

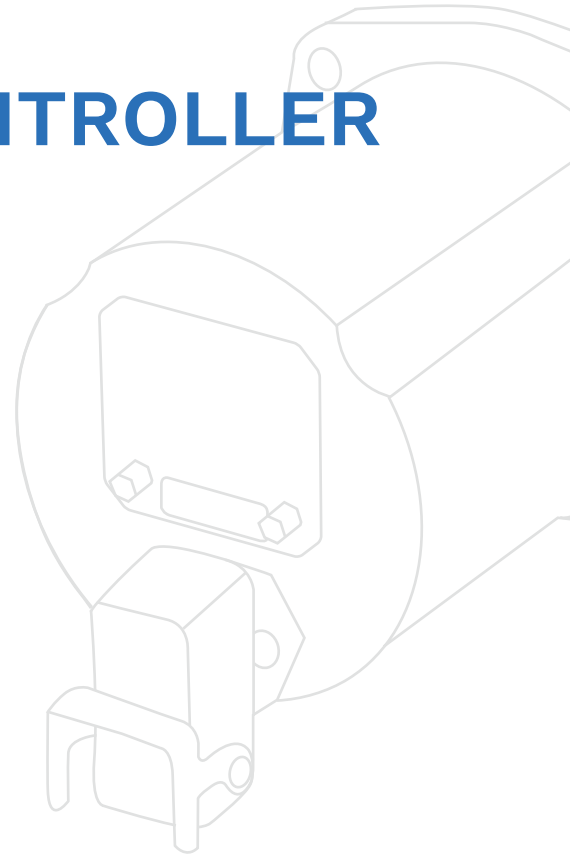


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Product Information

COMPACT FLAME CONTROLLER CFC2000



- compact design
- failsafe design
- suitable for continuous operation
- use at ambient temperatures* from -55 °C to +85 °C
- visualization of the operating status on the device by LED
- approved according to international standards
- adjustable via software
- SIL 3-certified

1 | Design

The Compact Flame Controller CFC2000 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. Up to four separately adjustable parameter levels enable reliable flame monitoring even with the highest requirements. The individual parameters are set with the Software "CFC-Com 1" and an IR communication cable, which is possible during operation.

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 CFC2000 can be used for many industrial applications.

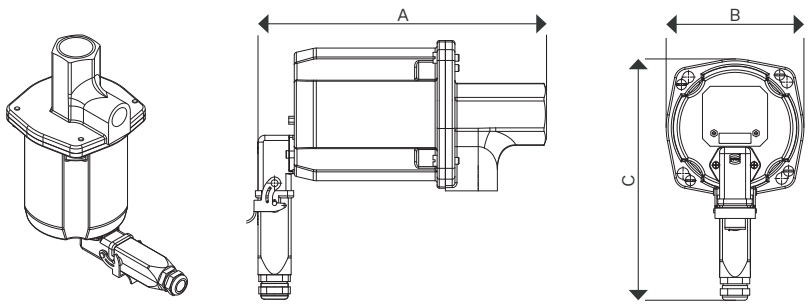
* for the specified temperature ranges heaters may be necessary.

2 | Customer benefits and usage

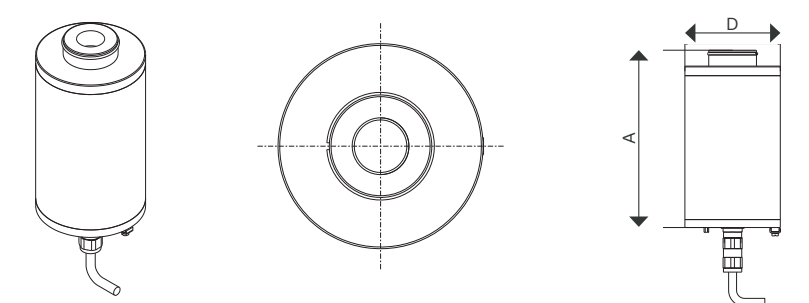
- ideally suited for use in single or multi-burner applications
- software-based evaluation of flame signals provides safe flame monitoring for complex combustions
- compact design reduces installation efforts and spare parts storage
- usable for all industrial combustions
- suitable for all types of fuel
- large dynamic range of the sensors enables flame monitoring of very small and very large radiation intensities

3 | Housing versions

The Compact Flame Controller CFC2000 is available in the following housing versions for direct mounting on the burner.



| | |
|--------------------------------|--------|
| ATEX Zone 2 | |
| Standard housing (IP65) | |
| 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 (IP66) | |
| Length A: | 223 mm |
| Diam. D: | 120 mm |
| Weight: | 4.0 kg |
| IECEX EPS 14.0042X | |

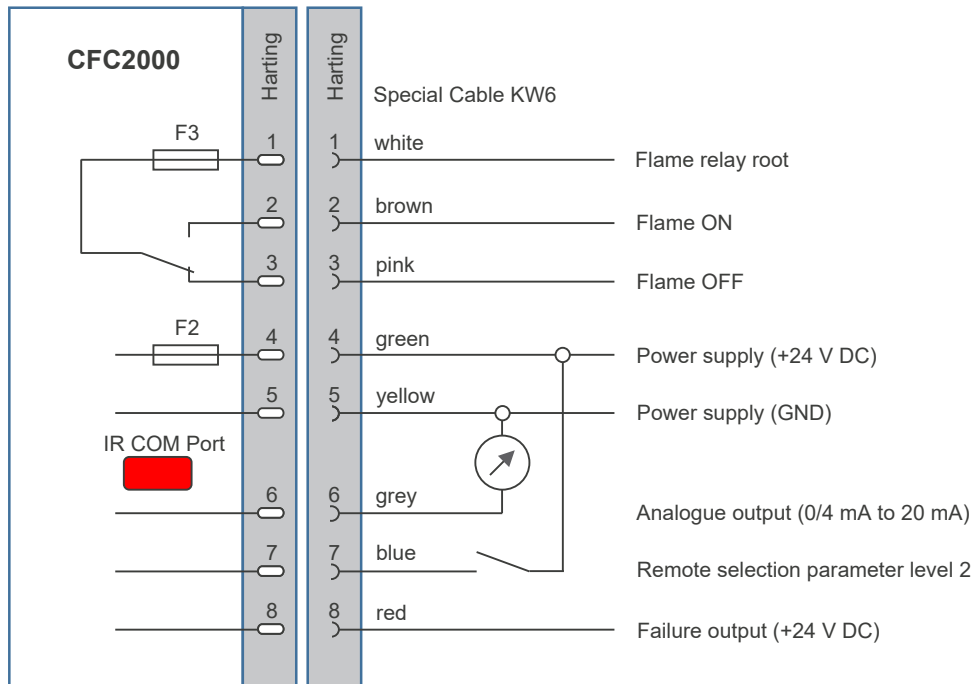
4 | Technical data

| Spectral sensitivities | UV, IR, combination of UV/IR (190 nm to 7000 nm) | |
|-----------------------------------|--|----------------|
| Type | Wavelength | Spectral range |
| UV | 280 nm to 420 nm | UV |
| UV1 | 190 nm to 550 nm | UV to VIS |
| IR | 300 nm to 1050 nm | UV to IR |
| IR1 / IR1 hE | 1050 nm to 2700 nm | IR |
| IR1 (with CaF ₂ -lens) | 1050 nm to 7000 nm | IR |
| IR2 | 300 nm to 2700 nm | UV to IR |
| IR3 | 1050 nm to 2700 nm | IR |
| IR4 | 300 nm to 1050 nm | UV to IR |

| | |
|--------------------------------------|--|
| Power supply | 24 V DC |
| Current consumption | max. 200 mA |
| Operating temperature* UV and UV1 | -20 °C to +70 °C -55 °C to +85 °C |
| Type of protection | IP65/IP66 |
| Explosion proof | international standards available |
| Relais outputs | flame relay (switch-over, potential-free) ready for operation (NO, optional) wire break detection (optional) |
| Analogue output | 0/4 mA to 20 mA |
| Safety switch-off time | adjustable (0.4 s to 5 s) |
| Angel of view | 2.7° |
| Sight port connection | G 1" female thread |
| Purge air connection | G 1/2" female thread |

* for the specified temperature ranges heaters may be necessary.

5 | Connection diagram



Further connection diagrams with special configurations (ready for operation contact, heating, etc.) available on request.

6 | Part numbers

| Type | ATEX Zone 2 | ATEX Zone 1 |
|--------|--------------|--------------|
| UV | 6013-2031-00 | 7013-2032-00 |
| UV1 | 6013-2001-00 | 7013-2002-00 |
| IR | 6013-2041-00 | 7013-2042-00 |
| IR1 | 6013-2071-00 | 7013-2072-00 |
| IR1 hE | 6013-2051-00 | 7013-2052-00 |
| IR2 | 6013-2061-00 | 7013-2062-00 |
| IR3 | 6013-2081-00 | 7013-2082-00 |
| IR4 | 6013-2101-00 | 7013-2102-00 |



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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 Mindermann GmbH 2023/17

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