

# USV STEEL SIGHT GLASS WITH BOROSILICATE WINDOWS

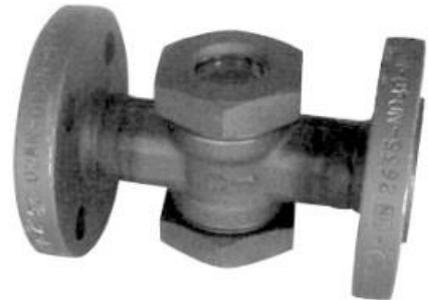
## FEATURES

The USV-type sight glass is designed for the visual inspection of flow for fluids inside medium-pressure piping. Built of forged steel and double glass, it can have threaded connections or flange connections. The windows are made of borosilicate, for a maximum operating temperature of 300°C. It is especially designed for inspecting the condensate downstream from the steam traps of the steam circuits. It can be installed in any position.

## AVAILABLE MODELS

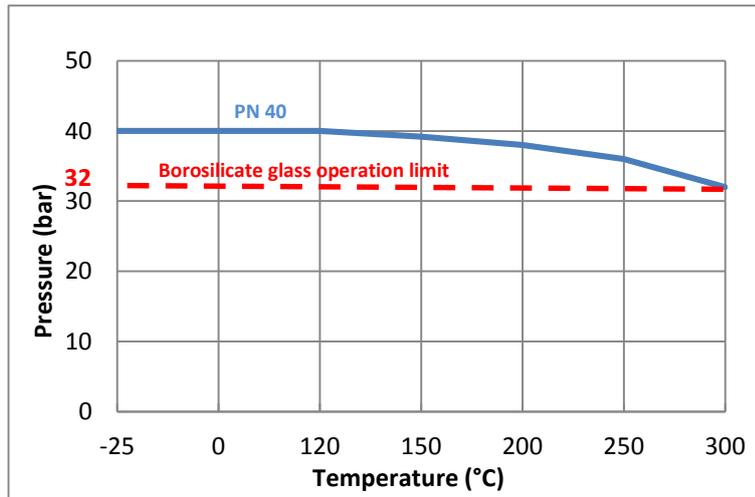
G threaded connection: G 1/2" to G 1".  
(40 bar up to 3/4" and 20 bar beyond).

PN40 RF flange connections: DN15 to DN40.  
(40 bar up to DN 20 and 20 bar beyond).



## LIMITS OF USE

<b>Fluid WP:</b>	40 bar
<b>Fluid WT° (Borosilicate glass):</b>	- 25 °C / + 300 °C



## DIRECTIVES AND MANUFACTURING STANDARDS

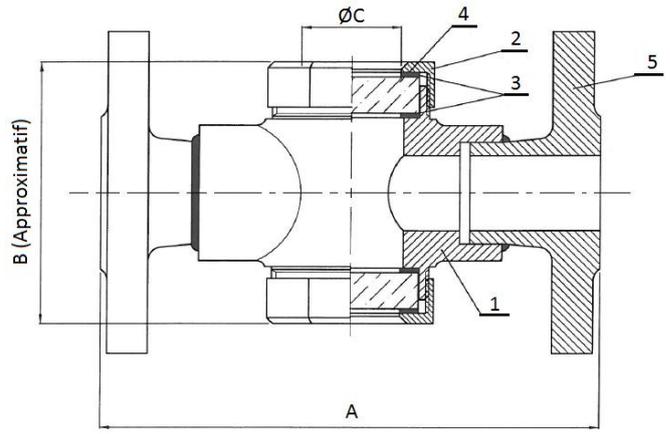
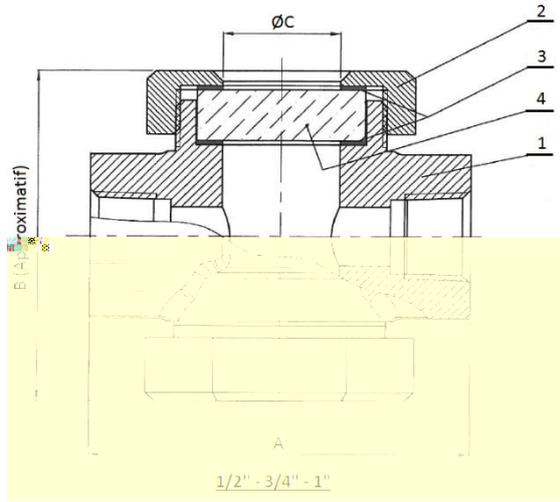
OBJECT	Standard	ON	OBJECT	Standard
Pressure Equipment Directive 97/23/EC	DN 15 to 20: A3 § 3 non-submitted	1115	Steel grades	EN 1503-1
	DN 25 to 40 : category III		Material certificate	EN 10204 § 3.1
G threaded connection	ISO 228		FAF dimensions	EN 558-1 series 1
Flange connections:	EN 1092-1			

Information given as an indication only, and subject to possible modifications

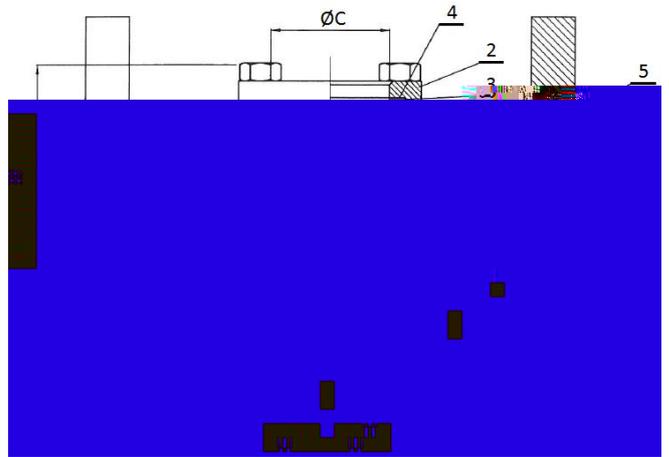
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## DIMENSIONS (mm) AND CONNECTIONS

DN	1/2"	3/4"	1"	15	20	25	32	40
A	90	90	100	130	150	160	180	200
B (approximative)	80	80	90	80	80	90	125	125
C	28	28	35	28	28	35	55	55
Weight (kg)	01:15	01:05	01:12	2.6	03:15	3.7	7.9	7.98



**DN15 - DN20 - DN25**



## CONSTRUCTION

No.	Name	Qty	Material
1	Body	1	ASTM A105 forged steel
2	Cover	2	ASTM A105 forged steel
3	Gasket	4	Fibre
4	Window	2	Borosilicate glass
5	F	2	ASTM A105 forged steel
6	B	8	Steel

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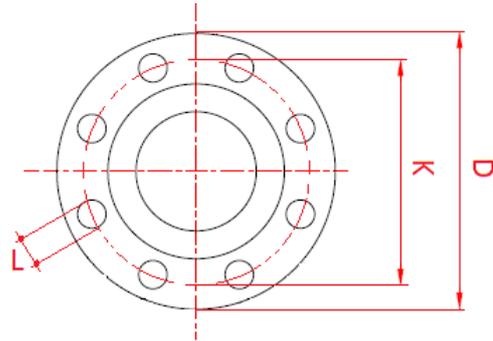
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## **INSTALLATION**

- 1 - Before any installation, cut-off the piping upstream and downstream.
- 2 - Depressurize and drain the piping.
- 3 - Wait for it to cool down to ambient temperature.
- 4 - Wear the safety equipment required for this type intervention (gloves and goggles).
- 5 - Horizontal or vertical installation.
- 6 - Threaded version: screw the sight glass onto the piping using a suitable gasket.  
Flange version: screw the upstream and downstream flanges by using beforehand flange gaskets suitable for the operating conditions.
- 7 - Position the device so as to make the windows visible to operators.

Use the following types of bolts:

ISO PN40 flange dimensions					
DN	D	K	L	Qty	Ø
15	95	65	14	4	M12
20	105	75	14	4	M12
25	115	85	14	4	M12
32	140	100	19	4	M12
40	150	110	19	4	M12



## **SERVICING**

- 1 - Unscrew the tightening nuts or bolts (according to the type) and remove the gaskets and the windows.
- 2 - Clean the internal parts.
- 3 - Check the state of the windows, detect any beginning of corrosion or erosion, and replace them if needed.
- 4 - Put the installation back in service.

## **SPARE PARTS**

USV kit (2 x windows)				USV kit (4 x gaskets)
DN	Ø	Thickness (mm)	Code	Code
1/2"	40	12	981057	981065
3/4"	40	12		
1"	45	12	981058	981066
15	40	12	981057	981065
20	40	12		
25	45	12	981058	981066
32	70	15	981059	981067
40	70	15	981060	981068

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