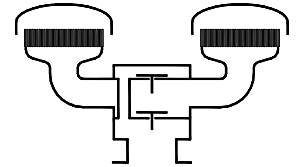


## Type sheet

Deflagration and endurance burning proof pressure and vacuum relief valve  
**KITO® VD/MC-IIB1-...**

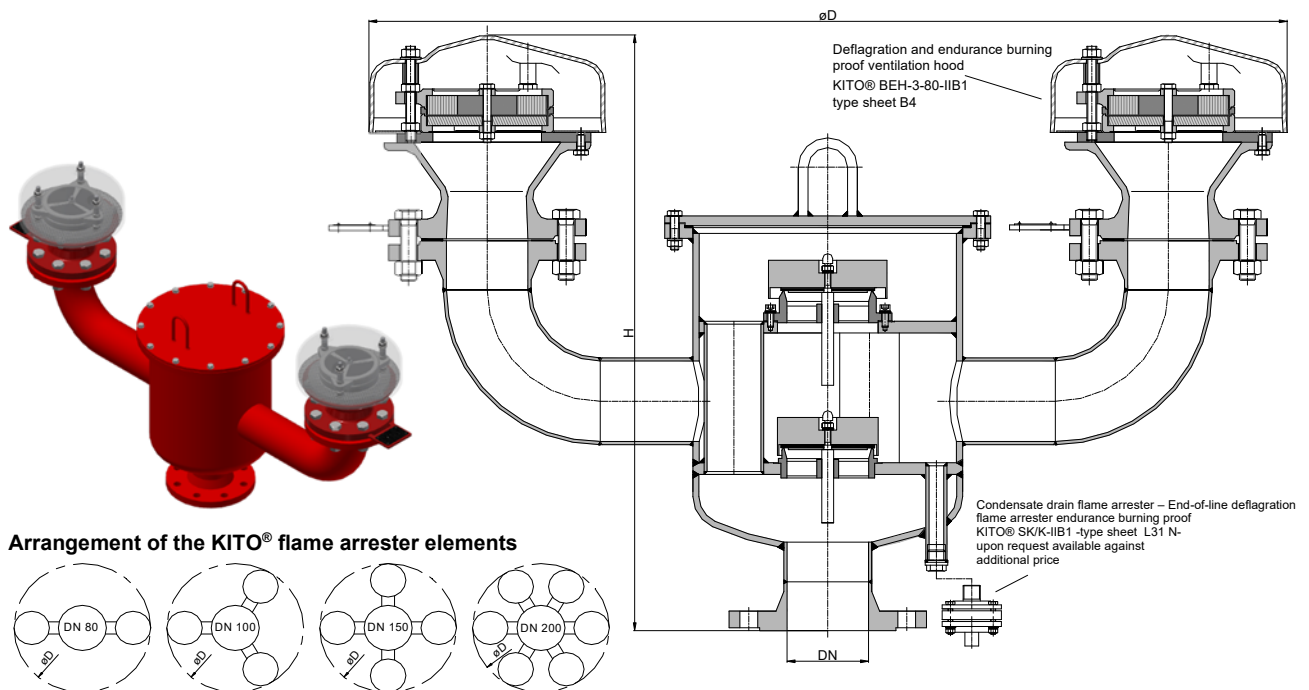


### Application

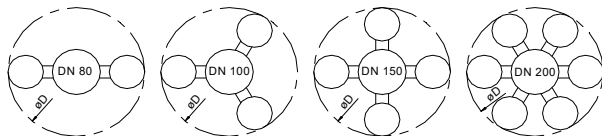
As an end-of-line flame arrester element to protect vent openings of storage tanks. Explosion and endurance burning proof for all inflammable liquids and vapors of explosion group IIB1 and also for alcohols with a maximum experimental safe gap (MESG)  $\geq 0.85$  mm and an maximum operating temperature of 60 °C. This device is not permitted to be installed in enclosed areas. Installation on top of storage tanks, tank access covers or breather pipes. As venting and breather device for fixed roof tanks to prevent inadmissible pressure and vacuum and to minimize gas losses by variable pressure setting of the weight-loaded valve devices. An explosion proof condensate drain is also available for this model at extra cost.

**KITO® BEH-3-80-IIB1 with additional examination and approval, applicable also for alcohols (ethanol, methanol...)**

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



#### Arrangement of the KITO® flame arrester elements



DN		D	H	number of KITO® BEH-3- 80-IIB1	setting		kg
DIN	ASME				vacuum min. - max.	pressure min. - max.	
80 PN 16	3"	855	615	2	3.3 - 60	1.8 - 100	60
100 PN 16	4"	950	645	3	2.5 - 70	1.7 - 100	110
125 PN 16	5"						
150 PN 16	6"	1110	650	4	3.5 - 60	2.5 - 110	
200 PN 10	8"	1470	795	6	2.9 - 65	2.1 - 105	235

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

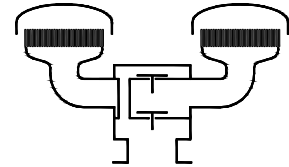
### Example for order

**KITO® VD/MC-IIB1-80**  
 (design DN 80 with flange connection DN 80 PN 16)

**Type examination certificate to EN ISO 16852 and C E-marking in accordance to ATEX-Directive 2014/34/EU for KITO® BEH-3-80-IIB1 and KITO® SK/K-IIB1**

## Type sheet

Deflagration and endurance burning  
proof pressure and vacuum relief valve  
**KITO® VD/MC-IIB1-...**



### Design

	standard	optionally
housing	steel	stainless steel mat. no. 1.4571
housing KITO® BEH-3-80-IIB1	cast steel mat. no. 1.0619	stainless cast steel mat. no. 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	PMMA	
protective screen	PA6	
flange connection	EN 1092-1 type B1	ASME B16.5 Class 150 RF

### Performance curves

Flow capacity  $\dot{V}$  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.

