



Keep an Eye on Your Product

Alfa Laval Sight Glass according to DIN 28120

Concept

The bolted sight glass is used for visual control of processes inside vessels which typically are under high pressure and have temperatures. The sight glass is used in chemical, pharmaceutical and cosmetical industries as well as in dairies, breweries and other food industries.

Standard Design

The sight glass consists of a base flange, a cover flange, gaskets, a glass disc, nuts and studs. The sight glass is to be welded into or onto vessel walls and it corresponds in its construction and assembly to the dimensions and constructional guidelines of the DIN specification 28120. The respect of the DIN prescriptions for the flange thicknesses guarantees a distortion free location of the sight glass disc in case of correct welding. The pressure resistance of the glass disc is, of course, dependent on the care with which the bolts and nuts are tightened (always working on diametrically opposed pairs). For lubricated bolts, $R_a = 0.1\text{mm}$, the recommended tightening torque values (in Nm) are indicated in the table on page 2. The glass discs are made of borosilicate glass to DIN 7080 which means that the maximum operating temperature is $280^\circ\text{C}/536^\circ\text{F}$. All steel parts available with material certificate EN10204. 3.1B/AD-W2.



TECHNICAL DATA

Temperature

Temperature range: -10°C to $+140^\circ\text{C}$
(EPDM), (higher temperatures up to 280°C with gaskets of Klingersil).

Temperature range: -14°F to $+284^\circ\text{F}$
(EPDM), (higher temperatures up to 536°F with gaskets of Klingersil).

Pressure

Max. product pressure: Max. 10 bar (1000 kPa).

Max. product pressure: Max. 145 psi (10 bar).

Min. product pressure: Full vacuum.

PHYSICAL DATA

Materials

Base flange: AISI 316L, material certificate 3.1B/AD-W2.

Cover flange: AISI 321, material certificate 3.1B/AD-W2.

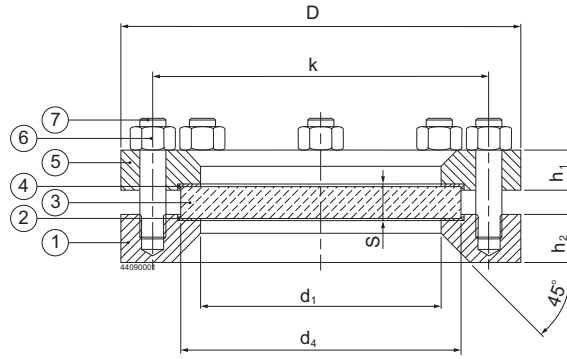
Gaskets: Klingersil C4400 (cover side)/EPDM (product side).

Glass disc: Borosilicate to DIN 7080, material certificate 2.2
(max. 280°C).

Glass disc: Borosilicate to DIN 7080, material certificate 2.2
(max. 536°F).

Bolts or studs: To DIN 938/934 in A2-70.

Dimensions (mm)(in)



Size DIN	Pressure Rating	Viewing Diameter	Sight glass disc			Base flange and cover flange				Bolts or studs and nuts		
DN	(bar)	d1	d4	s	D	k	h1	h2	Number	Size	Tightening torque (Nm)	
100	10	125	150	20	220	180	22	30	8	M16	26	
125	10	150	175	20	250	210	25	30	8	M16	32	
150	10	175	200	25	285	240	30	36	8	M20	47	

Size DIN	Pressure Rating	Viewing Diameter	Sight glass disc			Base flange and cover flange				Bolts or studs and nuts		
DN	(psi)	d1	d4	s	D	k	h1	h2	Number	Size	Tightening torque (lbf ft)	
100	145	4.92	5.91	0.79	8.66	7.09	0.87	1.18	8	M16	19.18	
125	145	5.91	6.89	0.79	9.84	8.27	0.98	1.18	8	M16	23.60	
150	145	6.89	7.87	0.98	11.22	9.45	1.18	1.42	8	M20	34.67	

Installation

The numbers in the following installation instructions refer to the drawing above.

After having correctly welded the base flange (1) onto or into the vessel wall, the gasket (2), the sight glass disc (3), the gasket (4) and the cover flange (5) are mounted one after the other and then the nuts (6) are tightened, always working on diametrically opposite pairs. The above indicated tightening torque values have to be strictly respected. Additional information may be taken from the DIN specification 28120.

Options

- Product wetted side of gasket in Klingersil C4400.
- miniVISION light fitting.

Ordering

When ordering, please state the following:

- DN size.
- Material type of product wetted gasket side.
- miniVISION light fitting, if needed.

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How to contact Alfa Laval

Contact details for all countries are continually updated on our website. Please visit www.alfalaval.com to access the information direct.