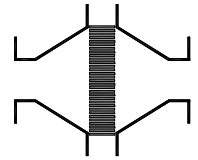


Type sheet

Bi-directional in-line deflagration flame arrester, endurance burning proof

KITO® INE-DB-I-.../...

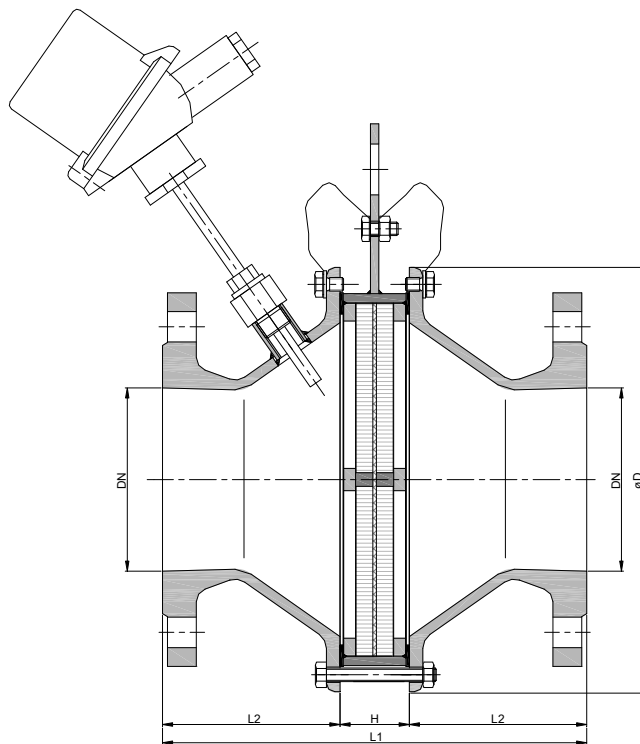
KITO® INE-DB-I-.../...-T (-TT)



Application

For installation into pipes to the protection of vessels and components against deflagration of flammable liquids and gases. Approved for all substances of explosion group IIA1 (old: I) with a maximum experimental safe gap (MESG) ≥ 1.14 mm. Bi-directionally working in pipes, whereby an operating pressure of 1.1 bar abs. and an operating temperature of 60 °C must not be exceeded. All sizes are tested against "stabilized burning" and withstand this for indefinite time (endurance burn). The distance between a potential ignition source and the flame arrester must not exceed 50 times the inner pipe diameter. An installation into horizontal and vertical pipes is permissible. To detect a thermal load on the KITO® flame arrester element in operation, a temperature sensor can be implemented as an option into the flame arrester body.

Dimension (mm)



NG	DN		D	L1	H	L2	kg
	DIN	ASME					
100	50 PN 16	2"	165	215	35	90	11.6
	65 PN 16	-					17
150	80 PN 16	3"	210	241	41	100	19
	100 PN 16	4"					105
250	125 PN 16	-	322	281	41	120	35
300	150 PN 16	6"	370	307	47	130	
	200 PN 10	8"					

Weight refers to the variant I

Example for order

KITO® INE-DB-I-150/80-T

(Design NG 150 with flange connection DN 80 PN 16 and a temperature sensor)

Type examination certificate to EN ISO 16852 and CE-marking in accordance to ATEX-Directive 2014/34/EU

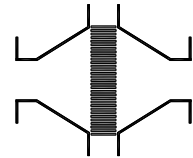
page 1 of 2

Type sheet

Bi-directional in-line deflagration flame arrester, endurance burning proof

KITO® INE-DB-I-.../...

KITO® INE-DB-I-.../...-T (-TT)



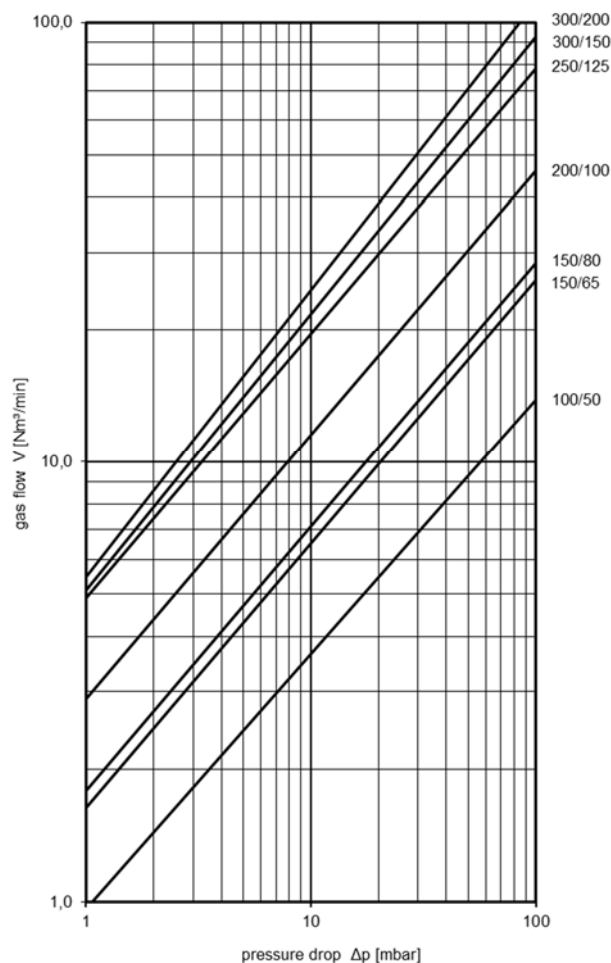
Design

	variant I	variant II	variant III
housing	cast steel 1.0619	cast steel 1.0619	stainless cast steel 1.4408
gasket	HD 3822	PTFE	PTFE
KITO®-flame arrester element	completely interchangeable		
KITO®-casing	steel	stainless steel mat. no. 1.4571 or 1.4581	stainless steel mat. no. 1.4571 or 1.4581
KITO®-grid	stainless steel mat. no. 1.4310	stainless steel mat. no. 1.4571	stainless steel mat. no. 1.4571
bolts / nuts	galvanized steel	galvanized steel	A4
temperature sensor	PT 100 (option), connection 3/8", 1.4571		
flange connection	EN 1092-1 type B1 <i>optionally</i> ASME B16.5 Class 150 RF		

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

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



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