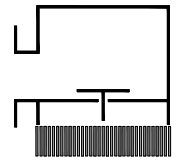


## Type sheet

### Deflagration proof vacuum relief valve KITO® VS/KS-...-IIB3

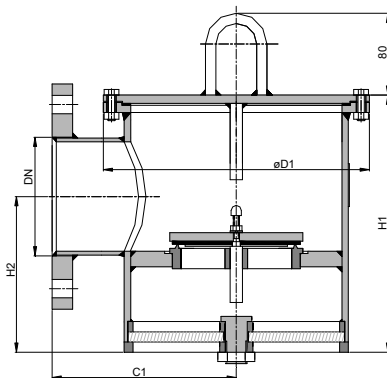


#### Application

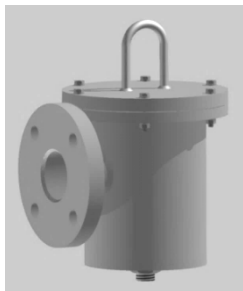
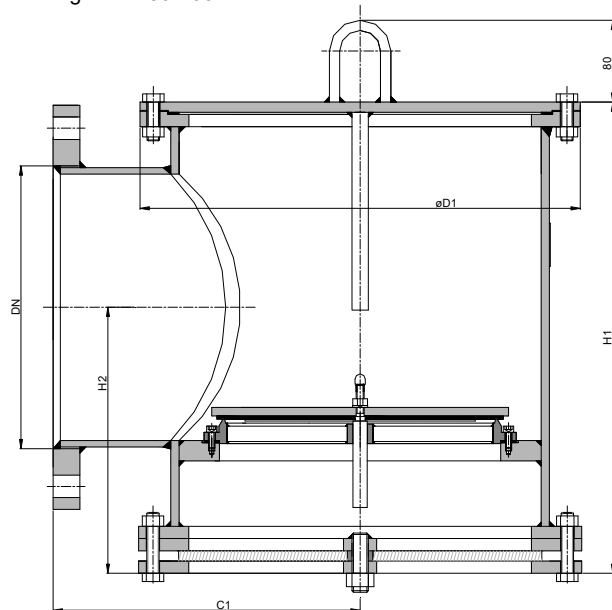
Explosion proof safety valve to protect inbreathing openings of storage tanks, vessels and pipes to prevent inordinate vacuum. Approved for flammable liquids of explosion group IIB3 with a maximum experimental safe gap (MESG)  $\geq 0.65$  mm and an maximum operating temperature of 60 °C.

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

Design DN 50-200



Design DN 250-400



DN		C1	D1	H1	H2	~kg	min. - max. (load weight from PE)	setting min. - max.	min. - max. (with housing extension)
DIN	ASME								
50	PN 16	2"	120	170	212	108	1.8 - 7.3	7.4 - 130	> 130 - 200
80	PN 16	3"	144	200	236	131	1.8 - 7.7	7.8 - 115	> 115 - 200
100	PN 16	4"	180	260	258	152	1.8 - 7.7	7.8 - 155	> 155 - 200
125	PN 16	5"	195	285	305	173	1.9 - 6.8	6,9 - 130	> 130 - 150
150	PN 16	6"	220	320	344	200	1.8 - 11.9	12 - 150	-
200	PN 10	8"	255	380	404	232	2 - 11.9	12 - 100	-
250	PN 10	10"	300	430	469	260	2.2 - 11.9	12 - 100	-
300	PN 10	12"	345	520	582	342	2.5 - 15.2	15.3 - 100	-
350	PN 10	14"	390	612	628	360	2.5 - 15.2	15.3 - 50	-
400	PN 10	16"	450	685	729	438	2.5 - 15.2	15.3 - 50	-

Indicated weights are understood without weight load and refer to the standard design  
Higher settings see KITO® VS/KS-1-...-IIB3 (type sheet D 11.1 N)

#### Example for order

##### KITO® VS/KS-50-IIB3

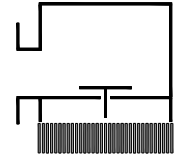
(design with flange connection DN 50 PN 16)

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

## Type sheet

Deflagration proof vacuum relief valve

**KITO® VS/KS-...-IIB3**



### Design

	standard	optionally
housing / cover	steel	stainless steel mat. no. 1.4571
gasket	HD 3822	PTFE
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	interchangeable	
KITO®-casing / KITO®-grid	stainless steel mat. no. 1.4571 / 1.4310	stainless steel mat. no. 1.4571 / 1.4571
flange connection	EN 1092-1 type A	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.

