

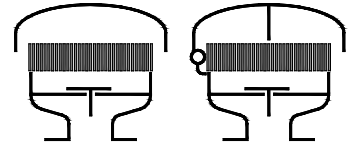


Type sheet

Deflagration and endurance burning proof pressure relief valve

KITO® DS/KS-1-IIA-...-A

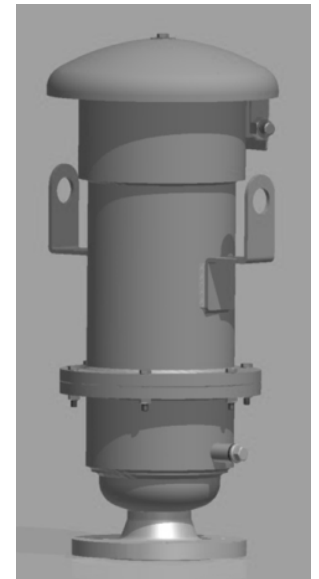
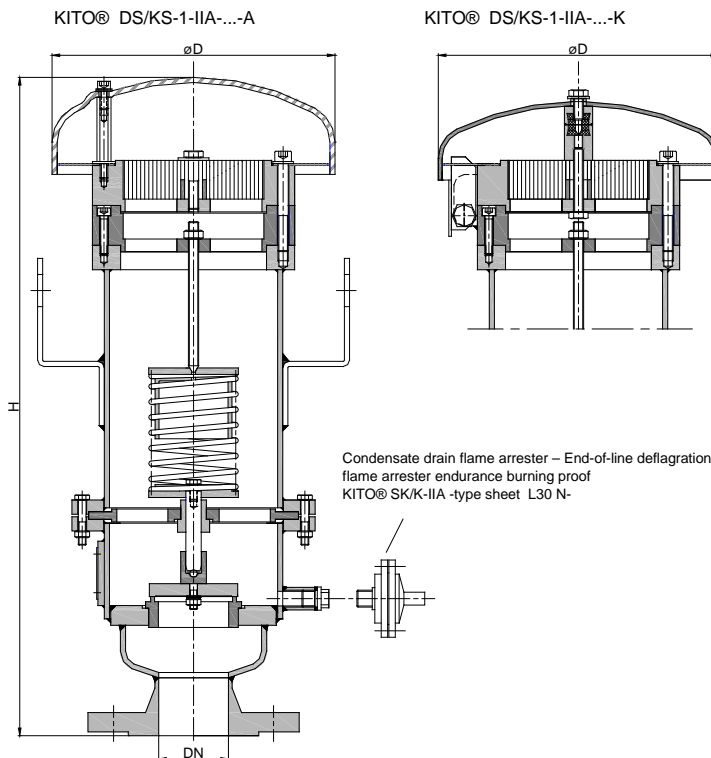
KITO® DS/KS-1-IIA-...-K



Application

As venting device for installation on storage tanks incorporating an explosion and endurance burning flame arrester element and a PRV to allow for the passage of excess pressure but prevent or minimize the loss of gas/vapours depending on valve adjustment. Usually mounted on top of the tank in conjunction with a vacuum relief valve. Approved for all materials of the explosion group IIA with a maximum experimental safe gap (MESG) > 0.9 mm and an maximum operating temperature of 60 °C. Usually mounted on the top of the tank in conjunction with a vacuum relief valve (see KITO® VS/KS-IIB3-...). An explosion proof condensate drain is also available for this model at extra cost.

Dimensions (mm) and settings (mbar)



DN		D	H		kg	setting	
DIN	ASME		DIN	ASME		min.	max.
25 PN 40	1"	220	504	524	>200	350	
50 PN 16	2"		512	532			
80 PN 16	3"	245	700	720			
100 PN 16	4"		707	731			

Weight refers 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® DS/KS-IIA-...-... (type sheet C 7 N), higher settings on request

Example for order

KITO® DS/KS-1-IIA-25-A

(design with weather hood from PMMA and flange connection DN 25 PN 40)

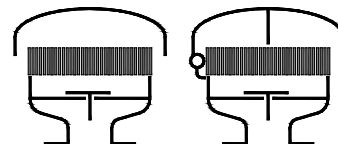
Type examination certificate to EN ISO 16852 and CE-marking in accordance to ATEX-Directive 2014/34/EU

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Deflagration and endurance burning proof pressure relief valve

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KITO® DS/KS-1-IIA-...-K



Design

	standard	optionally
housing	steel	stainless steel mat. no. 1.4571
valve pallet	spring loaded	
valve seat, valve spindle	stainless steel mat. no. 1.4571	
valve sealing	metal sealing	
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 KITO® DS/KS-1-IIA-...-A	PMMA	
weather hood KITO® DS/KS-1-IIA-...-K	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.

