



Circular sightglass type: DIN 28120 DIN 28121

Circular sightglass to DIN 28120 or similar and to DIN 28121



Complete assembly of sightglass fitting to DIN 28120, DN 100, PN 10 with glass disc of borosilicate to DIN 7080



Complete assembly of sightglass fitting to DIN 28120, DN 125, PN 10, with glass disc of toughened sodium silicate to DIN 8902, fitted with CHEMLUX® sight glass slight fitting, type L20 deH Sch, tilting hinge fixation

Complete sightglass fittings to or similar to DIN 28120 and to DIN 28121. These form, together with the reliable light fittings of the series CHEMLUX®, Edellux®, fibrolux®, minilux® or metalux®, complete illuminated sightglass units VETROLUX® where both components are thoroughly determined and correctly chosen.

The units are supplied as premounted sets, offering the following advantages:

- Only one supplier
- Responsibility from one hand
- Components mutually adapted, avoiding therefore mounting problems or eventual expensive adjustments.

Application:

- In all cases where chemical or physical processes, reactions or e.g. fluid levels have to be observed, controlled or read off at the interior of stirred tanks, dryers, columns, silos, centrifuges, mixers, reactors, evaporators, separators, pipelines, pressure vessels or other closed containers.

Nominal diameters:

PN 10, 16:	DN 50 – 200 (DIN 28120)
PN 6:	DN 50 – 200 (similar to DIN 28120)
PN 10, 25	DN 40 – 200 (DIN 28121)

Operating conditions:

Max. pressure:	DIN 28120:	10, 16, (6) bar
	DIN 28121:	10, 25 bar
		High pressures on demand

Vacuum

Possible combinations:

Sightglass fittings to DIN 28120 or to DIN 28121 may be combined with our sightglass light fittings of the series CHEMLUX®, Edellux®, fibrolux®, minilux® or metalux® for use in hazardous or in safe areas. The cover flanges are drilled and tapped to be fitted with the respective light fitting in case of ordering the complete VETROLUX® unit.

Sightglass fittings to DIN 28120 or similar may further be equipped with window wipers of the series W, WD or WS (attention to the pressure limits!) as well as with spraying devices of the series SV / SVS for the occasional or continuous cleaning of the sightglass disc. (See separate leaflets).

Certificates:

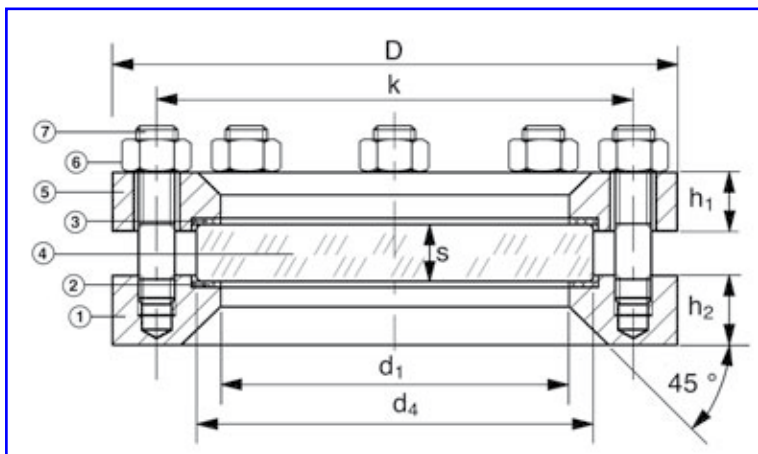
Against extra charge, material certificates to EN 10204 3.1 / 3.1 AD-W2, as well as glass certificates to EN 10204 2.2 and FDA certificate for gasket may be supplied. Please formulate your needs already when demanding our quotation.



Circular sightglass to DIN 28120 or similar (PN6):

Our circular sightglass fittings to be welded into or onto vessel walls correspond in their 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 sightglass disc. The pressure resistance of the sightglass 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, $\mu = 0.1$, the recommended tightening torque values (in Nm) are indicated in the table below. The maximum operating temperature is limited to 150 °C when using sightglass discs of sodium silicate to DIN 8902 and to 280 °C when using sightglass discs of borosilicate to DIN 7080. This temperature is also function of the quality of the used gaskets. For operating temperatures lower than -10 °C, please consult the descriptive sheet AD W 10.

Nominal diameter DN	Nominal pressure PN (bar)	Viewing diameter d1	Glass disc		Base flange and cover flange				Bolts or studs and nuts		
			d4	s	D	k	h1	h2	Number	Size	Tightening torque (Nm)
50	6	80	100	10	165	125	16	30	4	M16	
	10			15							28
	16			15							32
80	6	100	125	15	200	160	20	30	8	M16	
	10			15							20
	16			20							23
100	6	125	150	15	220	180	18	30	8	M16	
	10			20			22				26
	16			25			22				30
125	6	150	175	20	250	210	18	30	8	M16	
	10			20			25				32
	16			25			25				34
150	6	175	200	20	285	240	18	36	8	M20	
	10			25			30				47
	16			30			30				54
200	6	225	250	25	340	295	20	36	8	M20	
	10			30			35				63



	Standard	On demand*
1 Base flange	Steel RSt 37-2	1.4404 (AISI 316L)
5 Cover flange	1.4571 (AISI 316Ti) 1.4541 (AISI 321)	Aluminium Titan Steel zinked
2 Gasket	Klingsil C4400	PTFE Silicone Viton Gylon
3		
4 Glass disc	Sodium silicate to DIN 8902 (max. 150 °C)	Borosilicate to DIN 7080 (max. 280 °C) quartz
6 Nuts	5.6 / 5.2	A2 / A4
7 Bolts or studs		

A special high vacuum-tight version with additional O-ring seal in different materials may be delivered on demand

* other materials not mentioned in the above table may also be delivered

Mounting:

After having correctly welded the base flange (pos. 1) onto or into the vessel wall, the gasket (pos. 2), the glass disc (pos. 4), the gasket (pos. 3) and the cover flange (pos. 5) are mounted one after the other and then the nuts (pos. 6) (in case of studded base flange pos. 1) progressively crosswise tightened against the studs (pos. 7). The above indicated tightening torque values have to be strictly respected. Additional information may be taken from the DIN specification 28120.



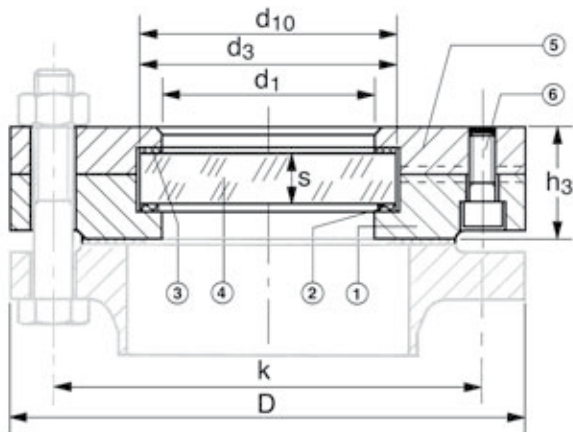
Circular sightglass to DIN 28121:

Our circular sightglass fittings to be mounted directly onto a welding flange, pad or similar correspond in their construction and assembly to the dimensions and constructional guidelines of the DIN specification 28121. The sightglass fittings are completely pre-mounted at manufacturer's works to form an integral, sealed, finished unit. The maximum operating temperature is limited to 200 °C. For higher operating temperatures, versions similar to DIN 28121 can be delivered on request, these with other seal and/or glass qualities. The units may be used until -1 bar. For operating temperatures lower than -10 °C, please consult the descriptive sheet AD 2000 W 10.

Nominal diameter (DN)	Nominal pressure (bar)	Viewing diameter		Glass disc		Flanges			Fixation bolts		Gaskets	
		d1	d2	d3	S	D	k	h3	Number	Size	d1	d10
40	10	48	43	63	10	150	110	36	4	M16	48	65
	25				12							
50	10	65	60	80	12	165	125	38	4	M16	65	82
	25				15							
80	10	80	75	100	15	200	160	46	8	M16	80	102
	25				20							
100	10	100	95	125	15	220	180	46	8	M16	100	127
	25				25							
125	10	125	120	150	20	250	210	54	8	M16	125	152
	25				30							
150	10	125	120	150	20	285	240	54	8	M20	125	152
	25				30							
200	10	150	145	175	20	340	295	54	8	M20	150	177
	25				30							

Version A

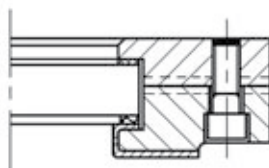
Without protective coating of sealing face



The design shows the sealing face of form C

Version B

With protective coating of sealing face:



1	Base flange (Version A): Form C: flat faced DIN 2526 (standard) Form F: tongue to DIN 2512 Form V13: male socket to DIN 2513 Base flange (version B): Boilerplate H II with coated sealing surface (The maximum admitted temperature of the coating has to be respected) Base flange (verze E): (on demand)	Boiler plate HII DIN 17155 stainless steel DIN 1.4571 dle DIN 17440 other materials on demand
2	Gasket product side:	PTFE – covered ring gasket with internal support ring
3	Gasket cover side:	KLINGERSil C 4400
4	Glass disc:	Borosilicate to DIN 7080 (Tmax 280 °C)
5	Cover flange:	Boiler plate H II DIN 17 155 Stainless steel DIN 1.4541 (=AISI 321) Stainless steel DIN 1.4571 (=AISI 316Ti) other material on demand
6	Security tightening bolts:	5.6 / 5.2, A4

Mounting:

By using the fixation bolts of which the number and size are indicated in the above table, the complete, pre-mounted, tightened and sealed unit is fixed onto a welding flange, pad or similar.



VETROLUX® illuminated sightglass unit, consisting of sightglass to DIN 28120, DN 150, PN 10, with mounted CHEMLUX® light fitting, type KEL 20 deH Sch B, 230 V, 20 W, EEx de IIC T4, Ex II 2 G + D, with anti-dazzle shield “B”, in version “view and light through one assembly”



VETROLUX® illuminated sightglass unit, consisting of sightglass to DIN 28120, DN 80, PN 10, with mounted CHEMLUX® light fitting, type F 20dHNsp, 24 V, 20 W, EEx d IIC T5, Ex II 2 G + D

The table below indicates the possible standard combinations of our light fitting series with the respective nominal diameters of sightglasses to DIN 28120 / 28121:

Nominal diameter (DN):			40	50	80	100	125	150	200
Sightglass to DIN 28120 (A)			A	A	A	A	A	A	A
Sightglass to dle DIN 28121 (B)			B	B	B	B	B	B	B
Series	Types	Fixation							
20	F20 dH / L 20 deH	... N		•	•	•	•		
	R 50 deH / R 100 deH	... Z				•	•	•	
		... Sch				•	•	•	•
100	100 deH	... N			•	•	•	•	•
		... Z						•	•
		... Sch					•	•	•
KVL	KVL 20 H (D)	... Sch		•	•	•	•	•	•
	KVL 50 H (D)	... Sch		•	•	•	•	•	•
	KVL 100 HD	... Sch		•	•	•	•	•	•
KVLR	KVLR20H(D)/BKVLR20H(D)	... W/Sch	•	•	•	•	•	•	
BKVLR	KVLR50H(D)/BKVLR50H(D)	... W/Sch	•	•	•	•	•	•	
	KVLR100HD/BKVLR100HD	... W/Sch	•	•	•	•	•	•	
KLR	KLR 05/10/20/50/100	... Sch	•	•	•	•	•	•	
HL	HL 50 H			•		•			
	HL 80 H				•		•		
	HL 100 H					•		•	
	HL 125 H						•		
	HL 150 H							•	•
	HL 200 H								•
F(L)KEL (L)KEL	F(L)KEL 5,10,20,50 dH (L)KEL 5,10,20,50 deH	... W			•	•	•	•	•
		... Sch	•	•	•	•	•	•	•
KL	KL 5,10,20,50,100 H	... Sch	•	•	•	•	•	•	
PEL	PEL20deH/PEL50deH	... Sch					•	•	
PL	PEL20H/PL50H/PL100H	... X1		•	•	•	•	•	•
		... X2					•	•	•
EdelEx	EdelEx 5dH / 10dH / 20dH	... Sch	•	•	•	•	•	•	
	EdelEx G20dH / 50dH	... Sch			•	•	•	•	
fibroLUX		... W2	•	•	•	•	•	•	
		... W3	•	•	•	•	•	•	

Do you wish for more information about our wide range of light fittings for use in hazardous or safe areas, about our range of circular sightglasses to DIN 28120/28121, screwed sightglasses similar to DIN 11851, rectangular or D-ended sightglasses, pipeline flow indicators, sideways or centrally operated wipers, hinged sightglasses, spraying devices or our complete sight and lightglass units VETROLUX®? Are you interested in other types, special versions or different protection degrees? If yes, please contact us – it is our business! You will find the necessary indications about our company on the Internet.

1) All dimensions in mm.
2) Subject to changes without preliminary notice.