**Description**

The SG13 is a maintainable brass multi-window sight glass with a cylindrical viewing window and screwed connections. The sight glass monitors the discharge downstream of steam traps in pressurised condensate return lines. It is screwed directly into the steam trap providing a modular monitoring system, thus eliminating the need for a connecting nipple, minimising joints and potential leak paths.

The sight glass can also be installed in process lines to provide a visual indication of flow.

**Standards**

This product fully complies with the requirements of the European Pressure Equipment Directive 97/23/EC.

**Certification**

This product is available with certification to EN 10204 2.2.

**Note:** All certification/inspection requirements must be stated at the time of order placement.

**Sizes and pipe connections**

- ½", ¾" and 1" screwed BSP male taper/female parallel to BS 21 or screwed NPT male/female to ANSI B 1.20.1.

**Pressure / temperature limits**

- **Steam saturation curve**
- **Pressure bar g**
- **Temperature °C**

*The product must not be used in this region.*

**Body design conditions**

- **PN16**
- **PMA Maximum allowable pressure @ 130°C** 16 bar g
- **TMA Maximum allowable temperature @ 13.5 bar g** 200°C
- **Minimum allowable temperature** -20°C
- **PMO Maximum operating pressure for saturated steam service** 13 bar g
- **TMO Maximum operating temperature** 200°C
- **Minimum operating temperature** 0°C

**Note:** For lower temperatures consult Spirax Sarco.

**PMO Maximum operating pressure (steam service)** 13 bar g

**PTMX Maximum test pressure (steam service)** 24 bar g

**Kv value**

<table>
<thead>
<tr>
<th>Size</th>
<th>½&quot;</th>
<th>¾&quot;</th>
<th>1&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Kv</strong></td>
<td>2.5</td>
<td>2.5</td>
<td>2.5</td>
</tr>
</tbody>
</table>

For conversion:  

- **Cv(UK) = Kv x 0.963**  
- **Cv(US) = Kv x 1.156**

**Materials**

<table>
<thead>
<tr>
<th>No.</th>
<th>Part</th>
<th>Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Body</td>
<td>Brass BS 2874 CZ 121</td>
</tr>
<tr>
<td>2</td>
<td>End connection</td>
<td>Brass EN 12165 CW617N</td>
</tr>
<tr>
<td>3</td>
<td>Sight tube gasket</td>
<td>Virgin PTFE/flurocarbon</td>
</tr>
<tr>
<td>4</td>
<td>Sight glass tube</td>
<td>Borosilicate glass</td>
</tr>
</tbody>
</table>

Local regulations may restrict the use of this product to below the conditions quoted.

In the interests of development and improvement of the product, we reserve the right to change the specification.

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**Safety information, installation and maintenance**

For full details see the Installation and Maintenance Instructions (IM-S32-04) supplied with the product.

**Warning:**
Under certain conditions corrosive elements in condensate can affect the inside face of the sight tube, particularly where caustic alkali and hydrofluoric acid are present. It is recommended that the sight glass is periodically checked for thinning of the sight tube. If there is evidence of thinning or erosion damage then the sight tube should be replaced immediately. Always wear eye protection when viewing the contents of the sight glass.

Reasonable steps should be taken to protect personnel from injury in the unlikely event that the sight tube breaks.

**Installation note:**
The tapered thread of the sight glass is screwed directly into the discharge side of the steam trap. Although the sight glass can be fitted in any plane, installation and flow direction will be dictated by the design and operation of the steam trap.

**Disposal**
The product is recyclable. No ecological hazard is anticipated with disposal of this product providing due care is taken. However if the recycling process involves a temperature approaching 315°C caution is advised regarding decomposition of the virgin PTFE / fluoro carbon sight tube gasket.

**How to order**
Example: 1 off Spirax Sarco ½” SG13 sight glass having screwed BSP connections.

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**Dimensions / weights (approximate) in mm and kg**

<table>
<thead>
<tr>
<th>Size</th>
<th>A</th>
<th>B</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>½”</td>
<td>41</td>
<td>78.0</td>
<td>0.42</td>
</tr>
<tr>
<td>¾”</td>
<td>41</td>
<td>89.5</td>
<td>0.53</td>
</tr>
<tr>
<td>1”</td>
<td>41</td>
<td>98.0</td>
<td>0.75</td>
</tr>
</tbody>
</table>

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**Spare parts**
The spare parts available are shown in heavy outline. Parts drawn in broken line are not supplied as spares.

**Available spares**
Sight glass assembly: 3 (2 off), 4

**How to order spares**
Always order spares by using the description given in the column headed ‘Available spares’. Since the sight glass assembly is the same for all three sizes, it will always be:
Example: 1 off Sight glass assembly for a Spirax Sarco SG13 sight glass.

**Recommended tightening torques**

<table>
<thead>
<tr>
<th>Item</th>
<th>Size</th>
<th>N m</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>½” - DN15</td>
<td>32 A/F</td>
</tr>
<tr>
<td></td>
<td>¾” - DN20</td>
<td>36 A/F</td>
</tr>
<tr>
<td></td>
<td>1” - DN25</td>
<td>46 A/F</td>
</tr>
</tbody>
</table>