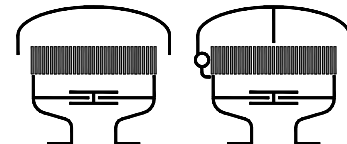


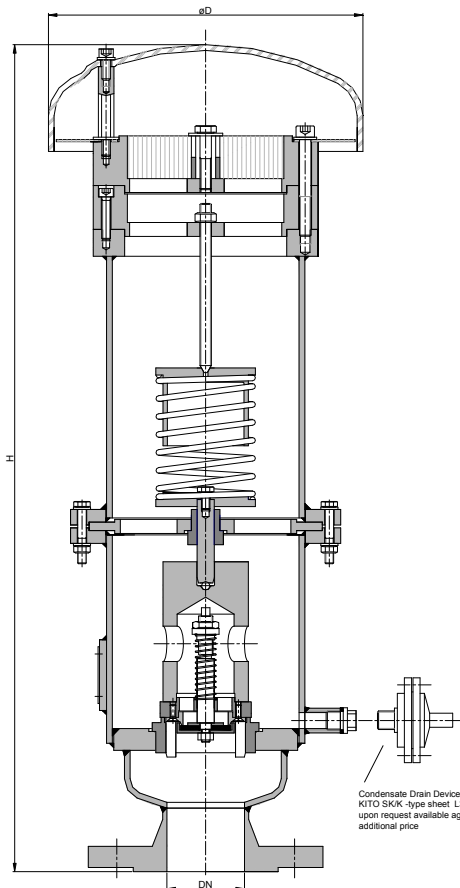
# Combined Pressure / Vacuum Relief Valve

KITO® VD/KS-1-IIA-...-A

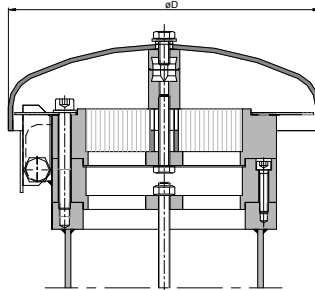
KITO® VD/KS-1-IIA-...-K



KITO VD/KS-1-IIA-...-A



KITO VD/KS-1-IIA-...-K



*Example to order :*

**KITO® VD/KS-1-IIA-50-A**  
(design with weather hood from PMMA and flange connection DN 50 PN 16)

**Type examination certificate to DIN EN ISO 16852**

**CE -designation in accordance to ATEX-Guideline 94/9/EC**



DN		D	H		kg	setting mbar			
DIN	ANSI		DIN	ANSI		vacuum		pressure	
						min.	max.	min.*	max.*
50 PN 16	2"	220	585	605	23,5	3	100	200	350
80 PN 16	3"	245	790	810	40		50		
100 PN 16	4"								

Dimensions in mm

Attention !!! Dimension H for design with a weather hood from stainless steel 1.4571 ca. 10-15 mm lower.

\* minor settings see type sheet E 13 N, higher settings on request.

Design subject to change

performance curves: E 0.13.1 N

Standard design

- housing : steel, stainless steel mat. no. 1.4571
- valve parts / spindle : stainless steel mat. no. 1.4571
- valve sealing (vacuum) : NBR, Viton, PTFE
- valve sealing (pressure): metal sealing
- valve pallet : spring loaded
- parts spring loading : stainless steel mat. no. 1.4571
- compression springs : stainless steel
- KITO® flame arrester element : completely interchangeable
- KITO® casing / grid : stainless steel mat. no. 1.4308 / 1.4310, 1.4408 / 1.4571

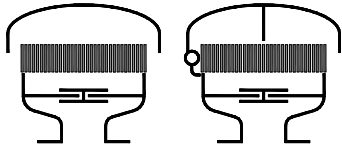
weather hood

- KITO® VD/KS-1-IIA-...-K : stainless steel mat. no. 1.4571, hood can fold automatically as a result of folding mechanism and fusing element
- KITO® VD/KS-1-IIA-...-A : PMMA

- protective screen : PA6
- flange connection : DIN EN 1092-1 form B1  
ANSI 150 lbs. RF

Application

proof for products of explosion group IIA with a maximum experimental safe gap (MESG) > 0.9 mm. Mainly used as equipment of fixed roof tanks for venting and inbreathing to prevent undue pressure resp. vacuum and undesired losses of vaporization, respectively undue emissions. Installation on top of storage vessels. Available with an explosion and endurance burning proofed condensate drain device.



## Combined Pressure / Vacuum Relief Valve

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KITO® VD/KS-1-IIA-...-K

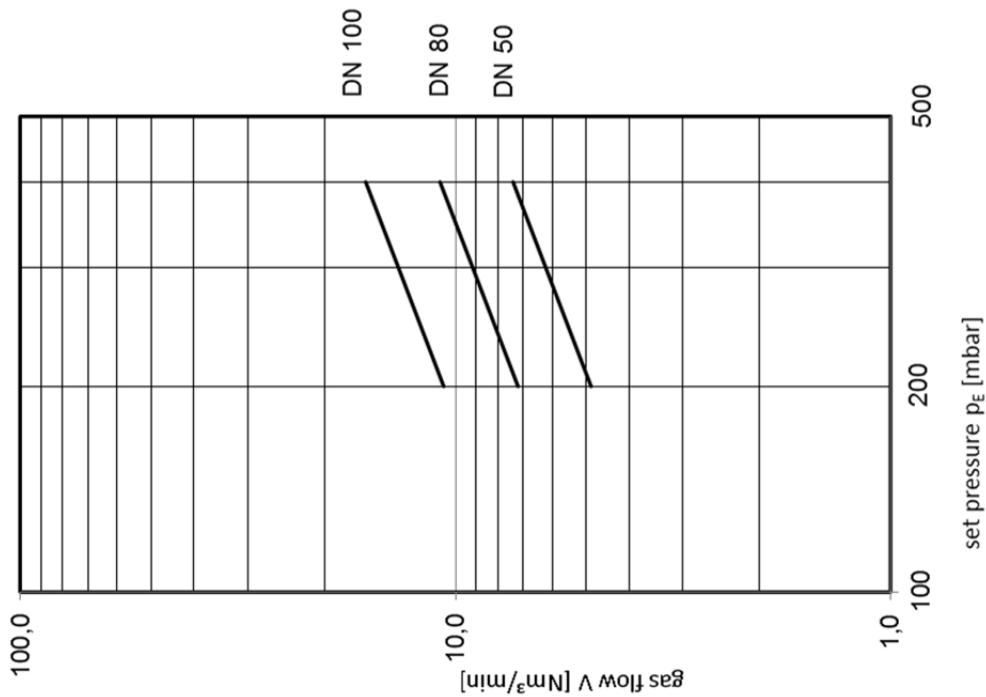
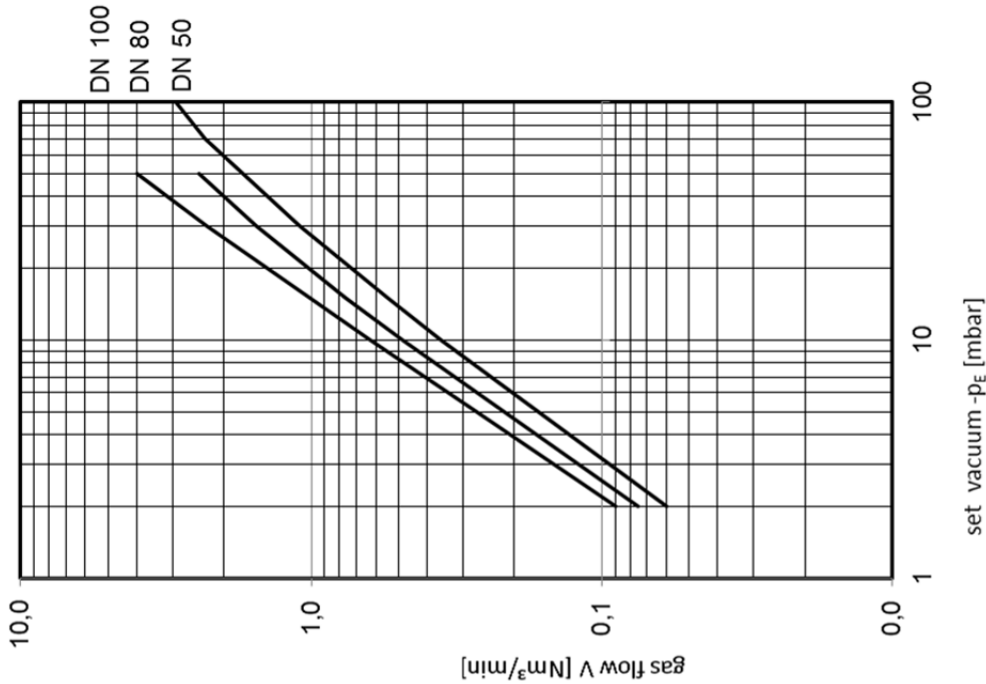
E 13.1 N

The flow capacity  $V$  refers to a density of air with  $\rho = 1.29 \text{ kg/m}^3$  at a temperature of 273 K and a pressure of 1.013 mbar.  
The indicated flow rates will be reached by an accumulation of 40% above valve's setting.

The flow capacity for gases with different densities can be calculated sufficiently accurate by the following approximation equation:

$$\dot{V}_{40\%} = \dot{V}_b \cdot \sqrt{\frac{\rho_b}{1.29}} \quad \text{or} \quad \dot{V}_b = \dot{V}_{40\%} \cdot \sqrt{\frac{1.29}{\rho_b}}$$

Indicated flow rates will be reached by an accumulation of 40% above valve's setting.



Design subject to change