

With welding ends

## USAGE

Flow sight glasses of type 531 serve to observe the filling level and flow in pipelines.

They enable reliable monitoring of the function and performance of individual devices as well as complete systems.

### Operating conditions:

Temperature: (depending on glass and gasket)	150 °C Soda-lime glass DIN 8902 280 °C Borosilicate glass DIN 7080 300 °C or 320 °C <sup>1</sup> Borosilicate glass DIN 7080 with mica protection discs
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Pressure:	≤ 10 / 16 / 25 / 40 / 63 barg <sup>2</sup>
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1) Only possible when MAXOS® safety sight glasses according to DIN 7080 are used

2) Higher see type 521

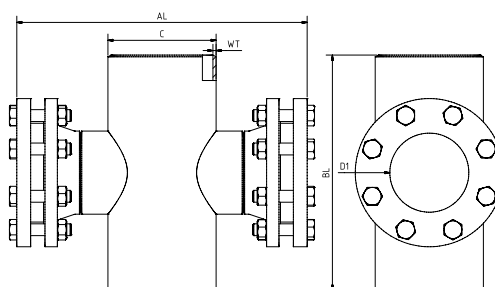
### Materials:

Cover flange and body:	1.4571
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

When welding the fitting, care must be taken to ensure that no uncontrolled temperature entry occurs in sensitive components. In particular, the sight glass plates must be protected from thermal stress, mechanical damage, as well as from weld beads and splashes. Appropriate protective measures such as thermal protection, covers, or splash protection devices should be implemented accordingly.

## DRAWING



DN	40	50	80	100	125	150	200	250	300	350	400
BL <sup>2</sup>	200	230	310	350	400	480	600	730	850	980	1100
D1 <sup>2</sup>	35	45	55	83	107	132	160	160	160	160	160
AL <sup>2</sup>	260	260	340	380	420	470	580	650	700	750	800
C	48,3	60,3	88,9	114,3	139,7	168,3	168,3	219,1	273	355,6	406,4
WT	2,6	2,9	3,2	3,6	4	4,5	6,3	7,1	8	8,8	11

2) All dimensions are executed according to the standard - as far as constructively possible. Otherwise, the information from the order confirmation and the customer drawing applies.

Dimensions correspond to the nominal pressure stage PN 16, other pressure stages may differ

**PRODUCT CODE**

Example for Explaining the Code Composition

**11 - 531 - 100 - 1 - 1 - 1 - 4**

GROUP	TYPE	DN	PN	BODY	GLASS	GASKET	VARIANT
11	531	40	0) 10	1) 1.4571	1) Borosilicate glass DIN 7080	1) PTFE	000) Standard
		50	1) 16	4) Special	2) Soda-lime glass DIN 8902	2) FKM	
		80	2) 25		4) Borosilicate glass DIN 7080 + Mica	3) NBR	
		100	3) 40		6) META® glass	4) C4400	
		125	4) 63			5) Silicone	
		150	5) Special			6) EPDM	
		200				7) Graphite	
		250				8) Special	
		300					
		350					
		400					



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

**EXAMPLE**

The product code **11-531-100-1-1-1-4-000** corresponds to the standard version:

ACI Type 531

DN 100 welding ends Ø 114.3 mm

PN 16

Body 1.4571

Flange covers 1.4571

Borosilicate glass DIN 7080

Gasket KlingerSil® C4400



For aggressive media, FEP or Halar® coated sight glass plates can be used. In steam, mica discs should be used to protect the glasses.

## QUICK OVERVIEW



max. 63 barg



heat-resistant up to 320 °C



for liquid media



for gaseous media



Nominal sizes DN 40 - 400



Custom solutions possible



> 50 sealing materials



Accessories available

## OPERATING CONDITIONS

Operating conditions depend on the choice of glass and seals:

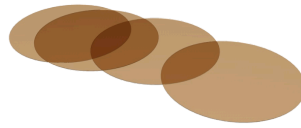
		SIGHT GLASS				GASKETS				
		Soda-lime-glass DIN 8902	Borosilicate glass DIN 7080	PTFE max. 200 °C	FKM max. 200 °C	NBR max. 80 °C	C4400 max. 175 °C	Silicone max. 180 °C	EPDM max. 130 °C	Graphite > 400 °C
TEMPERATURE	up to 80 °C	✓	✓	✓	✓	✓	✓	✓	✓	✓
	up to 130 °C	✓	✓	✓	✓	✗	✓	✓	✓	✓
	up to 150 °C	✓	✓	✓	✓	✗	✓	✓	✗	✓
	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	✓	✓	✓	✗	✗	✓	✗	✗	✓
	up to 63 barg	✗	✓	✗	✗	✗	✗	✗	✗	✓

✓ suitable ✗ unsuitable

**OPTIONAL ACCESSORIES**



**Double glazing**



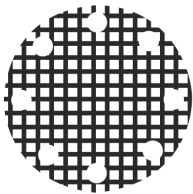
**Round mica discs**



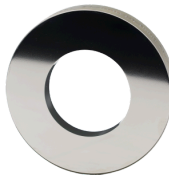
**Sight glass wiper**

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

- > 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