



## Smart Grounding Resistance Monitoring Device TDZ-JDJ



### Description

With advancing technology, electronic systems face increasing risks from electromagnetic interference (EMI), especially lightning-induced surges. Surge Protective Devices (SPDs) safeguard equipment by diverting surges, but their effectiveness depends on a low-resistance grounding grid. Traditional periodic testing creates blind spots in protection.

This intelligent grounding monitor measures grid resistance in real time. When integrated with monitoring software and hardware (e.g., RTUs), it enables centralized remote tracking, critical for distributed SPD applications (railways, wind farms, etc.).

#### Highlighted:

Real-time grounding resistance monitoring

Eliminates protection blind spots

Centralized remote management capability

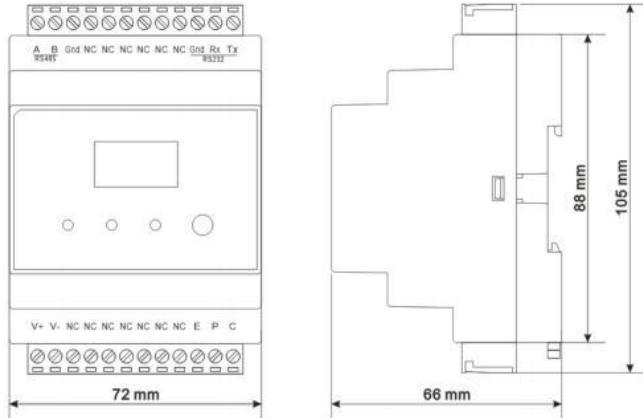
Ideal for large-scale SPD deployments

### Features

- ◆ **Compact Size** – Rail-mounted design allows seamless integration into lightning protection boxes, power distribution cabinets, and network racks without modifying existing layouts.
- ◆ **Easy Installation** – Plug-and-play terminals enable quick deployment and maintenance.
- ◆ **Interface Options** – Isolated E/P/C test circuits for flexible connectivity.
- ◆ **Versatile Communication** – Standard RS485 port for data transmission and daisy-chaining; expandable to Ethernet, LoRa, or 4G.
- ◆ **High EMI Immunity** – Surge-protected serial ports ensure reliable operation in harsh electromagnetic environments.

**Specifications:**

Model		TDZ-JDJ	
Power supply		9–28VDC wide-range input, reverse polarity protection	
Power Consumption		Standby: 1W, Operation: 5W	
Display		0.96 inch OLED	
Communication	RS485	Baud rate 1200/2400/4800/9600/19200 (default 9600); Parity N; Data bits 8; Stop bit 1;	
		Address 1–255 (default 1)	
	RS232	Dedicated interface for surge peak recorder/multi-loop controller (disabled by default)	
Measurement Mode		3-pole grounding resistance test	
Test Values		Avg/Max/Min (display shows average)	
Test Time		8 sec/test (adjustable)	
Overrange Indication		Displays "OL" if exceeding range	
Test Method		100mA mode: Current reversal method (10–800Hz adjustable)	10mA mode: Current reversal method (10–800Hz adjustable)
Test range		0~20Ω	0~200Ω
Resolution/Accuracy		0.01Ω;±2%rdg±3dgt	
Auto Test		Programmable interval (1–999 hours)	
Overload Protection		AC280V between poles (3 sec withstand)	
Enclosure		PC+ABS, gray (customizable for 500+ units), flame-retardant V0	
Mounting		Standard 35mm DIN rail	
Operating Conditions		-40~85°C, 0~95% RH	

**5. Dimension**



## 6. Connection diagram

