

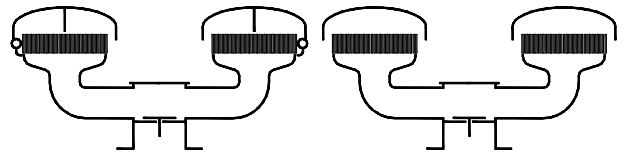


Type sheet

Deflagration and endurance burning proof pressure relief valve

KITO® DS/M-IIA-...-A

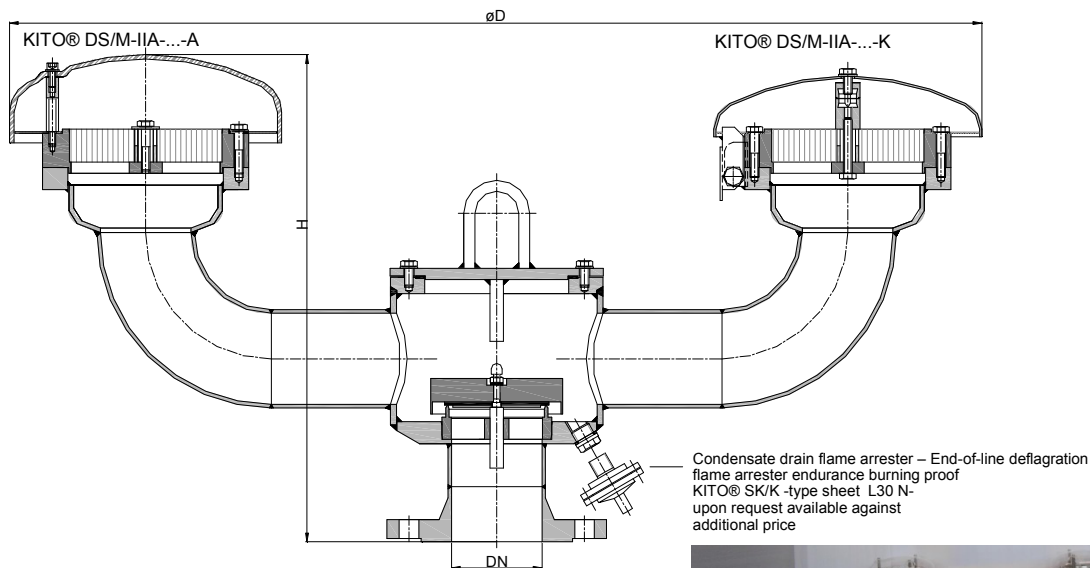
KITO® DS/M-IIA-...-K



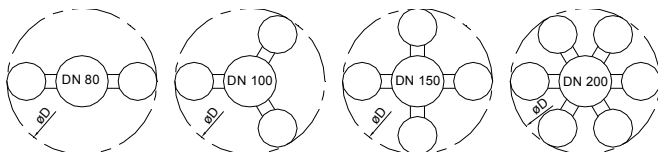
Application

As breather/venting safety device incorporating an explosion and endurance burning proof flame arrester element for installation on storage tanks containing particular categories of inflammable liquids providing for reliable and safe operation whilst ensuring protection against any possible flashback. The PRV allows the passage of hazardous excess pressure but will minimize the loss of gas/vapours depending on valve adjustment. Usually mounted on the 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. An explosion proof condensate drain is also available for this model at extra cost.

Dimensions (mm) and settings (mbar)



Arrangement of the KITO® flame arrester elements



DN		D	H		number of KITO® flame arrester elements	kg	min. - max. (load weight from PE)	setting		
DIN	ASME		DIN	ASME				min. - max.	min. - max. (with housing extension)	
80	PN 16	3"	940	443	463	2	38	2 - 9.9	10 - 115	> 115 - 200
100	PN 16	4"	1054	470	497	3	53	2 - 9.9	10 - 125	> 125 - 200
150	PN 16	6"	1234	479	513	4	72	2 - 9.9	10 - 90	> 90 - 150
200	PN 10	8"	1634	529	569	6	140	2.8 - 13.4	13.5 - 100	-

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

Higher settings on request !

Example for order

KITO® DS/M-IIA-80-K

(design with weather hood from stainless steel mat. no. 1.4571 and flange connection DN 80 PN 16)

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

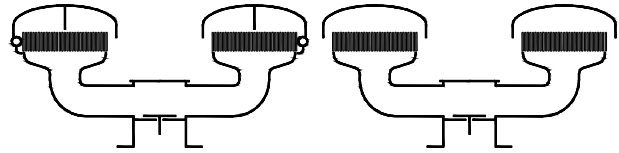


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Design

	standard	optionally
housing	steel	stainless steel mat. no. 1.4571
gasket	HD 3822	PTFE
design valve pallet	orifice plate	
valve seat, valve spindle	stainless steel mat. no. 1.4571	
load weight	stainless steel mat. no. 1.4571	PE
valve sealing	NBR	Viton, PTFE, EPDM, metal sealing
	<i>≥ 100 mbar only PTFE or metal sealing</i>	
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/M-IIA-...-A	PMMA	
weather hood KITO® DS/M-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.

