

## Lumiglas Oblong Oval Sight Glass Fitting

Suitable for welding into or onto vessel walls, this sight glass fitting comes complete with an oblong oval glass plate sealed by gaskets inserted on either side of it and bolted firmly in place.

### • Application:

Ideal for viewing the insides of pipes, vessels, containers, reactors, silos, etc., and used primarily as a liquid level indicator for monitoring e. g. filling levels.

### • Operating conditions:

- Pressure 2.5/6/10/25 bar
- Vacuum
- Prior to using the fitting, the cut-out reinforcement together with the relevant material of the vessel should be checked in accordance with AD-Merkblatt.

### • Operating temperature:

- 100°C when using soda-lime glass to DIN 8903 (on request only)
- 243°C when using borosilicate glass to DIN 7081

These temperatures refer to unprotected glass, i. e. without a protective layer of mica).

### • Certification/Approval:

Testing and certification can be provided to DIN EN 10204 3.1/3.2 as required by the customer (at extra charge).

### • Components and alternative materials:

in nebenstehender Ansicht sind:

| Item | Component         | Material options  |
|------|-------------------|---|
| 1    | Base frame        | Stainless steel 1.4404 or other grades on request (Steel S235JR+N (RST 37-2))   |
| 2    | Gaskets           | KLINGERSil C-4400; Neoprene; PTFE or others   |
| 3    | Sight glass plate | - Soda-lime glass: thermally prestressed to DIN 8903, max. operating temperature: 100°C<br>- Borosilicate glass: thermally prestressed to DIN 7081, max. operating temperature: 243°C |
| 4    | Cover frame       | Stainless steel 1.4404 or other grades on request (Steel S235JR+N (RST 37-2))   |
| 5    | Fastening bolts   | Steel 8.8 or stainless steel A4   |

### • Assembly:

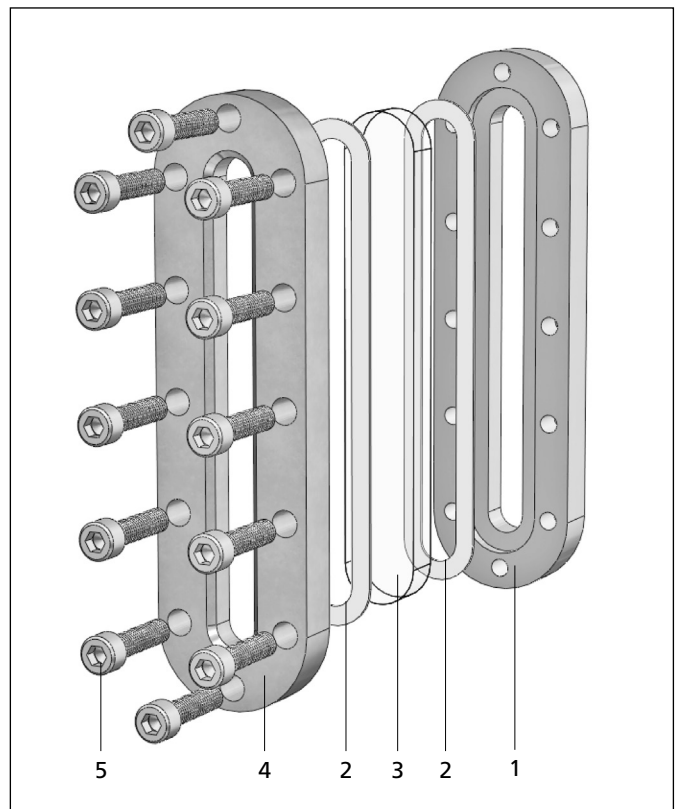
Prior to fitting the glass plate, check to ensure that the base frame (1) is free of any distortion and the sealing surface is flat. Any tension or unevenness can lead to leakage or may even cause the sight glass to break.

After the base frame has been welded into or onto the pipe or vessel wall, the gaskets (2), the sight glass plate (3) and the cover flange (4) are positioned in the order illustrated and then fastened to the base frame (1) with the bolts (5).

When securing the cover flange, the bolts should be tightened with a uniform torque, starting with the bolts in the middle and working crosswise towards the ends, i.e. in an alternating sequence.

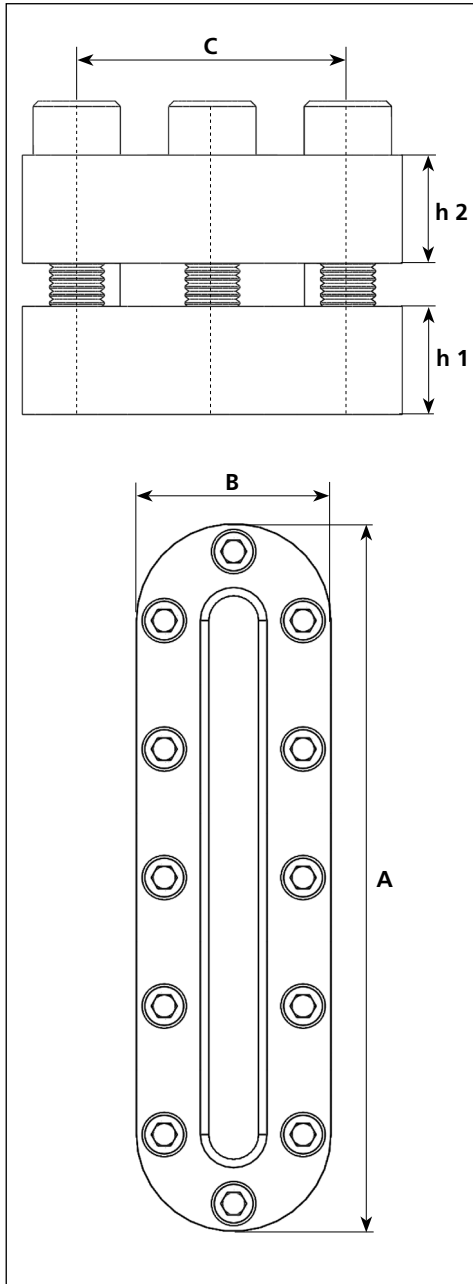


Complete assembly of a Lumiglas oblong oval sight glass fitting



Exploded view of a Lumiglas oblong oval sight glass fitting

• Dimensions of a Lumiglas oblong oval sight glass fitting:



| Size | Nominal pressure | Installation dimensions |     | Viewing Width |       | M10 bolts |    | Glass dimensions | Flange thickness |     | Weight<br>kg |
|------|------------------|-------------------------|-----|---------------|-------|-----------|----|------------------|------------------|-----|--------------|
|      | PN               | A                       | B   | Length        | Width | Pcs.      | C  |                  | h 1              | h 2 |              |
| 1    | 2.5              | 266                     | 116 | 200           | 50    | 8         | 94 | 70/10x220        | 25               | 15  | 6.3          |
| 2    | 2.5              | 341                     | 116 | 275           | 50    | 10        | 94 | 70/10x295        | 25               | 15  | 7.6          |
| 3    | 2.5              | 416                     | 116 | 350           | 50    | 12        | 94 | 70/10x370        | 25               | 15  | 9.8          |
| 4    | 2.5              | 491                     | 116 | 425           | 50    | 14        | 94 | 70/10x445        | 25               | 15  | 11.0         |
| 5    | 2.5              | 566                     | 116 | 500           | 50    | 16        | 94 | 70/10x520        | 25               | 15  | 12.3         |
| 6    | 2.5              | 641                     | 116 | 575           | 50    | 18        | 94 | 70/10x595        | 25               | 15  | 14.2         |
| 8    | 2.5              | 791                     | 116 | 725           | 50    | 22        | 94 | 70/10x745        | 25               | 15  | 18.0         |
| 1    | 6                | 261                     | 96  | 195           | 30    | 10        | 74 | 50/10x215        | 25               | 15  | 5.6          |
| 2    | 6                | 316                     | 96  | 250           | 30    | 12        | 74 | 50/10x270        | 25               | 15  | 7.0          |
| 3    | 6                | 371                     | 96  | 305           | 30    | 14        | 74 | 50/10x325        | 25               | 15  | 8.0          |
| 4    | 6                | 426                     | 96  | 360           | 30    | 16        | 74 | 50/10x380        | 25               | 15  | 8.9          |
| 5    | 6                | 481                     | 96  | 415           | 30    | 18        | 74 | 50/10x435        | 25               | 15  | 10.0         |
| 6    | 6                | 536                     | 96  | 470           | 30    | 20        | 74 | 50/10x490        | 25               | 15  | 12.0         |
| 8    | 6                | 646                     | 96  | 580           | 30    | 24        | 74 | 50/10x600        | 25               | 15  | 13.7         |
| 1    | 10               | 260                     | 80  | 198           | 18    | 12        | 58 | 35/10x215        | 25               | 15  | 5.0          |
| 2    | 10               | 305                     | 80  | 243           | 18    | 14        | 58 | 35/10x260        | 25               | 15  | 5.8          |
| 3    | 10               | 350                     | 80  | 288           | 18    | 16        | 58 | 35/10x305        | 25               | 15  | 6.5          |
| 4    | 10               | 395                     | 80  | 333           | 18    | 18        | 58 | 35/10x350        | 25               | 15  | 7.5          |
| 5    | 10               | 440                     | 80  | 378           | 18    | 20        | 58 | 35/10x395        | 25               | 15  | 8.0          |
| 6    | 10               | 485                     | 80  | 423           | 18    | 22        | 58 | 35/10x440        | 25               | 15  | 9.5          |
| 8    | 10               | 575                     | 80  | 513           | 18    | 26        | 58 | 35/10x530        | 25               | 15  | 13.0         |
| 1    | 25               | 186                     | 80  | 121           | 15    | 10        | 58 | 34/17x140        | 25               | 20  | 4.0          |
| 2    | 25               | 211                     | 80  | 146           | 15    | 10        | 58 | 34/17x165        | 25               | 20  | 4.5          |
| 3    | 25               | 236                     | 80  | 171           | 15    | 12        | 58 | 34/17x190        | 25               | 20  | 5.0          |
| 4    | 25               | 296                     | 80  | 231           | 15    | 14        | 58 | 34/17x250        | 25               | 20  | 6.0          |
| 5    | 25               | 326                     | 80  | 261           | 15    | 16        | 58 | 34/17x280        | 25               | 20  | 6.8          |
| 6    | 25               | 366                     | 80  | 301           | 15    | 18        | 58 | 34/17x320        | 25               | 20  | 7.5          |
| 8    | 25               | 386                     | 80  | 321           | 15    | 18        | 58 | 34/17x340        | 25               | 20  | 8.0          |

• Externally mounted liquid level indicator:

Lumiglas oblong oval sight glass fittings are also available with a closed base frame for use as an external liquid level indicator. In this case, the indicator is fed via pipes that run through holes in the base frame plate. The base frame is provided with the relevant drilled or tapped holes for this purpose.

• Order data:

Lumiglas Oblong oval sight glass fitting  
 Nominal pressure:...  
 Size:... Length:...  
 Material: Base frame:... Cover frame:...  
 Sight glass plate:... Gaskets:...  
 (Inspection certificates 3.1/3.2 can be provided on request.)