



KITO

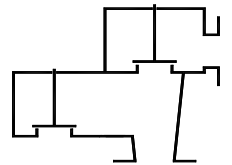
Armaturen GmbH

Type sheet

In-line pressure and vacuum relief valve

KITO® VD/oG-PA-... V

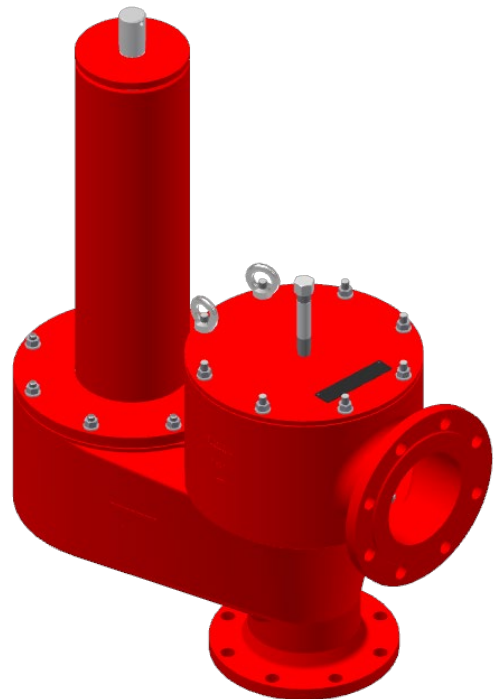
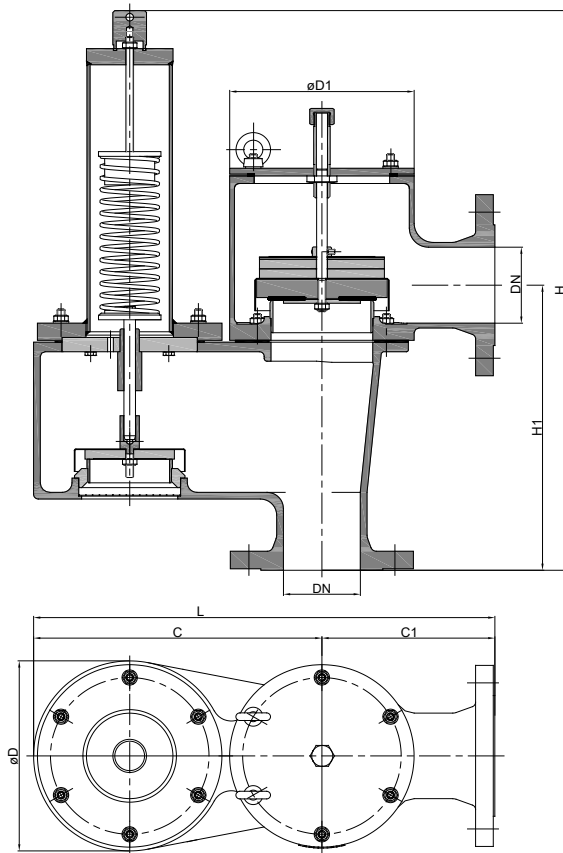
-End of line device for use in pipeline-



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. The product vapours can be discharged through a collective line into the atmosphere connected to the line flange on the pressure side.

Dimensions (mm) and settings (mbar)



DN		C	C1	D	D1	H	H1	L	kg	setting	
DIN	ASME									vacuum	pressure
50 PN 16	2"	255	150	165	165	462	240	405		>60-415	2-60
80 PN 16	3"	300	180	200	192	589	300	480			
100 PN 16	4"	400	200	250	240	719	330	600			
150 PN 16	6"	555	250	350	350	956	390	805			
200 PN 10	8"	625	300	400	390	1140	480	925			
250 PN 10	10"	705	305	460	460	1190	555	1010			
300 PN 10	12"	705	305	460	460	1190	582	1010			

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

Example for order

KITO® VD/oG-PA-50 V

(design DN 80 with flange connection DN 50 PN 16)

Without EC certificate and CE-marking

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F 72.2 N

Date: 06-2023
Created: Abt. Doku KITO
Design subject to change



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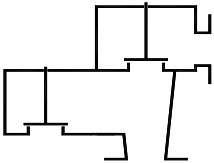
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Design

	standard	optionally
housing upper part (PN 1)	cast steel mat. no. 1.0619	stainless cast steel mat. no. 1.4408
housing lower part	cast steel mat. no. 1.0619	stainless cast steel mat. no. 1.4408
cover	steel	stainless steel mat. no. 1.4301/1.4571
gasket	PTFE	
design valve pallet	weight loaded -pressure- spring loaded -vacuum-	
valve seat	stainless steel mat. no. 1.4571	
valve pallet / valve spindle -vacuum-	stainless steel mat. no. 1.4571	
valve sealing -vacuum-	metal sealing	
spring loaded parts -vacuum-	stainless steel mat. no. 1.4571	
compression spring -vacuum-	stainless steel	
flange connection	EN 1092-1 type B1	ASME B16.5 Class 150 RF

Design valve pallet -pressure-

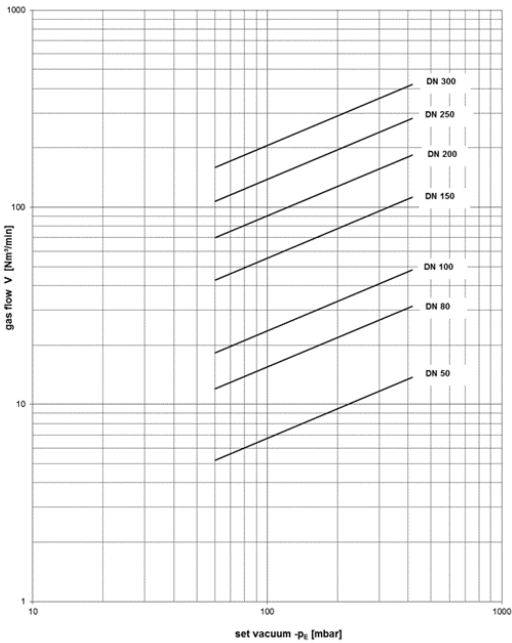
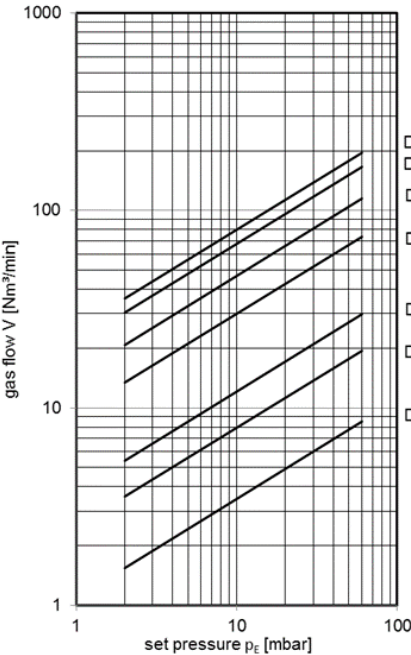
design	pressure range I 2 - < 3.5 mbar	pressure range II ≥ 3.5 - 14 mbar	pressure range III > 14 - 35 mbar	pressure range IV > 35 - 60 mbar
pallet	aluminum	stainless steel mat. no. 1.4571	stainless steel mat. no. 1.4571	stainless steel mat. no. 1.4571
valve spindle	aluminum / stainless steel mat. no. 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 than 20%, please consult the factory for the corrected volume flow.



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