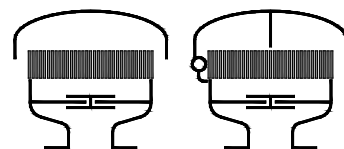


## Type sheet

Deflagration and endurance burning proof pressure and vacuum relief valve

**KITO® VD/KS-1-IIA-...-A**

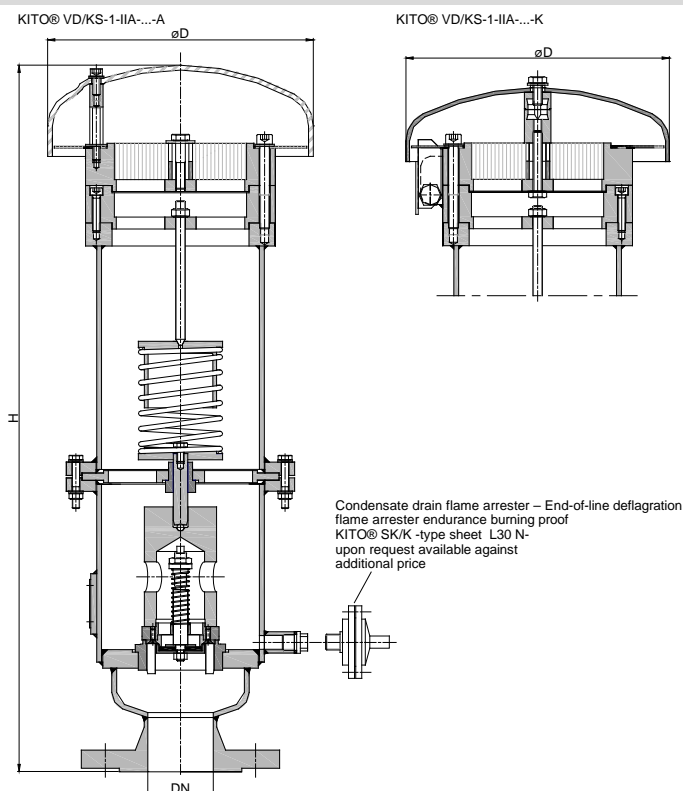
**KITO® VD/KS-1-IIA-...-K**



### Application

proof for products of explosion group IIA with a maximum experimental safe gap (MESG) > 0.9 mm and an maximum operating temperature of 60 °C. 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.

### Dimensions (mm) and settings (mbar)



DN		D	H		kg	setting			
						vacuum		pressure	
DIN	ASME		DIN	ASME		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"								

Indicated weights are understood without weight load and refer to the standard design

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

Lower settings see KITO® VD/KS-IIA-...-... (type sheet E 13 N), higher settings on request

### Example for order

**KITO® VD/KS-IIA-1-50-A**

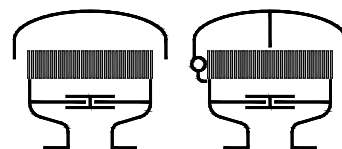
(design with weather hood from PMMA and flange connection DN 50 PN 16)

**Type examination certificate to EN ISO 16852 and CE-marking in accordance to ATEX-Directive 2014/34/EU**

## Type sheet

Deflagration and endurance burning proof pressure and vacuum relief valve

**KITO® VD/KS-1-IIA-...-A**  
**KITO® VD/KS-1-IIA-...-K**



### Design

	standard	optionally
housing	steel	stainless steel mat. no. 1.4571
valve seat, valve spindle	stainless steel mat. no. 1.4571	
valve sealing (vacuum)	NBR	Viton, PTFE, EPDM
valve sealing (pressure)	metal sealing	
valve pallet	spring loaded	
spring loaded parts	stainless steel mat. no. 1.4571	
compression spring	stainless steel	
KITO®-flame arrester element	completely interchangeable	
KITO®-casing / KITO®-grid	stainless steel mat. no. 1.4308 / 1.4310	stainless steel mat. no. 1.4408 / 1.4571
weather hood <b>KITO® VD/KS-1-IIA-...-A</b>	PMMA	
weather hood <b>KITO® VD/KS-1-IIA-...-K</b>	stainless steel mat. no. 1.4571, hood can fold automatically as a result of folding mechanism and fusing element	
protective screen	PA6	
flange connection	EN 1092-1 type B1	ASME B16.5 Class 150 RF

### Performance curves

Flow capacity  $V$  based on air of a density  $\rho = 1.29 \text{ kg/m}^3$  at  $T = 273 \text{ K}$  and atmospheric pressure  $p = 1.013 \text{ mbar}$ . For other gases the flow can be approximately calculated by

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

The indicated flow rates will be reached by an accumulation of 40% above valve's setting (see DIN 4119).  
 If the allowable overpressure is less 40%, please consult der factory for the corrected volume flow.

