APPLICATION:

Observation and illumination of the liquid level inside closed vessels (boilers, tanks, silos, etc.) up to 100 bar and high temperatures. These sightglasses are square flanged sockets for flange mounting, completed with a screwed sightglass plate inserted between the gaskets.

INSTALLATION NOTE:

Ensure that the installation is free of tension. The indicator is not allowed to be used as a load bearing component.

FLANGES:

The connection flanges with DN 20 shut-off valves are mounted at the rear. Other diameters are also available on request, if technically possible.

Rear facing shut-off valves for flange connection (ΔP≤ 100 bar)

Operating conditions:

Temperature: (depending on glass and gasket)	243 °C Boro Reflex 300 °C Boro transparent 320 °C Boro transparent with mica protection	
Pressure:	≤ 16 / 40[1]	Bar
Pressure:	≤ 100[2]	Bar

[1] see pressure remark on next page
[2] only in combination with mica-protected transparent sight glasses
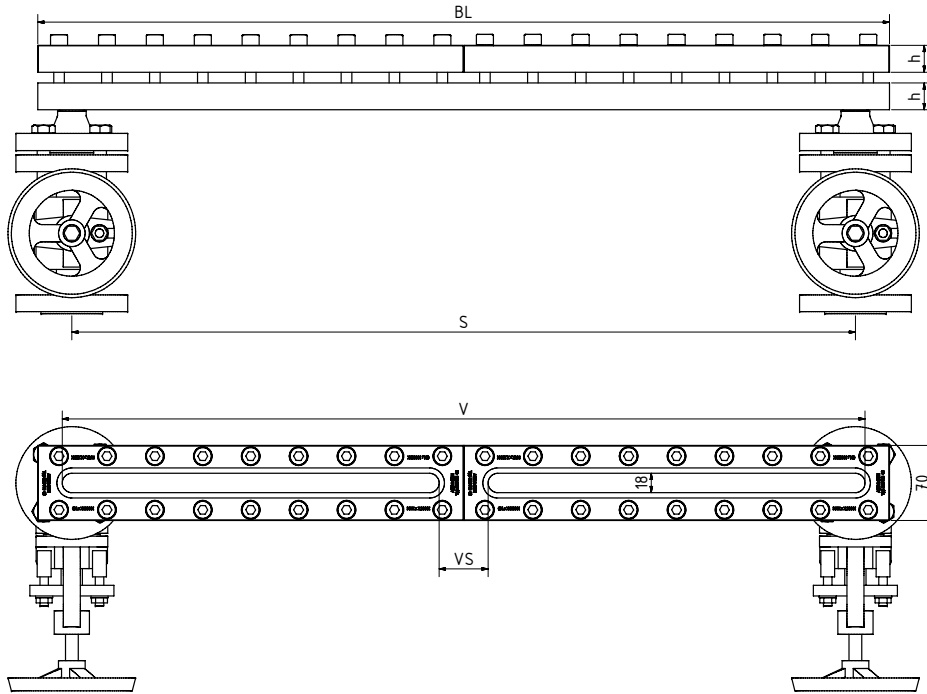
Materials:

Flange:	1.4571, 1.4404
Glass:	Borosilicate glass DIN 7081 Reflex or transparent glass
Gasket:	PTFE; FKM; NBR; C4400; Silicone; EPDM; Graphite
Screws:	A4-70
Special materials on request	

NOTICE:

The specified operating conditions depend on the medium, state of aggregation, temperature and connection. Different operating conditions apply to steam!

REFLEX AND TRANSPARENT GLASS:

A reflex sight glass is recommended for dark media, dark or non-illuminated vessels. (see adjacent picture) Due to the refraction of light in the integrated prisms, the fill level may be better visible. However, if the vessel is illuminated, the medium is very bright or the colour of the medium must be visible, a transparent glass should be used. We are happy to help you with the selection.
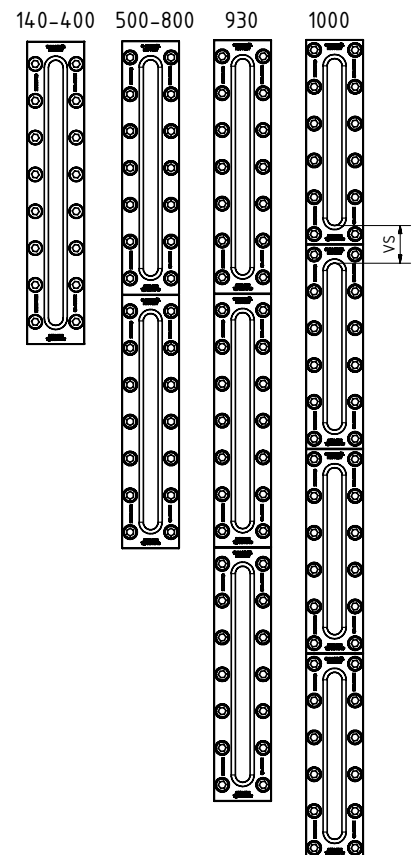
CONCEALED VIEW (VS):

Concealed visibility is formed in the area between the individual longitudinal glasses for level indicators of long sizes. Because of the manufacturing length of the longitudinal glasses in accordance with DIN 7080, a concealed view cannot be avoided from an overall length of 500 mm onward. The layout of the sizes 140 mm to 1000 mm can be seen in the following illustration.

BL	V	S	VS	h (PN16)	h (PN40)	h (PN100)	Kg (PN16)	Kg (PN40)	Kg (PN100)
140	79	60	0	20	25	40	13,8	14,4	27,6
170	124	100	0	20	25	40	14,2	15,0	28,4
220	174	150	0	20	25	40	15,0	16,0	30,0
250	204	180	0	20	25	40	15,6	16,7	31,2
300	264	240	0	20	25	40	16,3	17,7	32,6
310	264	240	0	20	25	40	16,6	18,0	33,2
350	304	280	0	20	25	40	17,3	18,8	34,6
370	324	300	0	20	25	40	17,6	19,2	35,2
400	354	330	0	20	25	40	18,1	19,9	36,2
500	454	430	1x46	20	25	40	20,1	22,4	40,2
600	564	540	1x46	20	25	40	21,7	24,4	43,4
620	574	550	1x46	20	25	40	22,1	24,9	44,2
700	654	630	1x46	20	25	40	23,5	26,7	47,0
740	694	670	1x46	20	25	40	24,2	27,5	48,4
800	754	730	1x46	20	25	40	25,2	28,8	50,4
930	884	860	2x46	20	25	40	27,7	31,9	55,4
1000	954	930	3x46	20	25	40	29,2	33,8	58,4

140–400   500–800   930   1000

²PRESSURE REMARK:

The operating pressure of 40 bar is only possible with transparent glass for liquid media without technically significant glass attack. For transparent glasses exposed to steam or aggressive media, the maximum operating pressure is PS = 35 bar. More detailed information can be found in our info sheet DIN 7081.

Technical changes and errors reserved!

PRODUCTCODE:

Group	TYPE	ovr. length	PN	Base frame*	Glass	Gasket	Variant
11	425	140 170 220 250 300 310 350 370 400 500 600 620 700 740 800 930 1000	**1: 16** 2: 40 3: 100	**2: 1.4571** 4: 1.4404 5: Duplex 8: Special	1: Borosilicate glass (Boro) DIN 7081 transparent glass **3: Borosilicate glass (Boro) DIN 7081 reflex glass** 4: Borosilicate glass (Boro) DIN 7081 Transparent glass with mica protec. 5: untempered borosilicate glass transparent glass	1: PTFE 2: FKM 3: NBR **4: C4400** 5: Silicone 6: EPDM 7: Graphite 8: Special	Assigned by ACI if required

INFO: Unless otherwise stated, the factory standard highlighted is supplied.

*Cover frame according to quotation / order confirmation.

SPECIAL DESIGNS/OPTIONS:

a) High temperature version on request
b) LED or halogen lights, ATEX-certified, EX
c) Other options on request

EXAMPLE:

11-425-400-1-2-1-7-0 equals the product code:
ACI Type 425
400 mm long
PN16
Base frame 1.4571
Borosilicate glass transparent
gasket graphite
standard version

RECOMMENDATION:

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

(Not possible with reflex sight glasses as they would lose their function.)