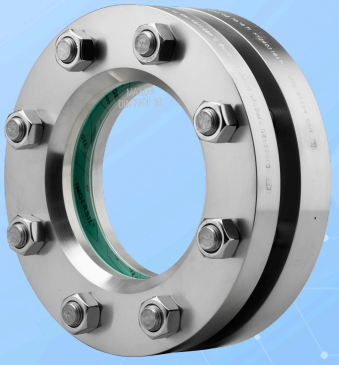
Circular sight glass fitting type 320 DIN 28120 PN 10/16

For welding in or on according to DIN 28120

Type 320



Execution according to DIN 28120

USAGE

Round sight glass fittings serve to observe and illuminate the interior of closed containers (boilers, tanks, silos, etc.). Sight glass fittings of type 320 according to DIN 28120 are round flange mountings for welding in or on, completed with a sight glass plate placed between the seals and firmly screwed in place.

Operating condition		
Temperature: (dependent on glass and gasket)	≤ 150 °C	Soda-lime glass (DIN 8902 or similar)
	≤ 280 °C	Borosilicate glass (DIN 7080 or similar)
	≤ 400 °C	Unhardened borosilicate glass
	> 400 °C	On request
Pressure:	≤ 10/16 barg	

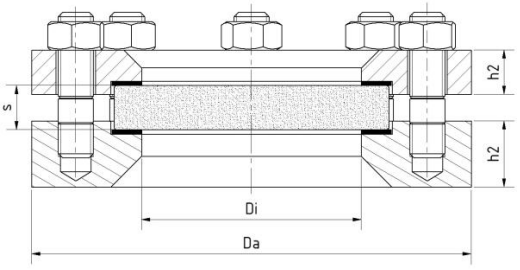
Materials	
Base flange:	1.4571; 1.4404; 1.4541; 1.4539; 1.4462[2]; 2.4602[2]
Glass:	Borosilicate glass DIN 7080 Soda-lime glass DIN 8902 Unhardened borosilicate glass
Gasket:[1]	PTFE; FKM; NBR; C4400; Silicone; EPDM; Graphite
Screws:	A4-70
Special materials upon request	

1) See "INFO Gaskets"
2) Mandatory acceptance according to EN 10204 - 3.2

INSTALLATION NOTE

After welding the base flange, it must be checked whether the sealing surface has warped. If necessary, it must be reworked! Also, pay attention to the specified tightening torques for the bolting! The operating pressure does not apply to the base flange; it must be checked together with the pressure device according to AD2000 Leaflet B9!

DRAWING



DN	25	40	50	80	100	125	150	200	250[2]	300[2]
Da [mm]	115	150	165	200	220	250	285	340	395	445
Di [mm]	48	65	80	100	125	150	175	225	280	325
h1 [mm]	16	16	16	20	22	25	30	35	40	45
h2 [mm]	25	30	30	30	30	30	36	36	40	45
Glass-Ø [mm]	63	80	100	125	150	175	200	250	300	355
s (PN10) [mm]	10	10	12	15	20	20	25	30	45	45
s (PN16) [mm]	10	12	15	20	25	25	30	-	-	-
Weight (PN 10) [kg]	-	5,4	5,9	9,6	11,1	14,3	21,9	30,7	44,7	59,2
Weight (PN 16) [kg]	2,8	5,4	6,0	9,7	11,3	14,6	22,4	-	-	-

2) Similar to DIN 28120

INDUSTRIEARMATUREN

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Type 320

PRODUCT CODE

Example for Explaining the Code Composition

11 - 320 - 100 - 2 - 1 - 4 - 000

GROUP	TYPE	NOMINAL SIZE	BASE FLANGE[1]	GLASS	GASKET	VARIANT
11	320	DN 25	1) 1.4541	1) Borosilicate glass according to DIN 7080 or similar	1) PTFE	000) Standard
		DN 40	2) 1.4571	2) Soda-lime glass according to DIN 8902 or similar	2) FKM	G00) Borosilicate glass[2] + mica protection
		DN 50	3) 1.4404	3) Quartz glass	3) NBR	S00) Spray device
		DN 80	6) 1.4306	4) Borosilicate glass[2] + PTFE wiper SGW	4) C4400	V00) Vacuum
		DN 100	8) Special	5) Borosilicate glass[2] + silicone wiper SGW	5) Silicone	D00) Double glazing
		DN 125		6) Soda-lime glass[3] + PTFE wiper SGW	6) EPDM	TA0) TA-Luft[5]
		DN 150		7) Soda-lime glass[3] + silicone wiper SGW	7) Graphite[5]	
		DN 200		8) Unhardened borosilicate glass	8) Special	
		DN 250[4]				
		DN 300[4]				

1) Cover flange according to quote / order confirmation
2) Similar to DIN 7080
3) Similar to DIN 8902
4) Similar to DIN 28120
5) Calculated proof of tightness according to EN 1591-1, taking into account the requirements of TA Luft, is only possible in combination with novaphit® MST gaskets on both sides. If this calculated proof of tightness is required, please specify the product code with the suffix TA0.

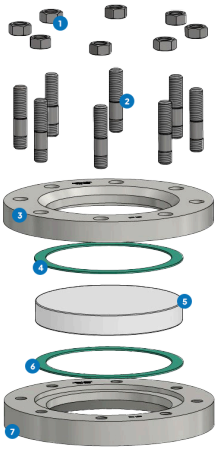
Unless otherwise specified, the highlighted factory standard will be delivered.

EXAMPLE

The product code 11-320-100-2-1-4-000 corresponds to the standard version:
ACI Type 320
DN 100
PN 16
Base flange made of 1.4571
Cover flange made of 1.4571
Borosilicate glass DIN 7080
Gasket KlingerSil® C4400

STRUCTURE

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



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

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Type 320

QUICK OVERVIEW

max. 16 barg

heat resistant up to 400 °C

for liquid media

for gaseous media

Nominal sizes DN 25 - 300

Custom designs available

> 50 sealing materials

Accessories available

OPERATING CONDITIONS

The operational conditions depend on the choice of glass and gaskets:

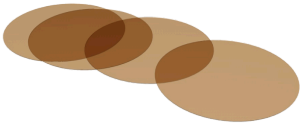
		Sight glass				Gaskets						
		Soda-Lime Glass (DIN 8902 or similar)	Borosilicate glass (DIN 7080 or similar)	Borosilicate glass untempered	Quartz glass	PTFE max. 200 °C	FKM max. 200 °C	NBR max. 80 °C	C4400 max. 175 °C	Silicone max. 180 °C	EPDM max. 130 °C	Graphite > 400 °C
TEMPERATURE	up to 80 °C	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	up to 130 °C	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓	✓
	up to 150 °C	✓	✓	✓	✓	✓	✓	✗	✓	✓	✗	✓
	up to 175 °C	✗	✓	✓	✓	✓	✓	✗	✓	✓	✗	✓
	bup to 200 °C	✗	✓	✓	✓	✓	✓	✗	✗	✗	✗	✓
	up to 280 °C	✗	✓	✓	✓	✗	✗	✗	✗	✗	✓	
	up to 400 °C	✗	✗	✓	✓	✗	✗	✗	✗	✗	✓	
	>400 °C	on request				on request						
PRESSURE	up to 10/16 barg	✓	✓	✓	✓ [1]	✓	✓	✓	✓	✓	✓	✓

1) Conditioned, the use must be checked by the system operator for compliance with regulations

✓ suitable ✗ unsuitable

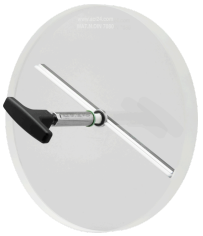
OPTIONAL ACCESSORIES

Double glazing



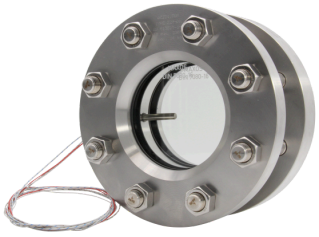
Round mica discs

> up to 320 °C with Borosilicate glass DIN 7080

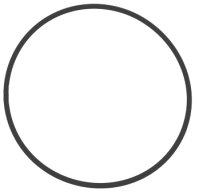


Sight glass wiper

> with PTFE, silicone, EPDM or FKM wipers



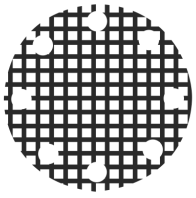
Double glazing with heating cartridge



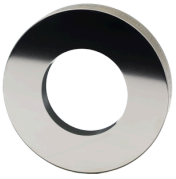
O-Ring Gasket

> vacuum-compatible

PLEXIGLAS Impact protection window



Grid impact protection window



Metal fused safety sight glass

> for safety applications

LED lights

> for Ex and non-Ex areas

OPTIONAL ACCESSORIES

FEP protective screen / coating

> for high pH values

Wiper SW2 with flexible shaft

> with PTFE or silicone wiper

Spraying device SV1

> from high-quality stainless steel of grade 1.4571

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