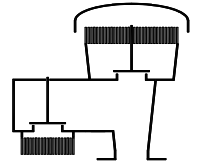




Type sheet

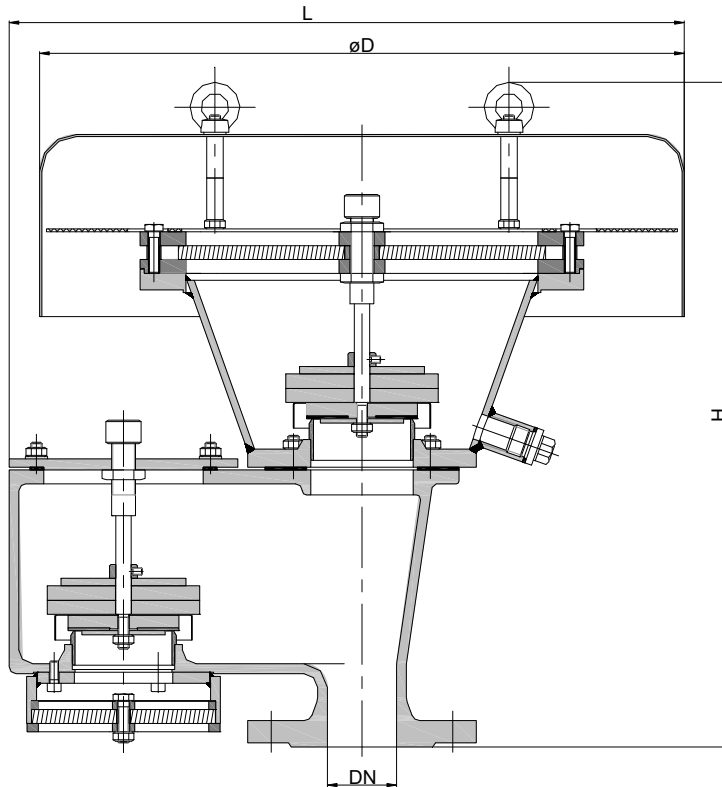
Deflagration proof pressure and vacuum relief valve KITO® VD/KG-IIB3-...



Application

As end-of-line armature, for venting apertures on tank installations. 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	H	L	kg	setting	
							vacuum	pressure
50 PN 16		2"	465	480	487		2-60	2-60
80 PN 16		3"		555	533			
100 PN 16		4"	600	650	700			
150 PN 16		6"		712	855			

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

Example for order

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

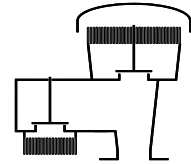
Type examination certificate to EN ISO 16852 and CE-marking in accordance to ATEX-Directive 2014/34/EU



Type sheet

Deflagration proof pressure and vacuum relief valve

KITO® VD/KG-IIB3-...



Design

	standard	optionally
housing upper part	steel	stainless steel mat. no. 1.4571
housing lower part	cast steel mat. no. 1.0619	stainless cast steel mat. no. 1.4408
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. 1.4571 / 1.4310	stainless steel mat. no. 1.4571 / 1.4571
weather hood	stainless steel mat. no. 1.4301	
protective screen	stainless steel mat. no. 1.4301	
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
pallet	aluminum	stainless steel mat. no. 1.4571	stainless steel mat. no. 1.4571	stainless steel mat. no. 1.4571
valve spindle	aluminum / stainless steel mat. no. 1.4571	stainless steel mat. no. 1.4571	stainless steel mat. no. 1.4571	stainless steel mat. no. 1.4571
valve sealing	FEP & HD3822	FEP & HD3822	PTFE	PTFE

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 40%, please consult der factory for the corrected volume flow.

