

# Product Information

## FLAME SCANNER

## COMPACT VERSION 200

200 (UV/UV1/IR/IR3)(EX)



- **compact design**
- **failsafe design**
- **suitable for continuous operation, intermittent and 72-hours operation**
- **use at ambient temperatures\* from -55 °C to +85 °C**  
(optional fiber optic insert up to 300/600 °C)
- **visualization for flame relay and flame intensity on the device by LED**
- **approved according to international standards**

## 1 | Design

The Flame Scanner Compact Version CFC200 is a complete, optical flame monitor for single and multi-burner systems. Its compact design integrates the flame relay and analog output and provides the binary signal „Flame ON/OFF“ as well as the analog signal „0/4 mA to 20 mA“ directly. It is suitable for continuous operation due to its fail-safe design and electronic self-monitoring.

The flame radiation is detected via a sensor and evaluated electronically. The small angle of view offers significant advantages, especially for sight tubes with small diameters and extraneous light discrimination.

Due to the specified ambient temperature range\* from -55 °C to +85 °C, the Compact Flame Controller CFC200 can be used for many industrial applications.

The Fibre Optic Cable extends the operating temperature range at the burner to +300 °C without cooling. Fibre optic lances with cooling achieve a temperature resistance of up to +600 °C and are designed for use inside the burner.

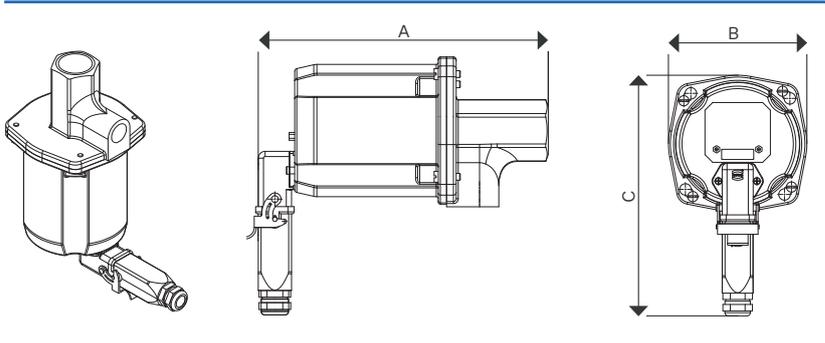
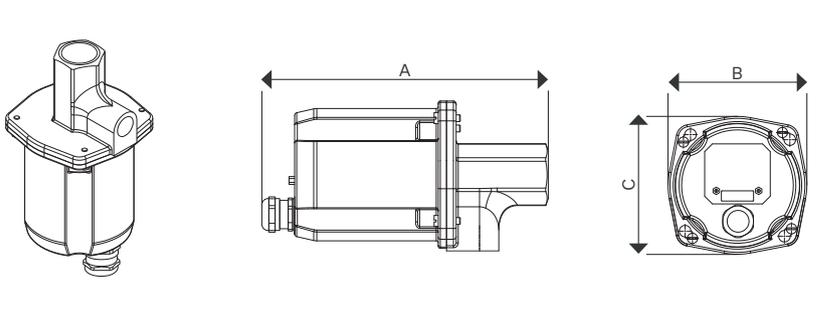
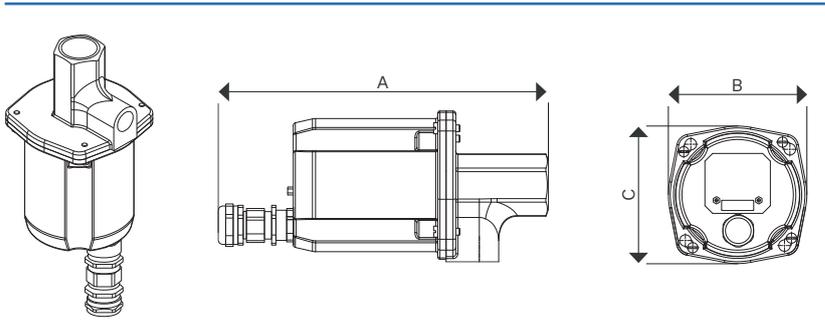
\* for the specified temperature ranges heaters may be necessary.

## 2 | Customer benefits and usage

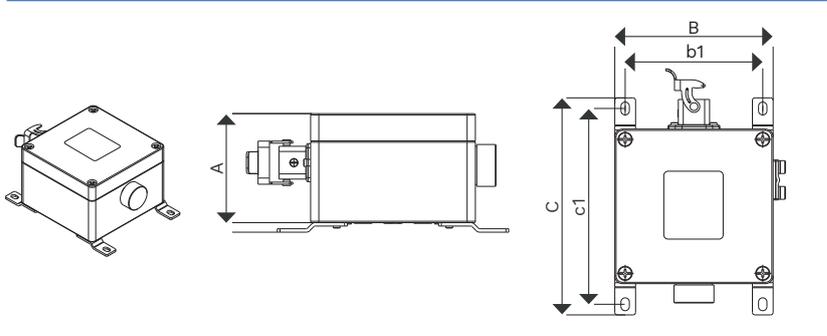
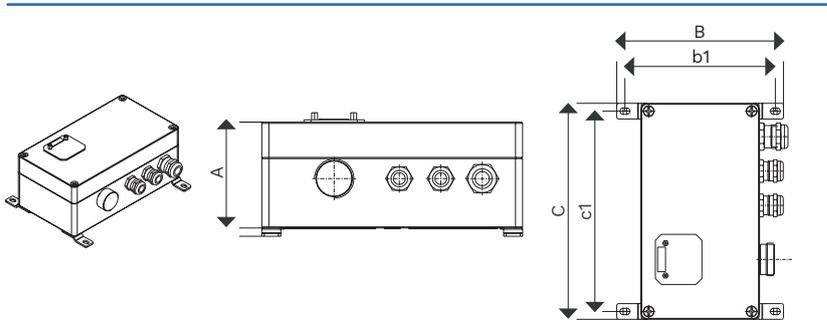
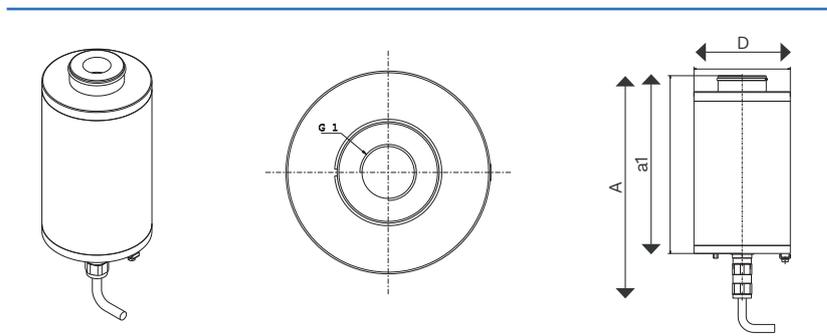
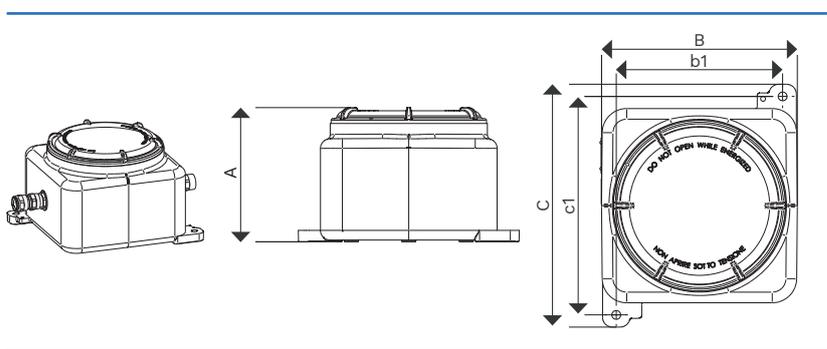
- ideally suited for use in single or multi-burner applications
- compact design reduces installation efforts and spare parts storage
- suitable for all types of fuel
- large dynamic range of the sensors enables flame monitoring of very small and very large radiation intensities

## 3 | Housing versions

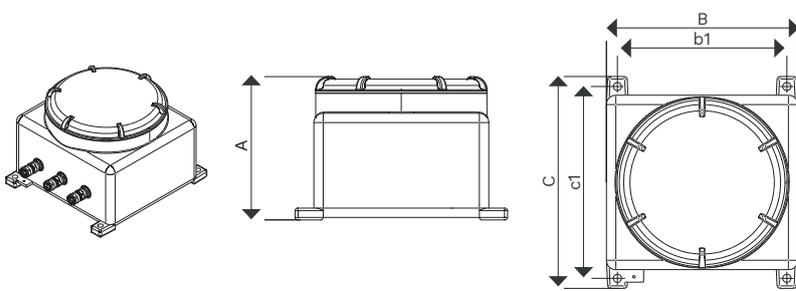
The Flame Scanner Compact Version 200 is available in different housings for ATEX Zone 1 and 2.

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### 3 | Housing versions

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<b>ATEX Zone 1</b>	
<b>Ex-d-housing (GUB03)</b>	
Length A:	231 mm
Width B/b1:	305/270 mm
Height C/c1:	336/308 mm
Weight:	15 kg
Type:	200 EX

### 4 | Technical data

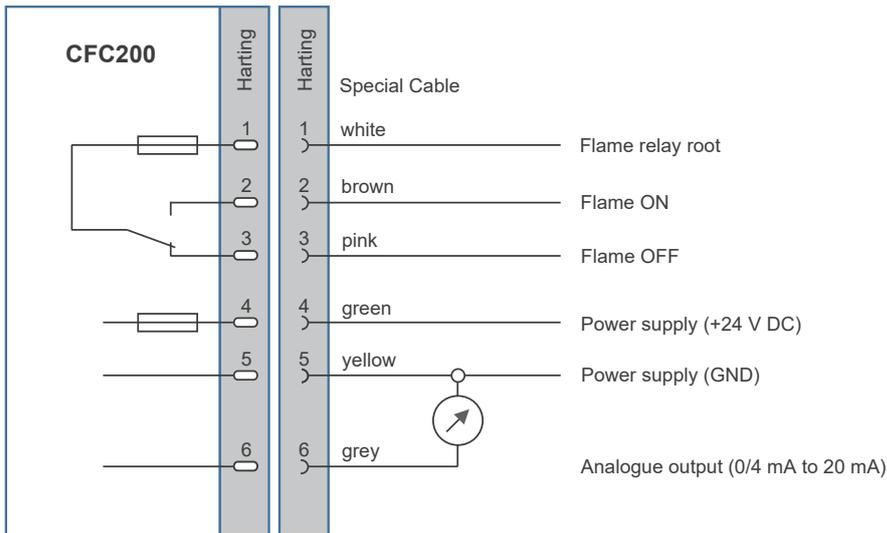
Spectral sensitivity UV1 UV IR IR3	190 nm to 550 nm 280 nm to 420 nm 300 nm to 1050 nm 1050 nm to 2700 nm
Angle of view Standard/Ex-d-housing OE-Converter housing/ Ex-d-housing (GUB)	1°, 2° or 2,7° 2,7° by sensor head
Self checking	fully electronic, once per 700 ms
Power supply	24 V DC SELV
Current consumption	max. 200 mA
Prefuse	max. 0,5 A, slow
Design	according to protection class III SELV
Current output	0/4...20 mA, Ra < 250 Ω current window variable by jumpers
Flame relay	1 changeover contact, potential-free max. 48 V switching voltage max. 1 A switching current (fused with 0,5 A) max. 30 W switching power
Safety switch-off time	1 ... 5 s, set at factory to 1 s (2 - 5 s available on request)

## 4 | Technical data

Ambient temperature	
OE-housing (IECEX) (IR, IR3)	-20 °C to +70 °C
Ex-d-housing (GUB) (incl. heating, IECEX)	-40 °C to +85 °C
Standard-housing (IR, IR3)	-40 °C to +85 °C
Standard-housing (UV, UV1)	-55 °C to +85 °C
OE-housing (EAC) (UV, UV1)	-55 °C to +70 °C
Electrical connection	
Standard/OE-Converter housing	dustproof plug-type connector
Ex-d-housing	permanently connected cable
Ex-d-housing (GUB)	terminal blocks
Type of protection	
OE-Converter-/Ex-d-housing/	IP 66
Ex-d-housing (GUB)	
Standard housing	IP 65
Sight port connection	
Standard/Ex-d-housing	1" female thread
OE-Converter-/Ex-d-housing (GUB)	depending on SKL
Purge air	
Connection	½" female thread
Volume	10 m³/h
Pressure	0,02 bar over combustion chamber internal pressure
CE	CE0063
IECEX	
Zone 1	
Ex-d-housing	IECEX EPS 14.0042X
Ex-d-housing (GUB)	IECEX INE 13.0069X
Zone 2	
Standard/OE-housing	IECEX TUR 15.0029X
ATEX	
Zone 1	
Ex-d-housing	EPS 14 ATEX 1 696 X
Ex-d-housing (GUB)	INERIS 13ATEX0021X
Zone 2	
Standard/OE-housing	TÜV 15 ATEX 7682 X

## 5 | Connection diagram

Connection of CFC without special configuration:





# BFI Automation

All data are without guarantee and refer to the product group. Product-specific information is contained in the operating instructions. We reserve the right to make technical changes. | © BFI Automation GmbH 26.05.25

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