

With pipe construction for welding onto the media-leading pipeline

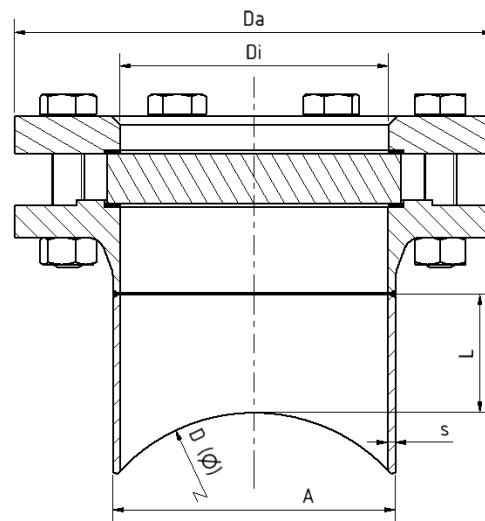
USAGE

Circular sight glass fittings serve to observe and illuminate the interior of pipelines. Sight glass fittings of type 391 are round flange sockets with pipe attachment for welding ends onto pipelines.

INSTALLATION NOTE

After welding ends the base flange, it must be checked whether the sealing surfaces have warped! If necessary, rework may be required! Also, pay attention to the specified torque values for the bolting according to the operating and maintenance manual.

DRAWING



D = Nominal diameter of the media-carrying pipeline

Operating conditions

Temperature: (depending on glass and gasket)	$\leq 150\text{ }^{\circ}\text{C}$	Soda-lime glass (DIN 8902 or similar)
	$\leq 280\text{ }^{\circ}\text{C}$	Borosilicate glass (DIN 7080 or similar)
Pressure:	$\leq 16\text{ barg to }40\text{ barg}$	
Low-temperature applications as well as higher temperatures / pressures on request		

Materials

Base flange:	1.4571; 1.4404; 1.4539; 1.4435; 1.4541; 1.4301/7; 1.4876; 1.4828; 2.4602; 2.4610
Glass:	Borosilicate glass (DIN 7080 or similar) Soda-lime glass (DIN 8902 or similar)
Gasket ¹ :	PTFE; FKM; NBR; C4400; Silicone; EPDM; Graphite
Screws:	A2-70 / A4-70
Special materials upon request	

1) See "INFO Gaskets"

DN	100	125	150	200 ⁴	300 ⁵	350 ⁵
Diameter [mm] (PN 16)	220	250	285	340 ⁴	460 ⁵	520 ⁵
Weight [kg] ² (PN 16)	10.5	14.5	18.6	28.2	55.7	78
Diameter [mm] (PN 25/40)	235	270	300	375	-	-
Weight [kg] ³ (PN 25/40)	14.8	21.1	27.5	52.6	-	-
Inner diameter [mm]	107	132	160	207	310	340
Length [mm] (Standard)	70	70	70	70	70	70
s [mm]	3.6	4	4.5	6.3	7.1	8
A [mm]	114.3	139.7	168.3	219.1	232.9	355.6
² If applicable smaller or larger, depending on size of D and L ³ For PN 25/40 if applicable smaller or larger depending on size of D and L ⁴ PS max. 10 barg ⁵ PS max. 6 barg						

PRODUCT CODE

Example for Explaining the Code Composition

11 - 391 - 1 - 1 - 1 - 2 - 1 - 4 - 0

GROUP	TYPE	DN	DØ	PN	BASE FLANGE ¹	GLASS	GASKET	VARIANT
11	391	1) 100	1) 125	1) 16	2) 1.4571	1) Borosilicate glass according to DIN 7080 or similar 4) Borosilicate glass ² + PTFE wiper SGW 5) Borosilicate glass ² + silicone wiper SGW 6) Soda-lime glass ³ + PTFE wiper SGW 7) Soda-lime glass ³ + silicone wiper SGW	1) PTFE	0) Standard
		2) 125	2) 150	2) 25	3) 1.4404		2) FKM	
		3) 150	3) 200	3) 40	6) Special		3) NBR	
		4) 200	4) 250	4) Special			4) C4400	
		5) 300	5) 350				5) Silicone	
		6) 350	6) 400				6) EPDM	
		7) Special	7) 450				7) Graphite	
			8) 500				8) Special	
			9) 600					
			10) 700					
			11) 800					
			12) 900					
			13) 1000					
			14) Special					

1) Cover flange according to the offer / order confirmation

2) Similar to DIN 7080

3) Similar to DIN 8902



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

EXAMPLE

The product code **11-391-1-1-1-2-1-4-0** corresponds to the standard version:

ACI Type 391

DN 100 sight glass

DN 125 media-carrying pipe

PN 16

Base flange with pipe connection made from 1.4571

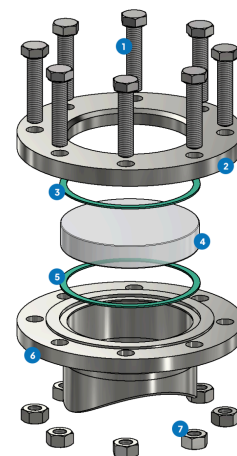
Cover flange made from 1.4571

Borosilicate glass (DIN 7080 or similar)

Gasket KlingerSil® C4400

STRUCTURE

1. Screws
2. Cover flange
3. Glass cushion
4. Sight glass
5. Gasket
6. Base flange with pipe attachment
7. Nuts



For aggressive media, FEP or Halar® coated viewing panes can be used.

QUICK OVERVIEW



max. 40 barg



heat-resistant up to 280 °C



for liquid media



for gaseous media



Nominal sizes
DN 100 - 350



Custom made designs
possible



> 50 sealing materials



Accessories available

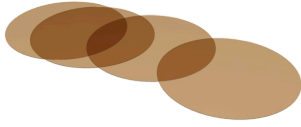
OPERATING CONDITIONS

Operating conditions depend on the choice of glass and seals:

		SIGHT GLASS		GASKETS						
		Soda-lime glass (DIN 8902 or similar)	Borosilicate glass (DIN 7080 or similar)	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	✗	✓	✓	✓	✗	✗	✗	✗	✓
PRESSURE	up to 280 °C	✗	✓	✗	✗	✗	✗	✗	✗	✓
	up to 16 barg	✓	✓	✓	✓	✓	✓	✓	✓	✓
	16 to 40 barg	✓	✓	✓	✗	✗	✓	✗	✗	✓

✓ suitable ✗ unsuitable

OPTIONAL ACCESSORIES



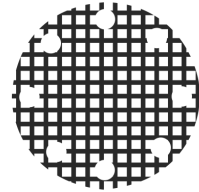
Round mica discs

- > 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)

