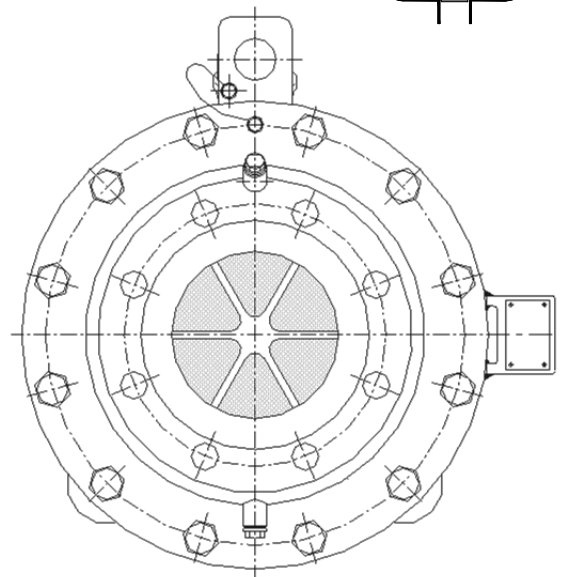
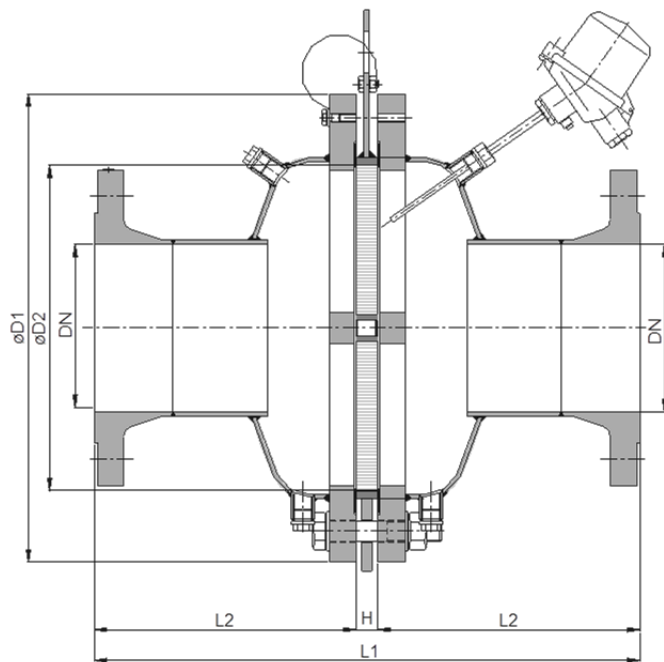
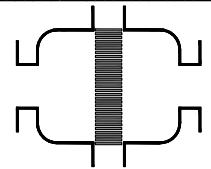


# Bi-directional deflagration flame arrester

KITO® CFA-Def0-I-.../...-1.2

KITO® CFA-Def0-I-.../...-1.2-T (-TT)



Type examination certificate to EN ISO 16852

(€ -designation in accordance to ATEX-Guideline 94/9/EC

NG	DN	ANSI	D1	D2	L1**	H	L2	kg*
150	50 PN 16	2"	285	159	280	20	130	30
	65 PN 16	2 1/2"						30
	80 PN 16	3"						32
200	80 PN 16	3"	340	206	330	20	155	44
	100 PN 16	4"						45
300	100 PN 16	4"	445	308	520	20	250	66
	125 PN 16	5"						73
	150 PN 16	6"						83
400	150 PN 16	6"	565	388	620	20	300	117
	200 PN 10	8"						124
500	200 PN 10	8"	670	485	780	20	380	168
	250 PN 10	10"						176
600	250 PN 10	10"	780	584	920	20	450	244
	300 PN 10	12"						249
800	350 PN 10	14"	1015	815	947	47	450	
	400 PN 10	16"						

Dimensions in mm

\* weights refer to the standard design

\*\* L1 maximum length, shorter dimension on request



Design subject to change

performance curves: H 0.33.1 N

### Standard design

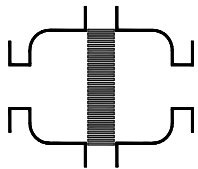
housing : steel, stainless steel mat. no. 1.4571  
 gasket : HD 3822, PTFE  
 KITO® flame arrester element : completely interchangeable  
 KITO® casing : steel (galvanized to NG 400), stainless steel mat. no. 1.4571, 1.4581  
 KITO® grid : stainless steel mat. no. 1.4310, 1.4571  
 bolts/nuts : galvanized steel, SS  
 temperature sensor : PT 100 (option); connection 3/8"  
 flange connection : DIN EN 1092-1 form B1, ANSI 150 lbs. RF

### 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) ≥ 1.14 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. 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.

Example for orders:

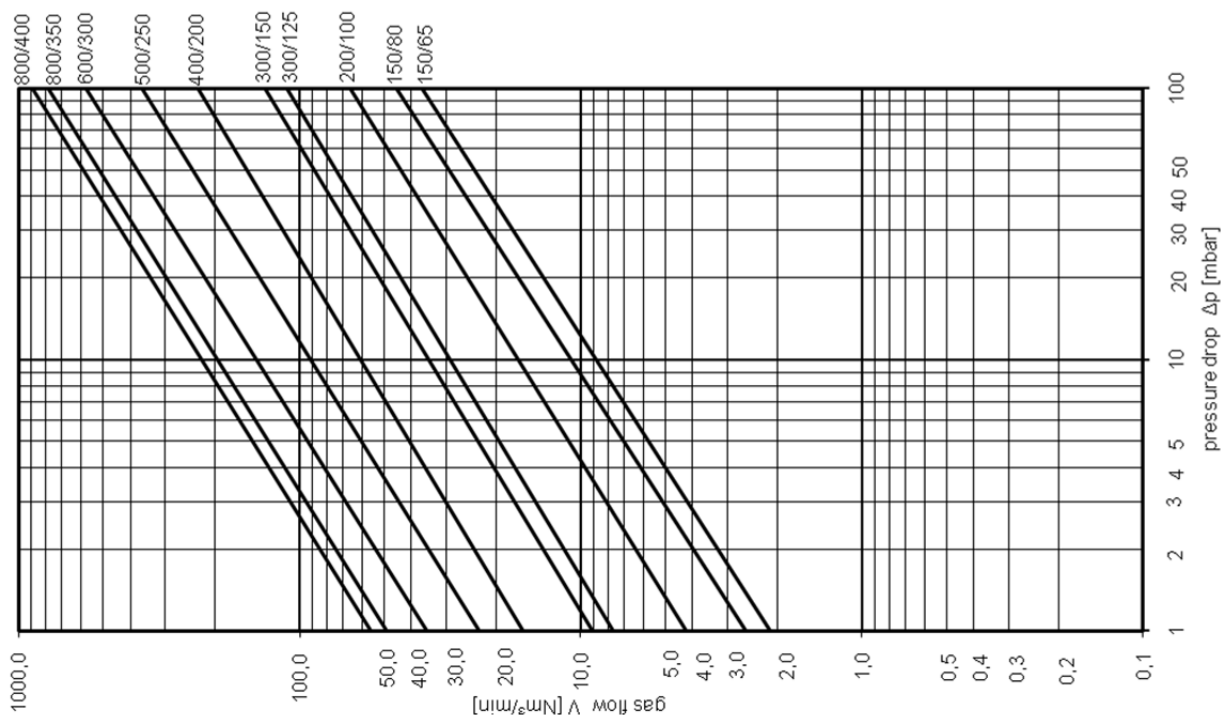
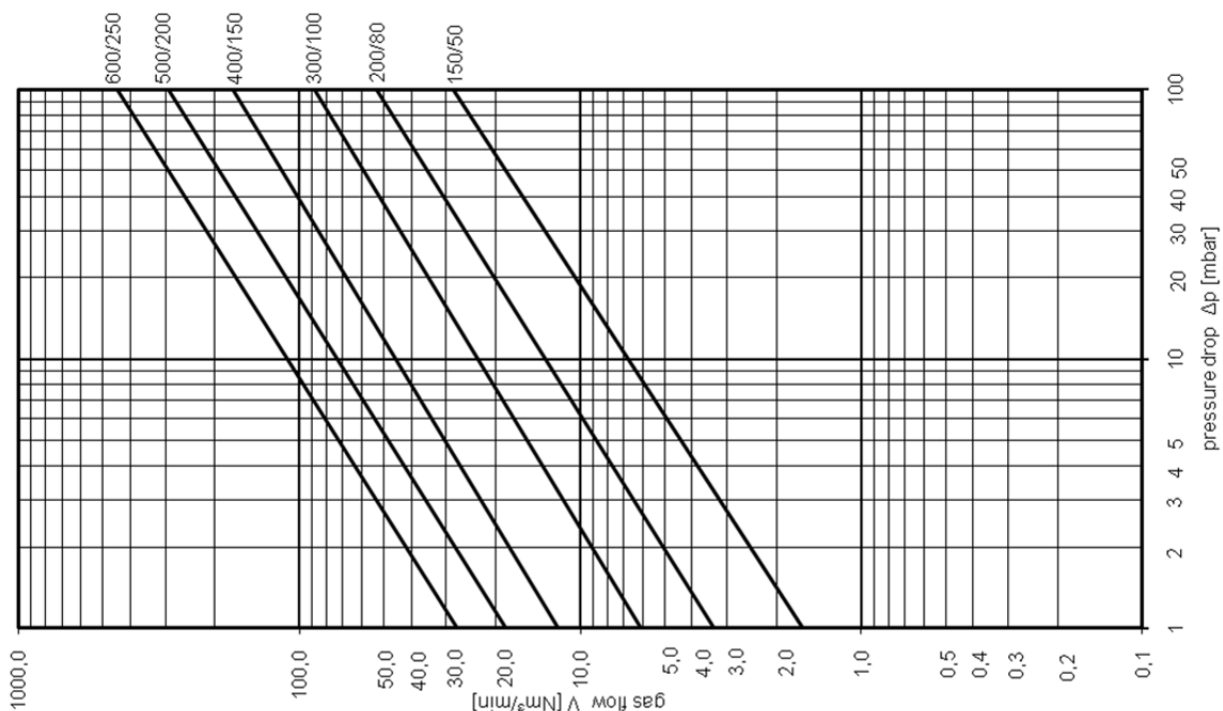
**KITO® CFA-Def0-I-150/50-1.2-T**  
 (design with thermo couple element)



**Bi-directional deflagration flame arrester**  
**KITO® CFA-Def0-I-.../...-1.2**  
**KITO® CFA-Def0-I-.../...-1.2-T (-TT)**  
**H 33.1**

The flow capacity  $V$  refers to a density of air with  $\rho = 1.29 \text{ kg/m}^3$  at  $T = 273 \text{ K}$  and a pressure of  $p = 1.013 \text{ mbar}$ . The flow capacity for gases with different densities can be calculated sufficiently accurate by the following approximation equation:

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

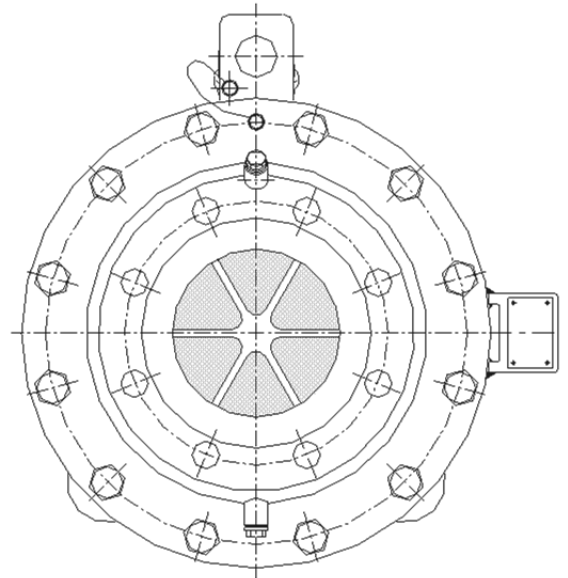
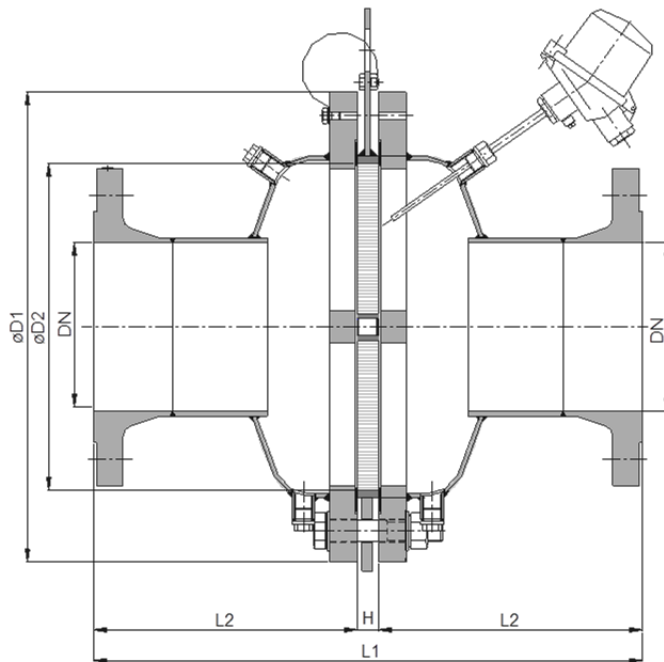
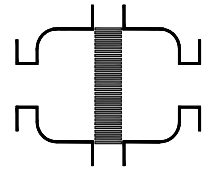


Design subject to change

# Bi-directional deflagration flame arrester

KITO® CFA-Def0-IIA-.../...-1.2

KITO® CFA-Def0-IIA-.../...-1.2-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*
150	50 PN 16	2"	285	159	280	20	130	30
	65 PN 16	2 ½"						30
	80 PN 16	3"						32
200	80 PN 16	3"	340	206	330	20	155	44
	100 PN 16	4"						46
300	100 PN 16	4"	445	308	520	20	250	67
	125 PN 16	5"						75
	150 PN 16	6"						78
400	150 PN 16	6"	565	388	620	20	300	118
	200 PN 10	8"						126
500	200 PN 10	8"	670	485	780	20	380	171
	250 PN 10	10"						180
600	250 PN 10	10"	780	584	920	20	450	249
	300 PN 10	12"						254
800	350 PN 10	14"	1015	815	947	47	450	
	400 PN 10	16"						

Dimensions in mm

\* weight refers to the standard design

\*\* L1 maximum length, shorter dimension on request



Design subject to change

performance curves: H 0.35.1 N

### Standard design

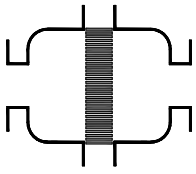
- housing : steel, stainless steel mat. no. 1.4571
- gasket : HD 3822, PTFE
- KITO® flame arrester element : completely interchangeable
- KITO® casing : steel (galvanized to NG 400), stainless steel mat. no. 1.4571, 1.4581
- KITO® grid : stainless steel mat. no. 1.4310, 1.4571
- bolts/nuts : galvanized steel, SS
- temperature sensor : PT 100 (option); connection 3/8"
- flange connection : DIN EN 1092-1 form B1, ANSI 150 lbs. RF

### 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 1.2 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.

Example to order :

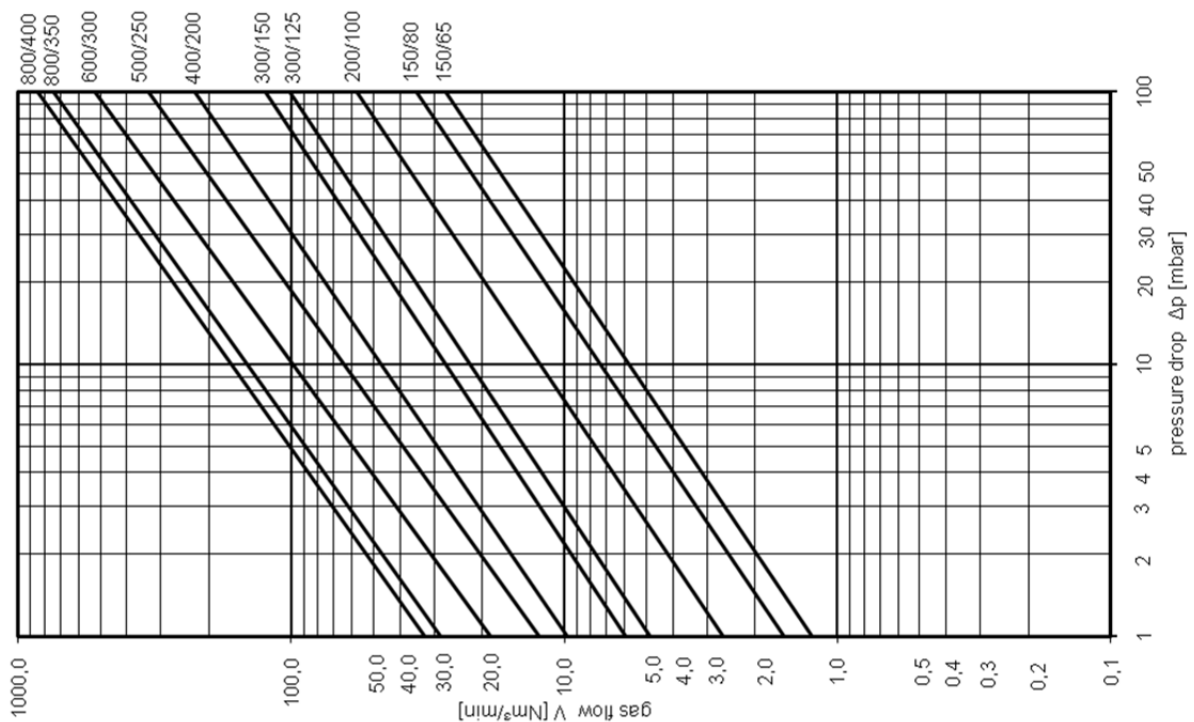
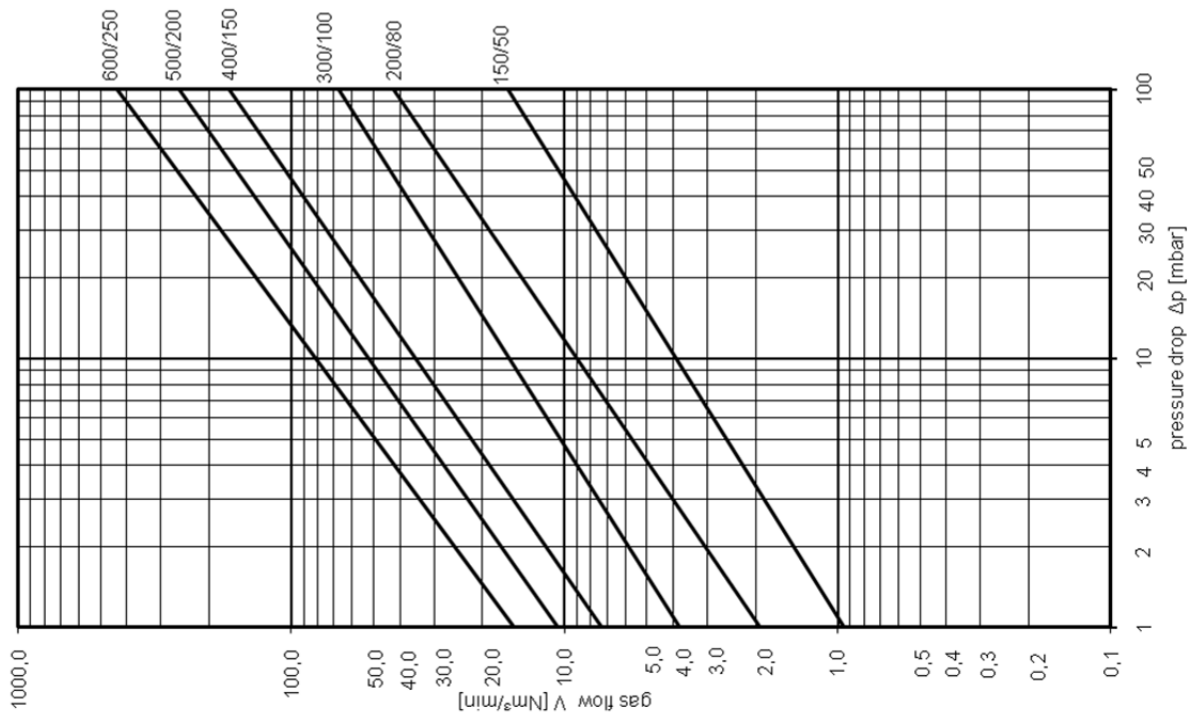
**KITO® CFA-Def0-IIA-150/50-1.2-T**  
 (design with thermo couple element)



**Bi-directional deflagration flame arrester**  
**KITO® CFA-Def0-IIA-.../...-1.2**  
**KITO® CFA-Def0-IIA-.../...-1.2-T (-TT)**  
**H 35.1 N**

The flow capacity  $V$  refers to a density of air with  $\rho = 1.29 \text{ kg/m}^3$  at  $T = 273 \text{ K}$  and a pressure of  $p = 1.013 \text{ mbar}$ . The flow capacity for gases with different densities can be calculated sufficiently accurate by the following approximation equation:

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

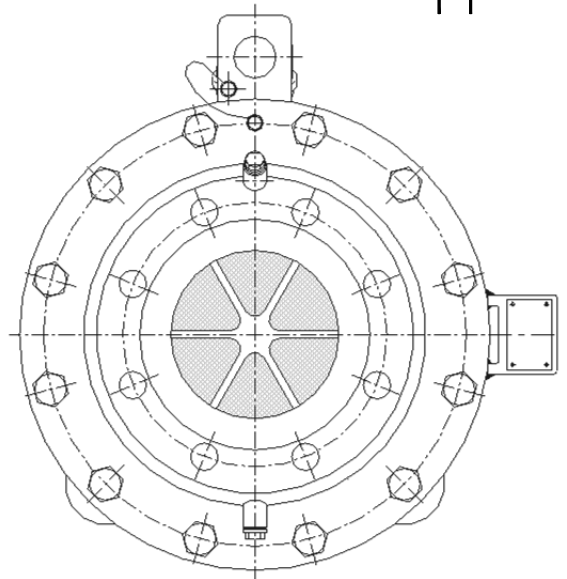
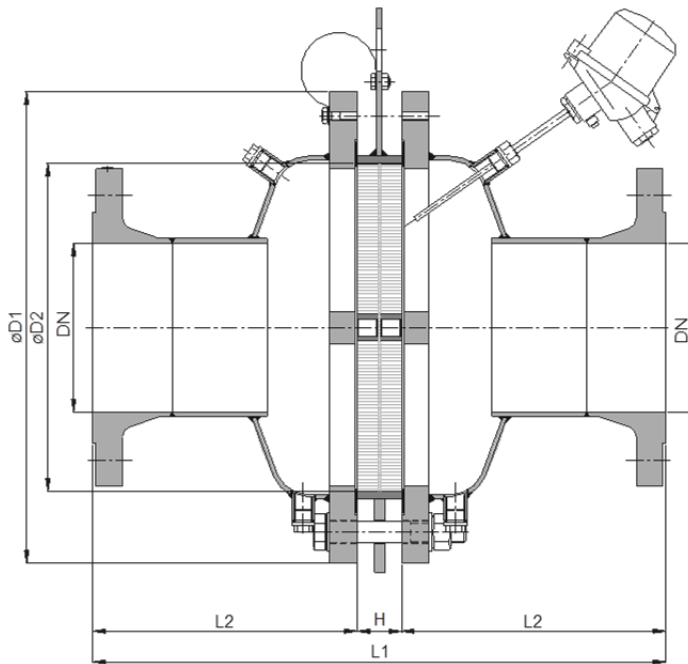
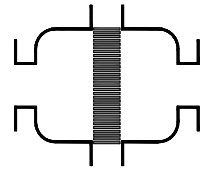


Design subject to change

# Bi-directional deflagration flame arrester

KITO® CFA-Def0-IIB3-.../...-1.2

KITO® CFA-Def0-IIB3-.../...-1.2-T (-TT)



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

NG	DN	ANSI	D1	D2	L1**	H	L2	kg*
150	50 PN 16	2"	285	159	302	42	130	33
	65 PN 16	2 1/2"						34
	80 PN 16	3"						35
200	80 PN 16	3"	340	206	352	42	155	47
	100 PN 16	4"						49
300	100 PN 16	4"	445	308	542	42	250	81
	125 PN 16	5"						88
	150 PN 16	6"						91
400	150 PN 16	6"	565	388	642	42	300	127
	200 PN 10	8"						134
500	200 PN 10	8"	670	485	802	42	380	187
	250 PN 10	10"						196
600	250 PN 10	10"	780	584	942	42	450	276
	300 PN 10	12"						281
800	350 PN 10	14"	1015	815	1010	110	450	
	400 PN 10	16"						



Dimensions in mm

\* weight refers to the standard design

\*\* L1 maximum length, shorter dimension on request

Design subject to change

performance curves: H 0.39.1 N

### Standard design

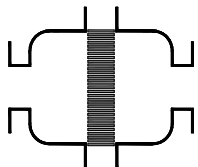
housing : steel, stainless steel mat. no. 1.4571  
 gasket : HD 3822, PTFE  
 KITO® flame arrester element : completely interchangeable  
 KITO® casing : steel (galvanized to NG 400), stainless steel mat. no. 1.4571, 1.4581  
 KITO® grid : stainless steel mat. no. 1.4310, 1.4571  
 bolts/nuts : galvanized steel, SS  
 temperature sensor : PT 100 (option); connection 3/8"  
 flange connection : DIN EN 1092-1 form B1, ANSI 150 lbs. RF

### Application

For installation into pipes to the protection of containers and components against deflagration of flammable liquids and gases. Approved for all substances of explosion groups IIA1 to IIB3 with a maximum experimental safe gap (MESG) ≥ 0.65 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. 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.

Example to order :

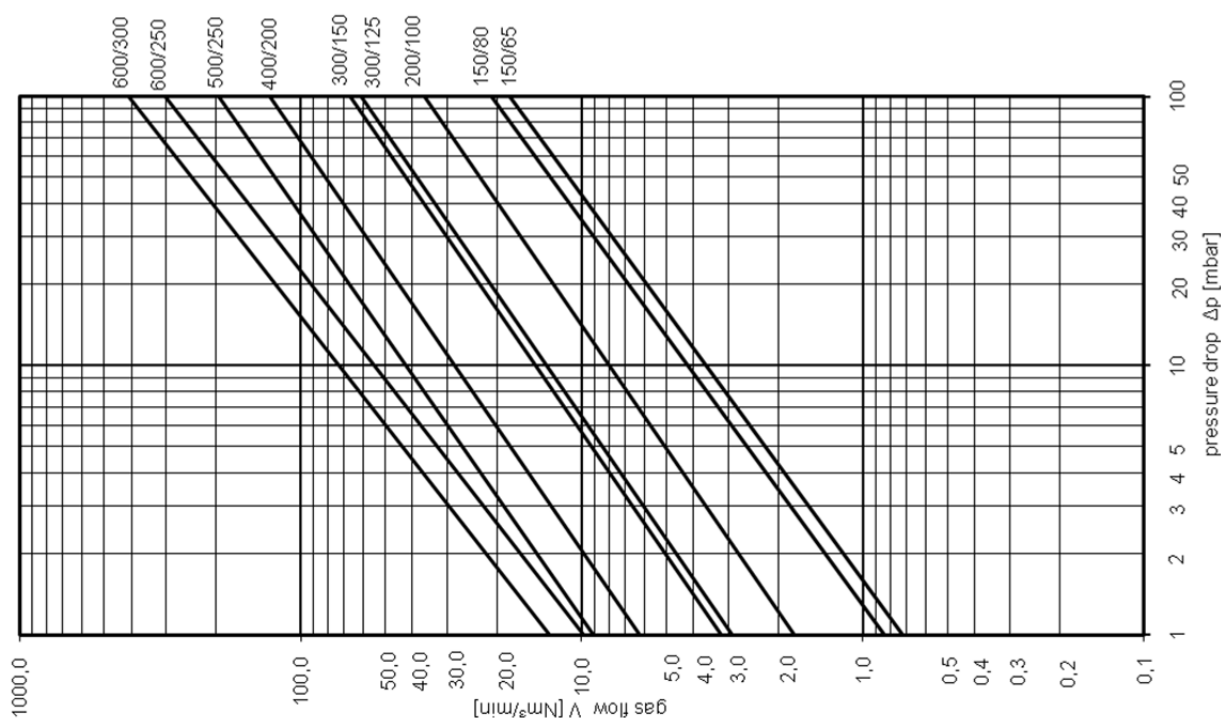
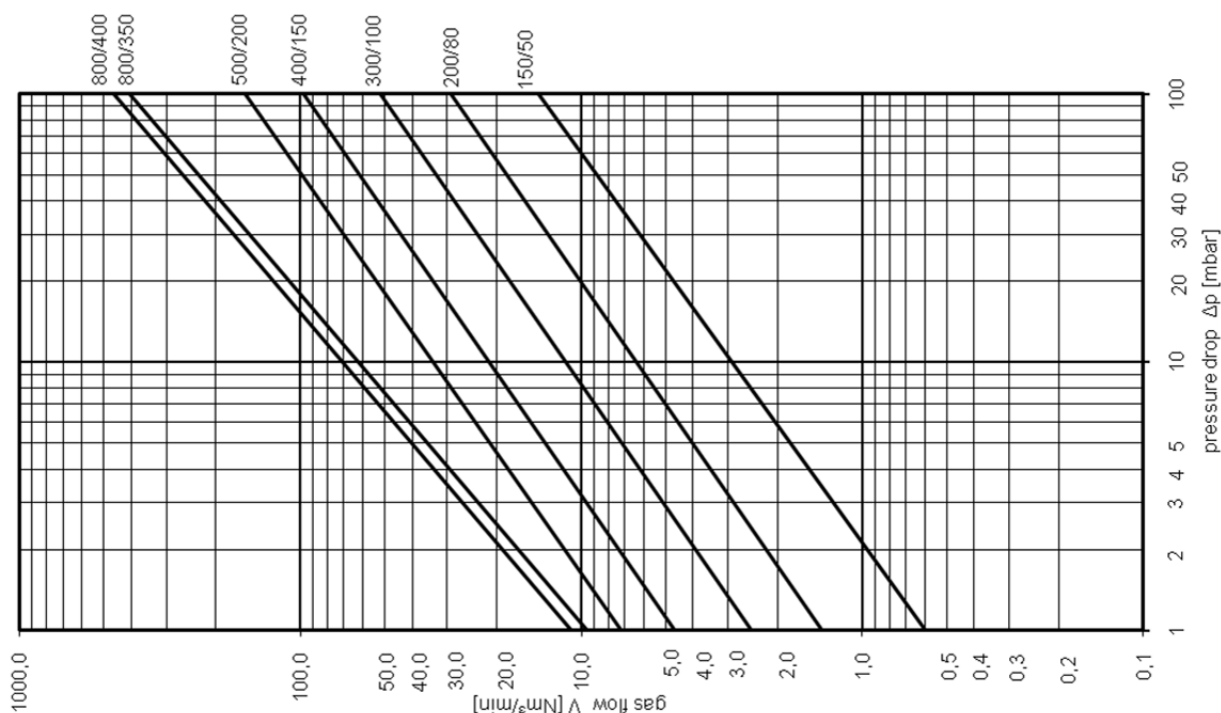
**KITO® CFA-Def0-IIB3-150/50-1.2-T**  
 (design with thermo couple element)



**Bi-directional deflagration flame arrester**  
**KITO® CFA-Def0-IIB3-.../...-1.2**  
**KITO® CFA-Def0-IIB3-.../...-1.2-T (-TT)**  
**H 39.1 N**

The flow capacity  $V$  refers to a density of air with  $\rho = 1.29 \text{ kg/m}^3$  at  $T = 273 \text{ K}$  and a pressure of  $p = 1.013 \text{ mbar}$ .  
 The flow capacity for gases with different densities can be calculated sufficiently accurate by the following approximation equation:

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



Design subject to change