An SENC 125 Precision Glass Scale Linear Encoder withstands the elements of contamination found in even the harshest environment. All ACU-RITE® Precision Glass Scales incorporate our long-standing tradition of quality, reliability, durability and dependability at an affordable price. The SENC 125 Precision Glass Scale is designed to satisfy a wide range of application needs and is available in top (T) and end (E) mount scale configurations.

**Product Features**
- Travel Lengths of 2" (.05m) - 120" (3.04m)
- Resolution of μm (.0002")
- Braided Cable, Flexible Mounting Features
- Durable and Rugged Scale Case
## ELECTRICAL SPECIFICATIONS

<table>
<thead>
<tr>
<th>PIN</th>
<th>SIGNAL</th>
<th>WIRE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>No Connect</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Channel A+</td>
<td>Green</td>
</tr>
<tr>
<td>3</td>
<td>No Connect</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Channel B+</td>
<td>Blue</td>
</tr>
<tr>
<td>5</td>
<td>No Connect</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Ground</td>
<td>White</td>
</tr>
<tr>
<td>7</td>
<td>Supply Voltage</td>
<td>Brown</td>
</tr>
<tr>
<td>8</td>
<td>Channel R+ + Reference Mark</td>
<td>Pink</td>
</tr>
<tr>
<td>9</td>
<td>No Connect</td>
<td></td>
</tr>
</tbody>
</table>

**Shell Shield**

- **Pin Out Diagram**:
  - Channel A+: 1
  - Channel B+: 0
  - Channel R+: 1

**Output Signals**

- Incremental
- Square-Wave Voltage Signals
- Channels A and B, in 0° Quadrature Relationship

**Power Supply and Signal Return**

- White

**Input Specifications**

- **Light Source**: LED (Light-Emitting Diode)
- **Operating Voltage (VDC)**: 5.1 ± 0.1
- **Operating Current (Max.)**: 100mA
- **Output Signals**: Incremental
- **Signal Levels**: TTL-Level

**Mechanical Specifications**

- **Resolution**: 5 µm
- **Grating Pitch**: 20 µm
- **Scale Medium**: Reflective from Nickel-Coated Glass
- **Accuracy (@20°C) in any 1000mm**: ± 10µm/m
- **Max. Slew Speed**: 30 in/sec
- **Force Required to Move Reading Head**: ≤ 0.75 lbs.
- **Operating Environment Temperature**
  - 0° to 40°C
- **Relative Humidity**: 20% to 95% (non-condensing)
- **Storage Environment Temperature**
  - -20° to 65°C
- **Humidity**: 20% to 95% (non-condensing)
- **Weight (lbs)**: 1.4 + 0.05/in of measuring length
- **Connecting Cable (Armored or Vinyl)**
  - Measuring Length ≤ 42" = 13 ft.
  - Measuring Length > 42" = 19 ft.
- **Maximum Cable Length**: 35 ft.
- **Measuring Lengths**: 2 – 120 (T) 2 – 60 (E)
- **Reference Mark Interval**: 50mm fixed
- **Protection (IEC 529)**: IP53 when installed as per instructions.

**Current Specifications**

- **Ioh - (High level output current)**: 20mA
- **Voh - (High level output voltage)**: > 2.5Vdc
- **Iol - (Low level output current)**: -20mA
- **Vol - (Low level output voltage)**: < 0.5Vdc