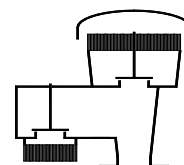


Type sheet

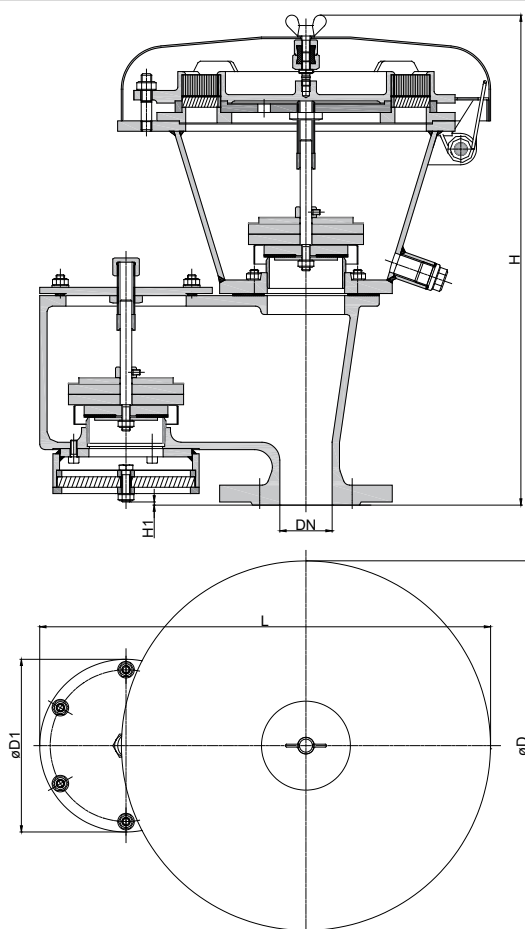
Deflagration and endurance burning
proof pressure and vacuum relief valve
KITO® VD/KG-BEH-6-IIB3-...



Application

As end-of-line armature, for venting apertures on tank installations, deflagration and endurance burning proof. Tested and approved against atmospheric deflagrations for all materials of the explosion group IIB3 with a maximum experimental safe gap (MESG) ≥ 0.65 mm and an maximum operating temperature of 60 °C. Used mainly as venting and breather device for fixed roof tanks. Used to prevent inadmissible pressure and vacuum and to minimize unwelcome gas losses or inadmissible emissions respectively. The housing is mounted perpendicularly on a tank roof. Available with an explosion and endurance burning proofed condensate drain device.

Dimensions (mm) and settings (mbar)



DIN	DN	ASME	D	D1	H	H1	L	kg	setting	
									vacuum	pressure
50 PN 16		2"	353	165	468	3	431		2-60	2-60
80 PN 16		3"		200	549		477			
100 PN 16		4"		250	620		577			

Indicated weights are understood without weight load and refer to the standard design

Example for order

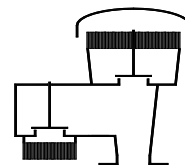
KITO® VD/KG-BEH-6-IIB3-50
(design DN 50 with flange connection DN 50 PN 16)

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

page 1 of 2

**Type sheet**

Deflagration and endurance burning
proof pressure and vacuum relief valve
KITO® VD/KG-BEH-6-IIB3-...

**Design**

	standard	optionally
housing upper part	steel	stainless steel mat. no. 1.4571
housing lower part	cast steel mat. no. 1.0619 / steel	stainless cast steel mat. no. 1.4408 / ss mat. no. 1.4571
cover	steel	stainless steel mat. no. 1.4301
gasket	PTFE	
valve seat	stainless steel mat. no. 1.4571	
KITO®-flame arrester element	interchangeable	
KITO®-casing / KITO®-grid	stainless steel mat. no. 1.4408 / 1.4310 (top), mat. no. 1.4571 / 1.4310 (under)	stainless steel mat. no. 1.4408 / 1.4571 (top), mat. no. 1.4571 / 1.4571 (under)
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

Design valve pallet

design	pressure range I 2 - < 3.5 mbar	pressure range II ≥ 3.5 - 14 mbar	pressure range III > 14 - 35 mbar	pressure range IV > 35 - 60 mbar	pressure range M-I ≥ 3.5 - < 10 mbar*	pressure range M-II ≥ 10 - 60 mbar
pallet	aluminum	stainless steel	stainless steel	stainless steel	aluminum*	stainless steel
valve spindle	aluminum / stainless steel	stainless steel	stainless steel	stainless steel	aluminum	stainless steel
valve sealing	FEP & HD3822	FEP & HD3822	PTFE	PTFE	metallic	metallic

* DN 50 ≥ 4.4 - pallet DN 50 aluminum / stainless steel

stainless steel = 1.4571

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

$$\dot{V}_{20\%} = \dot{V}_b \cdot \sqrt{\frac{\rho_b}{1.29}} \quad \text{or} \quad \dot{V}_b = \dot{V}_{20\%} \cdot \sqrt{\frac{1.29}{\rho_b}}$$

The indicated flow rates will be reached by an accumulation of 20 % above valve's setting. If the allowable overpressure is less than 20%, please consult the factory for the corrected volume flow.

