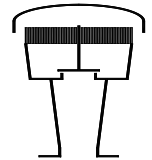


Type sheet

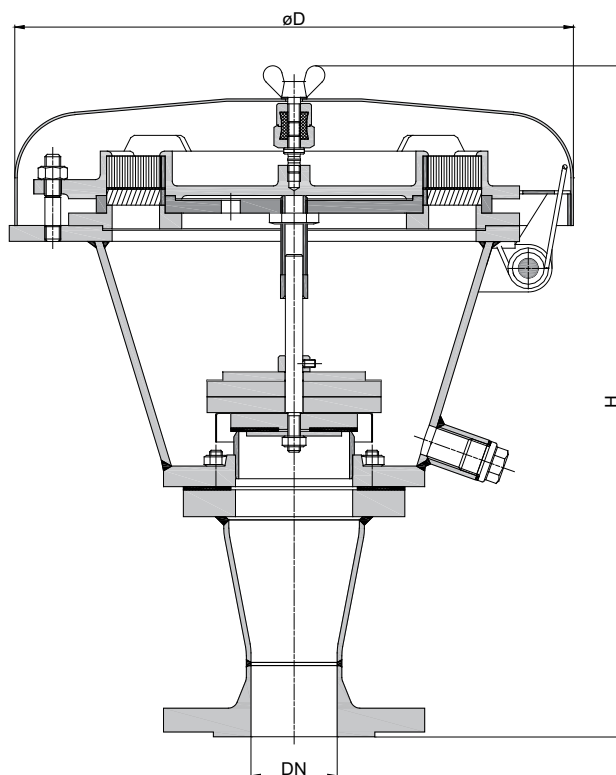
Deflagration and endurance burning proof pressure relief valve
KITO® DS/KG-BEH-6-IIB3-...



Application

As venting device for installation on storage tanks incorporating an explosion and endurance burning flame arrester element and a PRV to allow for the passage of excess pressure but prevent or 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) ≥ 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 (see KITO® VS/KS-IIB3-... (type sheet D 11 N)). An explosion proof condensate drain is also available for this model at extra cost.

Dimensions (mm) and settings (mbar)



DIN	DN	ASME	D	H (DIN)	H (ASME)	Einstelldruck	kg
50 PN 16		2"	353	420	439	2 – 60	26
80 PN 16		3"		471	495		38
100 PN 16		4"		555	577		

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

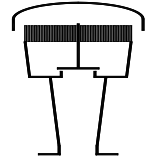
Example for order

KITO® DS/KG-BEH-6-IIB3-50
 (design 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 and endurance burning proof pressure relief valve
KITO® DS/KG-BEH-6-IIB3-...



Design

	standard	optionally
housing (upper part)	steel	stainless steel mat. no. 1.4571
housing (lower part)	steel	stainless steel mat. no. 1.4571
gasket	PTFE	
valve seat	stainless steel mat. no. 1.4571	
KITO®-flame arrester element	completely interchangeable	
KITO®-casing / KITO®-grid	stainless steel mat. no. 1.4308 / 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

Design valve pallet

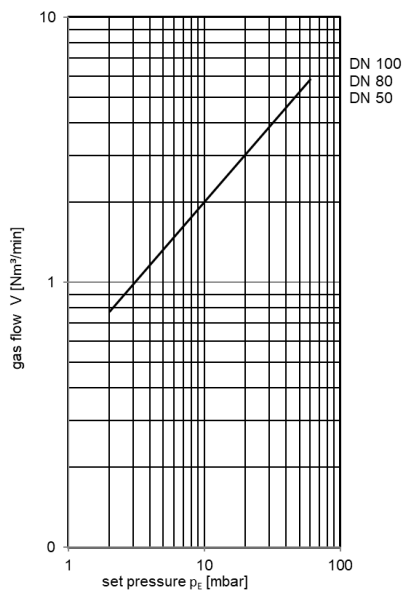
design	pressure range I 2 - < 3.5 mbar	pressure range II ≥ 3.5 - 14 mbar	pressure range III > 14 - 35 mbar	pressure range IV > 35 - 60 mbar
pallet	aluminum	stainless steel mat. no. 1.4571	stainless steel mat. no. 1.4571	stainless steel mat. no. 1.4571
valve spindle	aluminum / stainless steel mat. no. 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 (see DIN 4119).



$$\dot{V}_{10\%} = \dot{V}_b \cdot \sqrt{\frac{\rho_b}{1.29}} \quad \text{or} \quad \dot{V}_b = \dot{V}_{10\%} \cdot \sqrt{\frac{1.29}{\rho_b}}$$

The volume flow at reduced lift will be reached by an accumulation of 10% above valve's setting (see DIN 4119).

