



With flange connections according to DIN EN 1092-1

## USAGE

Tubular sight glasses of type 670 are used to observe the level and flow in pipelines.

They allow for reliable 360° monitoring of the function and performance of individual devices as well as complete systems. The tubular sight glasses of type 670 are designed for installation between flanges according to DIN EN 1092-1, PN 16.

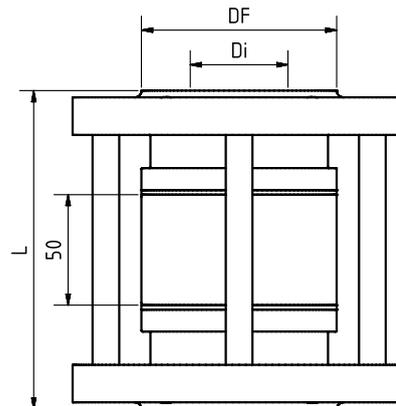
## INSTALLATION NOTE

Gaskets should always be used that fit the sealing surfaces.

The screw material should be chosen to be equivalent or superior compared to the flange material.

Whenever possible, both the screw thread and the screw head should be provided with a suitable lubricant to ensure even pre-tensioning and easier assembly. Tubular sight glasses must be installed in such a way that no pipe forces (tension, pressure, torsion), vibrations, or pressure surges can affect the fitting.

## DRAWING



### Operating condition:

Temperature: (depending on glass and gasket)	up to 280 °C with tempered borosilicate glass
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Pressure:	≤ 16 <sup>1</sup> barg
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1) Higher see type 671

Low temperature use possible up to max -59 °C

### Materials:

Flange:	1.4571
Glass:	Borosilicate glass
Gasket: <sup>1</sup>	PTFE; FKM; NBR; C4400; Silicone; EPDM; Graphite
Screws:	A4-70
Special materials on request	
1) See INFO Gaskets	

DN	10	15	20	25	32	40	50	65	80	100	125	150	200
Di [mm]	13	18	22	29	38	44	55	71	83	108	132	160	208
DF [mm]	40	45	58	68	78	88	102	122	138	158	188	212	268
L [mm]	134	134	134	134	144	144	146	148	148	158	158	164	164
Weight [kg]	1	3	3.5	4	6	7	9	11	13	15	19	24	33
PS <sup>2</sup> [barg]	16	16	16	16	16	16	16	16	16	16	16	16	16

2) Borosilicate glass tempered

Outside diameter, hole circle and drillings according to DIN EN 1092-1

Other nominal sizes available upon request

## PRODUCT CODE

Example for Explaining the Code Composition

**11 - 670 - 7 - 1 - 1 - 4 - 000**

GROUP	TYPE	DN	FLANGE	GLASS	GASKET	VARIANT
11	670	1) 10 2) 15 3) 20 4) 25 5) 32 6) 40 7) 50 8) 65 9) 80 10) 100 11) 125 12) 150 13) 200 16) Special	1) 1.4571 8) Special	1) Tempered borosilicate glass	1) PTFE 2) FKM 3) NBR 4) C4400 5) Silicone 6) EPDM 7) Graphite 8) Special	000) Standard



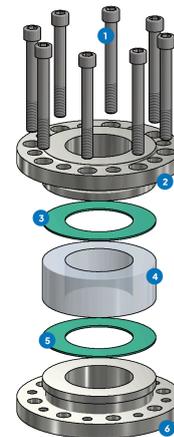
Unless otherwise stated, the highlighted factory standard will be delivered.

## EXAMPLE

The product code **11-670-7-1-1-4-000** corresponds to the standard version:  
 ACI type 670  
 DN 100  
 PN 16  
 Flanges made of 1.4571  
 Tempered borosilicate glass  
 Gaskets made of KlingerSil® C4400

## STRUCTURE

1. Screws
2. Flange
3. Gasket
4. Glass ring tubular sight glass type 640
5. Gasket
6. Flange



## QUICK OVERVIEW



max. 16 barg



heat resistant up to 280 °C



for liquid media



for gaseous media



Nominal sizes DN 10 - 200



Custom designs possible



> 50 sealing materials

## OPERATING CONDITIONS

Operating conditions depend on the choice of glass and seals:

		Sight glass				Gaskets			
		Tempered borosilicate glass	PTFE max. 200 °C	FKM max. 200 °C	NBR max. 80 °C	C4400 max. 175 °C	Silicone max. 180 °C	EPDM max. 130 °C	Graphite > 300 °C
TEMPERATURE	up to 80 °C	✓	✓	✓	✓	✓	✓	✓	✓
	up to 130 °C	✓	✓	✓	✗	✓	✓	✓	✓
	up to 175 °C	✓	✓	✓	✗	✓	✓	✗	✓
	up to 180 °C	✓	✓	✓	✗	✗	✓	✗	✓
	up to 200 °C	✓	✓	✓	✗	✗	✗	✗	✓
PRESSURE	up to 280 °C	✓	✗	✗	✗	✗	✗	✗	✓
	up to 16 barg	✓	✓	✓	✓	✓	✓	✓	✓

✓ suitable ✗ unsuitable