

# BLUE PETER Series®

## Model KMD-8R 8 Channel Scanning RTD Meter/Relay



### FEATURES

- Compatible with:
  - 100 ohm Platinum 0.00385 TCR
  - 100 ohm Platinum 0.00392 TCR
  - 10 ohm Copper
  - 120 ohm Nickel
- Eight 2 or 3-wire RTD inputs for
  - Stator Winding RTDs
  - Bearing RTDs
- 2 alarm setpoints per channel
- 2 SPDT relay outputs rated at 3A
- Bright 4-digit temperature display
- Standard 1/4 DIN size
- RS-422/485 or RS-232 Serial Communications option

### APPLICATIONS

- Electric Motors
- Generators



**ILLICA Group, LLC**  
475 Silver Street  
Poca, WV 25159 USA  
www.illica.com

Phn 800.644.4017 Fax 304.776.9464  
304.776.9370

### DESCRIPTION

Model KMD-8R eight channel digital scanning RTD meter/relay provides comprehensive thermal protection for electric motors and generators.

Microprocessor based, it accepts up to eight RTD inputs—either 3-wire or 2-wire.

### Versatile

Unique is the KMD-8R's ability to accommodate all of the RTD types commonly used in thermal protection applications.

Motors often use six stator winding RTDs...two per phase. Additionally, one bearing RTD is placed at each bearing housing. The KMD-8R can accommodate mixed RTD types, such as six 100ohm Platinum RTDs from the windings area and two 10ohm Copper RTDs from the bearings.

### Simple

RTD output signals are fed to the eight input channels of the Model KMD-8R. Up to two setpoints per channel can all be configured independently. One might set SP1 to notify control room personnel of temperatures that are borderline high...the SP2 might be set at a temperature level that is considered serious.

A 4-digit numeric display shows measured temperature readings and a 2-digit display indicates the channel whose temperature is being displayed. 12 LEDs indicate the

### Secure


presence of an Alarm State for each channel, the presence of a Relay Trip condition, and which temperature scale is being displayed.

Configuration, including setpoints, alarm levels, input types, and other parameters, are setup either by a passcode protected front panel key entry or by the factory prior to shipment. Each of the two KMD-8R relays can be configured to either or both SPDT relays.



The unit can also communicate with other control instrumentation by means of an optional communications module RS-232 or RS-422/485.

**BLUE PETER Series® Model KMD-8R**  
**8-Channel Scanning RTD Meter/Relay**  
**Specifications**

<b>Input Types:</b> <ul style="list-style-type: none"> <li>• 100 ohm Platinum @ 0°C, 0.00385 TCR</li> <li>• 100 ohm Platinum @ 0°C, 0.00392 TCR</li> <li>• 120 ohm Nickel @ 0°C, 0.00672 TCR</li> <li>• 10 ohm Copper @ 25°C, 0.00427 TCR</li> </ul>	<b>Temperature Ranges</b> <ul style="list-style-type: none"> <li>• -210 to 620°C</li> <li>• -210 to 610°C</li> <li>• -80 to 210°C</li> <li>• -80 to 270°C</li> </ul>	<b>Accuracy<sup>1</sup></b> <ul style="list-style-type: none"> <li>• ±0.1% of Full Scale</li> <li>• ±0.1% of Full Scale</li> <li>• ±0.1% of Full Scale</li> <li>• ±0.1% of Full Scale</li> </ul>
<b>Outputs:</b> Two SPDT relays for alarm rated 3A 220Vac		
<b>Serial Communication:</b> Optional accessory: RS-232 or RS-422/485 module, with 50VDC isolation for connection to CPU board		
<b>Indication:</b> <ul style="list-style-type: none"> <li>• Digital Displays: 4 Digit for Temperature (-999 to 9999 range) and 2 Digit for Channel Indication (00 to 08)</li> <li>• 12 LEDs indicate:                         <ul style="list-style-type: none"> <li>- <b>CH 1-8</b> Lit to indicate alarm state for individual channel</li> <li>- <b>Rel 1-2</b> Lit to indicate Relays 1 &amp; 2 being in activated state</li> <li>- <b>°C or °F</b> Lit to indicate whether display value is in Celsius or Fahrenheit</li> </ul> </li> </ul>		
<b>Sampling Rate:</b> 440ms sampling rate for the entire -999 to 9999 range. The display is updated each second.		
<b>Thermal Stability:</b> ±0.005% per °C of span with reference to 25°C ambient temperature		
<b>Power Supply:</b> Universal 90 to 240VAC or 130 to 340VDC (any polarity), 10W nominal		
<b>Operating Ambient Environment:</b> 0 to 50°C temperature and 90% maximum Relative Humidity		
<b>Declaration of Conformity:</b> Model KMD-8R carries a  mark indicating designed compliant with the following European Standards: EN 50081-1: 1992 EN 50081-2: 1994 EN 50082-1: 1992 EN 50082-2: 1995 EN 61010-1: 1993		
<b>Dimensions:</b> ¼ DIN (96 x 96 mm) with 172.5 mm depth (6¾ inches), panel cut 92 x 92 mm		
<b>Weight:</b> 0.7kg (1.54 lbs) approximate		
<b>Configuration:</b> By front panel push buttons or preset by manufacturer upon request		

<sup>1</sup>Accuracy specifications are based on a one year recalibration cycle and apply for operation in ambient temperature from +18°C to +28°C unless otherwise stated.

**Ordering Information:**

<u>Product No.</u>	<u>Description</u>
KMD-8R	RTD Meter/Relay, 8-channel
Comm-1	RS-232 Communications Option
Comm-2	RS-485 Communications Option
Comm-3	RS-422 Communications Option
H-001	Alert Horn, 120VAC, 50/60Hz BC-
222	Housing for Bench Mounting



**BLUE PETER** *A flag with a blue background and white square in the center, hoisted as a signal that the ship is about to sail. Peter is a corruption of the French partir (leave or notice of departure). The flag is hoisted to give notice to the town that any person having a money-claim may make it before the ship starts, and that all about to sail are to come on board.*