BFI Automation

Product Information

FLAME SCANNER TYPE 7

7.0 / 7.0/2 / 7.1 (EX)

- **failsafe design**
- **suitable for continuous operation**
- **use at ambient temperatures from -40 °C to +70 °C**
- **approved according to international standards**
- **protection class IP 65/IP66**
- **IECEx-certified**

1 | Design

The Flame Scanner Type 3 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.

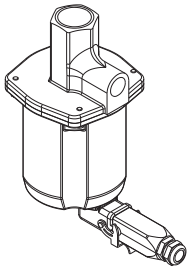
Our goals are to monitor incinerators safely and reliably, to provide criteria for optimizing the incineration process and to reduce pollutant emissions. The system is able to safely monitor the flames of residue combustion such as H_2S, blast furnace gas or waste gases.

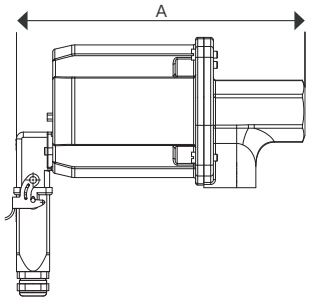
2 | Customer benefits and usage

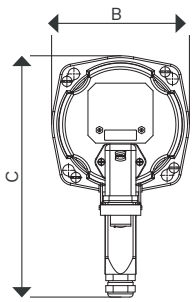
- Self-control to verify flawless function of the device
- Temperature difference method
- Monitoring of residual combustions
- Thermo couple sensors
- Fully electronic construction
- Spectral analyzing process
- Tested by the German Technical Inspection Association TÜV
- IECEx certified
- SIl 2

3 | Housing versions

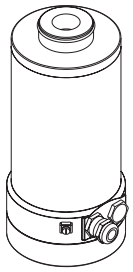
The Flame Scanner Type 7 is available in different housings for ATEX Zone 1 and 2.

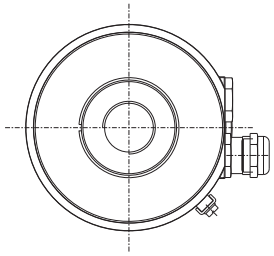


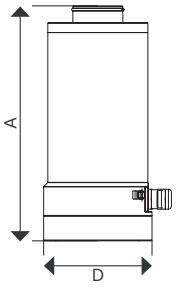




ATEX Zone 2	
Standard housing	
Length A:	235 mm
Width B:	108 mm
Height C:	190 mm
Weight:	1.5 kg
Type:	7.x







ATEX Zone 1	
Ex-de-housing	
Length A:	290 mm
Ø D:	130 mm
Weight:	5 kg
Type:	7.xEX

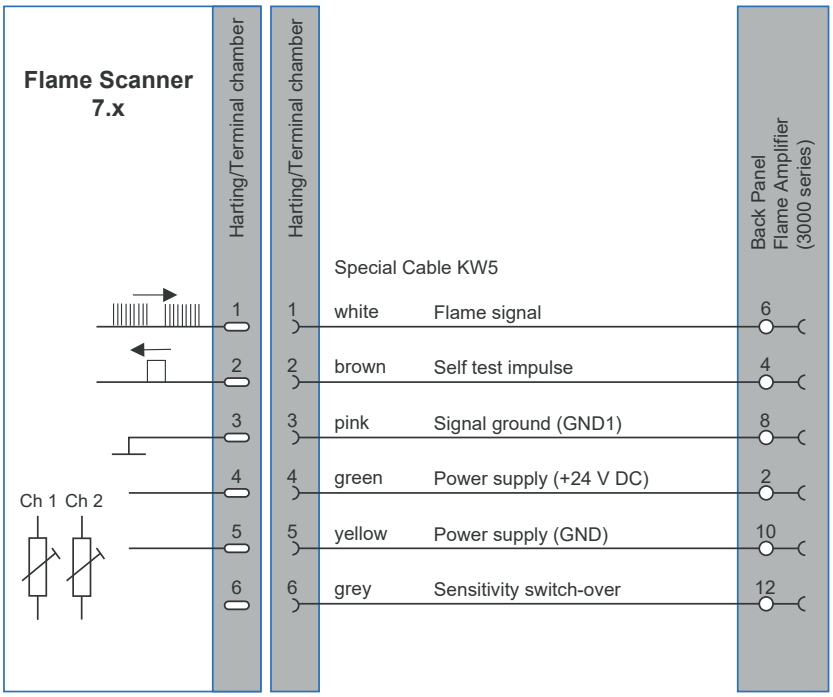
4 | Technical data

Spectral sensitivity With special lens	1050 nm bis 2700 nm 1050 nm bis 7000 nm
Angle of view With aperture	2,7° 1°, 2° or 2,7°
Self checking	fully electronic, once per second
Power supply	24 VDC
Current consumption Including heating	max. 200 mA max. 700 mA
Ambient temperature Standard housing (not EAC approved) Ex-de-housing (EAC approved)	 -20 °C to +70 °C -40 °C to +60 °C
Electrical connection Standard housing Ex-de-housing	 dustproof plug-type connector terminal blocks
Type of protection Standard housing Ex-de-housing	 IP 65 IP 66
Cable length	max. 400 m
Sight port connection	1“ female thread
Purge air Connection Volume Pressure	 ½“ female thread 10 m³/h 0,02 bar over combustion chamber internal pressure
CE	CE0063
IECEx Zone 1 Ex-de-housing Zone 2 Standard housing	 IECEx EPS 14.0042X IECEx TUR 15.0029X
ATEX Zone 1 Ex-de-housing Zone 2 Standard housing	 EPS 14 ATEX 1 696 X TÜV 15 ATEX 7682 X
EAC Zone 1 Ex-de-housing Zone 2 Standard housing	 EAЭC RU-DE.BH02.B.00177/19 TC RU C-DE.ИМ43.B.00536

5 | Connection diagram

When using a heater, our KW6 cable must be used. The connection diagram is extended by terminals 7 and 8.

7 - Power supply (+24 V DC) blue
8 - Power supply (GND) red



BFI Automation

BFI Automation GmbH
Ruegenstr. 7
42579 Heiligenhaus . Germany
T +49 2056 989 46-0
info@bfi-automation.de
www.bfi-automation.com