



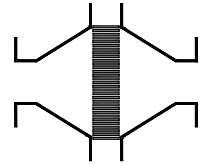
## Type sheet

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

**KITO® RG-Det4-IIA-...-1.2**

**KITO® RG-Det4-IIA-...-1.2-T (-TT)**

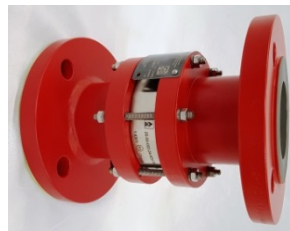
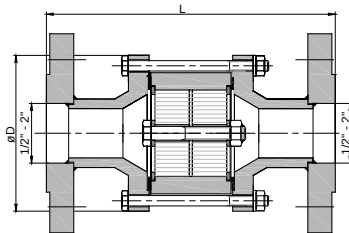
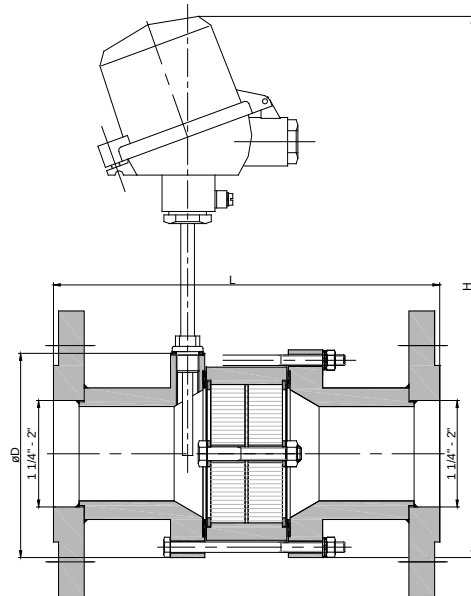
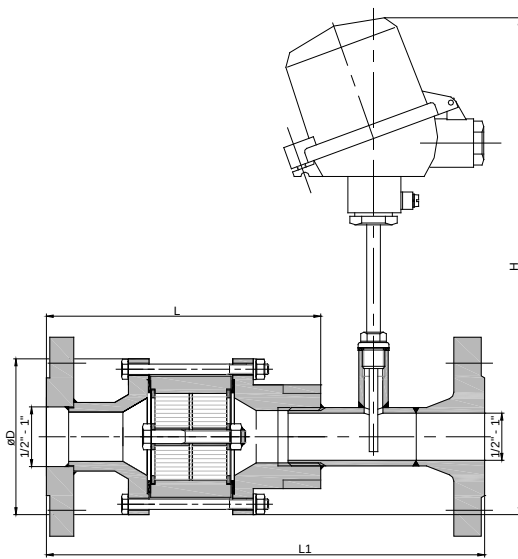
- design with flange connection-



## 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 IIA with a maximum experimental safe gap (MESG) > 0.9 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 ≤ 30.0 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   | kg |
|--------|----------|--------|-----|---------|----------|----------|-----------|-----|----|
|        | DIN      | ASME   |     |         |          |          |           |     |    |
| 1/2"   | 15 PN 40 | 1/2"   | 90  | 173     |          |          |           | 290 |    |
| 3/4"   | 20 PN 40 | 3/4"   |     | 169     |          |          |           |     |    |
| 1"     | 25 PN 40 | 1"     |     | 169     |          |          |           |     |    |
| 1 1/4" | 32 PN 40 | 1 1/4" | 120 | 196     |          |          |           | 315 |    |
| 1 1/2" | 40 PN 40 | 1 1/2" |     | 206     |          |          |           |     |    |
| 2"     | 50 PN 16 | 2"     |     | 230     | 230      |          |           |     |    |

## Example for order

**KITO® RG-Det4-IIA-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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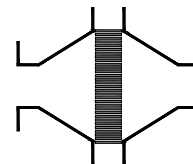
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### Design

|                              | 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  $V$  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

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

