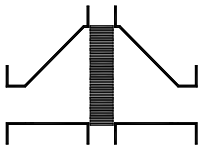
KITO Armaturen GmbH

Type sheet

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

KITO® EFA-Det4-IIA-…/…-X10

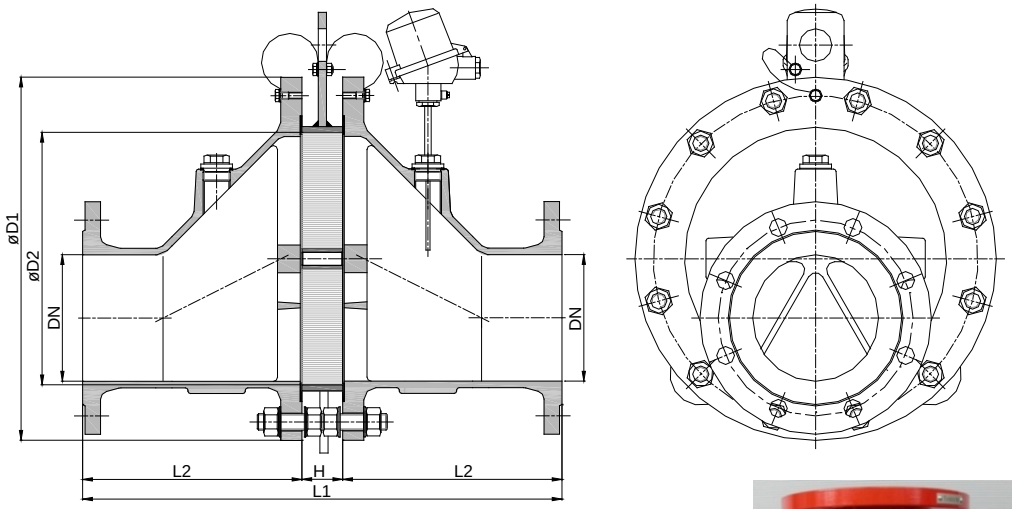
KITO® EFA-Det4-IIA-…/…-X10-T (-TT)



Application

For installation into pipes to the protection of vessels and components against **stable** detonation of flammable liquids and gases. Tested and approved as detonation flame arrester **type 4**. Approved for all substances of explosion groups IIA1 to IIA with a maximum experimental safe gap (MESG) > 0.9 mm. Bi-directionally working in pipes, whereby an operating pressure of 1.1 bar abs. and an operating temperature of 100 °C must not be exceeded. The installation of the detonation flame arrester into horizontal and vertical pipes is permissible. If equipped with a temperature sensor (PT 100) a protection against stabilized burning is given from one resp. both sides. The devices are tested and approved with different burning times depending on their sizes (NG 100: T_{BT}= 30 min, NG 500: T_{BT}= 1 min).

Dimension (mm)



NG	DN		D1	D2	L1	H	L2	kg
	DIN	ASME						
100	40 PN 40	1 ½“	220	106	340	50	145	24
	50 PN 16	2“						25
500	200 PN 10	8“	670	485	824	64	380	259
	250 PN 10	10“						269

Weight refers to the standard design

Example for order

KITO® EFA-Det4-IIA-100/40-X10-T
(design NG 100 with flange connection DN 40 PN 40 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

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Design subject to change

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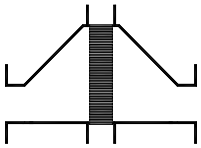


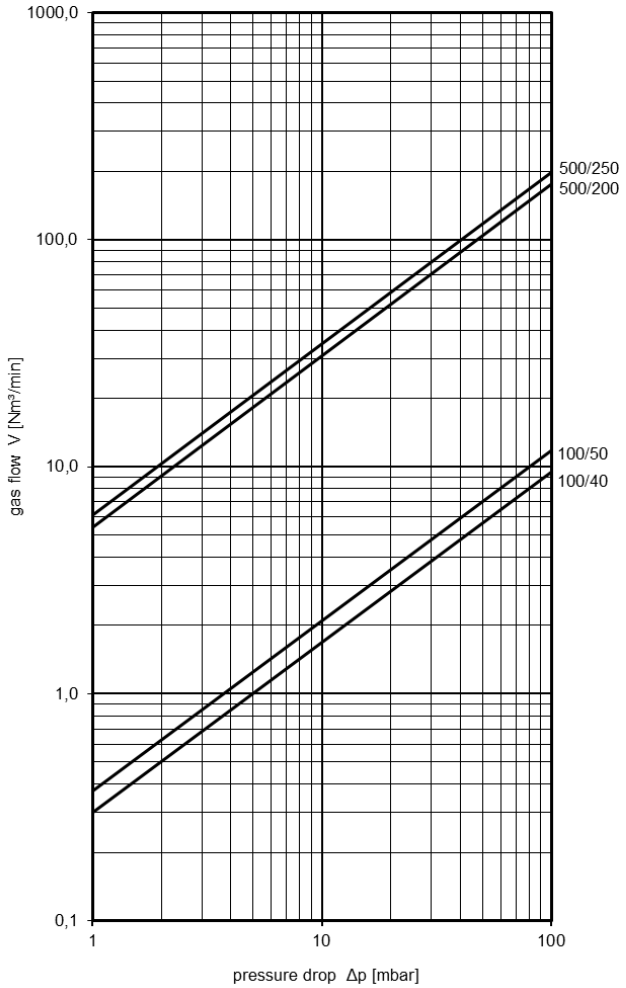
Design

	standard	optionally
housing	cast steel 1.0619	stainless cast steel 1.4408
gasket	HD 3822	PTFE
KITO®-flame arrester element	completely interchangeable	
KITO®-casing	steel (NG 100 galvanized)	stainless steel mat. no. 1.4571
KITO®-grid	stainless steel mat. no. 1.4310	stainless steel mat. no. 1.4571
bolts / nuts	galvanized steel	A2
temperature sensor		PT 100, connection 3/8“, 1.4571
flange connection	EN 1092-1 type B1	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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