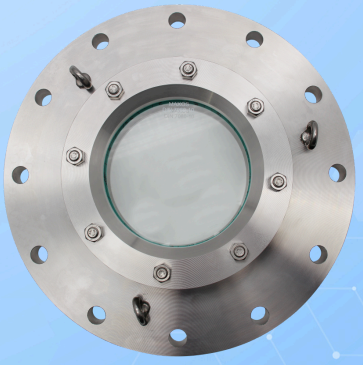
Manhole sight glass type 325 PN 6/10/16

Flange mounting according to DIN EN 1092-1

Type 325



For the closure of access and inspection openings (manhole)

USAGE

Manhole sight glass fittings serve the observation and illumination of the interior of closed containers (boilers, tanks, silos, etc.). Manhole sight glass fittings can be used, like a blind flange, to close entry openings. They also have a pressure-safe sight glass frame, allowing visual observation even when the opening is closed.

Operating condition		
Temperature: (dependent on glass and gasket)	≤ 150 °C	Soda lime glass DIN 8902 or similar
	≤ 280 °C[1]	Borosilicate glass DIN 7080 or similar
Pressure:	≤ 6/10/16 barg[1]	

1) Higher upon request

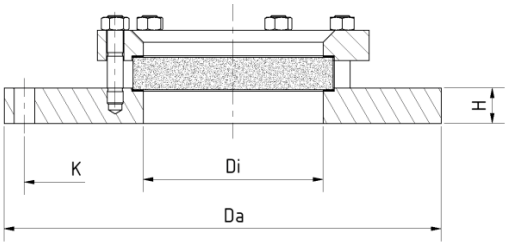
Materials	
Base flange:	1.4571; 1.4404; 1.4541; 1.4539; 1.4306
Glass:	Soda-lime glass DIN 8902 or similar Borosilicate glass DIN 7080 or similar
Gasket[2]:	PTFE; FKM; NBR; C4400; Silicone; EPDM, Graphite
Screws:	A2-70 / A4-70
Special materials on request	

2) See "INFO Gaskets"

INSTALLATION NOTE

Seals suitable for the sealing surfaces should be used. The screw material should be equivalent to or of higher quality than the sight glass flanges. In principle, use screws that match the hole pattern! If possible, both the screw thread and the screw head should be provided with lubricant.

DRAWING



DN[3]		300	350	400	450	500	600	700	800
Di [mm]		175	225	280	280	325	325	325	325
H [mm]	PN 6	23	25	28	31	33	37	42	47
	PN 10	29	34	38	40	44	49	57	63
	PN 16	36	45	50	54	60	68	71	79
Wgt. [kg]	PN 6	30	40	52	68	92	135	193	279
	PN 10	38	58	75	92	128	187	279	394
	PN 16	49	80	104	134	189	290	354	497
DA/K		According to DIN EN 1092-1 PN 6/10/16							

3) Other sizes and other diameters upon request

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PRODUCT CODE

Example for Explaining the Code Composition

11 - 325 - 2 - 6 - 2 - 1 - 4 - 0

GROUP	TYPE	PN	NOMINAL SIZE	BASE FLANGE[1]	GLASS	GASKET	VARIANT
11	325	1) 6	1) DN 300	1) 1.4539	1) Borosilicate glass according to DIN 7080 or similar.	1) PTFE	0) Standard
		2) 10	2) DN 350	2) 1.4571	2) Soda-lime glass according to DIN 8902 or similar	2) FKM	
		3) 16	3) DN 400	3) 1.4404	4) Borosilicate glass[2] + PTFE wiper SGW	3) NBR	
			4) DN 450	4) 1.4541	5) Borosilicate glass[2] + Silicone wiper SGW	4) C4400	
			5) DN 500	5) 1.4462	6) Soda-lime glass[3] + PTFE wiper SGW	5) Silicone	
			6) DN 600	6) 1.4306	7) Soda-lime glass[3] + Silicone wiper SGW	6) EPDM	
			7) DN 700	8) Special		7) Graphite	
			8) DN 800			8) Special	

1) Cover flange according to offer / order confirmation
2) Similar to DIN 7080
3) Similar to DIN 8902

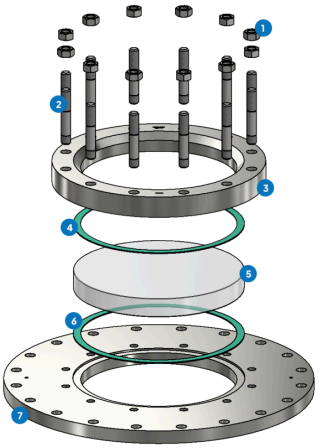
Unless otherwise specified, the highlighted factory standard is delivered.

EXAMPLE

The product code 11-325-2-600-2-1-4-0 corresponds to the standard version:
ACI type 325
DN 600
PN 10
Base flange made of 1.4571
Cover flange made of 1.4571
Borosilicate glass similar to DIN 7080
Gasket KlingerSil® C4400

STRUCTURE

1. Nuts
2. Stud bolts or srews
3. Cover flange
4. Glass cushion
5. Sight glass
6. Gasket
7. Base flange



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

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Type 325

QUICK OVERVIEW

- max. 16 barg
- heat resistant up to 400 °C
- for liquid media
- for gaseous media
- Nominal sizes DN 300 - 800
- Custom designs possible
- > 50 gasket materials
- Accessories available

OPERATING CONDITIONS

Operating conditions depend on the choice of the glass and the seals:

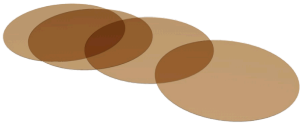
		SIGHT GLASS		GASKETS						
		Soda-lime glass (DIN 8902 or similar)	Borosilicate glass (DIN 7080 or similar)	PTFE max. 200 °C	FKM max. 200 °C	NBR max. 80 °C	C4400 max. 175 °C	Silicone max. 180 °C	EPDM max. 130 °C	Graphite > 400 °C
TEMPERATURE	up to 80 °C	✓	✓	✓	✓	✓	✓	✓	✓	✓
	up to 130 °C	✓	✓	✓	✓	✗	✓	✓	✓	✓
	up to 150 °C	✓	✓	✓	✓	✗	✓	✓	✗	✓
	up to 175 °C	✗	✓	✓	✓	✗	✓	✓	✗	✓
	up to 200 °C	✗	✓	✓	✓	✗	✗	✗	✗	✓
	up to 280 °C	✗	✓	✗	✗	✗	✗	✗	✗	✓
PRESSURE	6/10/16 barg[3]	✓	✓	✓	✓	✓	✓	✓	✓	✓

3) Higher upon request

✓ suitable ✗ unsuitable

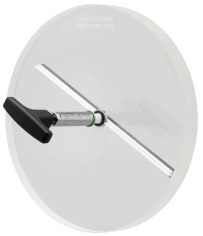
OPTIONAL ACCESSORIES

Double glazing



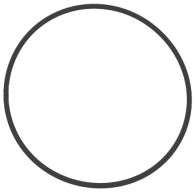
Round mica discs

> up to 320 °C with Borosilicate glass DIN 7080



Sight glass wiper

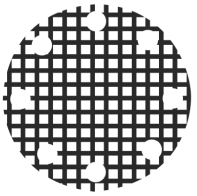
> with PTFE, silicone, EPDM or FKM wipers



O-Ring Gasket

> vacuum-compatible

PLEXIGLAS Impact protection window



Grid impact protection window

LED lights

> for Ex and non-Ex areas

FEP protective screen / coating

> for high pH values

Spraying device SV1

> from high-quality stainless steel of grade 1.4571

ACI Industriearmaturen GmbH

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