

Type sheet Bi-directional in-line detonation flame arrester, short-time burning proof KITO[®] RG-Det4-IIB3-...-1.2 KITO[®] RG-Det4-IIB3-...-1.2-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 IIB3 with a maximum experimental safe gap (MESG) \ge 0.65 mm. Bi-directionally working in pipes, whereby an operating pressure of 1.2 bar abs. and an operating temperature of 60 °C must not be exceeded. All sizes are tested against "stabilized burning" and withstand this up to a max. burn time BT \le 6.0 min. To detect a "stabilized burning" a temperature sensor must be installed at each endangered side. Mounting is acceptable in any position, in horizontal as well as in vertical pipes.

Dimension (mm)



Example for order

KITO® RG-Det4-IIB3-1 ¼"-1.2-T (design with threaded connection G 1 ¼" and a temperature sensor)

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

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Design

	standard	optionally
housing	steel	stainless steel mat. no. 1.4571
gasket	HD 3822	PTFE
KITO [®] -flame arrester element	completely interchangeable	
KITO [®] -casing / KITO [®] -grid	stainless steel mat. no. 1.4301 / 1.4310	stainless steel mat. no. 1.4571 / 1.4571
bolts / nuts	A2	A4
temperature sensor -not for connection G 1/6"- 3/6"-		PT 100, connection ¼", 1.4571
connection	thread connection	

Performance curves

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

$$\dot{\mathbf{V}} = \dot{\mathbf{V}}_{\mathrm{b}} \cdot \sqrt{\frac{\rho_{\mathrm{b}}}{1.29}} \ or \qquad \dot{\mathbf{V}}_{\mathrm{b}} = \dot{\mathbf{V}} \cdot \sqrt{\frac{1.29}{\rho_{\mathrm{b}}}}$$



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