

With flange connections suitable for EN 1092-1

USAGE

For the observation of filling and flow in pipelines. The sight glass enables reliable monitoring of the function and performance of individual devices as well as of entire systems. Type 550 flow sight glasses are suitable for mounting on flanges according to DIN EN 1092-1. The sight glasses are delivered pre-assembled and ready for installation.

Operating conditions:

Temperature: (depending on glass and gasket)	150°C Soda-lime glass DIN 8902 280°C Borosilicate glass DIN 7080 400°C Unhardened borosilicate glass
Pressure:	≤ 10 / 16 / 25 / 40 barg

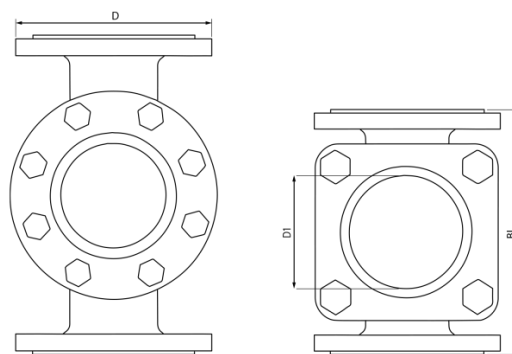
Materials:

Flange/Body:	1.4408
Glass:	Borosilicate glass DIN 7080 Soda-lime glass DIN 8902 Borosilicate glass untempered
Gasket:	Graphite; C4400; PTFE; FKM; NBR; Silicone; EPDM;
Screws:	A2-70 / A4-70
Special materials on request	

INSTALLATION NOTE

Gaskets must be used that fit exactly to the sealing surfaces. The screw material should match or be of higher quality than that of the sight glass body. Screws must conform to the hole pattern of the flanges. Threads and screw heads should preferably be treated with lubricant. Tubular sight glasses should be mounted without tension – pipe forces, vibrations, and pressure shocks must not act on the fitting.

DRAWING



EXECUTION

DN 15 – 50 Rectangular cover flanges
DN 65 – 200 Circular cover flanges

DN	15	20	25	32	40	50	65	80	100	125 ¹	150 ¹	200 ¹
D (PN10)	95	105	115	140	150	165	185	200	220	250	285	340
D (PN16)	95	105	115	140	150	165	185	200	220	250	285	340
D (PN25)	95	105	115	140	150	165	185	200	235	270	300	-
D (PN40)	95	105	115	140	150	165	185	200	235	270	300	-
BL	130	150	160	180	200	230	290	310	350	400	480	600
D1	32	32	48	48	65	80	80	100	125	150	175	175

1) According to DIN 11869

SAFETY DOUBLE GLAZING

The flow sight glass is equipped with a safety double glazing. In case of damage or destruction of the inner glass plate, the metal ring of the Meta® sight glass prevents the medium from escaping. The additional outer pane takes over the function of the first glass plate in this case and also maintains full operating pressure. This allows the system - especially in the case of hazardous media - to be shut down in a controlled manner and the defective sight glass plate to be safely replaced.

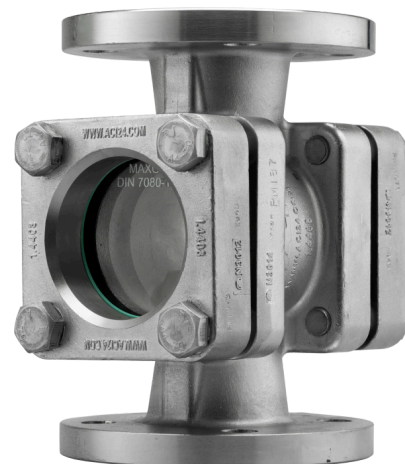


VACUUM APPLICATION

In the vacuum variant (see type 550V), a high-quality seal made of novaflon® 500 is used. This material consists of 100% pure, multidirectionally expanded PTFE (polytetrafluoroethylene) and is characterized by excellent chemical resistance, mechanical stability, and outstanding sealing properties.

The sealing system is designed for a temperature range of -60°C to +200°C and meets the requirements according to TA Luft (Technical instructions for air quality control).

The suitability for vacuum applications up to 2 mbar absolute has been demonstrated by an independent, external testing laboratory. This provides the sealing solution with the highest safety and reliability even under extreme operating conditions.



PRODUCT CODE

Example for Explaining the Code Composition

11 - 550 - 6 - 4 - 3 - 1 - 7 - 0

GROUP	TYPE	DN	PN	BODY	GLASS	GASKET	VARIANT
11	550	1) 15	1) 10	3) 1.4408	1) Borosilicate glass DIN 7080	1) PTFE	0) Standard Variant
		2) 20	2) 16	8) Special	2) Soda-Lime glass DIN 8902	2) FKM	1) Rotor PTFE (260°C) ²
		3) 25	3) 25		3) Quartz glass ¹	3) NBR	5) Double glazing
		4) 32	4) 40		4) META® glass	4) C4400	G) Mica
		5) 40			8) Special	5) Silicone	H) 7080+Halar®
		6) 50				6) EPDM	F) 7080+FEP
		7) 65				7) Graphite	
		8) 80				8) Special	
		9) 100					
		10) 125					
		11) 150					
		12) 200					

INFO: Unless otherwise specified, the highlighted factory standard is delivered.

- 1) For pressure applications > 0.49 barg only possible up to DN 25.
- 2) Only possible from nominal width DN40 upwards



Flow sight glass with flange connections suitable to EN 1092-1

EXAMPLE

The product code **11-550-6-4-3-1-7-0**
corresponds to the standard version:

ACI Type 550

Nominal size DN 50

Nominal pressure PN 40

Body & cover flanges made of 1.4408

Borosilicate glass DIN 7080

Gaskets:

On the media side novaphit® MST-XP

On the atmosphere side KlingerSil®

C4400

Screws: A4-70

QUICK OVERVIEW



max. 40 barg



-196°C to 400°C



for liquid media



for gaseous media



Nominal sizes
DN 15 - 200



> 50 gasket materials



Accessories available



TÜV pre-tested

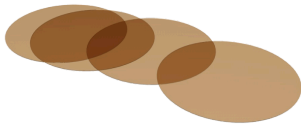
OPERATING CONDITIONS

Operating conditions depend on the choice of glass and gaskets:

		SIGHT GLASS				GASKETS				
		Soda-lime glass DIN 8902	Borosilicate glass DIN 7080	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 > 400 °C
TEMPERATURE	up to 80 °C	✓	✓	✓	✓	✓	✓	✓	✓	✓
	up to 130 °C	✓	✓	✓	✓	✗	✓	✓	✓	✓
	up to 150 °C	✓	✓	✓	✓	✗	✓	✓	✗	✓
	up to 175 °C	✗	✓	✓	✓	✗	✓	✓	✗	✓
	up to 200 °C	✗	✓	✓	✓	✗	✗	✗	✗	✓
	up to 280 °C	✗	✓	✗	✗	✗	✗	✗	✗	✓
	> 280 °C	On request			On request					
PRESSURE	up to 10 barg	✓	✓	✓	✓	✓	✓	✓	✓	✓
	up to 16 barg	✓	✓	✓	✓	✓	✓	✓	✓	✓
	up to 25 barg	✓	✓	✓	✗	✗	✓	✗	✗	✓
	up to 40 barg	✓	✓	✓	✗	✗	✓	✗	✗	✓

✓ suitable ✗ unsuitable

OPTIONAL ACCESSORIES



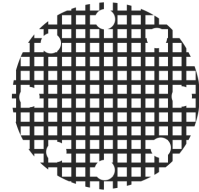
Round mica discs

- > up to 320 °C with Borosilicate glass
DIN 7080



Sight glass wiper

- > with PTFE, silicone, EPDM or FKM
wipers



Grid impact protection window



Metal fused safety sight glass

- > for safety applications



LED lights

- > for Ex and non-Ex areas



FEP protective screen / coating

- > for high pH values

NOTE !



The pressure-temperature limits apply according to DIN EN 1092-1!

Our tool with the same name is available on our website.
(www.aci24.com, under Service, sub-item Tools)

