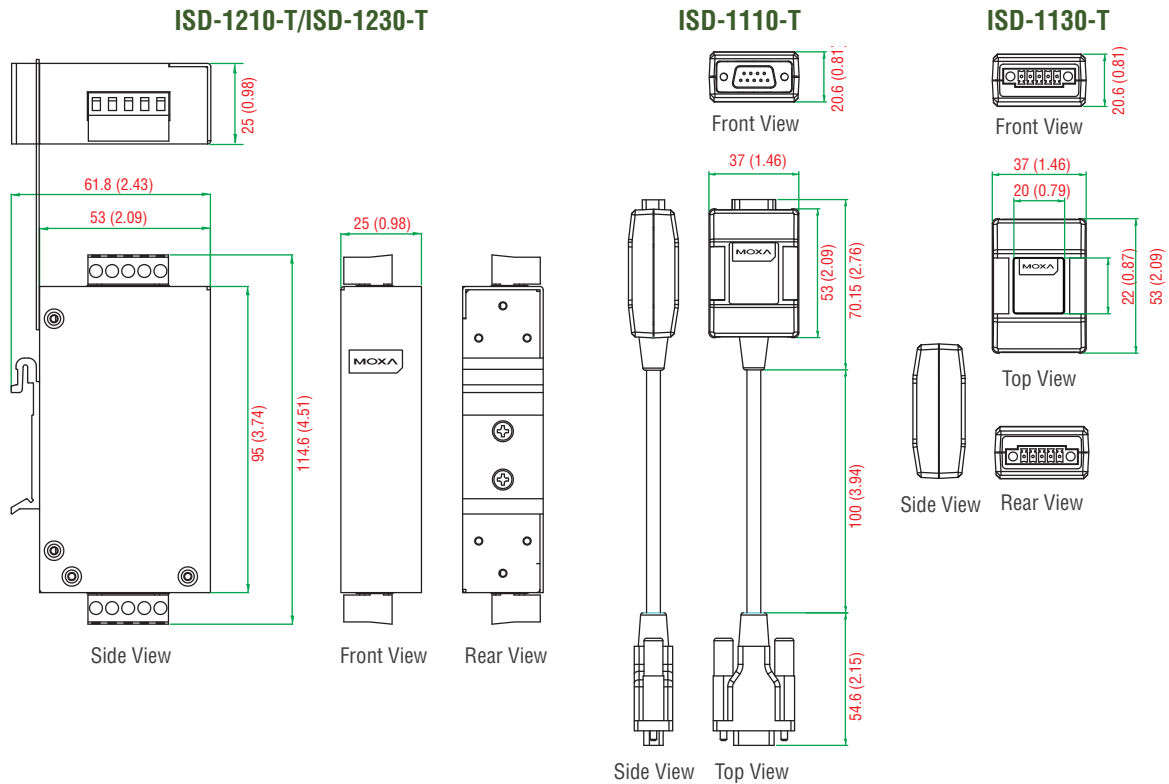**Warranty Details:** See www.moxa.com/warranty
Note: ISD products will only be repaired once within 5 years of purchase. After the first repair, the product's warranty will no longer be valid.
RMA Policy: Moxa does not provide RMA service for ISD products whose PCB board was destroyed by a surge.
Note: Be sure to purchase the ISD product with maximum surge protection suitable for your environment.

Dimensions

Unit: mm (inch)

ISD-1210-T/ISD-1230-T

25 (0.98)

61.8 (2.43)

53 (2.09)

25 (0.98)

95 (3.74)

114.6 (4.51)

MOXA

Side View   Front View   Rear View

ISD-1110-T

20.6 (0.81)

Front View

37 (1.46)

MOXA

53 (2.09)

70.15 (2.76)

100 (3.94)

54.6 (2.15)

Side View   Top View

ISD-1130-T

20.6 (0.81)

Front View

37 (1.46)

20 (0.79)

MOXA

22 (0.87)

53 (2.09)

Top View

Side View   Rear View

: 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