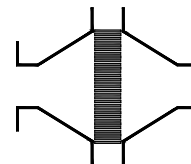# KITO Armaturen GmbH

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)
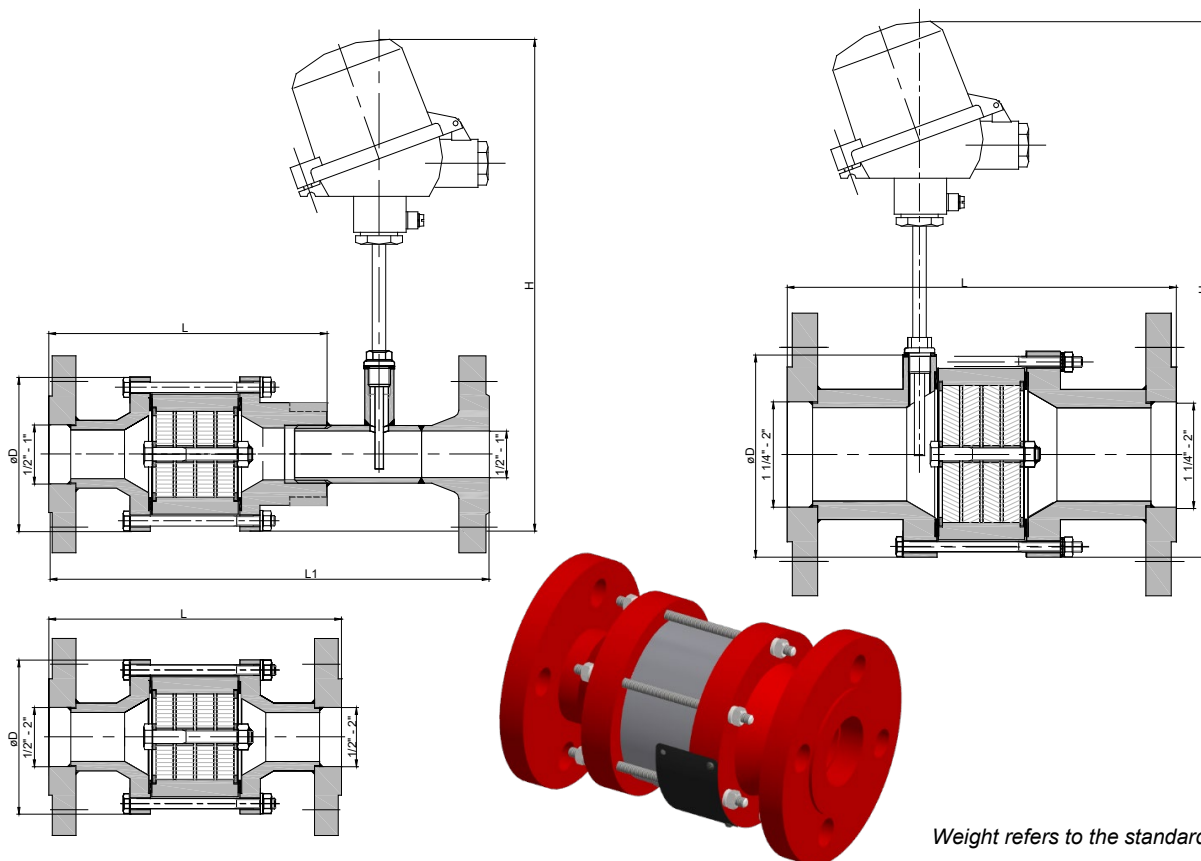
Weight refers to the standard design

DN			D	L (DIN)	L (ASME)	L1 (DIN)	L1 (ASME)	H	P max (bar abs.)	kg
	DIN	ASME								
½"	15 PN 40	½"	90	177	177	272	272	290	1,2	3,9
¾"	20 PN 40	¾"		173	173	270	270			4,5
1"	25 PN 40	1"		173	173	270	270			4,8
1 ¼"	32 PN 40	1 ¼"	120	196	196	-	-	315	1,1	9,6
1 ½"	40 PN 40	1 ½"		206	206					10,1
2"	50 PN 16	2"		230	230					11,8

Example for order

KITO® RG-Det4-IIC-1 ¼"-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 (€-marking in accordance to ATEX-Directive 2014/34/EU
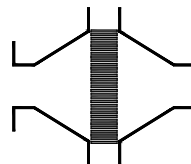
KITO Armaturen GmbH

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Bi-directional in-line detonation flame arrester, short-time burning proof
KITO® RG-Det4-IIC-…
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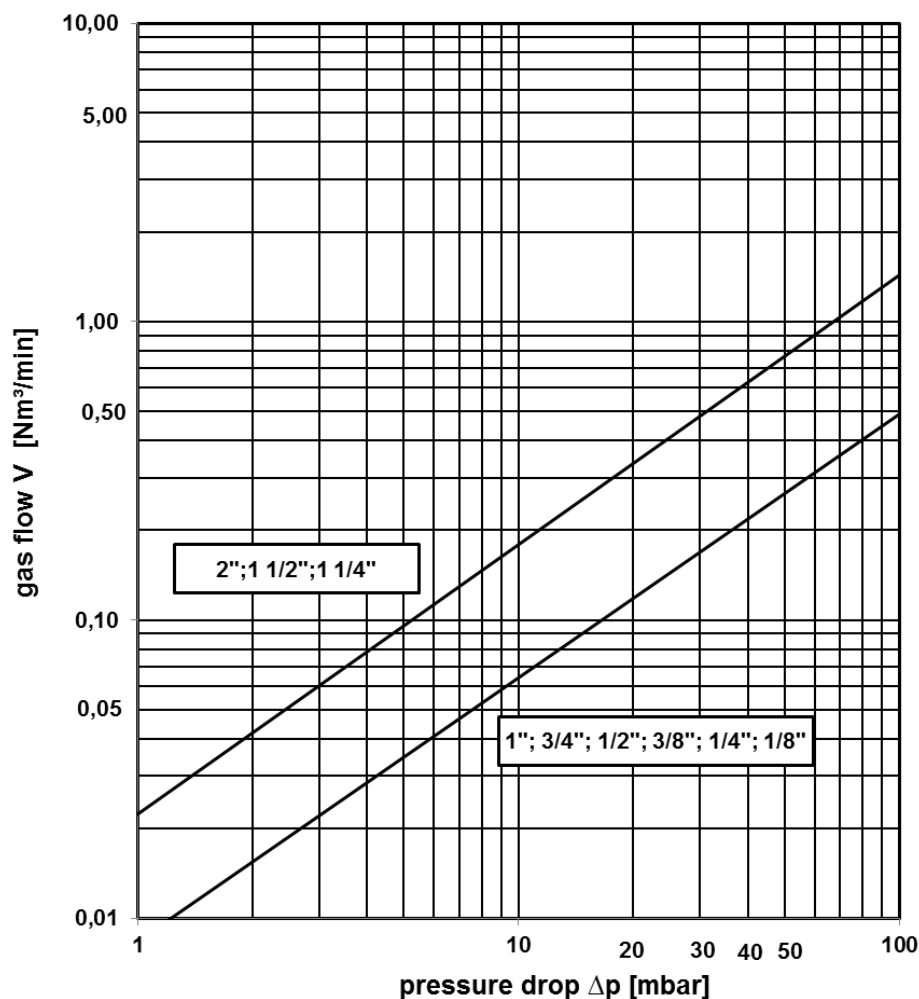-design with flange connection -

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 ¼", 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

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