ⓘ With flange connections suitable for ASME B16.5
Class 150 or 300 lbs

USAGE

For monitoring filling and flow in pipelines. The sight glass enables reliable monitoring of the function and performance of individual devices as well as entire systems. Type 550A flow sight glasses are suitable for installation on flanges according to ASME B 16.5. 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
Pressure:	≤ 20 / 40 barg

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

INSTALLATION NOTE

Seals are to be used that fit exactly to the sealing surfaces. The screw material should be the same as that of the sight glass body or of higher quality. Screws must correspond to the hole pattern of the flanges. Threads and screw heads should preferably be treated with lubricant. Flow sight glasses are to be installed stress-free - pipe forces, vibrations, and pressure shocks must not affect the fitting.

DRAWING
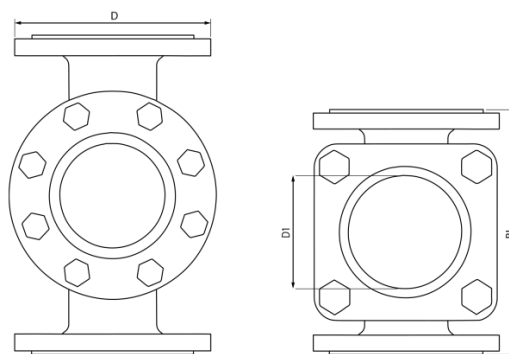
EXECUTION

NPS 1/2" – 2" rectangular flanges
NPS 2 1/2" – 8" circular flanges

NPS	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	5"	6"	8"
D (Class 150)	89	98	108	118	127	152	178	191	228	254	279	343
D (Class 300)	95.2	117.3	123.8	133.4	155.6	165.1	190.5	209.6	254	279.4	317.5	381
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

Flange connections compatible with counter flanges according to ASME B 16.5

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 disc takes on the function of the first disc in this case and also maintains the full operating pressure. This allows the system – especially with hazardous media – to be safely shut down in a controlled manner and the defective sight glass disc to be securely replaced.
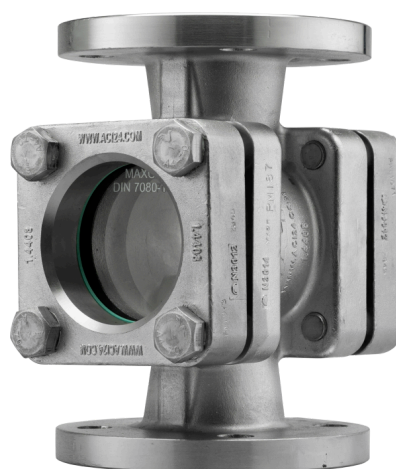
VACUUM VARIANT

In the vacuum variant (see type 550V-A), a high-quality gasket 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 gasket system is designed for a temperature range of -10 °C to +200 °C and meets the requirements according to TA Luft (Technical Guidelines for the Cleanliness of Air).

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

PRODUCT CODE

Example for Explaining the Code Composition

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

GRUPPE	TYP	DN	CLASS	BODY	GLASS	GASKET	VARIANTE
11	550A	1) 1/2"	1) 150	3) 1.4408	1) Borosilicate glass DIN 7080	1) PTFE	0) Standard variant
		2) 3/4"	2) 300	8) Sonder	2) Soda-lime glass DIN 8902	2) FKM	1) PTFE rotor (260°C)
		3) 1"			3) Quartz glass[1]	3) NBR	5) Double glazing
		4) 1 1/4"			4) META® glass	4) C4400	G) Mica
		5) 1 1/2"			8) Sonder	5) Silicone	H) 7080+Halar®
		6) 2"				6) EPDM	F) 7080+FEP
		7) 2 1/2"				7) Graphite	
		8) 3"				8) Sonder	
		9) 4"					
		10) 5"					
		11) 6"					
		12) 8"					

INFO: Unless otherwise specified, the highlighted factory standard is delivered.
1) For pressure applications > 0.49 barg, only up to 1" is possible.

ℹ Flow sight glass with flange connections suitable to ASME B16.5

EXAMPLE

The product code 11-550A-6-1-3-1-7-0 corresponds to the standard version:
ACI type 550A
NPS 2"
Class 150 lbs max. 20 barg
Body & cover flanges made of 1.4408
Borosilicate glass DIN 7080
Seals:
On the media side novaphit® MST-XP
On the cover side KlingerSil® C4400
Screws: A4-70

QUICK OVERVIEW

max. 40 barg

-10°C to 280°C

for liquid media

for gaseous media

Nominal sizes 1/2" - 8"

> 50 sealing materials

Accessories available

OPERATING CONDITIONS

Operating conditions depend on the choice of glass and seals:

		SIGHT GLASS		GASKET						
		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 > 300 °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 20 barg	✓	✓	✓	✗	✗	✓	✗	✗	✓
	up to 40 barg	✓	✓	✓	✗	✗	✓	✗	✗	✓

✓ suitable   ✗ unsuitable
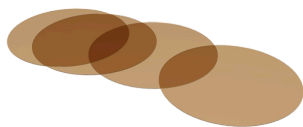
Flow sight glass type 550A nominal size 150/300 lbs
Flow sight glass with flange connections suitable for ASME B 16.5

Type 550A
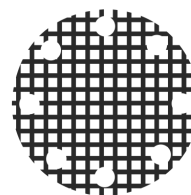
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OPTIONAL ACCESSORIES

Round mica discs
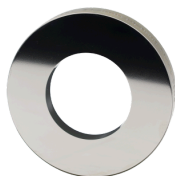
> up to 320 °C with Borosilicate glass DIN 7080

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

06082025 - Subject to technical changes and errors!