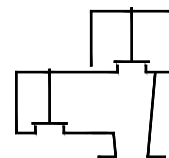


Type sheet

Pressure and vacuum relief valve

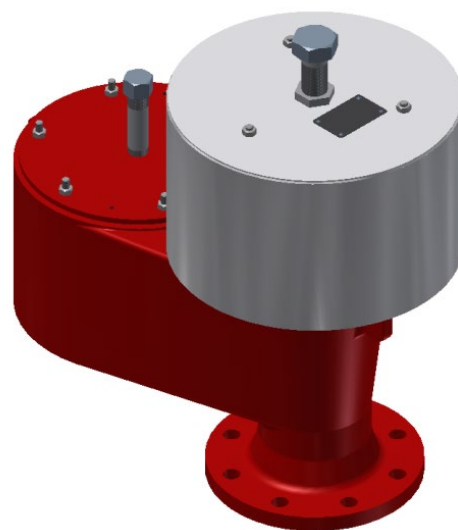
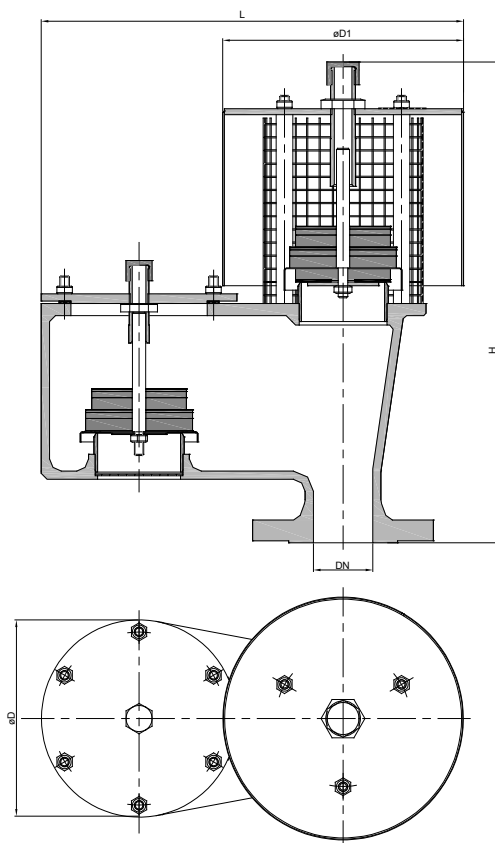
KITO® VD/oG-...



Application

As end-of-line armature, for venting apertures on tank installations. 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.

Dimensions (mm) and settings (mbar)



DIN	DN	ASME	D	D1	H	L	kg	setting vacuum	pressure
50 PN 16		2"	165	200	415	355	17	2-60	2-60
80 PN 16		3"	200	295	500	450	25		
100 PN 16		4"	250	295	540	525	34		
150 PN 16		6"	350	465	610	765	73		
200 PN 10		8"	400	500	735	875	94		
250 PN 10		10"	460	650	840	1010	129		
300 PN 10		12"	460	650	840	1010	133		

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

Example for order

KITO® VD/oG-50

(design DN 50 with flange connection DN 50 PN 16)

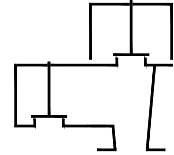
Without EC certificate and €-marking



Type sheet

Pressure and vacuum relief valve

KITO® VD/oG-...



Design

	standard	optionally
housing	cast steel mat. no. 1.0619	stainless cast steel mat. no. 1.4408, aluminum (DN 100/4"-300/12")
cover	steel	stainless steel mat. no. 1.4301, aluminum (DN 100/4"-300/12")
gasket	PTFE	
valve seat	stainless steel mat. no. 1.4571	
weather hood	stainless steel	
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	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

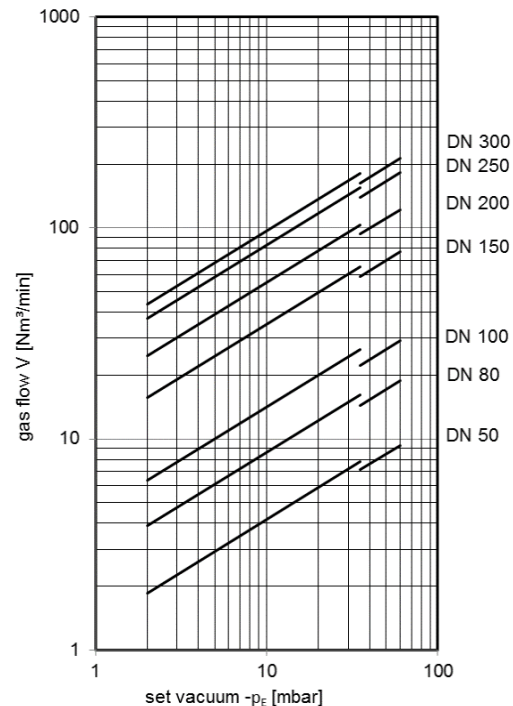
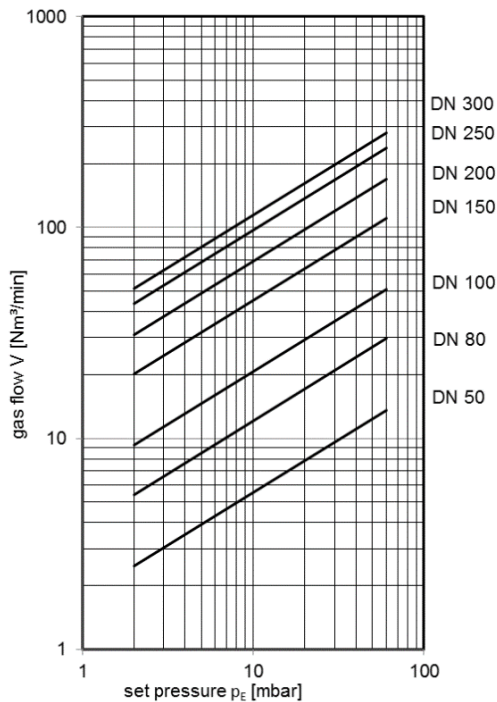
stainless steel = 1.4571

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.

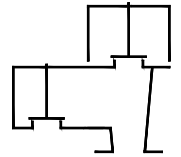




Type sheet

Pressure and vacuum relief valve

KITO® VD/oG-...



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

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

