

Lumiglas Sight Glass Fitting, Circular DIN 28120 or similar

Sight glass fittings acc. to DIN 28120 are circular flanged ports for welding into and onto the vessel wall. The block and the cover flange are screwed together tightly, with the sight glass disk and an independent gasket to the upper and the lower flange respectively positioned between them.

The structure and dimensions comply with the design standards set out in DIN 28120 for sizes DN 50 to DN 200. Flange thicknesses dimensioned according to this standard ensure the distortion-free positioning of the sight glass disk, provided the block flange is properly welded onto or into the wall of the vessel.

- **Application:**

For viewing of internals of pressure vessels, tanks, silos, stirred vessels, separators pipelines etc.

- **Operating conditions:**

Pressure: 10 bar or 16 bar, depends on size,
higher pressure rating on request; vacuum
Temperature: max. 150°C with soda lime glass DIN 8902
max. 280°C with borosilicate glass DIN 7080
higher temperatures on request

- **Possible combinations:**

Can be combined with Lumiglas luminaires when **used in explosion hazardous as well as non explosion hazardous areas**. The cover flange is then drilled and tapped to suit luminaire mounting bracket.

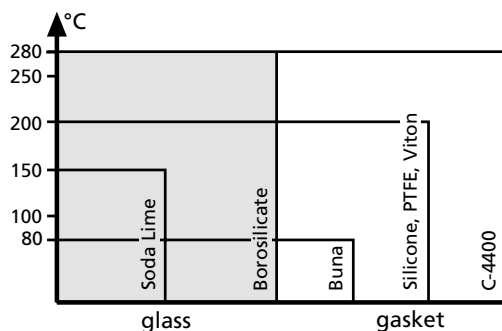
- **Certificates/testing:**

Depending on customer requirements and at extra cost, can be provided to DIN EN 10204 3.1/3.2

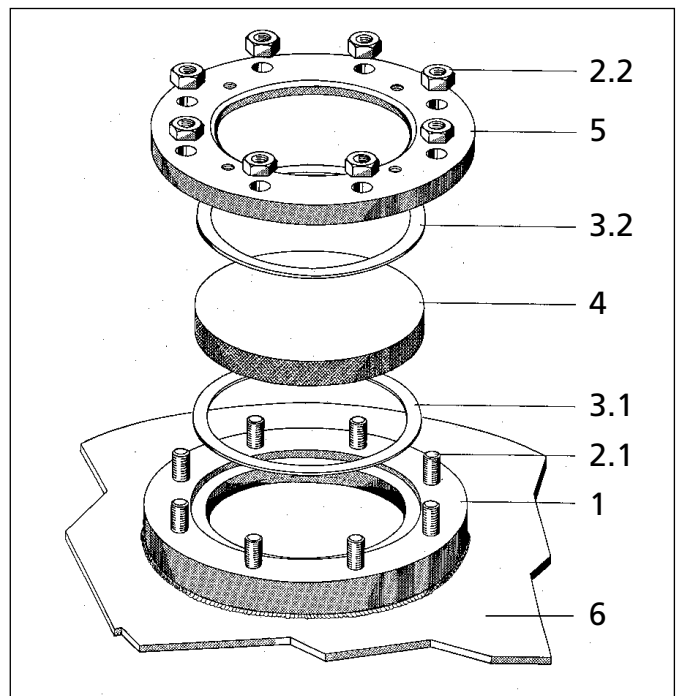
- **Component materials** shown in adjoining exploded view are

item	part	material
1	base flange (welding flange)	carbon steel S235JR+N (RSt 37-2), stainless steel or other
2.1, 2.2	fastening bolts	carbon steel 5.6/5 or stainless steel A2
3.1, 3.2	gaskets	KLINGERSil C-4400; silicone, PTFE or other
4	sight glass disc	- soda lime glass: toughened DIN 8902 - borosilicate glass: toughened DIN 7080
5	cover flange	carbon steel S235JR+N (RSt 37-2); stainless steel 1.4541 or other
6	vessel wall	

- **The following temperature diagram simplifies material selection:**



Lumiglas sight glass fitting DIN 28120

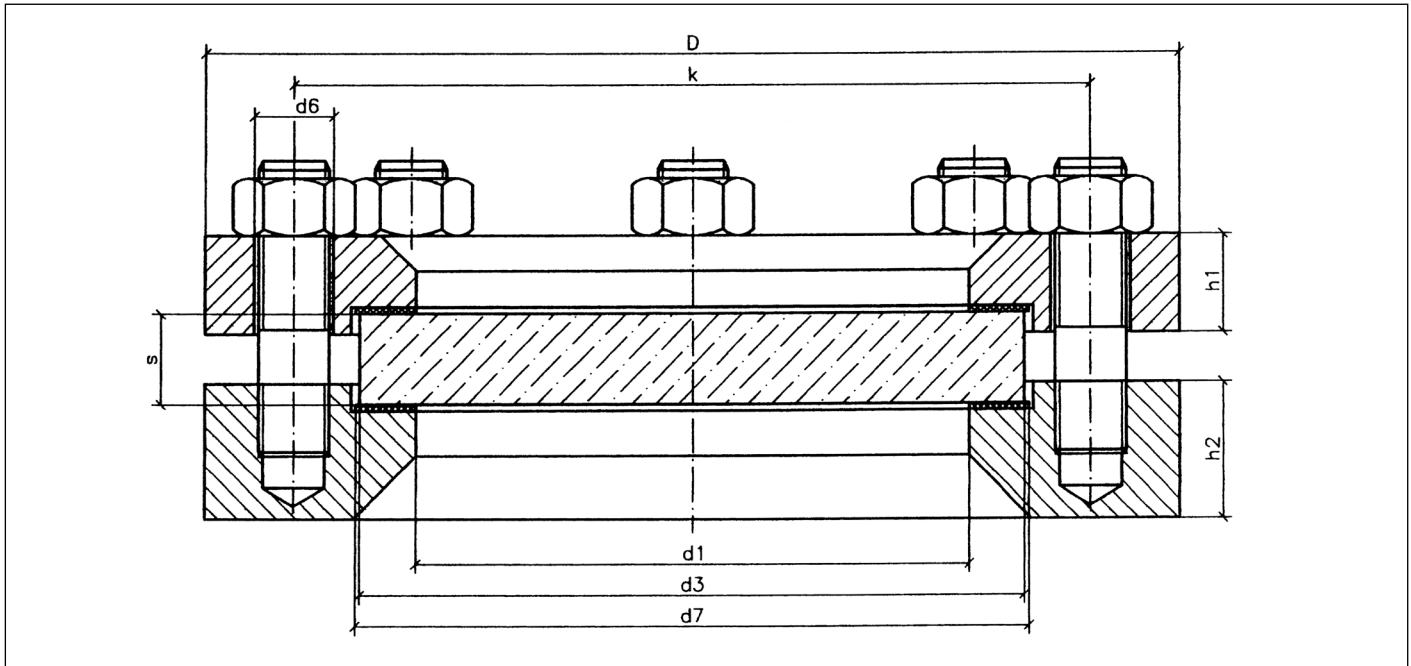


Exploded view of Lumiglas sight glass fitting DIN 28120

- **Installation:**

After welding base flange (1) onto or into vessel wall, seals (3.1 & 3.2), glass disc (4) and mating flange (5) are placed together in the order shown. Then the nuts (2.2) in case of studded base flange and washers are progressively tightened, always working on diametrically opposed pairs of nuts at a time. Tightening torque values are given in table on overleaf. For more information see DIN 28120.

• Dimensions for Lumiglas sight glass fitting, circular, DIN 28120/PN 10/16 or similar DIN 28120/PN 6



size		1	2	3	4	5	6
normal bore	DN	50	80	100	125	150	200
pressure rating (bar)	PN	10/16	10/16	10/16	(6) 10/16	(6) 10/16	(6) 10
viewing diameter	d1	80	100	125	150	175	225
sight glass disc	d3	100	125	150	175	200	250
	s	15/15	15/20	20/25	(20) 20/25	(20) 25/30	(25) 30
flanges	D	165	200	220	250	285	340
	k	125	160	180	210	240	295
	d6	18	18	18	18	22	22
	h1	16/16	20/20	22/22	(18) 25/25	(18) 30/30	(20) 35
	h2	30	30	30	30	36	36
fastening bolts	no.	4	8	8	8	8	8
	size	M 16	M 16	M 16	M 16	M 20	M 20
gaskets (side with product contact and atmospheric side)	d1	80	100	125	150	175	225
	d7	102	127	152	177	202	252
tightening torque for bolts lubricant factor/μ 0.1	Nm	28/32	20/23	26/30	32/34	47/54	63

• Order data:

- Lumiglas sight glass fitting, circular (DIN)
- nominal bore (DN) / nominal pressure (PN)
- material: base flange, test certification 3.1/3.2 on request
- mating flange, test certification 3.1/3.2 on request
- bolts
- glass disc
- gaskets

• Pressure rating conversion:

- 6 bar = 87 psi
- 10 bar = 145 psi
- 16 bar = 232 psi