

Lumiglas Safety Sightglass 'Glasslook®'

Data sheet 00.10

• Fused soda lime glass disc fused into enamelled steel flange.

A Pfaudler product successfully used over the last 25 years. Glasslook® sightglasses – a virtually indestructible component which can be applied in all processing areas, ideally suited for glasslined reactor vessels. The sodalime glass disc is integrally fused into an enamelled steel flange provides highest safety standards particularly where the use of flanges to the DIN 8902 standard is considered mandatory. Glass and enamel combine to form an unbreakable unit; even if there were any cracking of the glass, the joint stays tight. The combination of steel/enamel and sodalime glass ensures an absolutely homogeneous distribution of stresses over the whole temperature range and the glass itself.

• Application:

Glasslook® is intended as an substitute for conventional inspection port fittings. The unit is held in place on a nozzle or pad e.g. a manway cover, by means of a loose flange and increases safety by virtue of its properties.

• Special features and advantages of Glasslook®:

- Universal application – product contact is with glass and enamelsurfaces only, both of which have the same chemical corrosion resistance. There is no contamination of product.
- Wide application spectrum at higher chemical stability. Compared with the standard heat tempered sightglass discs, the Glasslook® units have a number of advantages:
 - **Temperature shock resistance** – thanks to homogeneous stress distribution within the steel/glass disc unit
 - **Leakfree** – pressure tight with high safety reserves
 - **Unbreakable** – no total failure, tight seal even if any cracks eventually appear
 - **Clear View** – generally less prone to mechanical surface damage e.g. scratching
 - **Foolproof fitting** – damage to the glass by uneven tightening is impossible
 - **No Dirt pockets**
 - **Reduced maintenance cost** – only one gasket
 - **GMP approved construction**

• Operating conditions – technical data:

Pressure: -1 to +16 bar

Temperature: -60° to +230° C

• Materials of Construction:

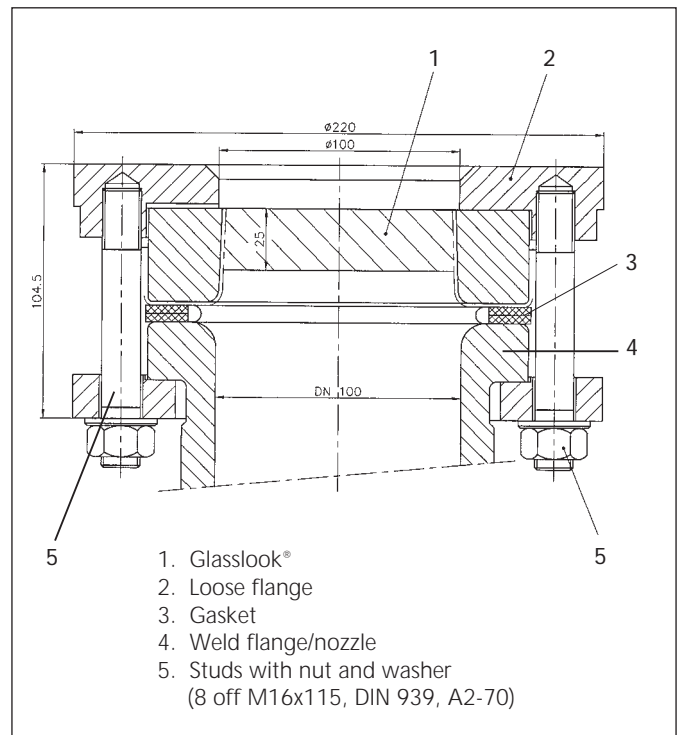
- Sightglass: Sodalime glass
- Steelholder: TStE 285
- Enamel: Pfaudler- WWG, 9115 (blue)
- Surface protection: galvanised coating Fe/Zn8c to DIN 50961
- Chemical resistance: limited only by glass and enamel properties see Pfaudler publication 206 – available on request)
- Protection sleeve available as option with size DN 100

• Certification:

Production sample test certificate issued by TUV/AD, hungarian TMB, TUV Austria, DRIRE/APAVE; SVTI in preparation



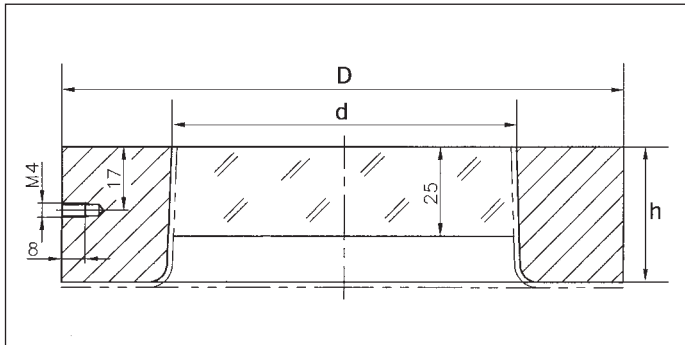
Lumiglas Safety Sightglass Glasslook®



Glasslook® Sightglass assembly DN 100

Combination with Lumiglas Ex and non Ex luminaires is possible. The luminaires are fastened to the loose flange face by means of luminaire hinged or fixed bracket using welding or socket screws.

• **Dimensions for Lumiglas Safety Sightglass Glasslook®:**



Nom. Dia. ¹⁾	DN	50	80	100
Glass viewing Dia.	d	49	79	94
Glass thickness	s	15	20	25
Flange	D	102	138	158
	h	25	30	38

• **Manway with integrally fused Glasslook® unit**

This is a useful alternative for those designs where the Glasslook® unit cannot be fitted onto the vessel any other way.

• **The compact combination has major advantages:**

The glasses lie, just like the manway lid, at a slight angle so that condensate can easily run off; that ensures unhindered viewing of the vessel interior. Cleaning is also simplified, the glass (or glasses) being easily accessible once the manway lid is raised.

Thus the main features once more:

- Sightglasses easy to clean
 - Condensate drains off due to inclined position of glass
 - Fewer gaskets, more security
 - Long working life; no maintenance after initial fitting (no need for tightness checks or tightening up of cover flange)
- You can have two Glasslook® units fused into the same manway lid, e.g. for use with Lumiglas luminaire for ideal illumination of the vessel internals.

• **More functional – fewer separate parts:**

Manway lids with fused in sight glass are available in the following sizes: DN 320/420, DN 350/450, DN 500, DN 600.

• **Glasslook® 3/4/5:**

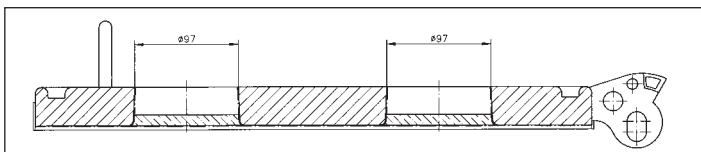
Operating conditions – technical data:

Pressure: -1 to +6 bar
Temperature: -60° to +200° C

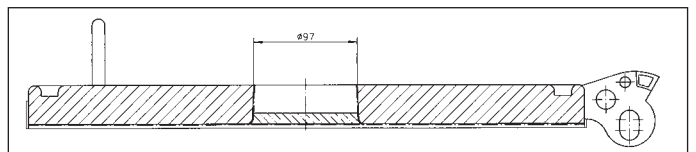
• **Materials of construction:**

- Sightglass: sodalime
- Steelcover: P 275 NH
- Enamel: Pfaudler-WWG, 9115 (blue)
- Surface treatment: Aluchrom or painted finish to customers' specification; or optional galvanised coating Fe/Zn8c to DIN50961.

Further technical details on request.



The illustration shows twin Glasslook® integrally fused unit.



The illustration shows single Glasslook® integrally fused unit.

All dimensions in mm unless stated otherwise. Subject to change without prior notice.
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