

# TP232 RS-232

High Energy Serial Protection



## Specifications

**Clamping Voltage (Stage One):**  
72 V DC minimum, 108 V DC maximum

**Series Resistance (Stage Two):**  
2.7 ohm

**Clamping Voltage (Stage Three):**  
14.3 V minimum, 15.7 V maximum

**Temperature:**  
Operating Range: 0°F to 122°F (-18°C to 50°C)

**Clamping Time:**  
Less than 5 x 10-9 seconds

**Connectors:**  
Five-position terminal blocks

**Dimensions:**  
Approximately 4.5 L x 3.3 W x 1.8 in H

**Weight:**  
Approximately 0.42 lb

**Approvals:**  
CE Marked

**Warranty:**  
One-year limited warranty

## Standard Features

- Two metal mounting brackets
- Three stages of protection: Gas discharge tube, series resistor and transient voltage suppressor (TVS)
- Two terminal posts for ground
- RS-232 high energy surge protector
- Terminal blocks for transmit, receive, request to send, clear to send and signal ground
- Safe for use with computers and PLCs

APPROVALS



## Applications

- Indicators
- Remote displays
- Printers
- Computers
- PLC

## Part Number/Price

Part #	Description	Price
69201	TP232	Consult

## Options/Accessories

Part #	Description	Price
17778	12 in ground strap	Consult
17781	24 in ground strap	Consult
69516	Additional installation manual	Consult

## Specifications

**Variable Range:**  
0-3 mV/V

**Impedance:**  
700 ohm nominal

**Temperature:**  
Operating Range: 0°F to 122°F (-18°C to 50°C)

**Connectors:**  
Binding posts suitable for banana plug or 14 gauge wire

**Temperature Coefficient:**  
±100 ppm/ °C

**Dimensions:**  
(W x L x H) 4.5 in x 3.5 in x 1.25 in

**Warranty:**  
One-year limited warranty



Ranger 1  
Variable Range Simulator

## Standard Features

- ABS plastic case, weighs less than 1 lb
- Large vernier knob, smooth 10-turn potentiometer
- Ideal tool for troubleshooting a scale system, bench testing stability of indicators and setpoint simulation
- Binding posts are color coded to ISA S37.8 standard

## Part Number/Price

Part #	Description	Price
68029	Ranger 1 variable range simulator	Consult

## Options/Accessories

Part #	Description	Price
21116	Cable (4 ft) with banana plugs	Consult