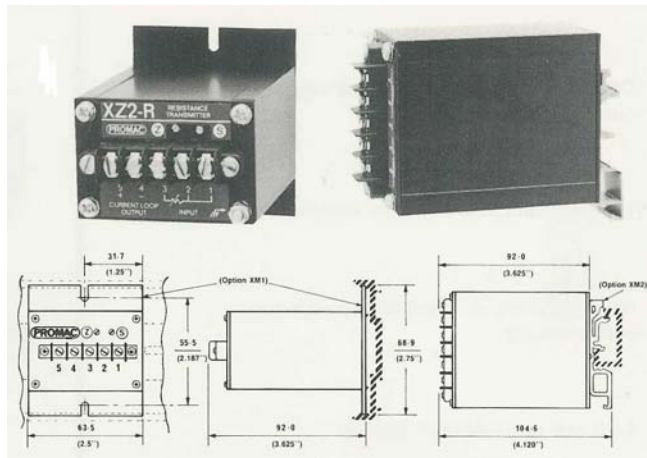




# XZ2-R RESISTANCE TRANSMITTER

A fully isolated loop powered unit designed to convert potentiometer or variable resistance inputs to current signals

- **Wide range of input resistance**
- **2 wire loop powered**
- **3-wire potentiometer/slidewire input**
- **4-20mA or 10-50mA output**
- **Constant-voltage excitation**
- **Input-output isolation (500Vrms)**
- **High accuracy**
- **High common mode rejection**



The XZ2-R wire resistance to current transmitter is designed using highly stable state of the art electronics to accept varying resistance inputs and to accurately convert to a proportional current output. Applications include measuring changing resistance from rotary or linear slidewire potentiometers.

The 12-60Vdc power needed to operate the XZ2-R 2-wire transmitter is obtained from the output current loop and is supplied from the load source, or a separate DC power supply source. The recommended output wiring is standard twisted or shielded copper wires.

All XZ2-R transmitters undergo stringent factory tests to ensure their correct specifications. Circuit boards are conformally coated and enclosed in a rugged compact aluminum housing, which can be surface, track or DIN 'G' rail mounted for location in controlled environments. Industrial or explosion proof enclosures are also available for harsh or restricted environments.

### INPUT

Potentiometer or slidewire 0-100 ohms through 0-10,000 ohms range  
**Span Adjustment:** 10-100% of range  
**Zero Adjustment:** 0-90% of range  
**Impedance:** 10M ohm min.  
**Bias Current:** 25 nanoAmps max.  
**Excitation Voltage:** 40-80mV

### OUTPUT

**Range:** 4-20mA standard (10-50mA optional)  
**Load Resistance (R<sub>L</sub>)**  

$$R_L = \frac{\text{Supply Voltage} - 12V}{20\text{mA} (50\text{mA})}$$
**Current Limit:**  
 34mA for input overrange (85mA for 10-50mA)

### PERFORMANCE

**Accuracy:** (Linearity & Repeatability) ±0.1% of span  
**Temperature Effect:** (-20°C to 70°C) 0.012% of span/°C  
**Operating Temperature:** - 40°C to 85°C  
**Response Time:** 0.5 sec. for 98% change  
**Common Mode Rejection:** Better than 120dB at 60Hz

### POWER

**Range:** 12 – 60Vdc (max. dissipation 1.2W)  
**Supply Voltage Effect:** 0.002% of span/volt

### ISOLATION

**Input/Output:** Transformer isolated to 500Vrms (tested to 1KVrms)

### CLASSIFICATION

(General purpose)  
 Designed for non-incendive use in Class 1, Div. 2 Groups A, B, C, D and suitable for use in Class II, Div. 2 Group G and Class III, Divs. 1 & 2 Hazardous Areas

### ELECTRICAL OPTIONS (applicable)

ZJ Reversed Output  
 ZO 10-50mA Output

### MOUNTING BRACKET OPTIONS

XM1 Standard surface/Snap-in track  
 XM2 DIN 'G' rail  
 XM4 Explosion proof

### ORDER INFORMATION

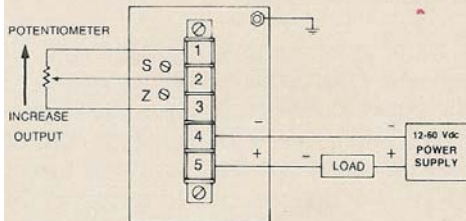
**Please specify the following:**

1. Model Number XZ2-R
2. Input range
3. Output range
4. Z options
5. X options

### Model No. Examples:

XZ2-R/0-1K/4-20/XM1  
 XZ2-R/1-5K/10-50/ZJ/XM2  
 XZ2-R/1-10K/20-4/XM4

### Typical Application Wiring Diagram



MEASUREMENT TECHNOLOGIES, LTD.

1900 Industrial Blvd., Suite 200  
 Colleyville, TX 76034 USA  
 Ph: +817-442-9930  
 Fax: +817-442-9990  
 Email: [sales@mtech.biz](mailto:sales@mtech.biz)  
 Web Site: [www.mtech.biz](http://www.mtech.biz)

### Represented By:



Specifications are subject to change without notice.

XZ2-R Rev 1/042304