Flamonitec®
BFI AUTOMATION

Product Information
FLAME SCANNER 7.0

Flamonitec
BFI AUTOMATION
www.flamonitec-bfi.com

Typ: 7.0
S/N: 1042579

II3G Ex ec nC IIC T4 Cc
II3G Ex tc IIIC T100°C Dc

IEC Ex TUR 15.0029X
TÜV 15 ATEX 7682 X

CE
008522

2022

-40 - +85°C
24VDC
200mA

Made in
Germany

Do not open while energized
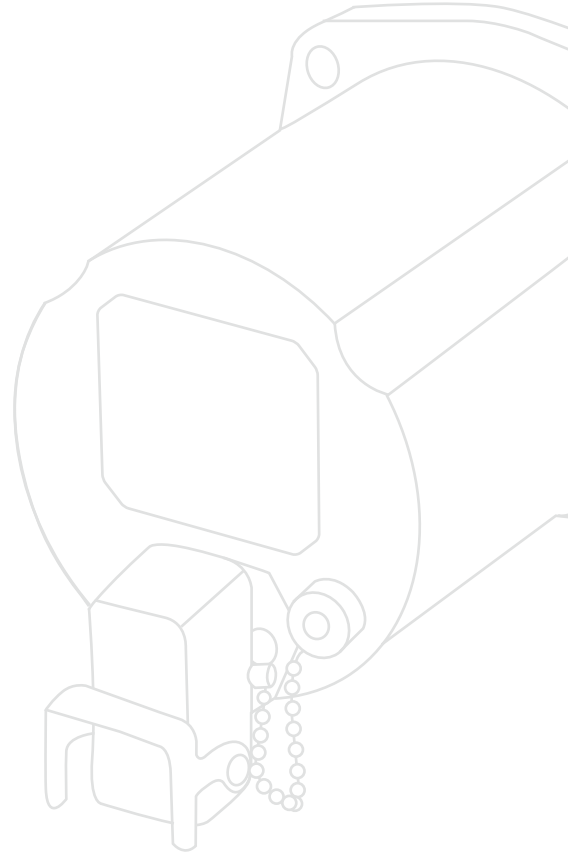
- **failsafe design**
- **suitable for continuous operation**
- **use at ambient temperatures from -40 °C to +85 °C**
- **approved according to international standards**
- **protection class IP 65/IP66**
- **IECEx-certified**
- **CSA-certified**

1 | Design

The Flame Scanner 7.0 forms a complete flame monitoring system in combination with a flame amplifier of the 3000 series. The flame monitoring and evaluation system 3000 was developed under the aspects of safety and optimal availability of customer plants.
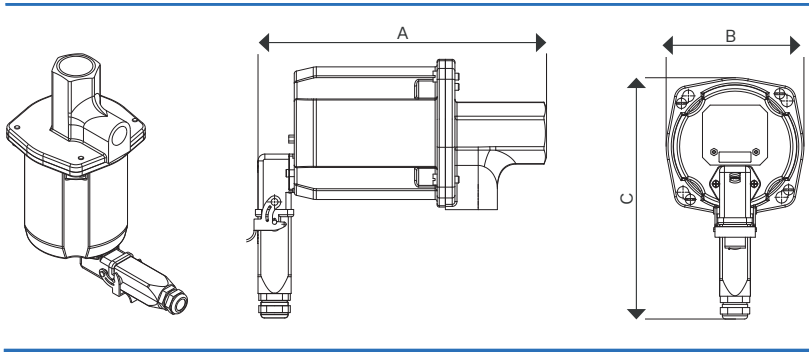
Our goals are to monitor flames in main reaction furnaces and incinerators of SRU plants safely and reliably, to provide criteria for optimizing the incineration process and to reduce pollutant emissions. The system is able to distinguish a residue combustion such as H_2S, blast furnace gas or waste gases.
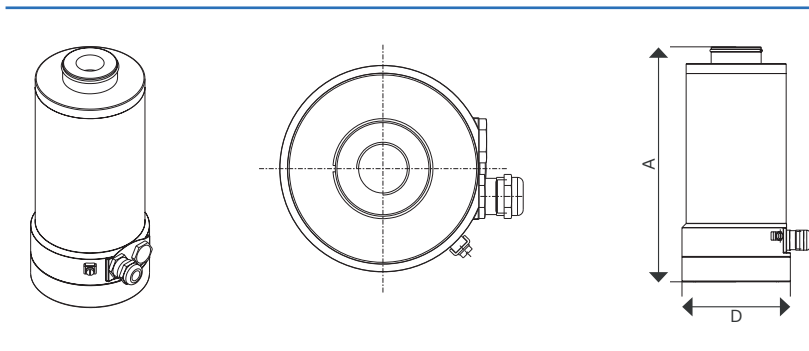
2 | Customer benefits and usage

- self monitoring to control fault free function
- detection of H_2S and fuel gas flames in claus processes
- immune to steam injection
- monitoring of residual combustions
- sensitivity of the thermosensor adjustable via potentiometer
- fully electronic design
- thermo couple sensors
- temperature difference method

3 | Housing versions

The Flame Scanner 7.0 is available in two housing variants for direct installation on the burner.

ATEX Zone 2	
Standard housing	
Length A:	235 mm
Width B:	108 mm
Height C:	190 mm
Weight:	1.5 kg
IECEx TUR 15.0029X	

ATEX Zone 1	
Ex-housing	
Length A:	290 mm
Diameter D:	130 mm
Weight:	5.0 kg
IECEx EPS 14.0042X	

4 | Technical data

Spectral sensitivities	IR (1050 nm to 2700 nm)
Power supply	24 V DC
Current consumption	max. 200 mA each Flame Scanner
Self checking	fully electronic, once per second
Angle of view	2.7°
Sight port connection	G 1" female thread
Purge air connection	G 1/2" female thread

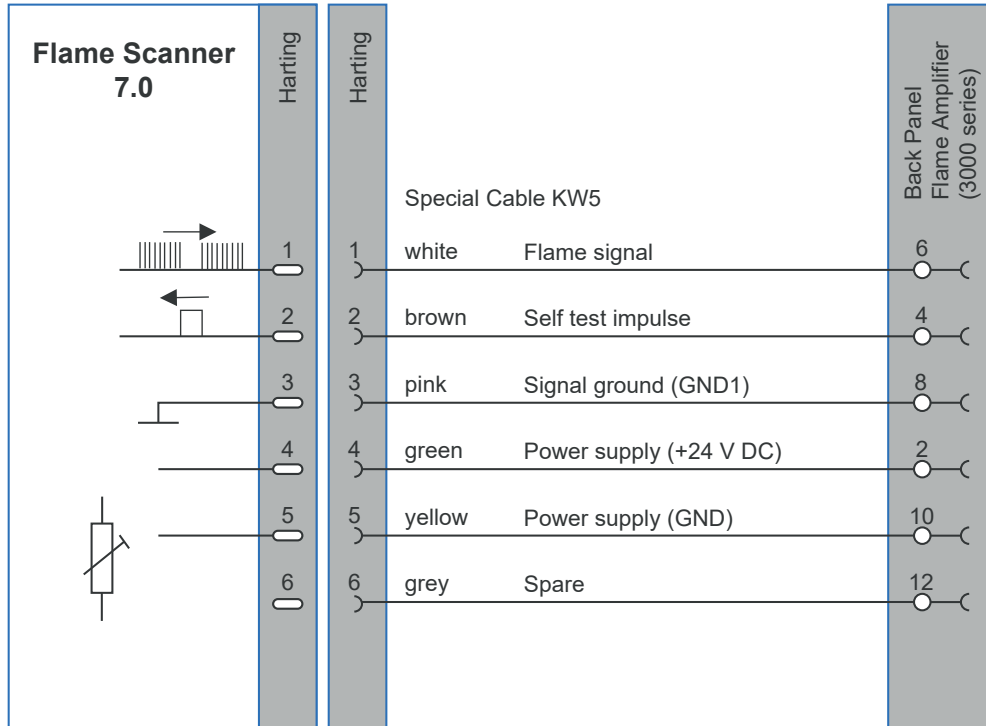**ATEX Zone 1**

ATEX Marking	II 2G Ex db eb IIC T6 Gb II 2D Ex tb IIIC T80°C Db
Ambient temperature	-20 °C to +70 °C
Type of protection	IP66

ATEX Zone 2

ATEX Marking	II 3G Ex ec IIC T4 Gc II 3D Ex tc IIIC T100°C Dc
Ambient temperature	-40 °C to +85 °C
Type of protection	IP65

5 | Connection diagram

Flame Scanner 7.0	Harting	Harting	Special Cable KW5			Back Panel Flame Amplifier (3000 series)
	1	1	white	Flame signal		6
	2	2	brown	Self test impulse		4
	3	3	pink	Signal ground (GND1)		8
	4	4	green	Power supply (+24 V DC)		2
	5	5	yellow	Power supply (GND)		10
	6	6	grey	Spare		12

Further connection diagrams with special configurations (e.g. heating) available on request.

6 | Part numbers

Type	Part numbers
Flame Scanner 7.0	6010-7031-00
Flame Scanner 7.0 Ex	7010-7032-00

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