



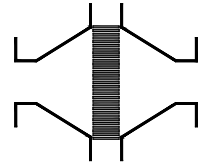
Type sheet

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

KITO® RG-Def-IIB3-...-1.2

KITO® RG-Def-IIB3-...-1.2-T (-TT)

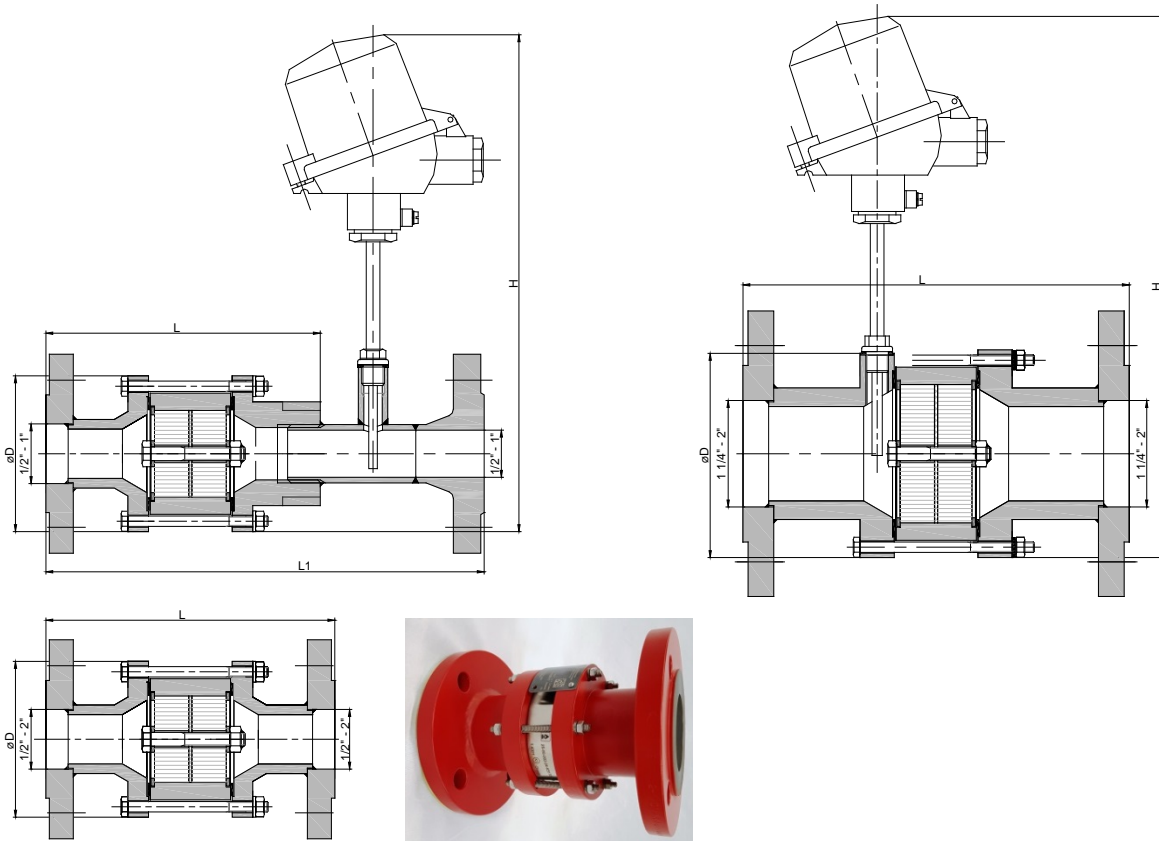
- design with flange connection -



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 groups IIA1 to IIB3 with a maximum experimental safe gap (MESG) ≥ 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. The distance between a potential ignition source and the flame arrester must not exceed 50 times the inner pipe diameter. All sizes are tested against "stabilized burning" and withstand this up to a max. burn time BT ≤ 6.0 min. To detect a "stabilized burning" a thermocouple must be installed at each endangered side. Mounting is acceptable in any position, in horizontal as well as in vertical pipes.

Dimension (mm)



	DN		D	L (DIN)	L (ASME)	L1 (DIN)	L1 (ASME)	H	kg
	DIN	ASME							
1/2"	15 PN 40	1/2"	90	173				290	
3/4"	20 PN 40	3/4"							
1"	25 PN 40	1"							
1 1/4"	32 PN 40	1 1/4"	120	192				315	
1 1/2"	40 PN 40	1 1/2"		202		-	-		
2"	50 PN 16	2"		226					

Weight refers to the standard design

Example for order

KITO® RG-Def-IIB3-1 1/4"-1.2-T DN 32

(design with flange connection DN 32 PN 40 and a temperature sensor)

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

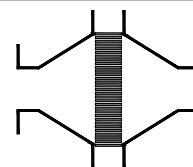
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Design

	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		PT 100, connection 1/4", 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 $\rho = 1.29 \text{ kg/m}^3$ at $T = 273 \text{ K}$ and atmospheric pressure $p = 1.013 \text{ mbar}$. For other gases the flow can be approximately calculated by

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

