**Nuclear Qualified**

**Analog Switchboard Instruments**

- 1E Safety Rating for use in nuclear power plants
- Proven Westinghouse designs
- Fits standard ANSI panel cutouts
- 1% or 1.5% accuracy
- Direct upgrade from commercial meters
- Rugged taut band movement
- Direct replacement for Yokogawa AB40 and 180 Models

Weschler Nuclear Qualified Analog Switchboard Meters are intended for use in applications where accurate and reliable measurement of a process value is of paramount importance. This series is designed to meet or exceed all national nuclear standards for environmental, temperature and humidity extremes, seismic vibration and human factors.

These qualified meters are available for direct measurement of standard electrical quantities, including signals from transducers for measuring any other electrical or mechanical quantity that can be converted into a proportional electrical quantity.

Type KX-241 and KC-241 (AC rectifier) circular scale instruments are built with a permanent-magnet moving coil mechanism and taut-band suspension. Type KA-241 AC instruments employ an iron vane and taut-band suspension. This construction provides top performance and long life under adverse conditions of shock and vibration. Case material is steel with a shatter-proof poly-carbonate window. The window is flat to reduce light reflections. The beveled dial scale reduces shadows and provides a 60 degree viewing angle.

Type 252 edgewise instruments were designed specifically for the nuclear power industry. Their ruggedness and reliability make them an excellent choice for any control panel. These instruments incorporate the same taut-band suspension system that is used in Weschler K-241 meters. The case and lens are high impact, flame retardant polycarbonate.

### Types Available

<table>
<thead>
<tr>
<th>Function</th>
<th>Ranges</th>
<th>Type</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC Microammeter</td>
<td>50μA to 1mA</td>
<td>KX-241, VX-252, HX-252</td>
<td>Self-contained</td>
</tr>
<tr>
<td>DC Ammeter</td>
<td>1A to 50A</td>
<td>KX-241, VX-252, HX-252</td>
<td>Self-Contained</td>
</tr>
<tr>
<td>DC Millivoltmeter</td>
<td>50mV to 1V</td>
<td>KX-241, VX-252, HX-252</td>
<td>Self-contained</td>
</tr>
<tr>
<td>DC Milliammeter</td>
<td>1mA to 1A</td>
<td>KX-241, VX-252, HX-252</td>
<td>Self-contained</td>
</tr>
<tr>
<td>DC Voltmeter</td>
<td>1V to 800V</td>
<td>KX-241, VX-252, HX-252</td>
<td>Self-contained</td>
</tr>
<tr>
<td>Rectifier AC Milliammeter</td>
<td>1mA to 1A</td>
<td>KC-241, VC-252, HC-252</td>
<td>Self-contained</td>
</tr>
<tr>
<td>AC Ammeter</td>
<td>1A to 17A</td>
<td>KA-241, VC-252, HC-252</td>
<td>Self-contained</td>
</tr>
<tr>
<td>AC Voltmeter</td>
<td>5V to 600V</td>
<td>KA-241, VC-252, HC-252</td>
<td>Self-contained</td>
</tr>
</tbody>
</table>

See more information online at weschler.com/nuclear

**Made in USA**
Standards:
- IEEE 323: 2003
- IEEE 344: 2004
- Reg Guide 1.100
- EPRI TR-107330

Nuclear Qualified Analog Switchboard Instruments

Specifications

**Accuracy**
- K-241: 1% accuracy class
- V-252: 1.5% of full scale deflection, 1% on special order

**Scale Length**
- K-241: 7.1" (180mm) for 250° deflection
- V-252: 4.8" (122mm)

**Waveform Compensation:**
- to 15% of third harmonic content

**Instantaneous Overload:**
- 1200V dc or peak ac, 800V ac rms (V-252), 800 V (K-241)

**Shielding:**
- Magnetically shielded

**Net Weight**
- K-241: 3 to 5 lbs (1.4 to 2.2 kg)
- V-252: 1.0 to 1.4 lbs (0.45 to 0.64 kg)

**Terminal Connections**
(VP840 Transducer shown)

**Case Dimensions**

**Popular Styles** (specify scale & legend)

<table>
<thead>
<tr>
<th>Input</th>
<th>K-241</th>
<th>V-252</th>
<th>H-252</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-5 V DC</td>
<td>100N000308</td>
<td>100N008012</td>
<td>100N008021</td>
</tr>
<tr>
<td>0-10 VDC</td>
<td>100N000305</td>
<td>100N008013</td>
<td>100N008022</td>
</tr>
<tr>
<td>0-150 V DC</td>
<td>100N000307</td>
<td>100N008014</td>
<td>100N008023</td>
</tr>
<tr>
<td>0-1 mA DC</td>
<td>100N000301</td>
<td>100N008003</td>
<td>100N008024</td>
</tr>
<tr>
<td>4-20 mA DC</td>
<td>100N000302</td>
<td>100N008005</td>
<td>100N008025</td>
</tr>
<tr>
<td>10-50 mA DC</td>
<td>100N000309</td>
<td>100N008020</td>
<td>100N008026</td>
</tr>
<tr>
<td>0-50 mV (shunt rated)</td>
<td>100N000310</td>
<td>100N008015</td>
<td>100N008027</td>
</tr>
<tr>
<td>0-150 VAC</td>
<td>100N000601</td>
<td>100N008006</td>
<td>100N008008</td>
</tr>
<tr>
<td>0-5 AAC</td>
<td>100N000603</td>
<td>100N008007</td>
<td>100N008009</td>
</tr>
<tr>
<td>0-5 AAC (transformer rated)</td>
<td>X100N000603</td>
<td>X100N008007</td>
<td>X100N008009</td>
</tr>
</tbody>
</table>

**Options**
- Custom Scales
- Custom legends
- Red pointer
- Color zones
- Black dial
- Non-glare window
- Dual scale or rating
- Straight fine tubular pointer
- Offset, center, or suppressed zero
- Weather resistant cover (K-241)
- Special calibration

**Function D**

<table>
<thead>
<tr>
<th>Function</th>
<th>DC</th>
<th>AC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inches (mm)</td>
<td>2.813 (71)</td>
<td>3.750 (95)</td>
</tr>
</tbody>
</table>

**Number of Instruments A Inches (mm)**
- 1: 1.770 (44.958)
- 2: 3.510 (89.154)
- 3: 5.250 (133.350)
- 4: 6.990 (177.846)

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