



# KITO

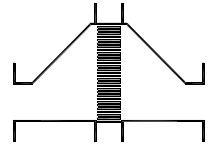
# Armaturen GmbH

## Type sheet

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

**KITO® EFA-Def0-I-.../...-2.5**

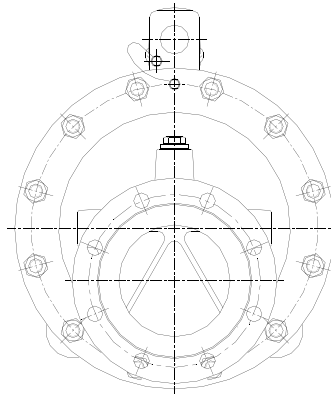
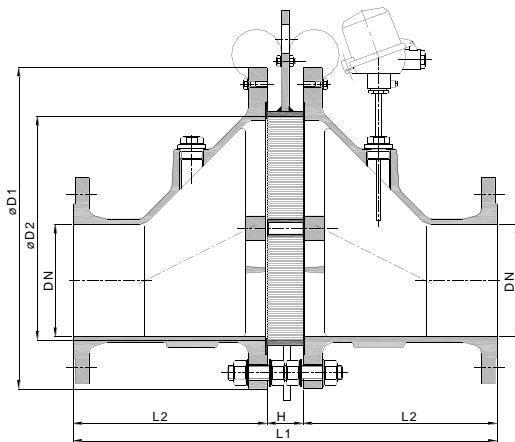
**KITO® EFA-Def0-I-.../...-2.5-T (-TT)**



### 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 group IIA1 (old: I) with a maximum experimental safe gap (MESG)  $\geq 1.14$  mm. Bi-directionally working in pipes, whereby an operating pressure of 2.5 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. The installation of the deflagration flame arrester into horizontal and vertical pipes is permissible. When equipped with one or two temperature sensors, the devices are protected under atmospheric conditions against a short time burning by a burning time  $t_{BT} = 1.0$  min. If only one temperature sensor, then it is to be placed on the device side where a burning could be expected.

### Dimension (mm)



| NG  | DN        |        | D1  | D2  | L1  | H  | L2  | kg   |
|-----|-----------|--------|-----|-----|-----|----|-----|------|
|     | DIN       | ASME   |     |     |     |    |     |      |
| 65  | 25 PN 40  | 1"     | 155 | 70  | 290 | 50 | 120 | 11   |
|     | 32 PN 40  | 1 1/4" |     |     |     |    |     | 12   |
| 100 | 40 PN 40  | 1 1/2" | 220 | 106 | 340 | 50 | 145 | 24   |
|     | 50 PN 16  | 2"     |     |     |     |    |     | 26,5 |
| 150 | 50 PN 16  | 2"     | 285 | 159 | 400 | 50 | 175 | 26   |
|     | 65 PN 16  | 2 1/2" |     |     |     |    |     | 42   |
| 200 | 80 PN 16  | 3"     | 340 | 206 | 450 | 50 | 200 | 44   |
|     | 100 PN 16 | 4"     |     |     |     |    |     | 62   |
| 300 | 100 PN 16 | 4"     | 445 | 308 | 590 | 50 | 270 |      |
|     | 125 PN 16 | 5"     |     |     |     |    |     |      |
| 400 | 150 PN 16 | 6"     | 565 | 388 | 680 | 50 | 315 | 110  |
|     | 200 PN 10 | 8"     |     |     |     |    |     | 182  |
| 500 | 200 PN 10 | 8"     | 670 | 485 | 810 | 50 | 380 |      |
|     | 250 PN 10 | 10"    |     |     |     |    |     |      |
| 600 | 250 PN 10 | 10"    | 780 | 584 | 950 | 50 | 450 |      |
|     | 300 PN 10 | 12"    |     |     |     |    |     |      |

Weight refers to the standard design

### Example for order

**KITO® EFA-Def0-I-100/40-2.5-T**

(Design NG 100 with flange connection DN 40 PN 40 and a temperature sensor)

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



## CMC TECHNOLOGIES

PTY LIMITED ACN: 085 991 224, ABN: 47 085 991 224

Engineering & Industrial Instrumentation

Phone: +61 2 9669 4000  
Fax: +61 2 9669 4111  
Email: [sales@cmctechnologies.com.au](mailto:sales@cmctechnologies.com.au)  
Web Site: <http://www.cmctechnologies.net.au>

Unit 19, 77 Bourke Road,  
Alexandria, NSW, 2015  
AUSTRALIA

**H 34 N**

Date: 05-2018

Created: Abt. Doku KITO

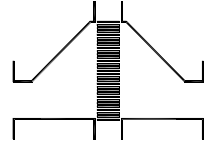
Design subject to change

## Type sheet

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

**KITO® EFA-Def0-I-.../...-2.5**

**KITO® EFA-Def0-I-.../...-2.5-T (-TT)**



### Design

|                              | standard                        | optionally                                |
|------------------------------|---------------------------------|---|
| housing                      | cast steel 1.0619               | stainless cast steel 1.4408               |
| gasket                       | HD 3822                         | PTFE                                      |
| KITO®-flame arrester element | completely interchangeable      |   |
| KITO®-casing                 | steel (galvanized to NG 400)    | stainless steel mat. no. 1.4571 or 1.4581 |
| KITO®-grid                   | stainless steel mat. no. 1.4310 | stainless steel mat. no. 1.4571           |
| bolts / nuts                 | galvanized steel                | A2  |
| temperature sensor           |                                 | PT 100, connection 3/8", 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

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

