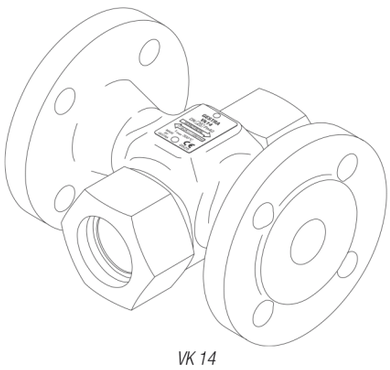
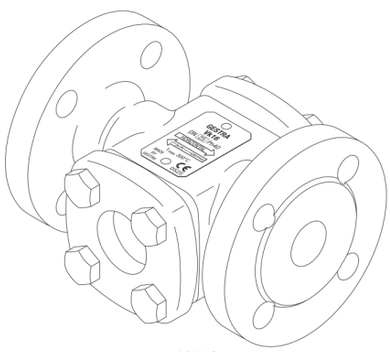
Visor de Nivel para Condensado VK14



VK 14



VK 16



Fig. 1



Fig. 2



Fig. 3

Vaposcope Sightglasses

VK 14, DN 15, DN 20, DN 25, DN 40, DN 50, PN 16
VK 16, DN 15, DN 20, DN 25, DN 40, DN 50, PN 40

Description

The GESTRA Vaposcope is a sight flow indicator specially designed for monitoring flow conditions in pipelines. If installed **upstream** of steam traps the Vaposcope can be used for checking the traps for **steam loss** or for **banking-up of condensate**.

Function

Steam and condensate flow in a pipe in separate phases towards the steam trap. The regulator of a properly working steam trap is adjusted in such a way that only condensate but not steam is discharged. The condensate in the sightglass VK … flows under the deflector which remains immersed, or at least touches the condensate surface. Due to this siphon effect condensate is continuously moved to the steam trap where it is evacuated. **Fig. 1**

Complete flooding of the Vaposcope VK … indicates banking-up of condensate. This may be done on purpose or because the steam trap is either undersized or failing to work correctly. **Fig. 2**

If the water level in the sightglass VK … is being considerably depressed during normal operation, it is a sure sign that the steam trap is passing live steam.

Function - continued -

The regulator of the steam trap is probably failing or the cleaning valves are open. **Fig. 3**

Design

VK 14
Straight-through type body with sightglasses made from borosilicate glass to DIN 7080 for fluids ≤ **pH 9** at either end. The equipment has no moving parts.

VK 16
Straight-through type body with sightglasses made from borosilicate glass to DIN 7080 for fluids ≤ **pH 10** at either end. The equipment is fitted with a mica disk and has no moving parts.

End Connections

VK 14: Flanges EN, PN 16.

VK 16: Flanges EN, PN 40
ASME B16.34, Class 150 RF
ASME B16.34, Class 300 RF
Screwed sockets (for BSP and NPT threads)
Socket-weld ends

Pressure/Temperature Ratings VK 14		PN 16				
p-T series		according to EN 1092-2				
Material		EN-JL1040 (EN-GJL-250) / GG-25 (0.6025)				
Size (DN)		15, 20, 25, 40, 50				
Connection		Flanged to DIN, PN 16				
pH value		≤ 9				
Max. allowable pressure PMA	[barg]	16.0	14.4	12.8	11.2	9.6
Max. allowable temperature TMA	[°C]	–10 to 50	100	200	250	280 [1]

[1]) If mica disks are retrofitted the temperature is increased to 300 °C.

Pressure/Temperature Ratings VK 16		PN 40				
p-T series		according to EN 1092-1, material group 3E0				
Material		1.0460 (P250GH) / 1.0460 (C 22.8)				
Size (DN)		15, 20, 25, 40, 50				
Connection		Flanged to DIN, PN 40, ASME Class 300				
pH value		≤ 10				
Max. allowable pressure PMA	[barg]	40.0	37.3	30.2	28.4	25.8
Max. allowable temperature TMA	[°C]	20	100	200	250	300

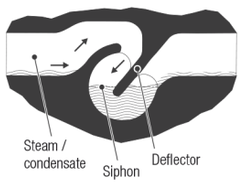
Pressure/Temperature Ratings VK 16		Class 150				
p-T series		ASME B16.34 material group 1.1				
Material		1.0460 (P250GH) / 1.0460 (C 22.8)				
Size (DN)		15, 20, 25, 40, 50				
Connection		Flanged to ASME Class 150				
pH value		≤ 10				
Max. allowable pressure PMA	[barg]	19.7	17.7	14.0	12.1	10.2
Max. allowable temperature TMA	[°C]	20	100	200	250	300

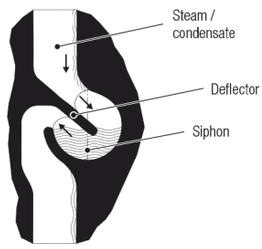
Vaposcope Sightglasses

VK 14, DN 15, DN 20, DN 25, DN 40, DN 50, PN 16
VK 16, DN 15, DN 20, DN 25, DN 40, DN 50, PN 40

Installation

Upstream of the steam trap, with the deflector pointing downwards and in accordance with the direction indicated by the flow arrow. For installation in vertical and horizontal pipes.





When ordering please state:

Service pressure, service temperature, pH value of the fluid

The following test certificates can be issued on request, at extra cost:
in accordance with EN 10204/2.2 and 3.1B.
All inspection requirements have to be stated with the order. After supply of the equipment certificates can no longer be established. Charges and extent of the above mentioned certificates as well as the different tests confirmed therein are listed in our price list "Test and Inspection Charges for Standard Equipment".
For other tests and inspections than those listed above, please consult us.

PED (Pressure Equipment Directive)

The equipment complies with the requirements of the Pressure Equipment Directive PED 97/23/EC. Applicable with fluids of group 2. With CE marking (apart from equipment excluded from the scope of the Directive according to section 3.3).

ATEX (Atmosphère Explosible)

The equipment does not have its own potential source of ignition and is therefore excluded from the scope of the ATEX Directive 94/9/EC. Applicable in Ex zones 0, 1, 2, 20, 21 and 22 (1999/92/EC). Without Ex marking.

Supply in accordance with our general terms of business.

Materials

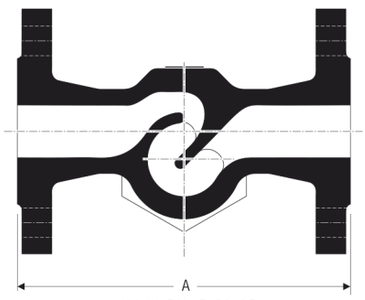
Materials VK 14	EN	DIN	ASTM[4]
Body VK 14	EN-JL 1040 (EN-GJL-250)	GG-25 (0.6025)	A 126 Class B
Union nuts[1]	1.1181 (C35E)	CK 35 (1.1181)	A 194-2H
Flange[2]	P250GH (1.0460)	C 22.8 (1.0460)	A 105
Body screws[3]	5.6	5.6	
Sightglass	MAXOS® Borosilicate glass, DIN 7080		
Sightglass gasket	Graphite /CrNi		

[1]) For sightglass fixing with DN 15-25, to ISO 8434-1, form N, series S.
[2]) Flange for sightglass fixing with DN 40, 50
[3]) Hexagon-head cap screw M 16 x 40, EN 24017 for sightglass fixing
[4]) ASTM equivalent stated for guidance only. Take different chemical and physical properties to DIN into account.

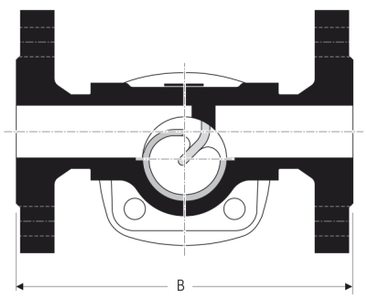
Materials VK 16	EN	DIN	ASTM[4]
Body VK 16	1.0460 (P250GH)	1.0460 (C 22.8)	A 105
Insert	1.0619 (GP240GH)	1.0619 (GS C-25)	A 216 WCB
Flange[2]	1.0460 (P250GH)	1.0460 (C 22.8)	A 105
Body screws[3]	5.6	5.6	
Sightglass	MAXOS® Borosilicate glass, DIN 7080		
Sightglass gasket	Graphite /CrNi		

[2]) Flange for sightglass fixing with DN 40, 50
[3]) Hexagon-head cap screw M 16 x 40, EN 24017 for sightglass fixing
[4]) ASTM equivalent stated for guidance only. Take different chemical and physical properties to DIN into account.

Dimensions



VK 14, DN 15, 20, 25



VK 16, DN 15 – DN 50

Dimensions and weights VK 14		Flanged to DIN				
Size DN	[mm]	15	20	25	40	50
	[inch]	½	¾	1	1 ½	2
Length A	[mm]	130	150	160	200	230
Approx. weight	[kg]	3.0	3.7	4.3	14.0	16.0

Dimensions and weights VK 16		Flanged to DIN					Screwed sockets / Socket-weld ends				
Size DN	[mm]	15	20	25	40	50	15	20	25	40	50
	[inch]	½	¾	1	1 ½	2	½	¾	1	1 ½	2
Length B	[mm]	150	150	160	200	230	95	95	95	130	210
Approx. weight	[kg]	4.0	5	5.5	13.0	15.5	2.9	3.1	3.0	8.5	9.0