

Rectangular Sightglass Fittings - TÜV approved/tested

The base flange of sightglass unit is welded into or onto the vessel wall; the glass window with gaskets on both sides is firmly held in place by bolted cover flange.

Application:

For viewing the internals of pipelines, containers, pressure vessels, reactors, silos, etc., used principally as fluid level indicator.

Operating Conditions:

Pressure: 230 psig (16 bar)

Vacuum service

Before putting the fitting into operation, the strength of the cutout reinforcement in combination with the vessel wall should be checked in accordance with TÜV leaflet.

Operating Temperatures:

212°F (100°C) with soda lime glass, DIN 8903

470°F (243°C) with borosilicate glass, DIN 7081

These temperatures refer to unprotected glass (i.e. without mica protective sheet).

Certifications/Acceptance Test:

If required by customer, for an additional charge, testing and certification can be provided to DIN EN 10204 3.1/3.2.

Parts and available materials in drawing on right:

Item	Parts	Material options
1	base frame	carbon steel RSt 37-2; stainless steel 316L or alternative
2	seal	KLINGERSil C-4400; Neoprene; Gylon; PTFE or alternative
3	sightglass window	borosilicate glass: tempered, DIN 7081, max. 470°F (243°C)
4	cover frame	carbon steel RSt 37-2; stainless steel 316 or alternative
5	securing bolts	carbon steel 5.6 or stainless steel

Assembly

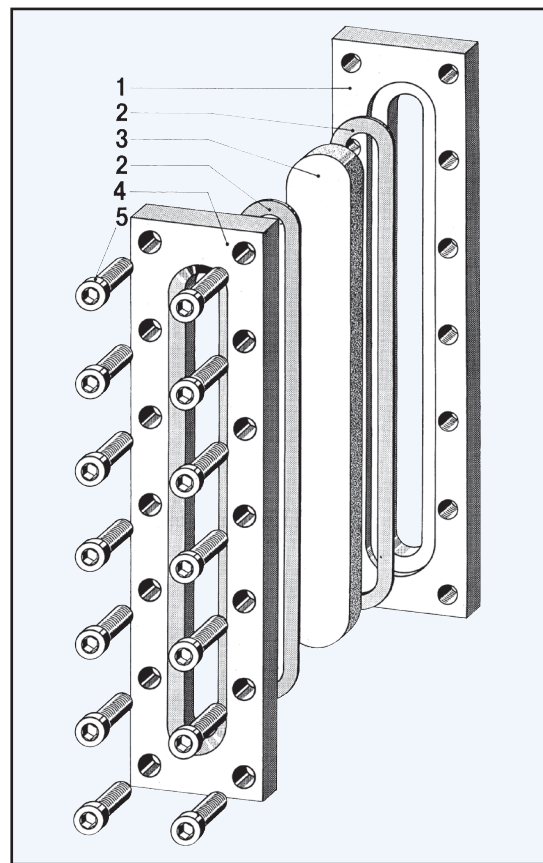
Prior to assembling, check the base flange (1) to ensure that the seating for the glass is flat and free from any distortion resulting from welding into/onto the vessel wall. Any distortion or uneven spots can lead to leakage or even breakage of the glass when the cover frame is tightened down.

After the base flange (1) is welded correctly, place glass (3), gaskets (2) and cover frame (4) in the order shown in adjoining illustration into the recess of base flange (1) and locate with bolts (5) ensuring all is properly seated when bolts are handtight.

Progressively and carefully tighten down cover frame commencing with bolts in middle of flange and working outwards in crosswise alternating sequence (refer to sequence numbers 1-14 in illustration).

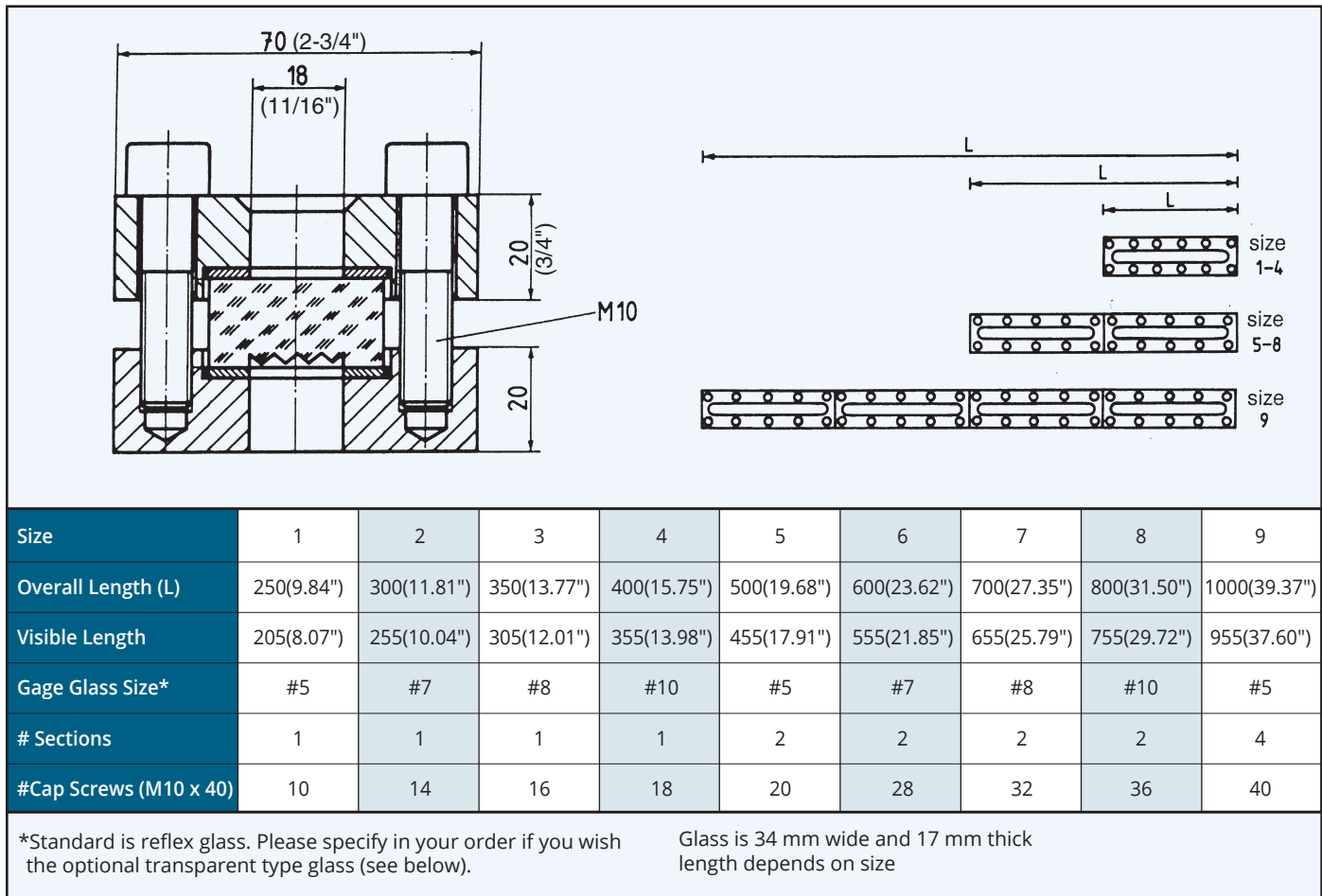


Complete assembly of a rectangular sightglass unit



Exploded view of a rectangular sightglass assembly

Dimensions of Rectangular Sightglass Fittings



Reflex glass, with its prismatic grooves, uses light refraction to better differentiate level without internal lighting.

Alternative versions in shape, size and material are available on request. Radiused base frame (weld pad) is also available.

Lumiglas rectangular sightglasses are also available with closed base frame (see sketch on right) for use as external liquid level indicator. For this type the unit is fed via pipes through holes in the base frame plate. The unit comes with such holes suitably drilled or tapped.

Ordering Information:

Please specify the selected item as follows:

Rectangular sightglass fitting

Length

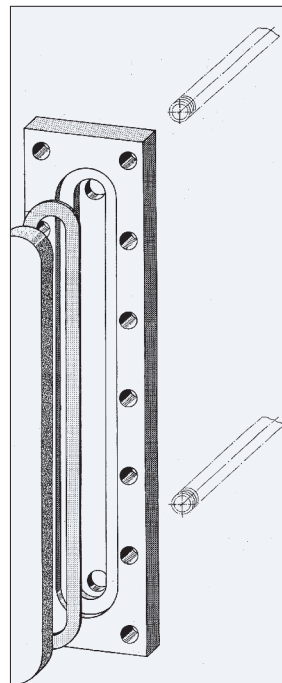
Material: Base frame; open or closed (plate)

Cover frame:

Glass plate: reflex or transparent

Seals:

Test certificate type: 3.1A (TÜV) or 3.1B (optional)



ISO 9001 QA CERTIFICATE

GERMAN MANUFACTURER:

F.H. PAPENMEIER AWARDED QA APPROVAL CERTIFICATE

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