

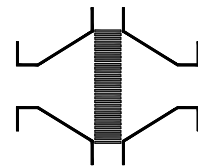
Type sheet

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

KITO® RG-Det4-IIC-...

KITO® RG-Det4-IIC-...-T (-TT)

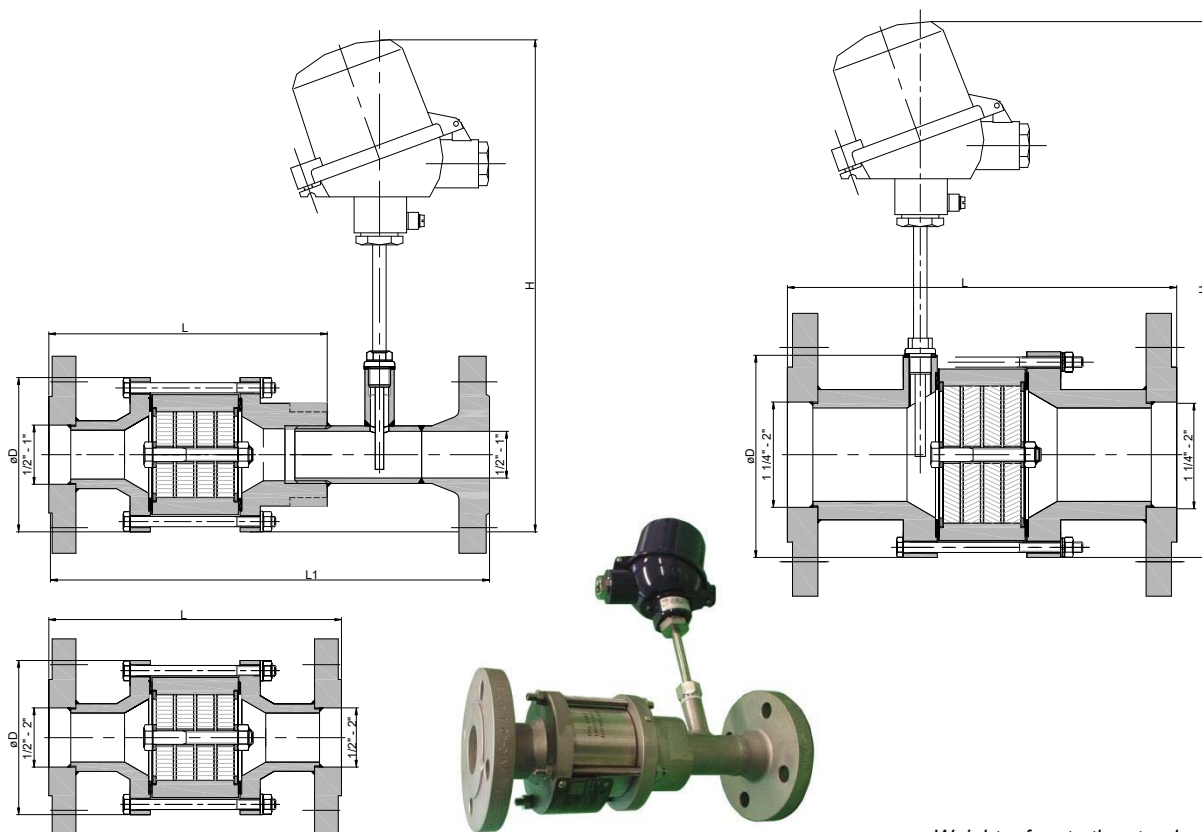
-design with flange connection -



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 IIC with a maximum experimental safe gap (MESG) < 0.5 mm. Bi-directionally working in pipes, whereby an operating pressure of 1.2 or 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 up to a max. burn time BT ≤ 1.0 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)



Weight refers to the standard design

	DN		D	L (DIN)	L (ASME)	L1 (DIN)	L1 (ASME)	H	P _{max} (bar abs.)	kg
	DIN	ASME								
1/2"	15 PN 40	1/2"	90	177	173	269		290	1.2	
3/4"	20 PN 40	3/4"		173						
1"	25 PN 40	1"		173						
1 1/4"	32 PN 40	1 1/4"	120	196				315	1.1	
1 1/2"	40 PN 40	1 1/2"		206						
2"	50 PN 16	2"		230						

Example for order

KITO® RG-Det4-IIC-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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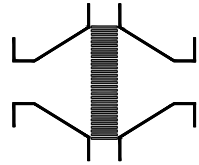
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Design

	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 \dot{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

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

