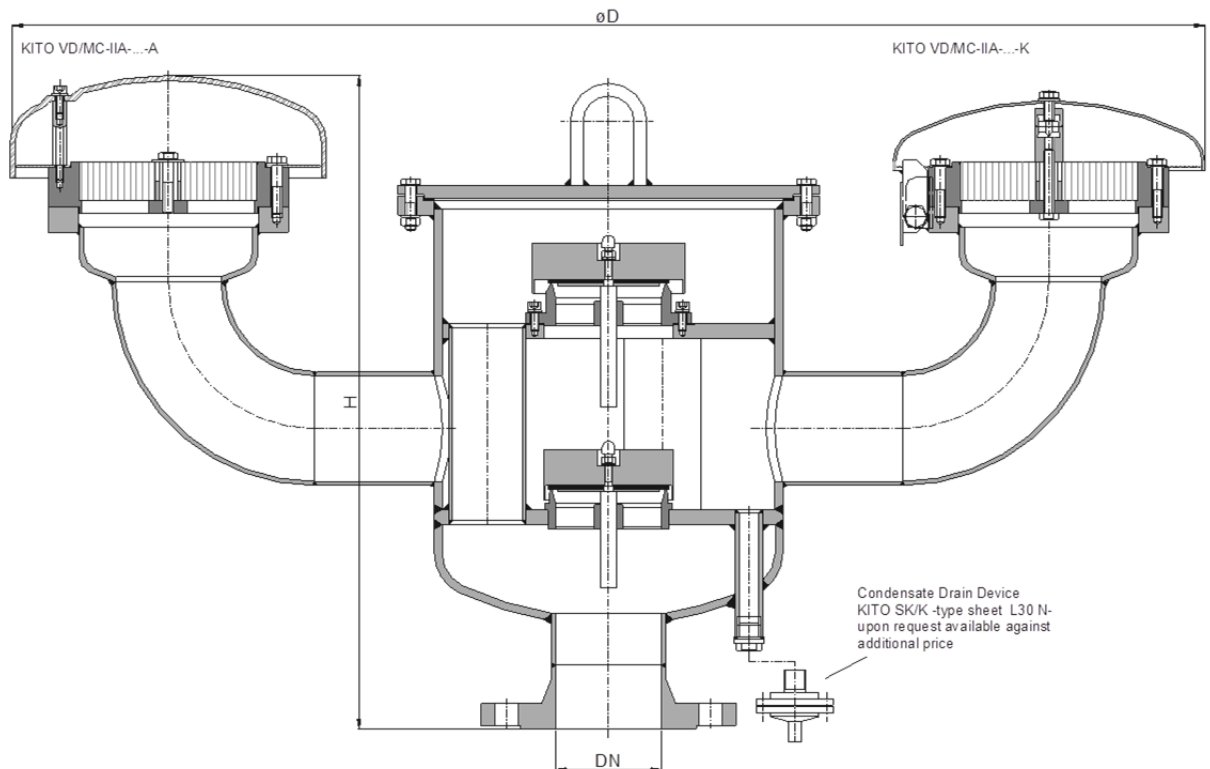
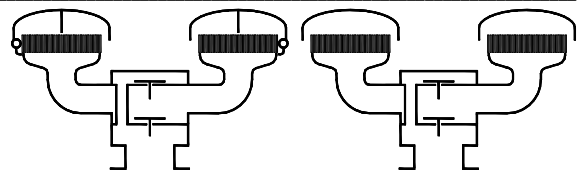


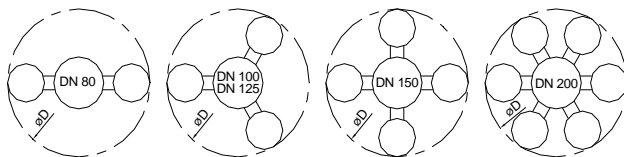
Combined Pressure / Vacuum Relief Valve

KITO® VD/MC-IIA-...-A

KITO® VD/MC-IIA-...-K



Arrangement of the KITO® flame arrester elements



standard valve setting 10-30 mbar
-different settings against additional price-

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

Type examination certificate to DIN EN ISO 16852 and C E -designation in accordance to ATEX-Guideline 94/9/EC

DN		D	H	number of KITO® flame arrester elements	setting (mbar)		kg*	
DIN	ANSI				pressure min. - max.	vacuum min. - max.		
80	PN 16	3"	940	500	2	1.8 - 100,0	2.9 - 60,0	58
100	PN 16	4"	1054	530	3	1.7 - 100,0	2.5 - 70,0	110
125	PN 16	5"						
150	PN 16	6"	1234	535	4	2.1 - 110,0	2.9 - 60,0	
200	PN 10	8"	1634	680	6	2.1 - 105,0	2.9 - 65,0	235

Dimensions in mm

Design subject to change

Standard design

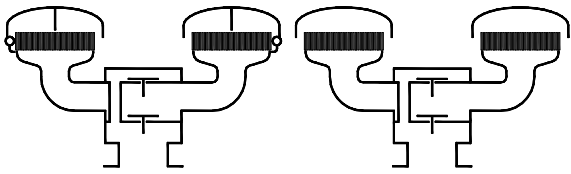
- housing : steel, stainless steel mat. no. 1.4571
- gasket : HD 3822, PTFE
- valve seats / spindles : stainless steel mat. no. 1.4571
- design valve pallet : orifice plate
- valve seals : NBR, Viton, PTFE
- KITO® flame arrester element : completely interchangeable
- KITO® casing / grid : stainless steel mat. no. 1.4308 / 1.4310, 1.4408 / 1.4571
- weather hood :
 - KITO® VD/MC-IIA-...-K: stainless steel mat. no. 1.4571, hood can fold automatically as a result of folding mechanism and fusing element
 - KITO® VD/MC-IIA-...-A: PMMA
- protective screen : PA6
- flange connection : DIN EN 1092-1 form B1, ANSI 150 lbs. RF

Application

Installations, explosion-proof and endurance burning proof for certain flammable liquids of the explosion group IIA with a maximum experimental safe gap (MESG) > 0.9. As venting and breather device for fixed roof tanks to prevent inadmissible pressure and vacuum and to minimize gas losses by variable pressure setting of the weight-loaded and/or spring-loaded valve devices. Installation of an explosion-proof condensate drain device is possible.



performance curves: E 0.16.9 N



Combined Pressure / Vacuum Relief Valve
KITO® VD/MC-IIA-...-A
KITO® VD/MC-IIA-...-K
E 16.9 N

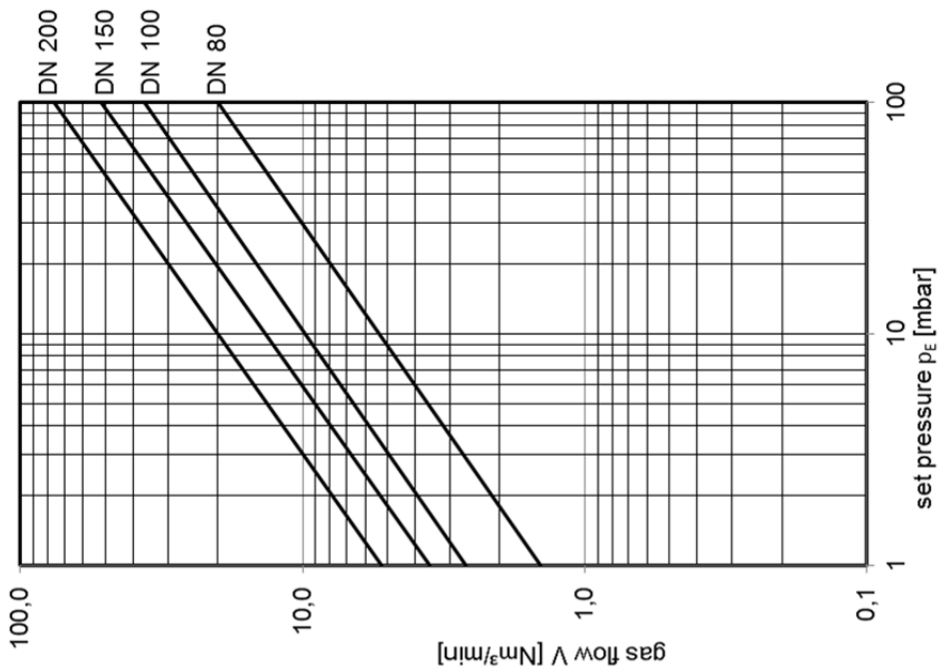
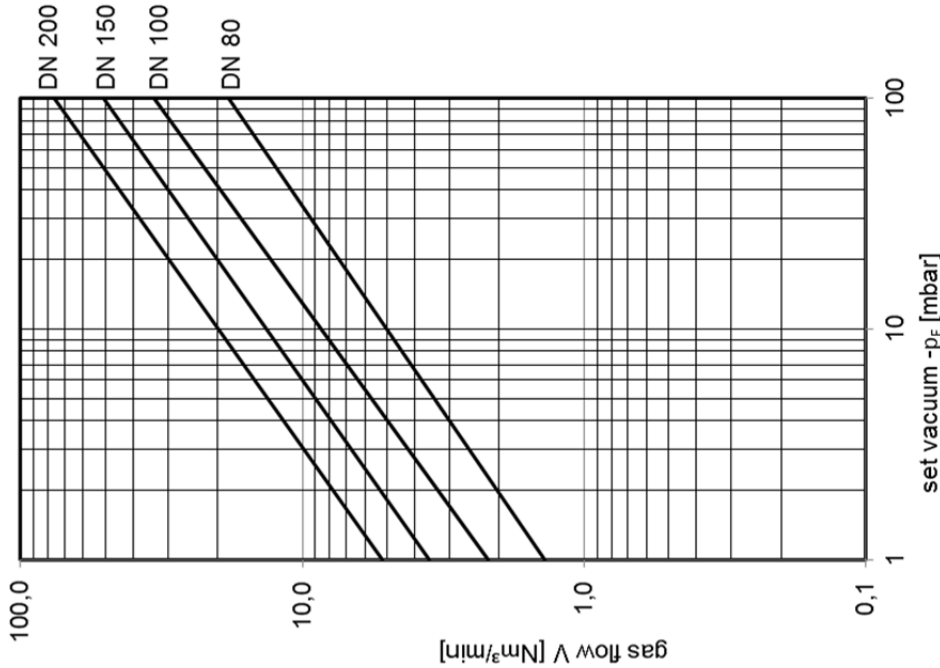
The flow capacity V refers to a density of air with $\rho = 1.29 \text{ kg/m}^3$.

The flow capacity for gases with different densities can be calculated sufficiently accurate by the following approximation equation:

$$\dot{V} = \dot{V}_b \cdot \sqrt{\frac{\rho_b}{1.29}} \quad \text{resp.} \quad \dot{V}_b = \dot{V} \cdot \sqrt{\frac{1.29}{\rho_b}}$$

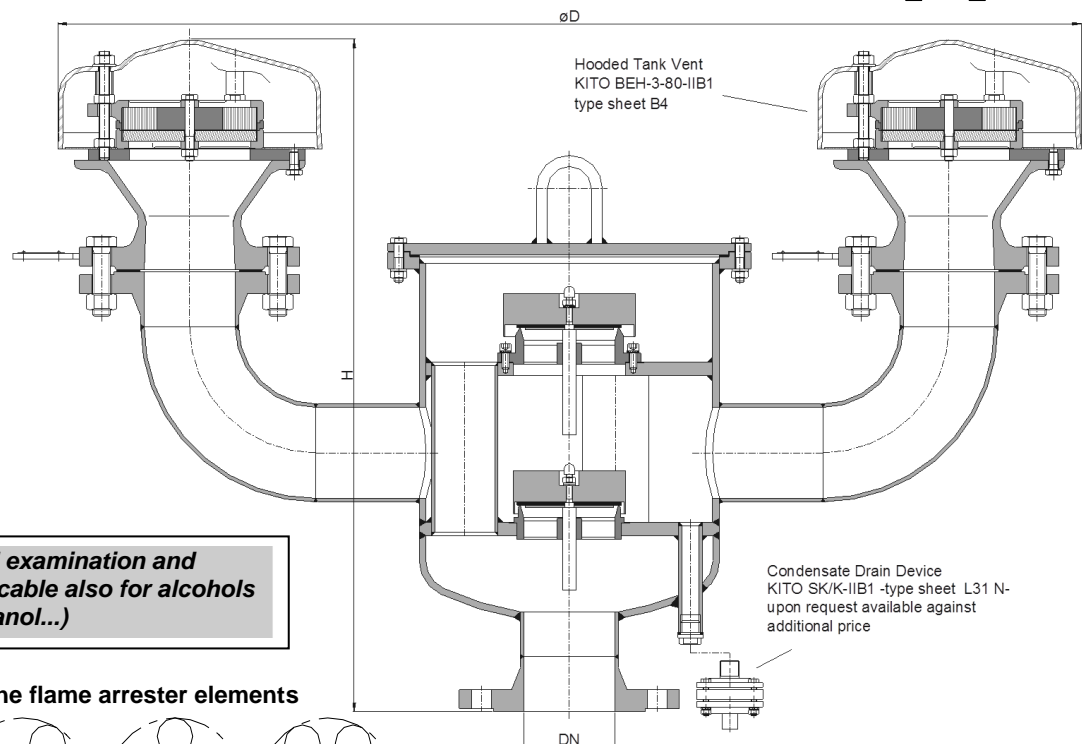
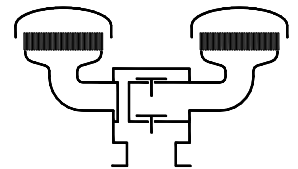
Indicated flow rates will be reached by an accumulation of 40% above valve's setting (see DIN 4119).

If different accumulations are required see sheet A 31 Bl.1 for correcting factor.



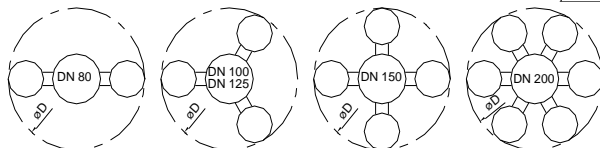
Design subject to change

Combined Pressure / Vacuum Relief Valve KITO® VD/MC-IIB1-...



With additional examination and approval, applicable also for alcohols (ethanol, methanol...)

Arrangement of the flame arrester elements



Type examination certificate to DIN EN ISO 16852 and $\text{C}\epsilon$ -designation in accordance to ATEX-Guideline 94/9/EC for KITO® BEH-3-80-IIB1 and KITO® SK/K-IIB1

DN		D	H	number of BEH-3-80	setting p_e (mbar)		kg*	
DIN	ANSI				pressure min. - max.	vacuum min. - max.		
80	PN 16	3"	855	615	2	1.8 - 100	3.3 - 60	60
100	PN 16	4"	950	645	3	1.7 - 100	2.5 - 70	110
125	PN 16	5"						
150	PN 16	6"	1110	650	4	2.5 - 110	3.5 - 60	
200	PN 10	8"	1470	795	6	2.1 - 105	2.9 - 65	235



Dimensions in mm

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

standard valve setting 10-30 mbar -different settings against additional price-

Design subject to change

performance curves: E 0.16.9.1 N

Standard design

housing : steel, stainless steel mat. no. 1.4571
 gasket : HD 3822, PTFE
 valve seats / spindles : stainless steel mat. no. 1.4571
 design valve pallet : orifice plate
 valve seals : NBR, Viton, PTFE
 flange connection : DIN EN 1092-1 form B1, ANSI 150 lbs. RF

Design KITO® BEH-3-80-IIB1

housing : 1.0619, mat. no. 1.4408
 KITO® flame arrester element : completely interchangeable
 KITO® casing : mat. no. 1.4408
 KITO® grid : mat. no. 1.4310 / 1.4571
 weather hood : PMMA
 protective screen : PA6
 flange connection : DIN EN 1092-1 form B1, ANSI 150 lbs. RF

Application

As an end-of-line flame arrester element to protect vent openings of storage tanks. Explosion and endurance burning proof for all inflammable liquids and vapors of explosion group IIB1 and also for alcohols with a maximum experimental safe gap (MESG) ≥ 0.85 mm.

This device is not permitted to be installed in enclosed areas. Installation on top of storage tanks, tank access covers or breather pipes.

As venting and breather device for fixed roof tanks to prevent inadmissible pressure and vacuum and to minimize gas losses by variable pressure setting of the weight-loaded valve devices. An explosion proof condensate drain is also available for this model at extra cost.