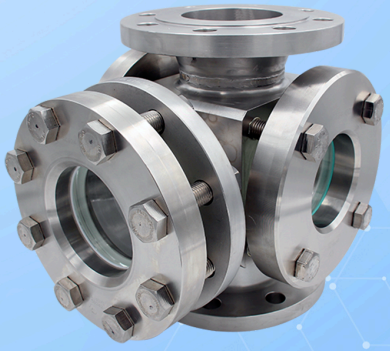
Flow sight glass type 591 PN 16/400

Sight glass with 3 viewports and flange connections according to DIN EN 1092-1

Type 591



View glass with 3 sight openings and flange connections according to DIN EN 1092-1

USAGE

Flow sight glasses with 3 sight openings of type 591 serve to observe the level and flow in pipelines.
They enable reliable monitoring of the function and performance of individual devices as well as complete plants. The flow sight glasses of type 591 are designed for installation between flanges according to DIN EN 1092-1.

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[1] Borosilicate glass DIN 7080 with mica protection discs
Pressure:	≤ 16 / 40 / 63 / 100 / 160 / 250 / 320 / 400 barg

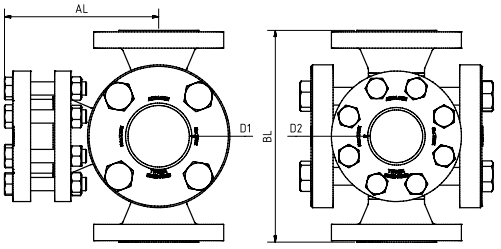
1) Only possible if MAXOS® safety sight glasses according to DIN 7080 are used

Materials:	
Connection flange, 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

INSTALLATION NOTE

Seals must 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.

DRAWING



DN	50	65	80	100	125	150	200
Total length (BL)[2]	DIN EN 558-1 FTF 2						
Length of assembly (AL)	according to order confirmation / customer drawing						
Flange dimensions	DIN EN 1092-1						
Free view (D1)[2]	100	150	175	175	175	175	240
Free view (D2)[2]	55	70	83	107	132	159	207

2) All measurements will be carried out according to the standard, if constructively possible. Otherwise, the information from the order confirmation and customer drawing applies.
Dimensions correspond to the nominal pressure level PN 16, other pressure levels may differ

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Type 591

PRODUCT CODE

Example for Explaining the Code Composition

11 - 591 - 8 - 2 - 1 - 1 - 4 - 000

GROUP	TYPE	DN	PN	BODY	GLASS	GASKET	VARIANT
11	591	5) 50	1) 16	1) 1.4571	1) Borosilicate glass DIN 7080	1) PTFE	000) Standard
		6) 65	2) 40	8) Special	2) Soda-lime glass DIN 8902	2) FKM	
		7) 80	3) 63		4) Borosilicate glass DIN 7080 + Mica	3) NBR	
		8) 100	4) 100		5) META® glass	4) C4400	
		9) 125	5) 160			5) Silicone	
		10) 150	6) 250			6) EPDM	
		11) 200	7) 320			7) Graphite	
		12) Special	8) 400			8) Special	

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

EXAMPLE

The product code 11-591-8-2-1-1-4-000 corresponds to the standard version:
ACI Type 591
DN 100
PN 40
Body 1.4571
Cover flanges 1.4571
Connection flanges 1.4571
Borosilicate glass DIN 7080
Gasket KlingerSil® C4400

Flow sight glass type 591 PN 16/400

Sight glass with 3 viewports and flange connections according to DIN EN 1092-1

Type 591

QUICK OVERVIEW

- max. 400 barg
- heat resistant up to 320 °C
- for liquid media
- for gaseous media
- Nominal sizes DN 50 - 200
- Custom manufacturing possible
- > 50 sealing materials
- Accessories available

OPERATING CONDITIONS

Terms of operation 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								
PRESSURE	up to 16 barg	✓	✓	✓	✓	✓	✓	✓	✓	✓
	up to 40 barg	✓	✓	✓	✗	✗	✓	✗	✗	✓
	up to 63 barg	✗	✓	✗	✗	✗	✗	✗	✗	✓
	up to 100 barg	✗	✓	✗	✗	✗	✗	✗	✗	✓
	up to 160 barg	✗	✓	✗	✗	✗	✗	✗	✗	✓
	up to 250 barg	✗	✓	✗	✗	✗	✗	✗	✗	✓
	up to 320 barg	✗	✓	✗	✗	✗	✗	✗	✗	✓
	up to 400 barg	✗	✓	✗	✗	✗	✗	✗	✗	✓

✓ suitable ✗ unsuitable

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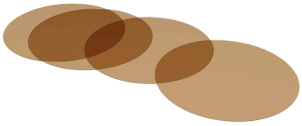
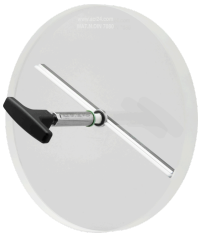
Type 591

OPTIONAL ACCESSORIES



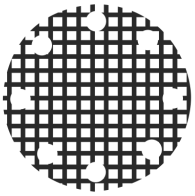
Round mica discs

> up to 320 °C with Borosilicate glass DIN 7080

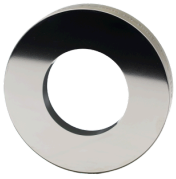


Sight glass wiper

> 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

For aggressive media or steam, mica discs should be used to protect the glasses.

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)

ACI Industriearmaturen GmbH

info@aci24.com
+49 (0) 2461 91634 00
www.aci24.com
+49 (0) 2461 91634 44
Königskamp 19 · 52428 Jülich · Germany

Continental Trade Sp. z o.o.

biuro@continentaltrade.com.pl
+48 22 670 11 81
www.continentaltrade.com.pl
-
Stara 23 · 05-270 Nadma · Poland