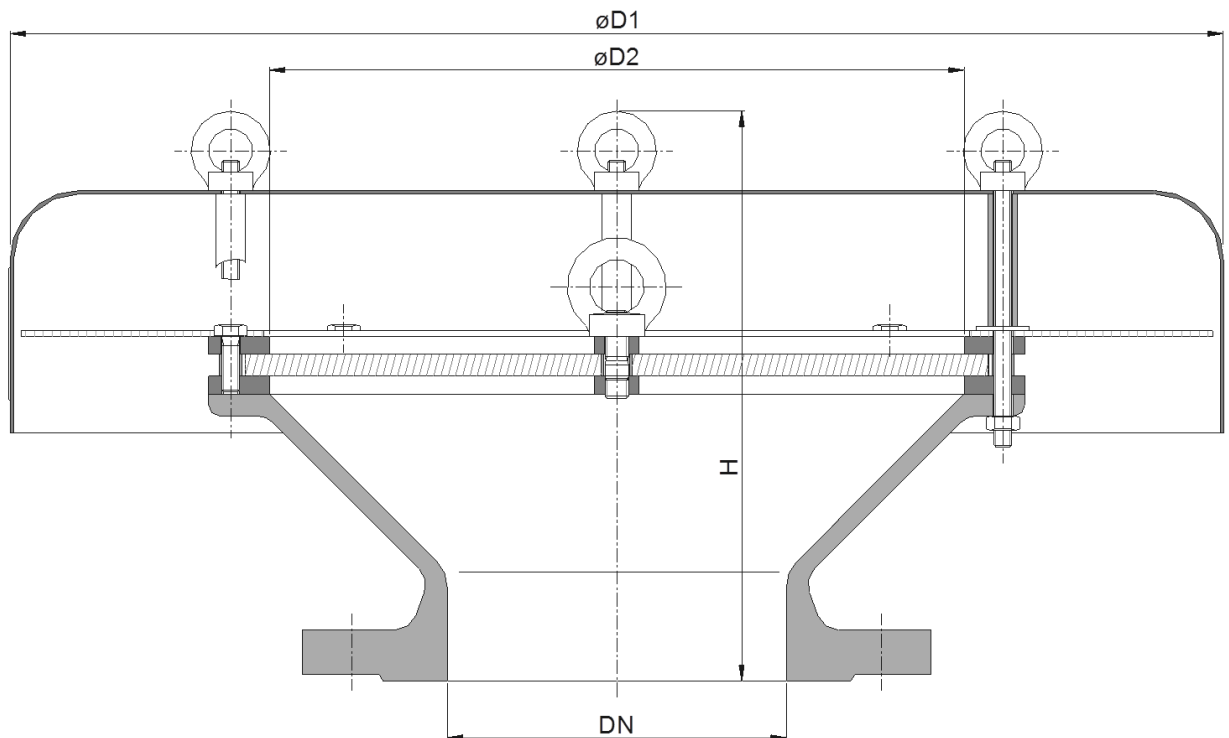
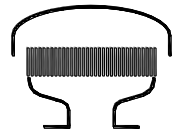


# Hooded Tank Vent KITO® VH-...-IIB3



Type examination certificate to DIN EN ISO 16852

CE -designation in accordance to ATEX-Guideline 94/9/EC

DN	ANSI	D1	D2	H		kg*
50 PN 16	2"	285	110	170		7.3
80 PN 16	3"	330	150	180		11
100 PN 16	4"	405	185	220		15
150 PN 16	6"	550	315	260		29.9
200 PN 10	8"					31.5
250 PN 10	10"	600	395	355		62.5
300 PN 10	12"			350	396	62
350 PN 10	14"	800	595	405	464	88
400 PN 10	16"			400	455	103
450 PN 10	18"	1000	700	-		489
500 PN 10	20"			415	485	130
600 PN 10	24"	1200	800	485	558	192
700 PN 10	-	1400	1000	520	-	265
800 PN 10	-	1600	1210	560	-	345

Dimensions in mm

\* weight refers to the standard design



Example to order :

**KITO® VH-300-IIB3**

(design with flange connection DN 300)

performance curves: B 0.6 N

Design subject to change

Standard design

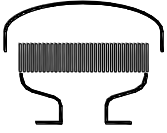
housing	: cast steel 1.0619 (> DN 350 steel), stainless cast steel 1.4408 (> DN 350 stainless steel mat. no.1.4571)
KITO® flame arrester element	: interchangeable
KITO® casing	: steel, stainless steel mat. no. 1.4571
KITO® grid	: stainless steel mat. no. 1.4310, 1.4571
weather hood	: stainless steel mat. no. 1.4301, 1.4571
protective screen	: stainless steel mat. no. 1.4301 (not for DN 50-100)
flange connection	: DIN EN 1092-1 form B1 ANSI 150 lbs. RF

Application

As breather/venting safety device incorporating an explosion proof flame arrester element for installation on top of storage tanks, tank access covers or breather pipes. The breather allows the unimpeded flow of gases out to atmosphere and air into the tank/pipe thereby preventing vacuum locks whilst ensuring provision of a permanent and reliable protection against any flashback into the tank/pipe.

**This device is not permitted to be installed in enclosed areas.**

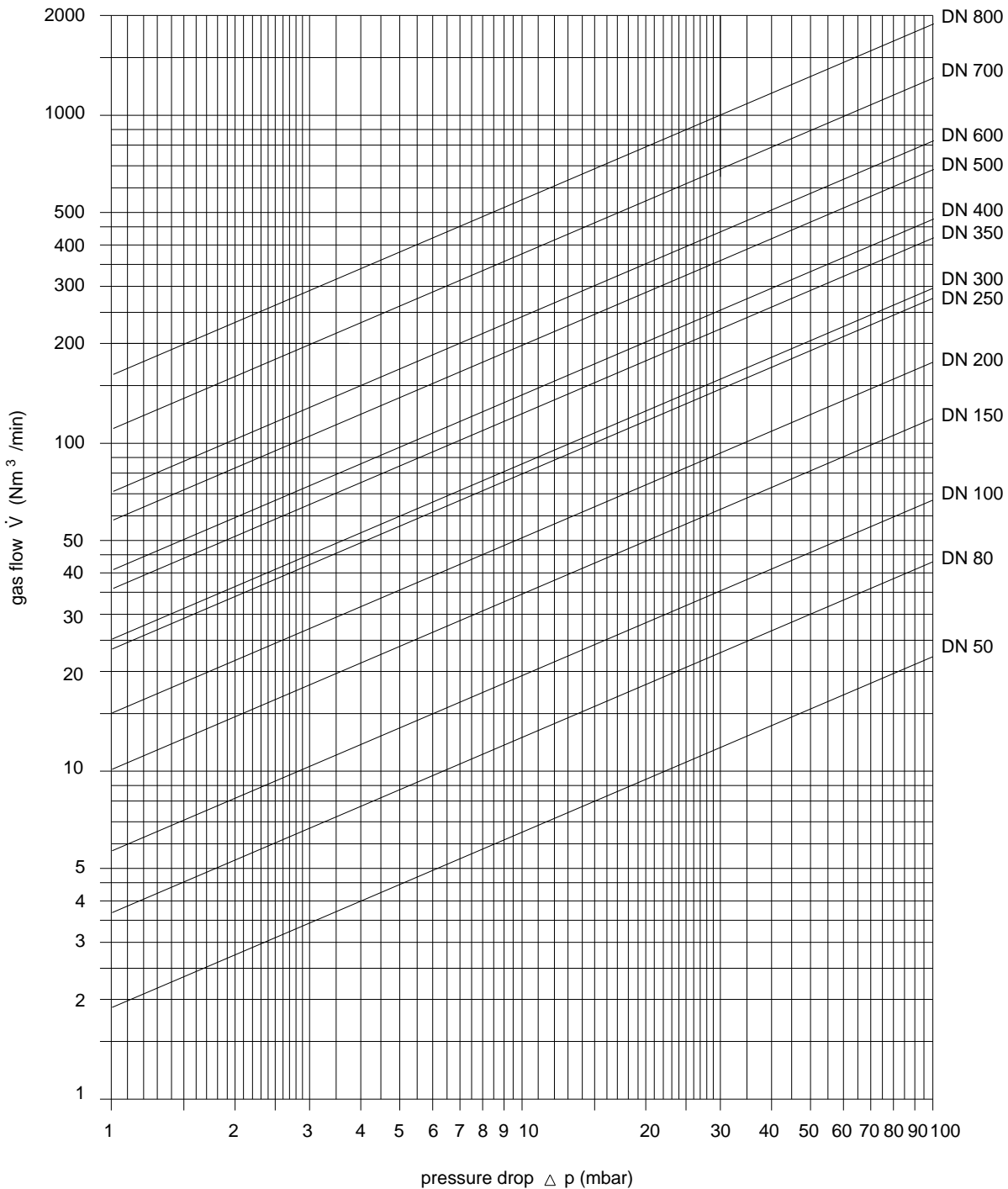
Approved for all materials of the explosion group IIB3 with a maximum experimental safe gap (MESG) ≥ 0.65.



**Hooded Tank Vent**  
**KITO® VH-...IB3**  
**B 6 N**

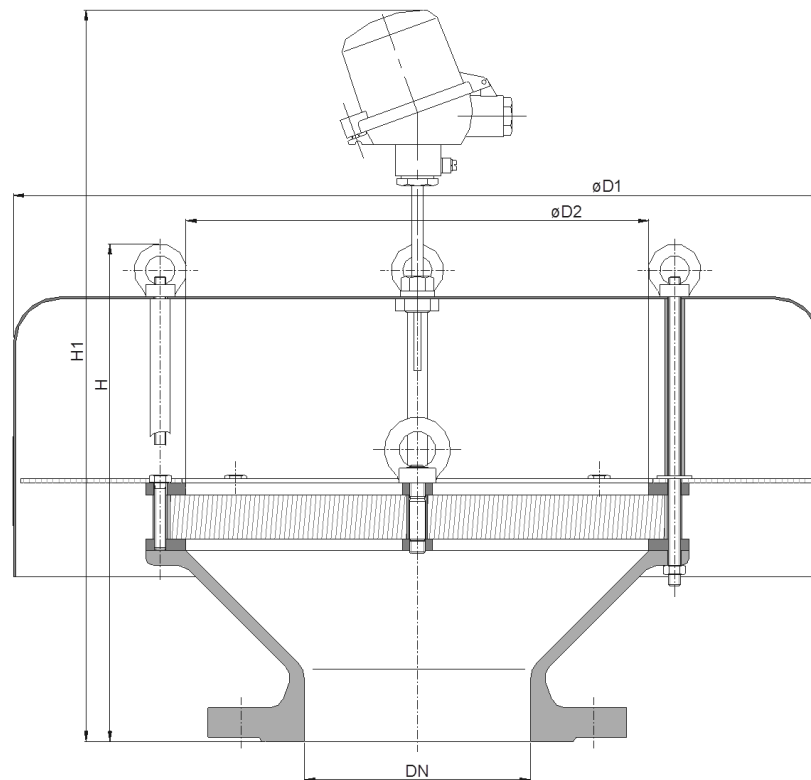
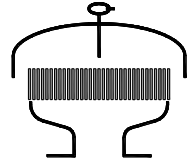
Flow capacity  $V$  based on air of a density  $\rho = 1.29 \text{ kg/m}^3$  at  $T = 273 \text{ K}$  and atmospheric pressure  $p = 1.013 \text{ mbar}$ . For other gases the flow can be approximately calculated by

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



Design subject to change

# Hooded Tank Vent KITO® VH-...-IIB3-T



Type examination certificate to DIN EN ISO 16852

Example to order :  
**KITO® VH-300-IIB3-T**

C € -designation in accordance to ATEX-Guideline 94/9/EC

(design with flange connection DN 300)

DN	ANSI	D1	D2	H		H1		kg*				
50 PN 16	2"	285	110	214		390		8.5				
80 PN 16	3"	295	150	242		430		14.5				
100 PN 16	4"	350	185	297		454		20				
150 PN 16	6"	600	315	342		500		41				
200 PN 10	8"							45				
250 PN 10	10"	800	395	474		614		84				
300 PN 10	12"							462	509	604	651	81
350 PN 10	14"							507	567	649	709	136
400 PN 10	16"	1000	595	502	558	644	700	152				
450 PN 10	18"			-	611	-	753					
500 PN 10	20"	1200	700	537	607	679	749	188				
600 PN 10	24"			660	734	803	876	253				
700 PN 10	-	1500	1000	691	-	834	-	376				
800 PN 10	-	1700	1210	734	-	876	-	495				

Dimensions in mm

\* weights refer to the standard design

Design subject to change

performance curves: B 0.6.1 N

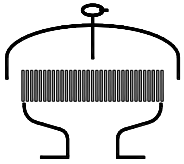
### Standard design

housing	: cast steel 1.0619 (> DN 350 steel), stainless cast steel 1.4408 (> DN 350 stainless steel mat. no.1.4571)
KITO® flame arrester element	: interchangeable
KITO® casing	: <u>steel</u> , stainless steel mat. no. 1.4571
KITO® grid	: stainless steel mat. no. 1.4310, 1.4571
weather hood	: stainless steel mat. no. 1.4301, 1.4571
protective screen	: stainless steel mat. no. 1.4301
flange connection	: <u>DIN EN 1092-1 form B1</u> ANSI 150 lbs. RF
temperature sensor	: PT 100

### Application

As breather/venting safety device incorporating an explosion and **short-time burn proof** flame arrester element for installation on top of storage tanks, tank access covers or breather pipes. The breather allows the unimpeded flow of gases out to atmosphere and air into the tank/pipe thereby preventing vacuum locks whilst ensuring provision of a permanent and reliable protection against any flashback into the tank/pipe.

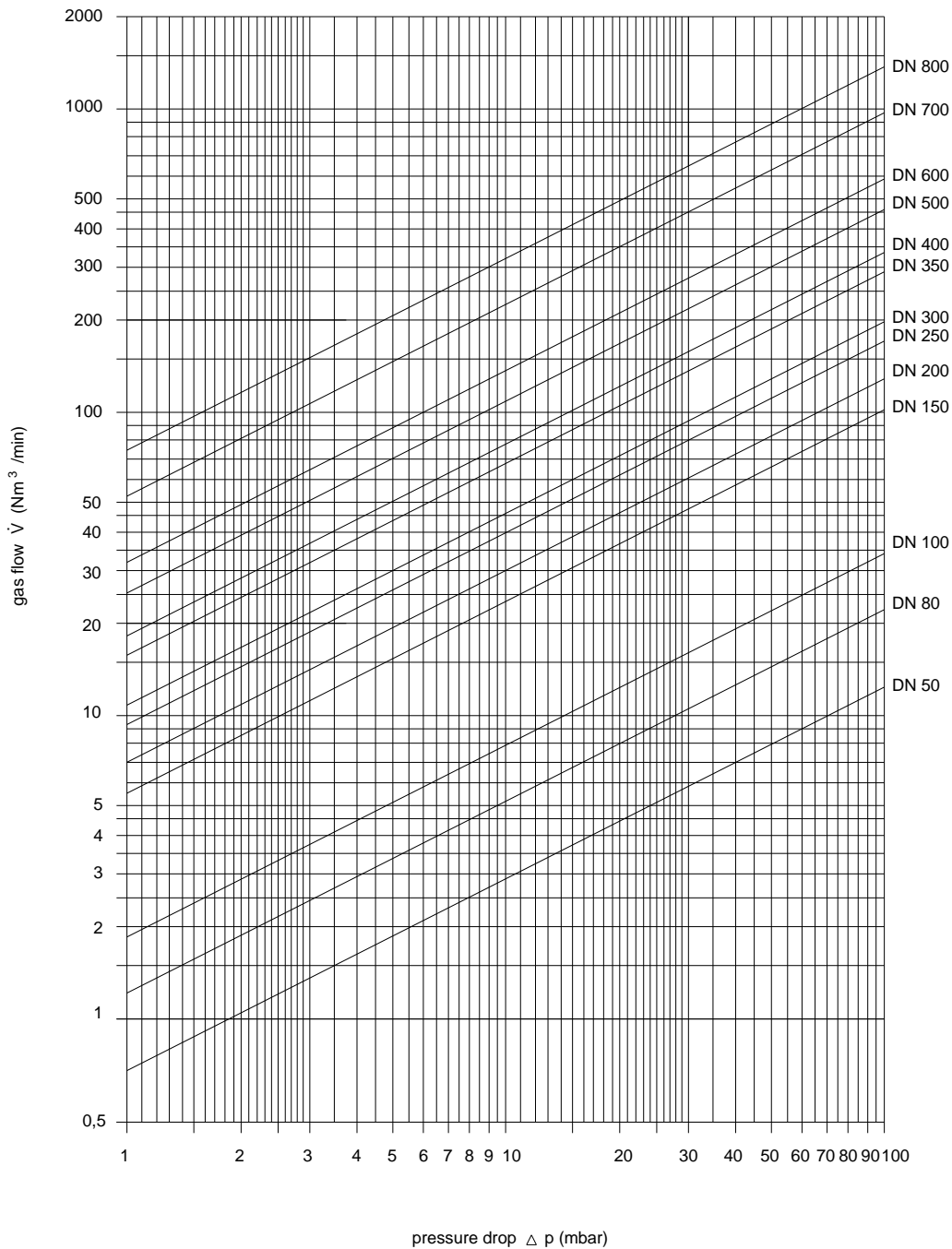
This device is not permitted to be installed in enclosed areas. Approved for all materials of the explosion group IIB3 with a maximum experimental safe gap (MESG) ≥ 0.65. Design with temperature sensor, to detect a "stabilized burning" (burn time 1 minute).



**Hooded Tank Vent**  
**KITO® VH-...-IIB3-T**  
**B 6.1 N**

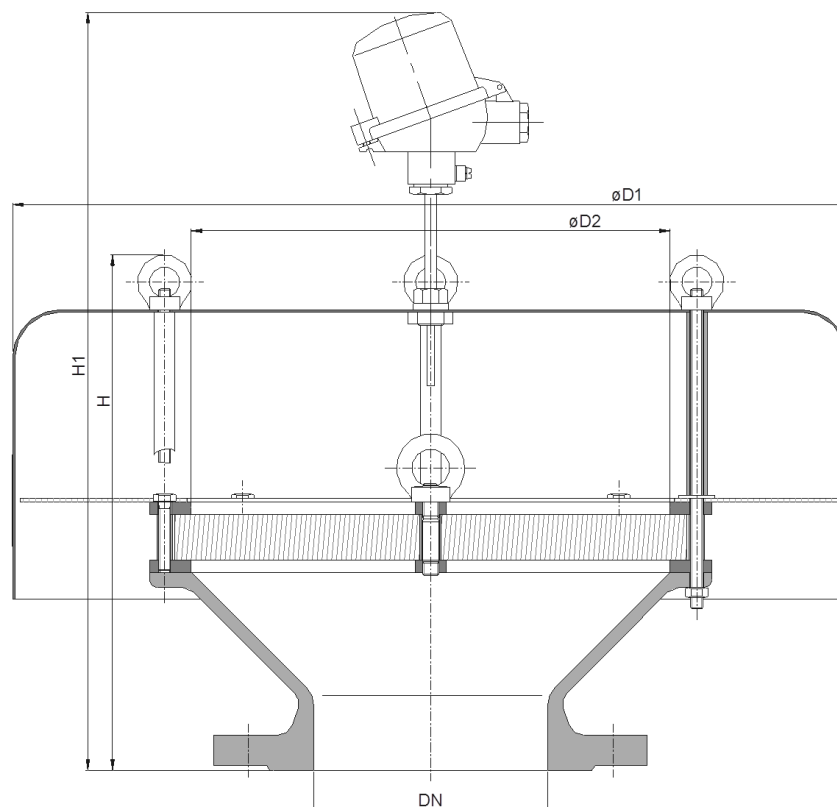
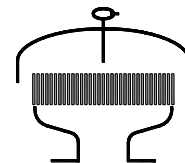
Flow capacity  $V$  based on air of a density  $\rho = 1.29 \text{ kg/m}^3$  at  $T = 273 \text{ K}$  and atmospheric pressure  $p = 1.013 \text{ mbar}$ . For other gases the flow can be approximately calculated by

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



Design subject to change

# Hooded Tank Vent KITO® VH-...-IIB3-XT



Type examination certificate to DIN EN ISO 16852

CE -designation in accordance to ATEX-Guideline 94/9/EC

DN	ANSI	D1	D2	H	H1	kg*
50 PN 16	2"	285	110	214	390	8.5
80 PN 16	3"	295	150	242	430	14.5
100 PN 16	4"	350	185	297	454	20
150 PN 16	6"	600	315	342	500	41
200 PN 10	8"					45
250 PN 10	10"	800	395	474	614	84

Dimensions in mm

\* weight refers to the standard design

Example to order :

**KITO® VH-200-IIB3-XT**

(design with flange connection DN 200 and temperature sensor)

Design subject to change

performance curves : B 0.6.2 N

### Standard design

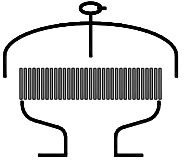
housing	: cast steel 1.0619, stainless cast steel 1.4408
KITO® flame arrester element	: interchangeable
KITO® casing	: steel, stainless steel mat. no. 1.4571
KITO® grid	: stainless steel mat. no. 1.4310, 1.4571
weather hood	: stainless steel mat. no. 1.4301, 1.4571
protective screen	: stainless steel mat. no. 1.4301
flange connection	: DIN EN 1092-1 form B1 ANSI 150 lbs. RF
temperature sensor	: PT 100

### Application

End-of-line venting device incorporating an explosion and **short-time burn proof** flame arrester element for installation on storage tanks. Suitable to protect flammable products of explosion group IIB3 up to a maximum operating temperature of 180 °C. This device is not permitted to be installed in enclosed areas.

Installation on top of storage tanks, tank access covers or at the end of breather pipes. It prevent a flashback into the tank and allows the inbreathing and out breathing of the tank.

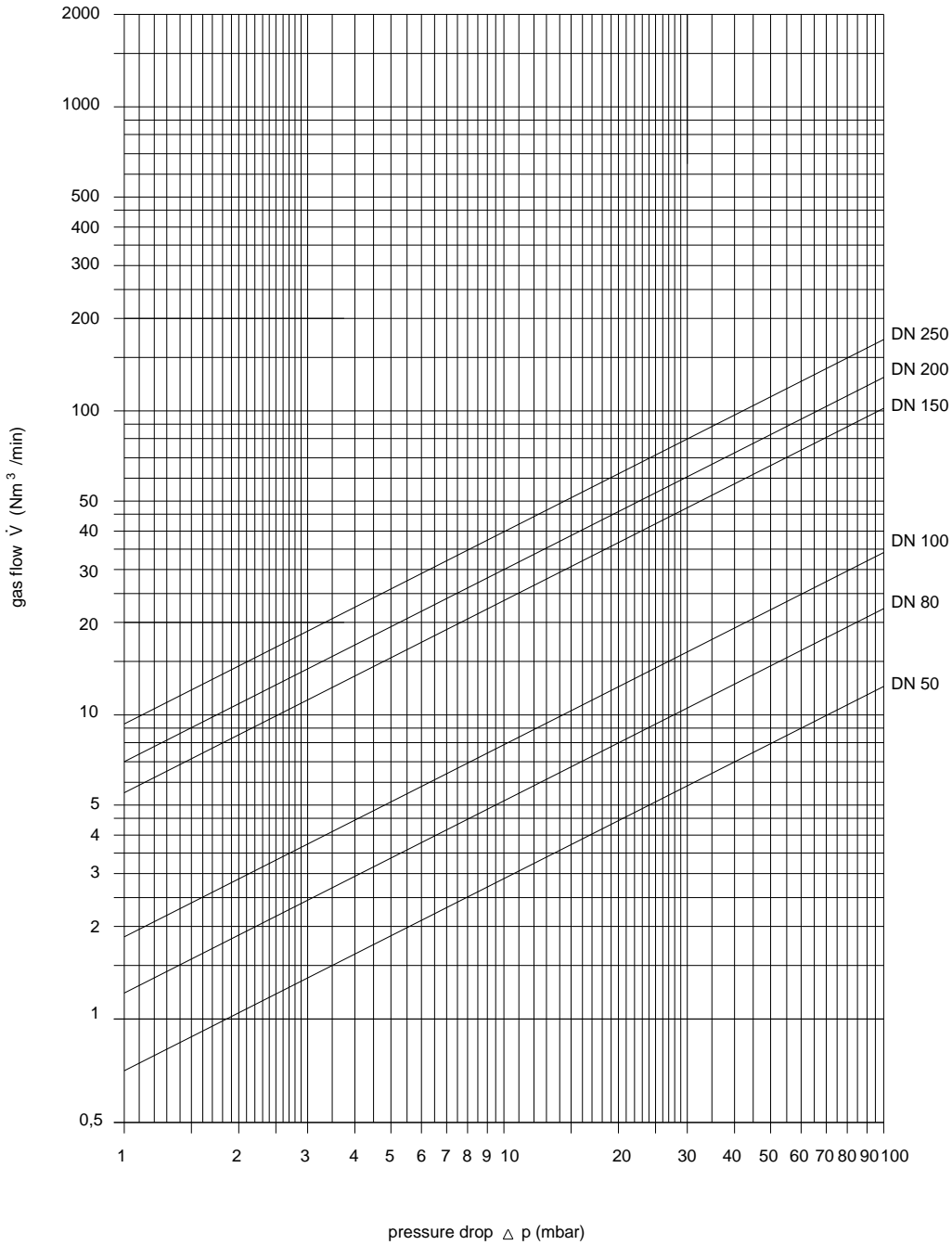
Design with temperature sensor, to detect a "stabilized burning" (burn time 1 minute).



**Hooded Tank Vent**  
**KITO® VH-...-IIB3-XT**  
**B 6.2 N**

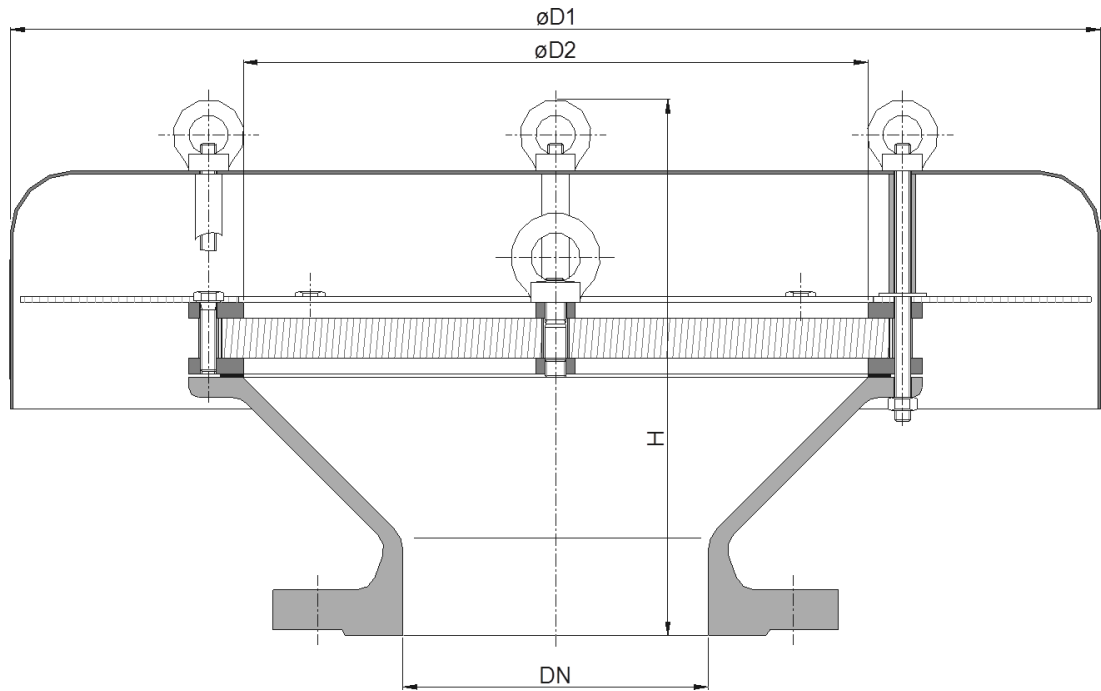
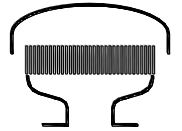
Flow capacity  $V$  based on air of a density  $\rho = 1.29 \text{ kg/m}^3$  at  $T = 273 \text{ K}$  and atmospheric pressure  $p = 1.013 \text{ mbar}$ . For other gases the flow can be approximately calculated by

$$\dot{V} = \dot{V}_b \cdot \sqrt{\frac{\rho_b}{1.29}} \text{ or } \dot{V}_b = \dot{V} \cdot \sqrt{\frac{1.29}{\rho_b}}$$



Design subject to change

# Hooded Tank Vent KITO® VH-...-IIC



Type examination certificate to DIN EN ISO 16852

CE -designation in accordance to ATEX-Guideline 94/9/EC

DN	ANSI	D1	D2	H		kg*
50 PN 16	2"	285	110	180		8
80 PN 16	3"	330	150	190		13
100 PN 16	4"	405	185	230		18.2
150 PN 16	6"	550	315	270		36.3
200 PN 10	8"			270		39.8
250 PN 10	10"	600	395	365		73.8
300 PN 10	12"			360	406	73
350 PN 10	14"	800	595	415	474	111.8
400 PN 10	16"			410	465	126.8
450 PN 10	18"	1000	700	-	499	
500 PN 10	20"			425	495	172.6
600 PN 10	24"	1200	800	495	568	250.2
700 PN 10	-	1400	1000	530	-	348.3
800 PN 10	-	1600	1210	570	-	456.6

Dimensions in mm

\* weight refers to the standard design

Example to order :

**KITO® VH-300-IIC**

(design with flange connection DN 300)

Design subject to change

performance curves: B 0.7 N

Standard design

Application

housing : cast steel 1.0619 (> DN 350 steel),  
stainless cast steel 1.4408 (> DN 350  
stainless steel mat. no.1.4571)

KITO® flame arrester  
element : interchangeable

KITO® casing : steel, stainless steel mat. no. 1.4571

KITO® grid : stainless steel mat. no. 1.4310, 1.4571

weather hood : stainless steel mat. no. 1.4301, 1.4571

protective screen : stainless steel mat. no. 1.4301  
(not for DN 50-100)

flange connection : DIN EN 1092-1 form B1  
ANSI 150 lbs. RF

As breather/venting safety device incorporating an explosion proof flame arrester element for installation on top of storage tanks, tank access covers or breather pipes. The breather allows the unimpeded flow of gases out to atmosphere and air into the tank/pipe thereby preventing vacuum locks whilst ensuring provision of a permanent and reliable protection against any flashback into the tank/pipe.

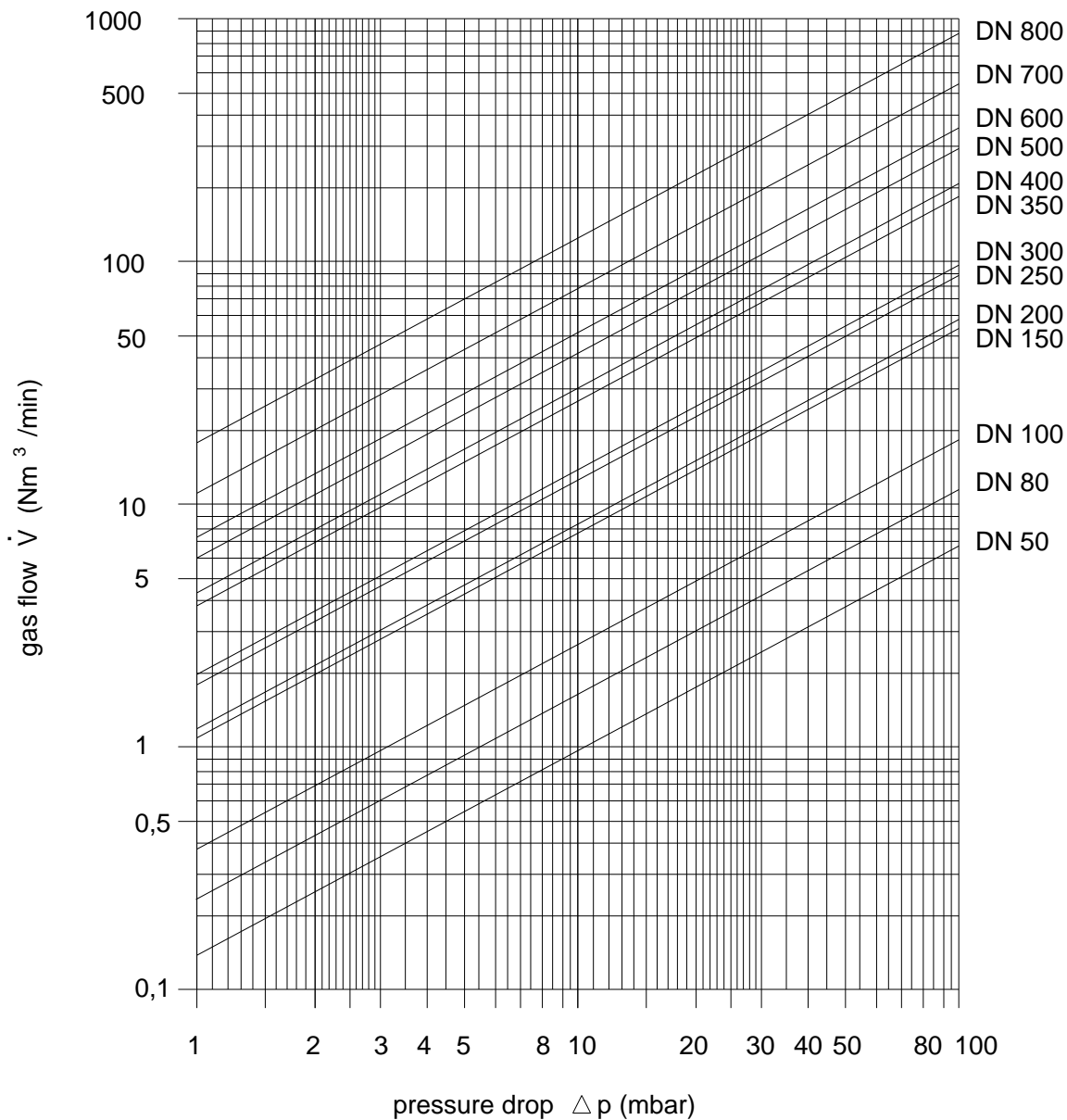
**This device is not permitted to be installed in enclosed areas.**  
Approved for all materials of the explosion group IIC with a maximum experimental safe gap (MESG) < 0.5.



**Hooded Tank Vent**  
**KITO® VH-...-IIC**  
**B 7 N**

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

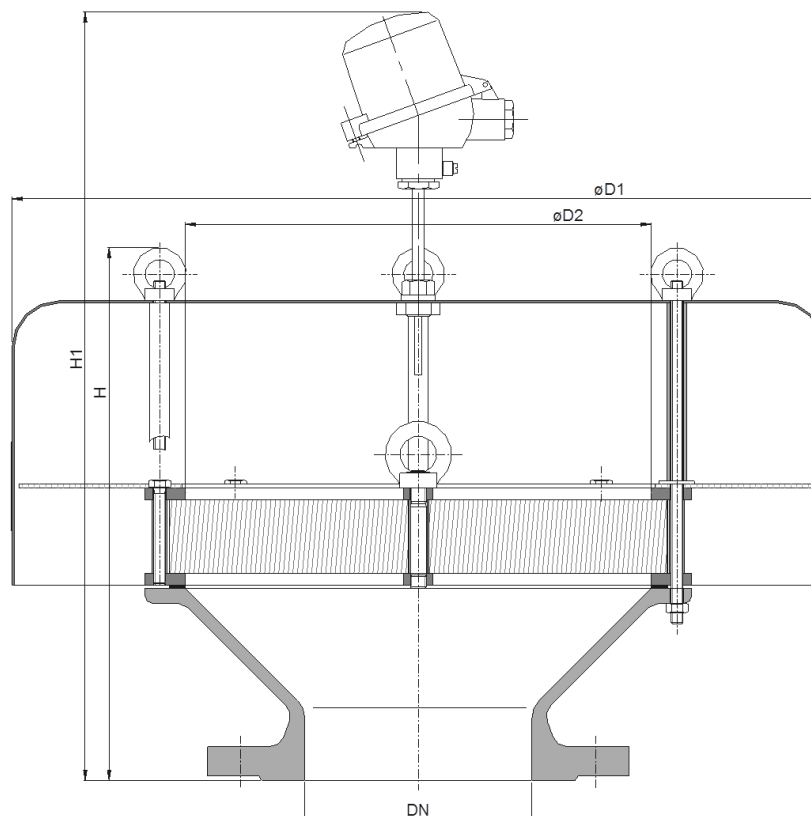
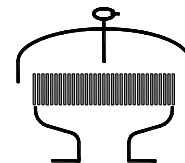
$$\dot{V} = \dot{V}_b \cdot \sqrt{\frac{\rho_b}{1.29}} \text{ or } \dot{V}_b = \dot{V} \cdot \sqrt{\frac{1.29}{\rho_b}}$$



Design subject to change



# Hooded Tank Vent KITO® VH-...-IIC-T



Type examination certificate to DIN EN ISO 16852

Example to order:  
**KITO® VH-300-IIC-T**

(design with flange connection DN 300 and temperature sensor)

CE -designation in accordance to ATEX-Guideline 94/9/EC

DN	ANSI	D1	D2	H		H1		kg*
50 PN 16	2"	285	110	225		410		9.9
80 PN 16	3"	295	150	254		438		17.7
100 PN 16	4"	350	185	316		474		25.3
150 PN 16	6"	600	315	366		524		54
200 PN 10	8"							57.4
250 PN 10	10"	800	395	487		629		104.7
300 PN 10	12"			482	529	624	671	105.2
350 PN 10	14"	1000	595	527	587	669	729	182.4
400 PN 10	16"			522	578	664	720	197.4
450 PN 10	18"	1200	700	-	631	-	773	
500 PN 10	20"			557	627	699	769	258.8
600 PN 10	24"	1500	1000	680	754	823	896	346.1
700 PN 10	-			711	-	854	-	499.9
800 PN 10	-	1700	1210	754	-	896	-	668.4

Dimensions in mm

\* weight refers to the standard design

Design subject to change

performance curves: B 0.7.1 N

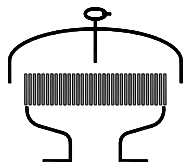
### Standard design

housing	: cast steel 1.0619 (> DN 350 steel), stainless cast steel 1.4408 (> DN 350 stainless steel mat. no.1.4571)
KITO® flame arrester element	: interchangeable
KITO® casing	: steel, stainless steel mat. no. 1.4571
KITO® grid	: stainless steel mat. no. 1.4310, 1.4571
weather hood	: stainless steel mat. no. 1.4301, 1.4571
protective screen	: stainless steel mat. no. 1.4301
flange connection	: DIN EN 1092-1 form B1 ANSI 150 lbs. RF
temperature sensor	: PT 100

### Application

As breather/venting safety device incorporating an explosion and **short-time burn proof** flame arrester element for installation on top of storage tanks, tank access covers or breather pipes. The breather allows the unimpeded flow of gases out to atmosphere and air into the tank/pipe thereby preventing vacuum locks whilst ensuring provision of a permanent and reliable protection against any flashback into the tank/pipe.

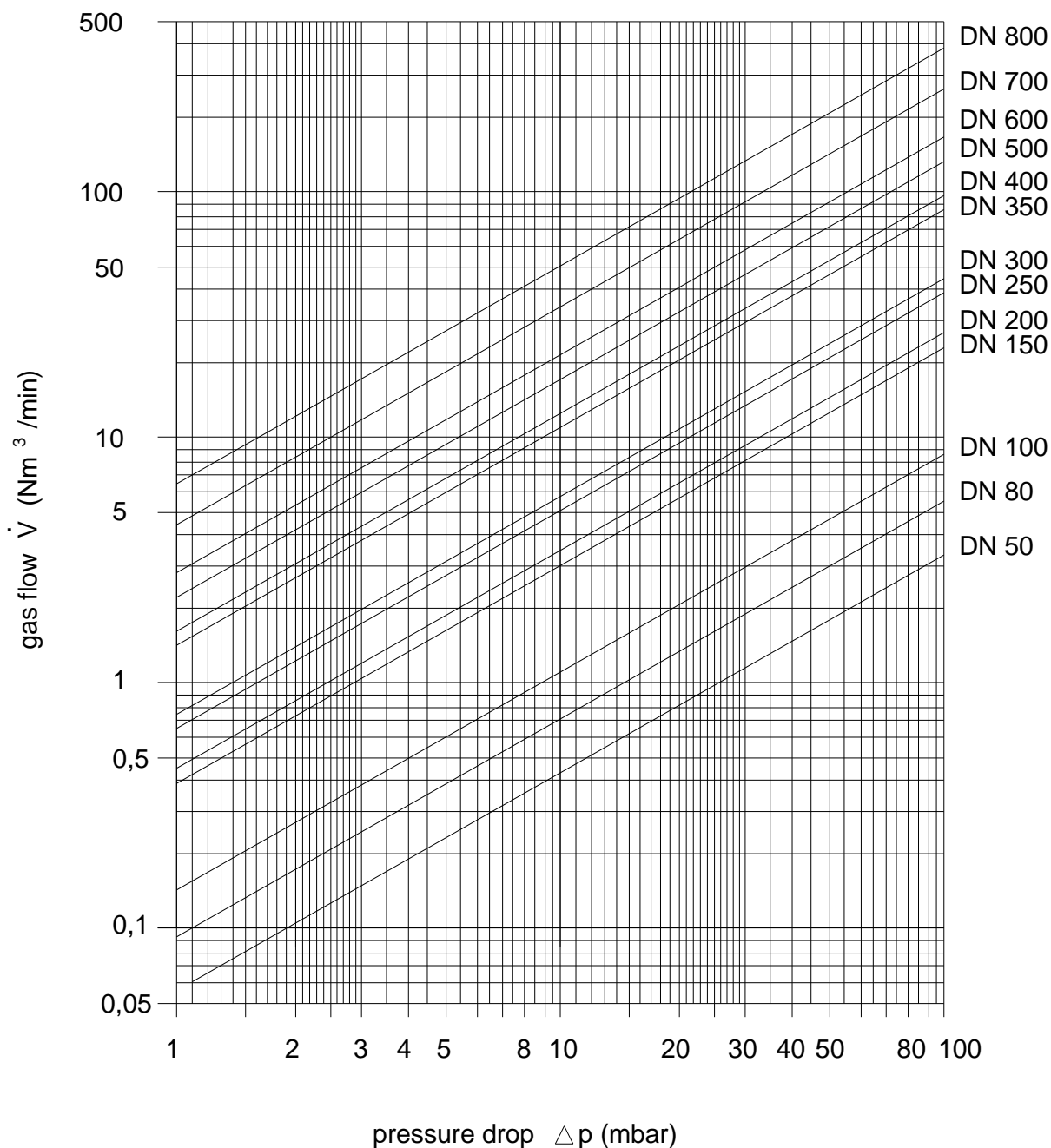
**This device is not permitted to be installed in enclosed areas.** Approved for all materials of the explosion group IIC with a maximum experimental safe gap (MESG) < 0.5  
Design with temperature sensor, to detect a "stabilized burning" (burn time 1 minute).



**Hooded Tank Vent**  
**KITO® VH-...-IIC-T**  
**B 7.1 N**

Flow capacity  $\dot{V}$  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

$$\dot{V} = \dot{V}_b \cdot \sqrt{\frac{\rho_b}{1.29}} \text{ or } \dot{V}_b = \dot{V} \cdot \sqrt{\frac{1.29}{\rho_b}}$$



Design subject to change