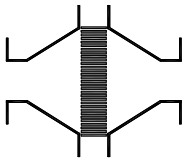
KITO Armaturen GmbH

Type sheet

Bi-directional in-line deflagration flame arrester, short-time burning proof

KITO® INE-I-…/…-1.5

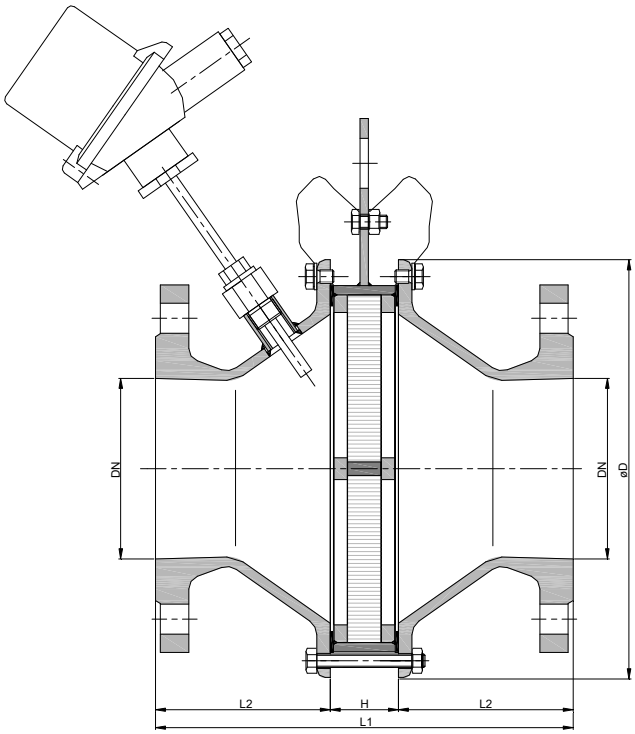
KITO® INE-I-…/…-1.5-T (-TT)



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 1.5 bar abs. and an operating temperature of 60 °C must not be exceeded. 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. Proof against “stabilized burning” and withstand this up to a max. burn time BT = 1.0 min.

Dimension (mm)



NG	DN		D	L1	H	L2	kg
	DIN	ASME					
150	65 PN 16	-	210	239	39	100	19
	80 PN 16	3“					
200	100 PN 16	4“	268	249	39	105	27
250	125 PN 16	-	322	279	39	120	36
300	150 PN 16	6“	370	305	45	130	50
	200 PN 10	8“					
400	250 PN 10	10“	480	345	45	150	
	300 PN 10	12“		323		139	

Weight refers to the variant I

Example for order

KITO® INE-I-150/80-1.5-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

KITO Armaturen GmbH
Grotrian-Steinweg-Str. 1c
D-38112 Braunschweig
VAT Reg.No DE812887561
+49 (0) 531 23000-0
+49 (0) 531 23000-10
www.kito.de
info@kito.de

H 32 N
Date: 01-2020
Created: Abt. Doku KITO
Design subject to change

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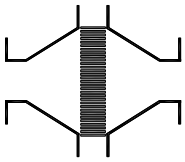


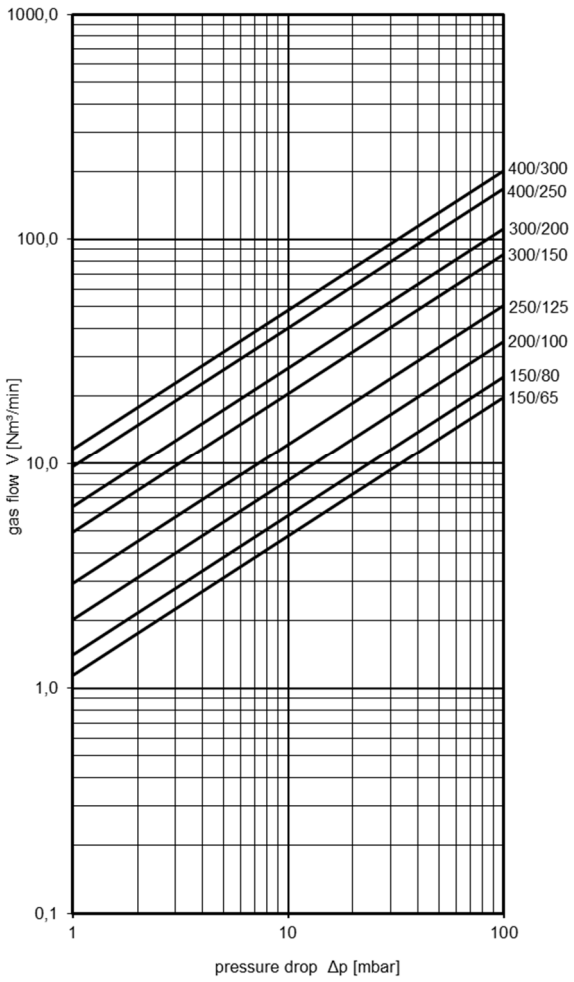
Design

	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 *optionally* 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

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



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