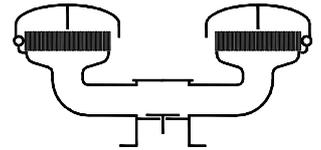




## Type sheet

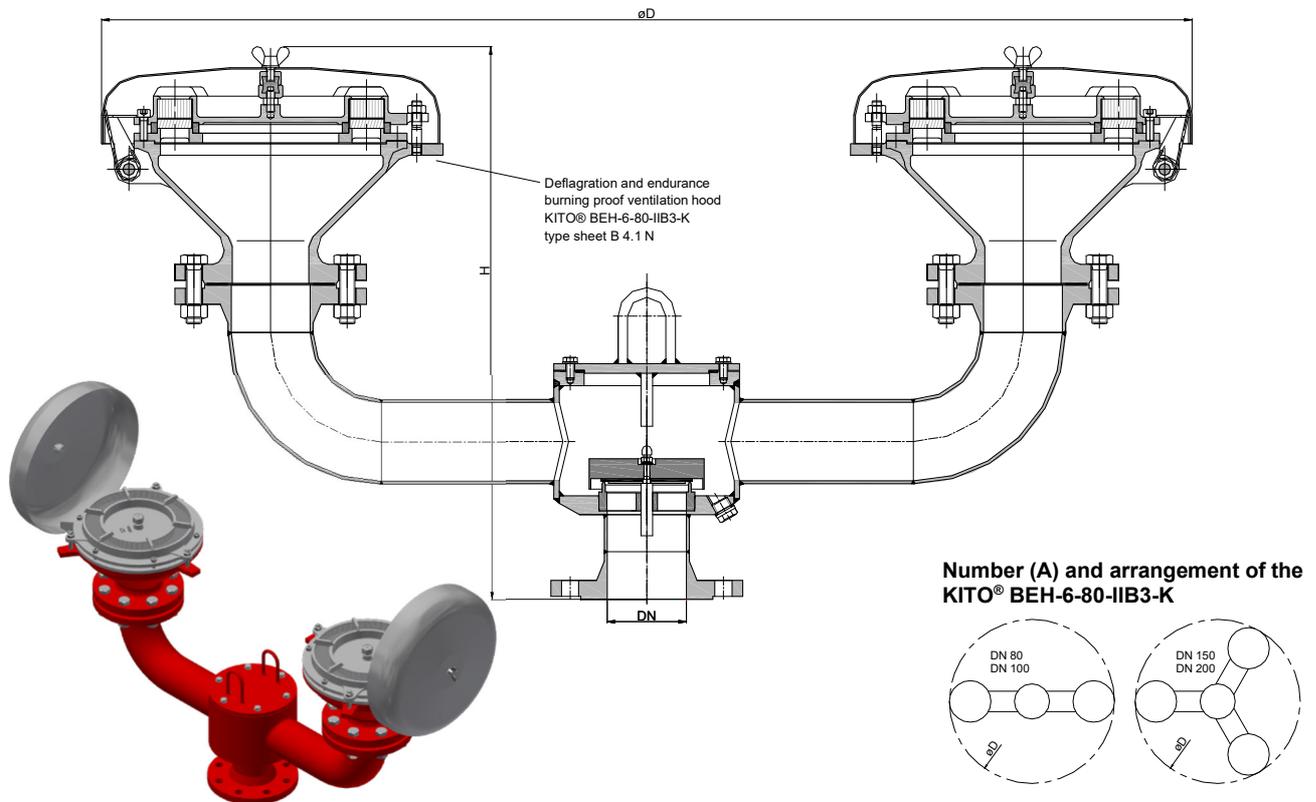
Deflagration and endurance burning proof pressure relief valve  
**KITO® DS/M-IIB3-...**



### 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. Approved for all materials of the explosion group IIB3 with a maximum experimental safe gap (MESG)  $\geq 0.65$  mm and an maximum operating temperature of 60 °C. Usually mounted on the top of the tank in conjunction with a vacuum relief valve, e.g. KITO® VS/KS-IIB3 (type sheet D 11 N).

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



DN		D	H		A	kg	setting		
DIN	ASME		DIN	ASME			min. - max. (load weight from PE)	min. - max.	min. - max. (with housing extension)
80 PN 16	3"	1538	583	623	2		2 - 9.9	10 - 115	> 115 - 200
100 PN 16	4"		609	653			2 - 9.9	10 - 125	> 125 - 200
150 PN 16	6"	1723	618	672	3		2 - 9.9	10 - 90	> 90 - 150
200 PN 10	8"		668	728			2.8 - 13.4	13.5 - 100	-

Indicated weights are understood without weight load and refer to the standard design  
Higher settings on request !

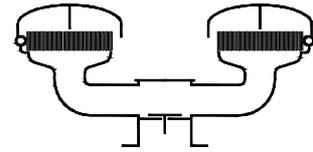
### Example for order

**KITO® DS/M-IIB3-80**  
(design with flange connection DN 80 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 relief valve  
**KITO® DS/M-IIB3-...**



### Design

	standard	optionally
housing	steel	stainless steel mat. no. 1.4571
housing KITO® BEH-6-80-IIB3-K	cast steel 1.0619	stainless cast steel 1.4408
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
	≥ 100 mbar only PTFE or metal sealing	
KITO®-flame arrester element	completely interchangeable	
KITO®-casing / KITO®-grid	stainless steel mat. no. 1.4408 / 1.4310	stainless steel mat. no. 1.4408 / 1.4571
weather hood	steel, hood can fold automatically as a result of folding mechanism and fusing element	stainless steel mat. no. 1.4571, hood can fold automatically as a result of folding mechanism and fusing element
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.

