



Cert. No. LRQ 0963008

ISO 9001

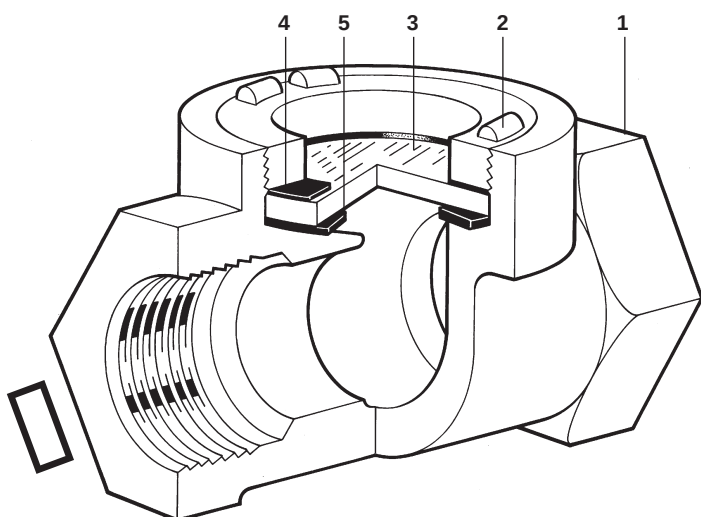
# spirax/sarco

TI-P022-05

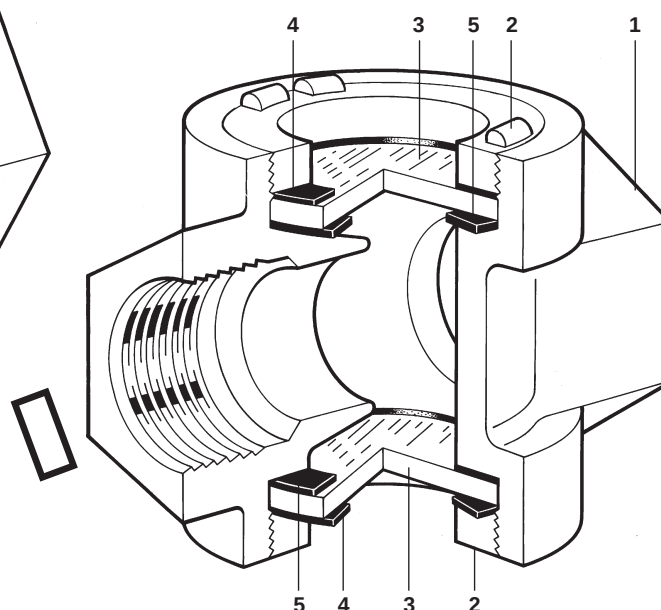
ST Issue 4

## Single Window and Double Window Sight Glasses

Single window



Double window



### Description

A range of single and double window sight glasses available in either brass or bronze depending on size with screwed connections.

### Standards

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

### Certification

These products are 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

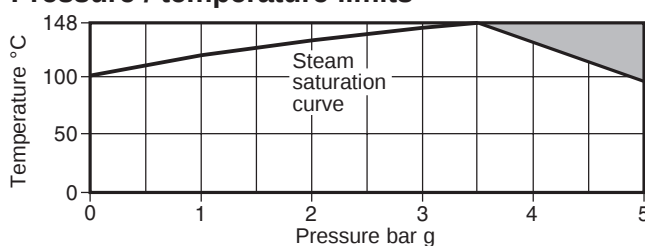
**Single window**  $\frac{3}{8}$ ",  $\frac{1}{2}$ ",  $\frac{3}{4}$ " and 1" screwed BSP or NPT.

**Double window**  $\frac{1}{2}$ ",  $\frac{3}{4}$ ", 1",  $1\frac{1}{4}$ ",  $1\frac{1}{2}$ " and 2" screwed BSP or NPT.

### Material

| No. | Part          | Material                       |                       |
|-----|---------------|--------------------------------|-----------------------|
| 1   | Body          | $\frac{1}{2}$ " to 1"          | Brass EN 12165 CW617N |
|     |               | $1\frac{1}{4}$ " to 2"         | Bronze BS EN CC491K   |
| 2   | Bezel         | Brass                          | EN 12165 CW617N       |
| 3   | Window        | Toughened soda lime glass      | BS 3463               |
| 4   | Top gasket    | Reinforced exfoliated graphite |                       |
| 5   | Bottom gasket | Reinforced exfoliated graphite |                       |

### Pressure / temperature limits



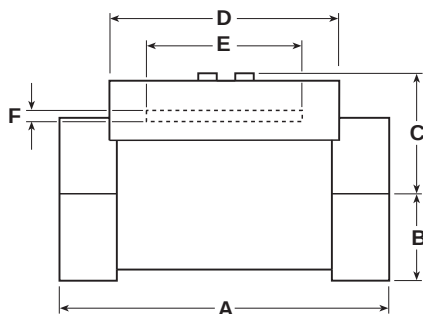
The product **must not** be used in this region.

|                                                           |                                                        |           |
|-----------------------------------------------------------|--------------------------------------------------------|-----------|
| Body design conditions                                    |                                                        | PN5       |
| PMA                                                       | Maximum allowable pressure @ 90°C                      | 5 bar g   |
| TMA                                                       | Maximum allowable temperature @ 3.5 bar g              | 148°C     |
| Minimum allowable temperature                             |                                                        | -29°C     |
| PMO                                                       | Maximum operating pressure for saturated steam service | 3.5 bar g |
| TMO                                                       | Maximum operating temperature                          | 148°C     |
| Minimum operating temperature                             |                                                        | 0°C       |
| <b>Note:</b> For lower temperatures consult Spirax Sarco. |                                                        |           |
| Designed for a maximum cold hydraulic test pressure of:   |                                                        | 7 bar g   |
| PTMX                                                      | Maximum test pressure (steam service)                  | 3.5 bar g |

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

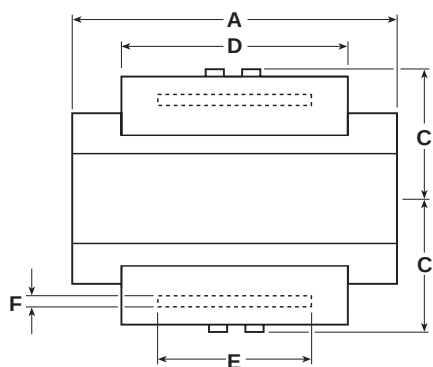
### Single window

| Size | A    | B  | C  | D  | E  | F   | Weight |
|------|------|----|----|----|----|-----|--------|
| 3/8" | 89   | 16 | 32 | 64 | 50 | 4.8 | 0.6    |
| 1/2" | 89   | 16 | 32 | 64 | 50 | 4.8 | 0.6    |
| 3/4" | 89   | 19 | 35 | 64 | 50 | 4.8 | 0.7    |
| 1"   | 87.5 | 24 | 38 | 64 | 50 | 4.8 | 0.9    |



### Double window

| Size   | A   | B | C  | D  | E  | F   | Weight |
|--------|-----|---|----|----|----|-----|--------|
| 1/2"   | 89  | - | 32 | 64 | 50 | 4.8 | 0.9    |
| 3/4"   | 89  | - | 32 | 64 | 50 | 4.8 | 0.9    |
| 1"     | 89  | - | 35 | 64 | 50 | 4.8 | 1.2    |
| 1 1/4" | 108 | - | 51 | 73 | 50 | 4.8 | 1.9    |
| 1 1/2" | 108 | - | 51 | 73 | 50 | 4.8 | 1.8    |
| 2"     | 114 | - | 57 | 76 | 50 | 4.8 | 2.5    |



## 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 window(s), particularly where caustic alkali and hydrofluoric acid are present. It is recommended that the sight glass is periodically checked for thinning of the window(s). If there is evidence of thinning or erosion damage then the window(s) should be replaced immediately. Always wear eye protection when viewing the contents of the sight glass.

### Installation and maintenance note:

Sight glasses should have stop valves fitted on both the inlet and outlet. It is imperative that the upstream stop valve is closed first in order to prevent overpressurisation.

Sight glasses can be fitted in either a horizontal or vertical line on the outlet side of a steam trap. Where the trap is a blast discharge type e.g. thermodynamic, the sight glass must be fitted at least 1 m from the trap. This is to ensure that the glass is not subjected to thermal shock or pressure. Reasonable steps should be taken to protect personnel from injury in the unlikely event that the glass breaks.

Ensure access is available for maintenance purposes.

### Disposal

The product is recyclable. No ecological hazard is anticipated with disposal of this product providing due care is taken.

## How to order

**Example:** 1 off Spirax Sarco 1" BSP double window sight glass with brass body and removable toughened soda lime glass.

## Spare parts

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

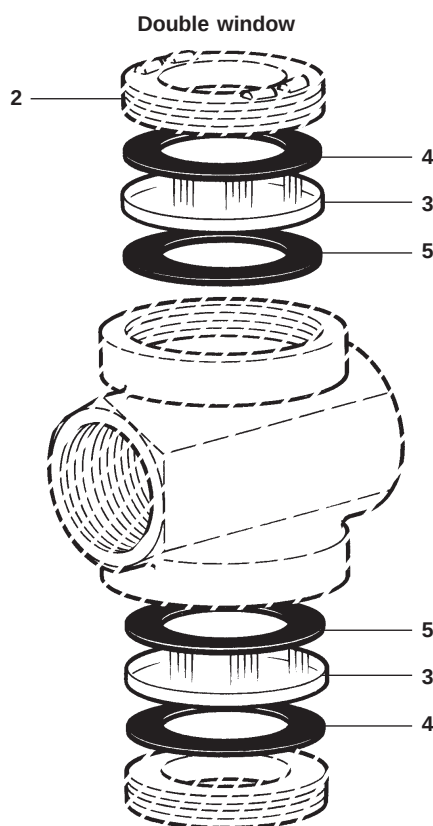
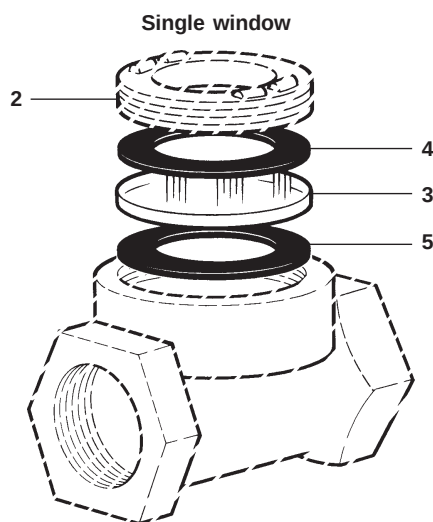
### Available spares

|                            |         |
|----------------------------|---------|
| Set of windows and gaskets | 3, 4, 5 |
| Set of gaskets             | 4, 5    |

### How to order spares

Always order spares by using the description given in the column headed 'Available spares' and state the size and type of sight glass.

**Example:** 1 off Set of windows and gaskets for a 1" Spirax Sarco double window sight glass.



### Recommended tightening torque

| Item No. | Part  | or mm | N m     |
|----------|-------|-------|---------|
| 2        | Bezel |       | 60 - 65 |