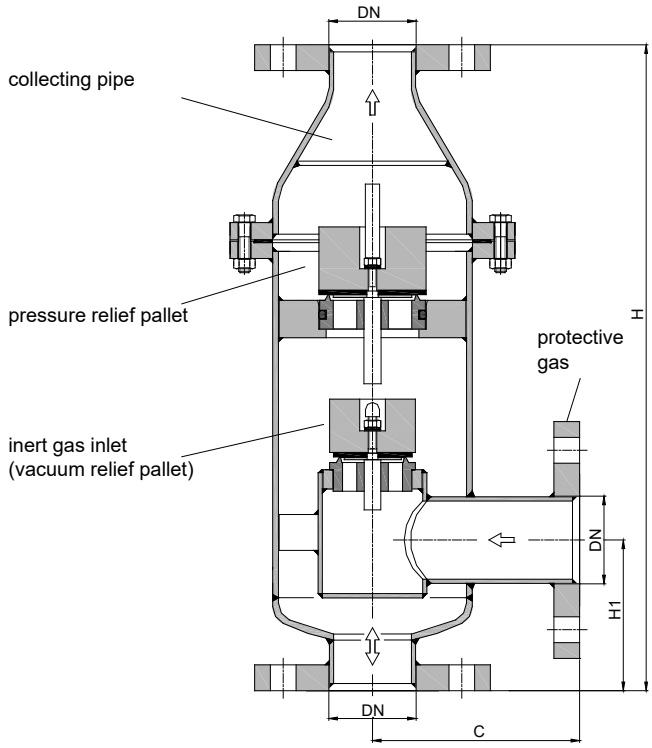
KITO Armaturen GmbH

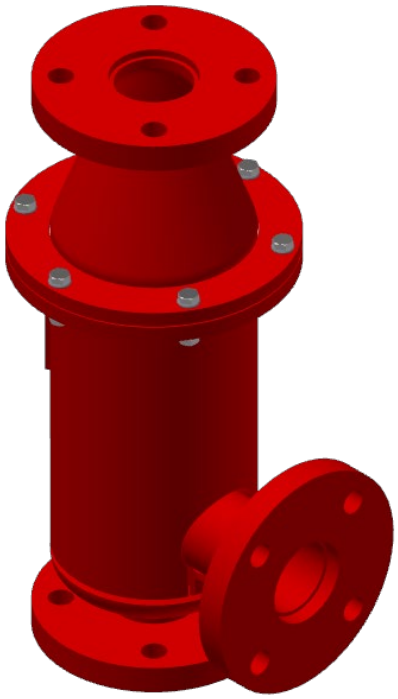
Type sheet
In-line pressure and vacuum relief valve
KITO® VD/o3-…

Application

Pressure compensation valve, preferably for inflammable liquids stored under inert gas, for venting and breathing of fixed roof tanks and above-ground tanks, with lateral connection for the inert gas conduit and a third outlet flange, e. g. for connection to a collecting conduit, for gas compensation or for combustion of exhaust air. The pressure valve prevents unnecessary losses of inert gas. The control valve automatically controls the supply of inert gas and the pressure of the inert gas in the tank. For the max. admission pressure see setting „vacuum“.

Dimensions (mm) and settings (mbar)





DN		C	H	H1	kg	setting			
						vacuum		pressure	
DIN	ASME					min. - max. *(load weight from PE)*	min. - max.	min. - max. *(load weight from PE)*	min. - max.
50 PN 16	**2“**	145	450	105	20	2.7 - 10.6	10.7 - 75	2 - 10	10.1 - 110
80 PN 16	**3“**	175	595	163	45	2.7 - 10.6	10.7 - 120	1.7 - 7.9	8 - 90
100 PN 16	**4“**	190	600	190	54	1.7 -7.9	8 - 100	1.7 - 7.9	8 - 50

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

Higher settings on request

Example for order

KITO® VD/o3-50
(design with flange connection DN 50 PN 16)

Without EC certificate and CE-marking

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F 18 N
Date: 05-2018
Created: Abt. Doku KITO
Design subject to change

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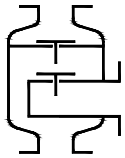


Design

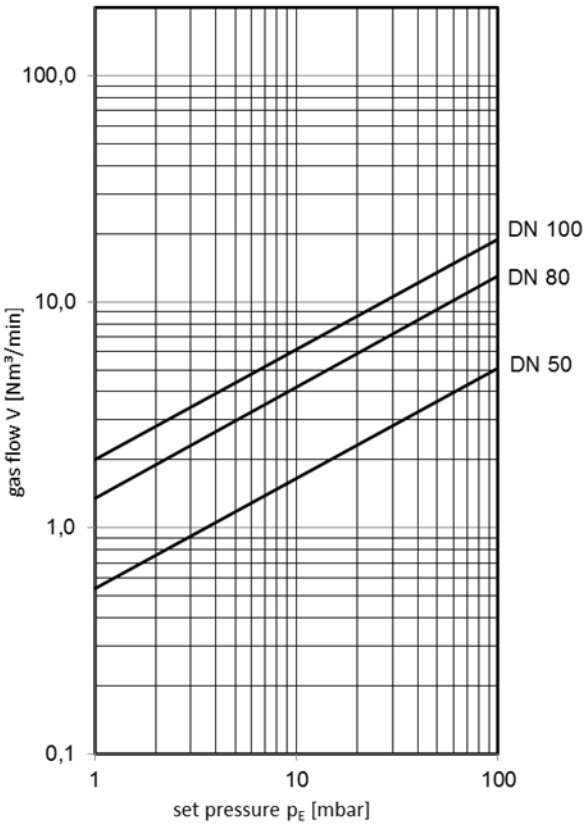
	standard	optionally
housing / connecting piece	steel	stainless steel mat. no. 1.4571
gasket	HD 3822	PTFE
valve seat, valve spindle	stainless steel mat. no. 1.4571	
valve seat seal (o-ring)	VMQ-FEP	Viton, NBR, VMQ-PFA
load weight	stainless steel mat. no. 1.4571	PE
valve sealing	NBR	Viton, PTFE, EPDM, metal sealing
	≥ 100 mbar only PTFE or metal sealing	
flange connection	EN 1092-1 type A	ASME B16.5 Class 150 RF

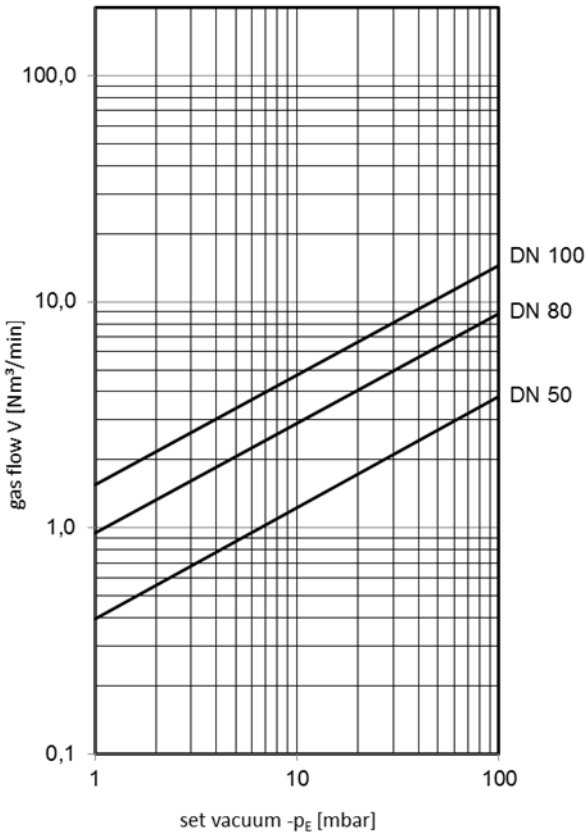
Performance curves

Flow capacity V based on air of a density ρ = 1.29 kg/m³ at T = 273 K and atmospheric pressure p = 1.013 mbar. For other gases the flow can be approximately calculated by

$$\dot{V}_{40\%} = \dot{V}_b \cdot \sqrt{\frac{\rho_b}{1.29}} \qquad or \qquad \dot{V}_b = \dot{V}_{40\%} \cdot \sqrt{\frac{1.29}{\rho_b}}$$

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.





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