The STG converts the signal generated by a resistance bridge strain gauge to a standard analogue signal format.

- Remote sensing bridge power supply provides highly stable excitation voltage
- Can power bridges up to 4x350Ω at 10V
- Tare adjustment and test points to correct for initial loading
- Front panel adjustment and test points accurately set the bridge excitation voltage
- Highly accurate (0.1% of span)
- LED power indication
- AC or DC powered
- Removable, screw-type, terminal blocks
- Compact metal housing
General Technical Data

**Input**
- **Type**: Resistance bridge strain gauge
- **Input span ranges**: 1mV to 700mV
- **Input impedance**: 1MΩ
- **Bridge excitation voltage**
  - **Type**: Remote sensing
  - **Excitation voltage**: 5V or 10V
  - **Ripple**: less than 10mV p/p at full load
  - **Drive capability**: 120mA @ 10V (equivalent to 4 x 350Ω loadcells @ 10V)

**Output**
- **Type**: 4-20mA, 0-20mA and 1-5V (selected by push-fit jumpers)
- **Current ranges**: 0-20mA, 4-20mA into 0-1KΩ load
- **Voltage ranges**: 0-5Vdc, 0-10Vdc, 1-5Vdc (true voltage source to 20mA)
- **Ripple**: < 20mV peak to peak at maximum load and span

**Power supply**
- **Type**: AC or DC powered (as ordered)
  - **AC**: 110Vac at 47-63Hz (permissible range 100-132Vac)
  - **240Vac at 47-63Hz (permissible range 200-264Vac)**
- **DC**: 24Vdc (permissible range 20-28Vdc)
- **Power Usage**: AC 3VA or 3W at 24Vdc

**Adjustments**
- **Type**: 20-turn potentiometers
- **Span**: ±45-105% of nominal span
- **Zero**: ±10% of nominal span
- **Tare**: ±100% or 0-200% of input span
- **Bridge excitation**: ±10% of nominal voltage

**General**
- **Linearity**: Typically ±0.05% of span
- **Repeatability**: ±0.05% of span
- **Temperature drift**: Typically 0.02% span/°C
- **Long term drift**: 0.1% per 10,000 hours
- **Frequency response**: -3dB point = 5Hz, optional 1KHz
- **Response time**: 200 mS for 10-90% output change, optional 1ms

**Insulation Co-ordination**
- **Ports**: Input & Output / Power Supply / Case
- **Rated Insulation Voltage**: 300Vrms
- **Overvoltage Category**: III
- **Impulse Withstand**: 200 mS for 10-90% output change, optional 1ms

**Environmental Conditions**
- **Temperature**: Operating: 0 to 60 °C
  - Storage: -25 to +70 °C
- **Relative humidity**: 10–90% (non-condensing)
- **Pollution Degree**: 2
- **Dust**: 2
- **Humidity**: 10–90% (non-condensing)

**Housing**
- **Type**: Anodised Aluminium Enclosure with protective earth
- **Dimensions**: See diagram
- **Weight**: 0.45Kg
- **Connection type**: Plug in terminal blocks with screw connections

**Approvals**
- **Mark**: E256486
  - **BS EN 61326:1998 + A2**

**Connections**

<table>
<thead>
<tr>
<th>Terminal</th>
<th>Signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Sense –</td>
</tr>
<tr>
<td>2</td>
<td>Sense +</td>
</tr>
<tr>
<td>3</td>
<td>Excitation +</td>
</tr>
<tr>
<td>4</td>
<td>Excitation –</td>
</tr>
<tr>
<td>5</td>
<td>Not Used</td>
</tr>
<tr>
<td>6</td>
<td>Not Used</td>
</tr>
<tr>
<td>7</td>
<td>Signal +</td>
</tr>
<tr>
<td>8</td>
<td>Signal –</td>
</tr>
<tr>
<td>9</td>
<td>Not Used</td>
</tr>
<tr>
<td>10</td>
<td>Neutral (–)</td>
</tr>
<tr>
<td>11</td>
<td>Live (+)</td>
</tr>
<tr>
<td>12</td>
<td>Not Used</td>
</tr>
<tr>
<td>13</td>
<td>Output +</td>
</tr>
<tr>
<td>14</td>
<td>Output –</td>
</tr>
<tr>
<td>15</td>
<td>Not Used</td>
</tr>
<tr>
<td>16</td>
<td>Not Used</td>
</tr>
</tbody>
</table>

**Case**: Earthing is via a stud on lower side of case

Note: only the power supply is isolated.

**Ordering Information**

<table>
<thead>
<tr>
<th>Type</th>
<th>Cat. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>STG 10V/2mV/V/4-20mA/24Vdc</td>
<td>7940011671</td>
</tr>
</tbody>
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Note: For other ranges please specify STG/1/2/3/4 where:
- 1 - Bridge excitation voltage
- 2 - Bridge sensitivity
- 3 - Output signal format
- 4 - Power supply voltage