



System Overview

BurnerControl BC300

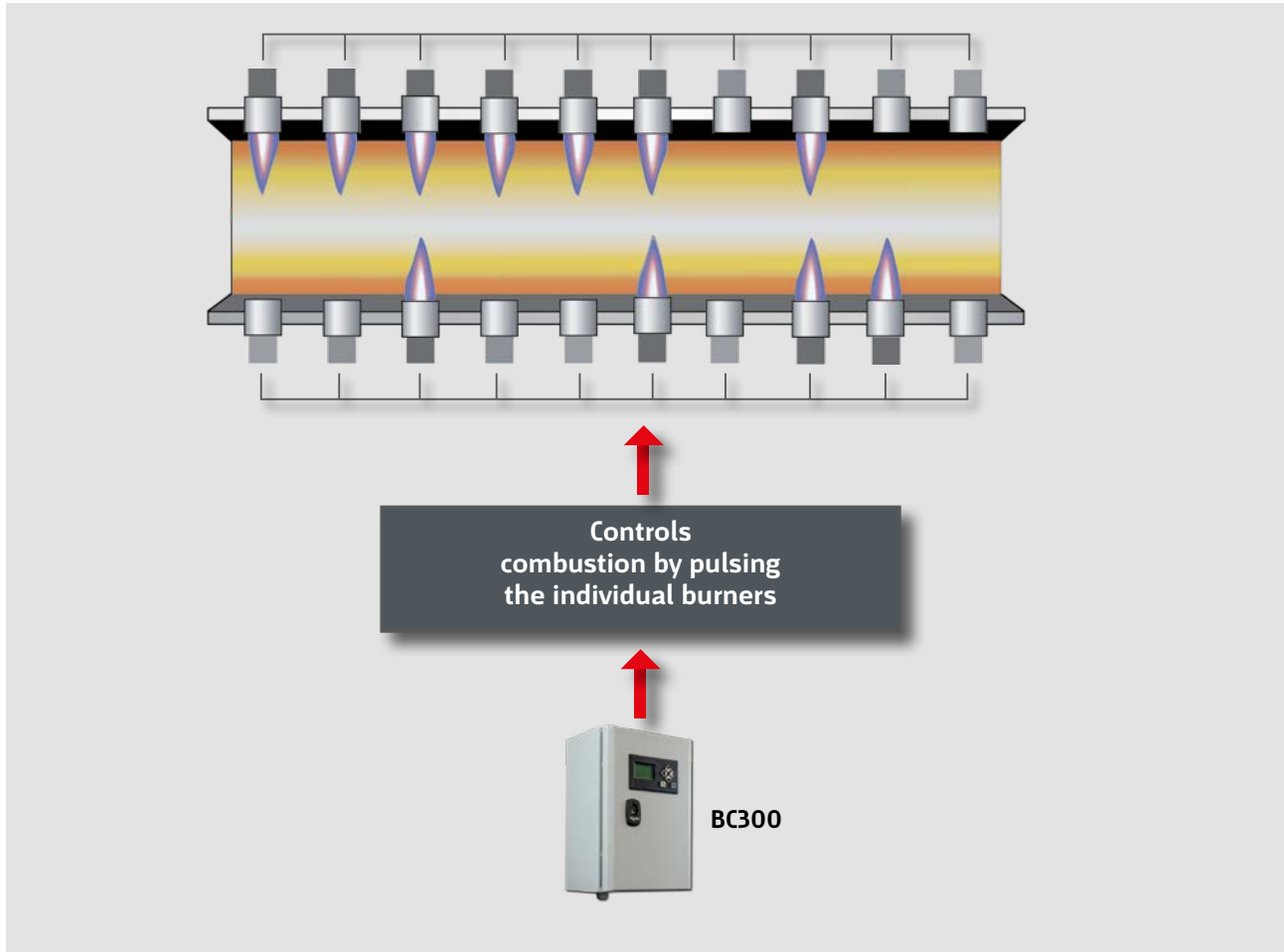
Sensors and Systems for Combustion Engineering



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Functional overview BC300.

Control of the burner output by combustion cycles



Approvals.

EU-Type-examination certificate

2016/426 A III B (Gas consumption device)

DIN EN 298:2012-11

DIN EN 13611:2011-12

DIN EN 60730-2-5: 2015-10

EU Declaration of Conformity

2014/35/EU (Low Voltage Directive)

2014/30/EU (EMC Directive)

(EU) 2016/426 Gas Appliance Regulation (GAR)

2011/65/EU (RoHS)

SIL 3 Confirmation



SIL3

DIN EN 298:2012-11

DIN EN 61508:2011 (parts 1-7)

DIN EN 13611:2011-12

DIN EN 13611:2016-09

DIN EN 50156-1:2016-03 clause 10.5

DIN EN 50156-2:2016-03

Burner control for Thermoprocessing plants.

Advantages:

- Burners with unlimited capacity can be controlled and monitored
- Approved for intermittent and continuous operation
- Suitable for burners in cyclic operation, 2-stage operation and pneumatically modulating operation - by external control
- Suitable for applications adhering to EN 746-2 where flame detection is not required for temperatures over 750 °C
- The UI300 graphic user interface displays the status of the burner and is easily read from distance and in poor lighting conditions
- Language-neutral / easy to understand representation of the status at the user interface (UI)
- Suitable for worldwide use (comprehensive approvals)

Technical Highlights:

- Connection to PLC eprogramming possible
- Not limitation on reprogramming (EEPROM)
- Fieldbus connection to PROFINET possible
- Suitable for burners with common air supply
- Mounting directly on the burner
- Application suitable for different combustion types
- Burner size from 20 kW
- Thermal capacity control using output pulsing
- Integrated alarm lamp and reset button on user interface
- Last 10 lock-out alarms can be viewed on user interface (UI)

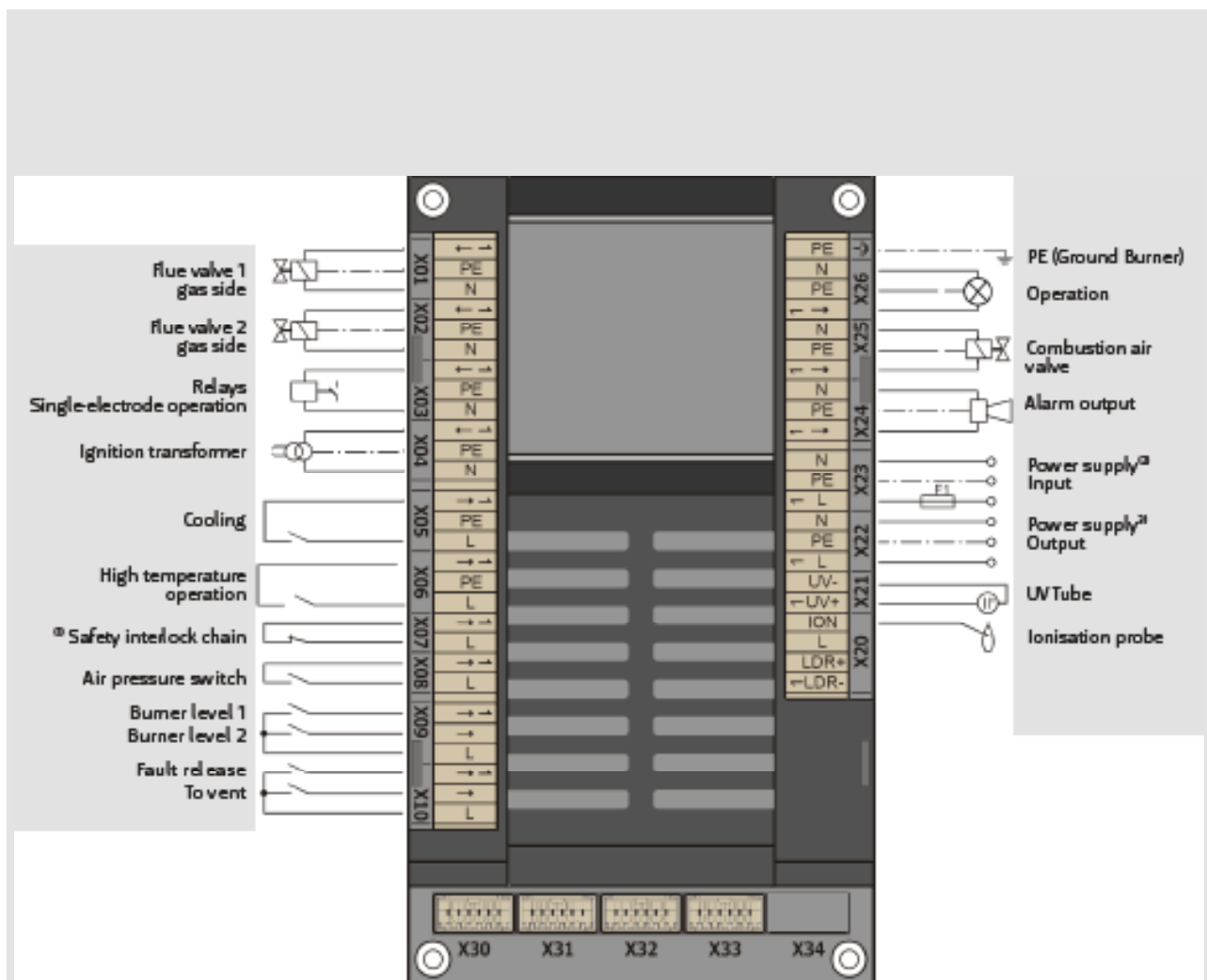
Functional Description

The BC300 is a burner sequencer for industrial burners on thermal process plants. It is designed for use on burners of all sizes in intermittent and continuous operation. The control output can be single stage or two stage, with pneumatic modulation or in cycle operation. The flame can be monitored either with ionisation in single electrode or twin electrode operation, UV tube or F152 with FFS07 or FFS08 optical sensors. The BC300 is also suitable for applications adhering to EN746-2 where flame detection is not required at temperatures higher than 750 °C (auto-ignition). The UI300 user interface can be used to monitor the status of the burner from a distance and in low light levels. Intuitive graphics and symbols are used to make the UI300 language neutral and easy to understand. Changes to the settings can be modified on-site with the

LSB remote software. For error diagnostics, the last 10 faults are saved to the device. A comprehensive list of approvals ensures that the BC300 is suitable for worldwide use.



BC300 Connection plan.



X30 = UI300 User Interface, cable length 1 m

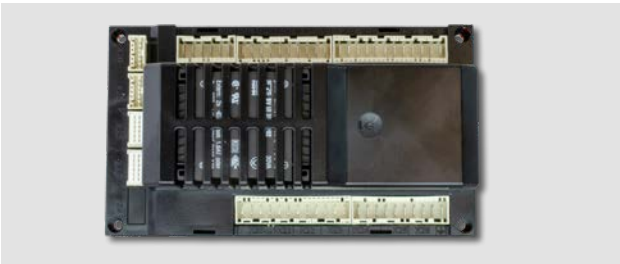
X31 = LSB Option, cable length 1 m

X32 ... X33 Without function

(2) 230 VAC 47 - 63 Hz External fuse protection required (max. 10 A slow-blow)

(3) 230 VAC To supply external devices

Base Devices.



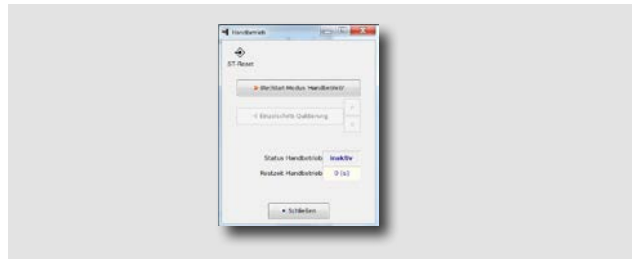
BurnerControl BC300



User Interface Front

LSB Remote-Software

- Software for complete configuration
- Saving and restoring settings
- Checklists for plant tests
- Checking the parameters for compliance with standards



LSB-Remote-Software

Optional Components.

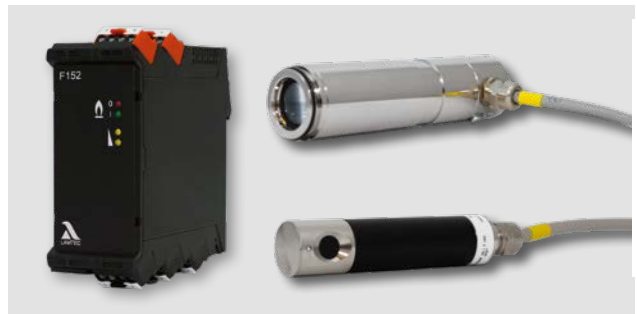


PROFINET EBM112.

Fieldbus module for PROFINET EBM112

The EBM112 fieldbus module is connected via the LSB or directly. The BC300 with fieldbus interface offers many advantages with regard to integration into a higher-level process and building control system:

- Fast and accurate transfer of process values
- Direct reading of inputs and outputs
- Remote fuel changeover
- Back-up controller function
- Remote burner on/off control
- Remote diagnosis by reading the fault history



F152, FFS07, FFS08

Flame monitors (F152 / FFS07 / FFS08)

- Direct connection of FFS07 / FFS08
- Direct connection of the ionisation sensor (option)
- Optical flame monitoring
- IR or UV in continuous operation possible

Optional Components.



Ignition transformer

Ignition transformer

Suitable for direct connection to the burner control.

- Suitable for single and dual electrode operation



Wall-mounted housing

Wall-mounted housing

Dimensions H300 x W200 x D150 mm

- BC300 and UI300 integrated
- Available with fieldbus connection PROFINET
- Available with ignition transformer
- Available with fieldbus connection PROFINET and ignition transformer



Additional IP65 cover for user interface

Cover IP65

Cover for UI300, delivery includes fixing nuts

- Cover to achieve protection class IP65



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