Precision DC Calibrator
2553A

The 2553A is a novel calibrator combining Yokogawa’s high-precision DC voltage and current generation technologies. This calibrator outputs DC voltage in a range of ±32 V and DC current in a range of ±120 mA with high accuracy and stability. In addition to voltmeters and ammeters, the 2553A can calibrate thermometers and temperature controllers using a thermocouple or resistance temperature detector (RTD). By using its setting dials provided for each digit of the output value, users can intuitively change it. As a successor of the 2553 model, this model offers greatly improved performance.

Major features

- Calibrating versatile temperature measuring instruments
- Highly accurate and stable output
- Intuitive operation
- Communication compatibility

Applications and usage

- Calibration, development and inspection of temperature measuring instruments
- Calibration and testing sensor transformers

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For worldwide locations, please see the back cover.

Major specifications

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voltage generation range</td>
<td>10 mV, 100 mV, 1 V, 10 V, 30 V</td>
</tr>
<tr>
<td>Range</td>
<td>±32 V</td>
</tr>
<tr>
<td>Accuracy (1 year)</td>
<td>±75 ppm (1 V range)</td>
</tr>
<tr>
<td>Stability</td>
<td>±15 ppm/h (1 V range)</td>
</tr>
<tr>
<td>Current generation range</td>
<td>1 mA, 10 mA, 30 mA, 100 mA</td>
</tr>
<tr>
<td>Range</td>
<td>±120 mA</td>
</tr>
<tr>
<td>Accuracy (1 year)</td>
<td>±120 ppm (1 mA range)</td>
</tr>
<tr>
<td>Stability</td>
<td>±20 ppm/h (1 mA range)</td>
</tr>
<tr>
<td>Thermocouple type</td>
<td>R, S, B, J, T, E, K, N, C, A</td>
</tr>
<tr>
<td>Range</td>
<td>-270 to 1300 °C (type K)</td>
</tr>
<tr>
<td>Accuracy (1 year)</td>
<td>±0.11 °C (type K, at 0 °C)</td>
</tr>
<tr>
<td>Reference junction compensation</td>
<td>Internal, External, or by value setting</td>
</tr>
<tr>
<td>RTD type</td>
<td>Pt100</td>
</tr>
<tr>
<td>Range</td>
<td>-200 to 850 °C</td>
</tr>
<tr>
<td>Accuracy (1 year)</td>
<td>±0.15 °C</td>
</tr>
<tr>
<td>Resistance generation range</td>
<td>400Ω</td>
</tr>
<tr>
<td>Range</td>
<td>18 to 400 Ω</td>
</tr>
<tr>
<td>Accuracy (1 year)</td>
<td>±(75 ppm of setting + 0.015 Ω)</td>
</tr>
<tr>
<td>User-defined function</td>
<td>Thermocouple and RTD</td>
</tr>
<tr>
<td>Dimensions</td>
<td>213 (W) × 132 (H) × 300 (D) mm</td>
</tr>
<tr>
<td>Weight</td>
<td>Approx. 3 kg</td>
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</tbody>
</table>