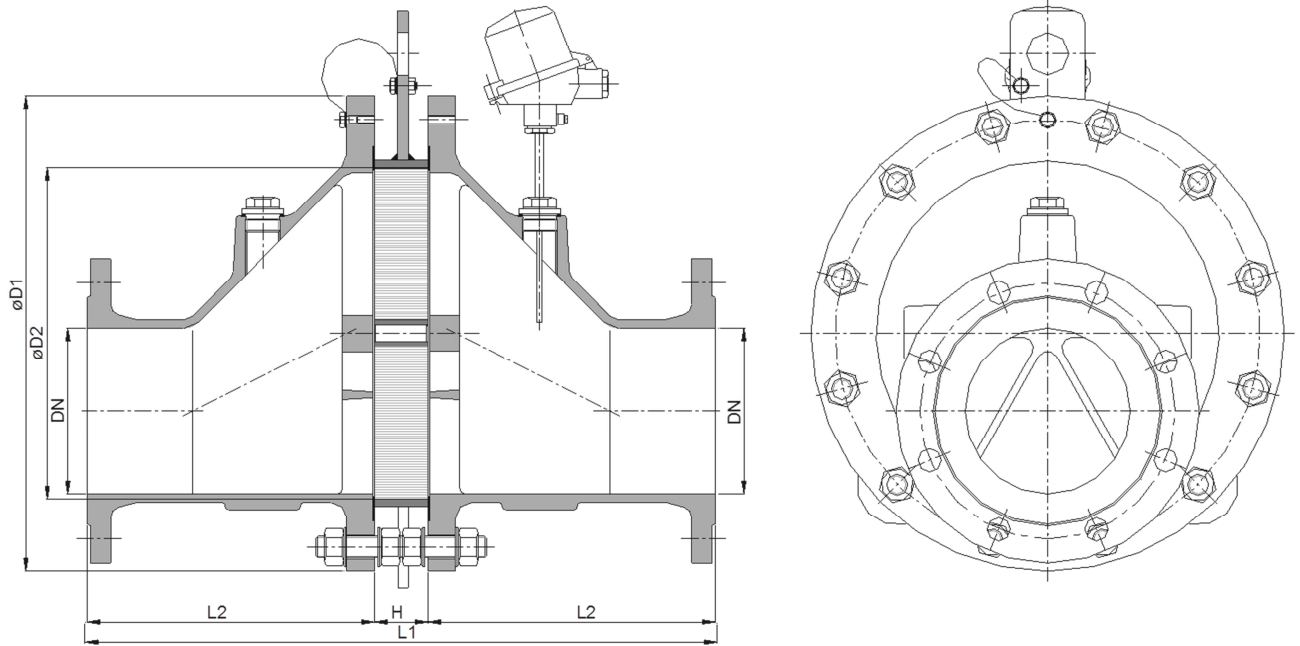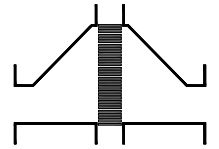# Bi-directional deflagration flame arrester
KITO® EFA-Def0-IIA-…/…-X16
KITO® EFA-Def0-IIA-…/…-X16-T (-TT)

Type examination certificate to EN ISO 16852
C€ -*designation in accordance to ATEX-Guideline 94/9/EC*

NG	DN	ANSI	D1	D2	L1	H	L2	kg*
65	**25 PN 40**	1"	155	70	290	50	120	11
	32 PN 40	1 ¼"						12
100	**40 PN 40**	1 ½"	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 ½"						42
	80 PN 16	3"						44
200	**80 PN 16**	3"	340	206	450	50	200	
	100 PN 16	4"						
300	**100 PN 16**	4"	445	308	590	50	270	
	125 PN 16	5"						
	150 PN 16	6"						110

Dimensions in mm   * weight refers to the standard design

Design subject to change   performance curves: H 0.37 N


<u>Standard design</u>

housing	: <u>cast steel 1.0619</u>, stainless cast steel 1.4408
gasket	: <u>HD 3822</u>, PTFE
KITO® flame arrester element	: completely interchangeable
KITO® casing	: <u>galvanized steel</u>, stainless steel mat. no. 1.4571, 1.4581
KITO® grid	: stainless steel mat. no. <u>1.4310</u>, 1.4571,
bolts/nuts	: <u>galvanized steel</u>, SS
temperature sensor	: PT 100 (option); connection 3/8"
flange connection	: <u>DIN EN 1092-1 form B1</u>, ANSI 150 lbs. RF

Example to order:
KITO® EFA-Def0-IIA-100/40-X16-T
(design with thermo couple element)

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 IIA with a maximum experimental safe gap (MESG) > 0.9 mm.
Bi-directionally working in pipes, whereby an operating pressure of 1.1 bar abs. and an operating temperature of **160°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 equiped 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.
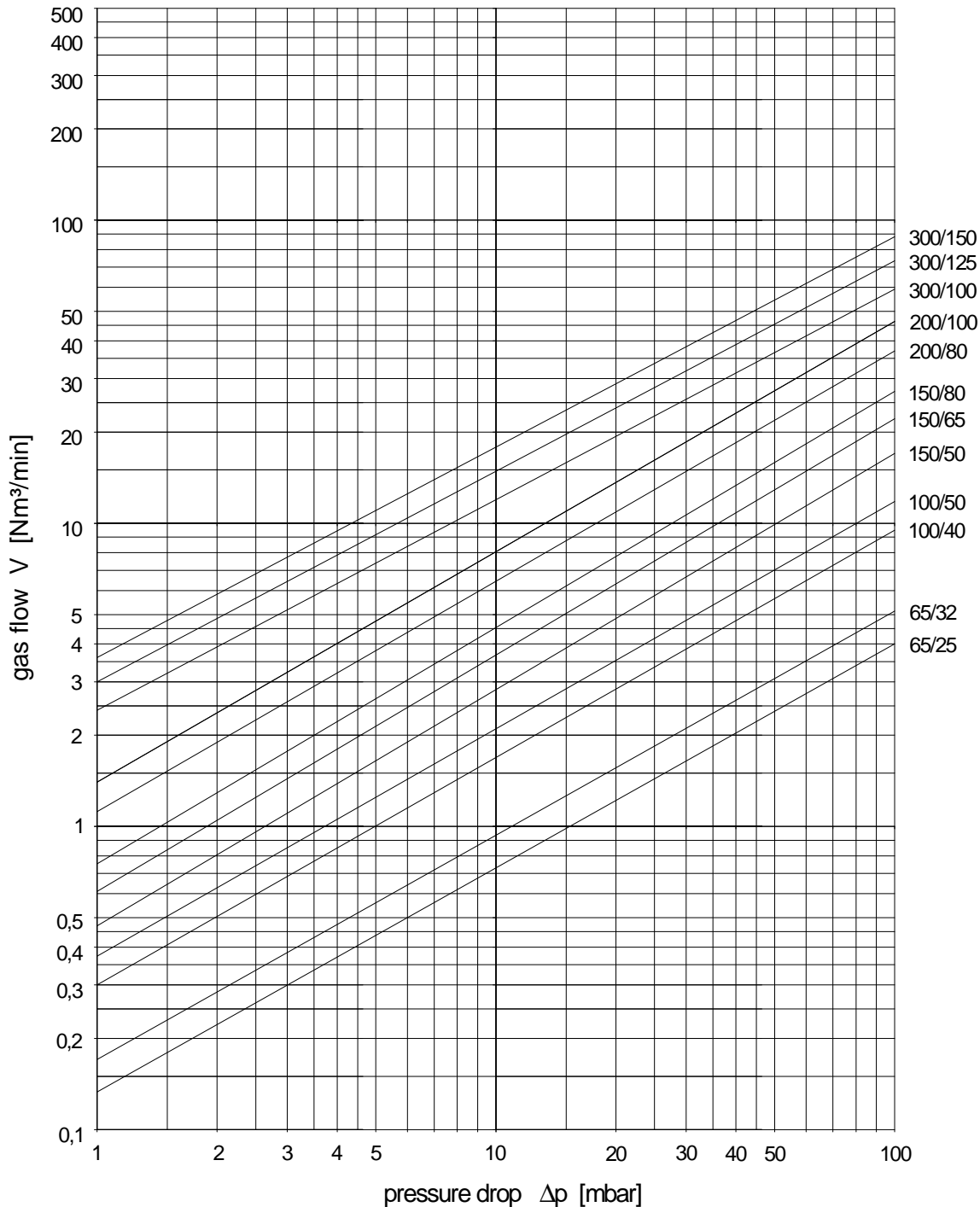If only one temperature sensor, then it is to be placed on the device side where a burning could be expected.
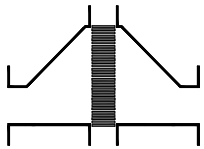
The flow capacity V refers to a density of air with ρ = 1.29 kg/m³ at T = 273 K and a pressure of p = 1.013 mbar

The flow capacity for gases with different densities can be calculated sufficiently accurate by the following approximation equation:

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

Design subject to change