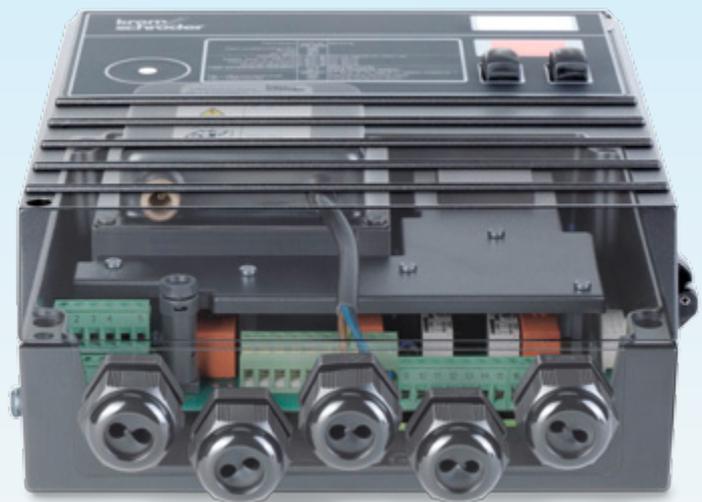
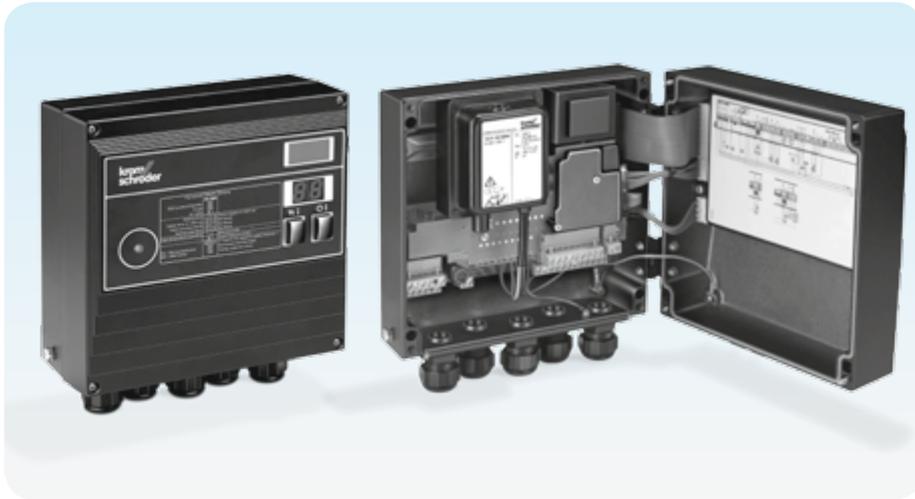


## Burner control unit BCU 440

Product brochure · GB  
6.1.2.5 Edition 01.09



- Automatic burner control unit, ignition transformer, indicators and operating controls in a space-saving metal housing which replaces the local burner control cabinet
- For directly ignited burners of up to 350 kW in intermittent or continuous operation pursuant to EN 746-2
- Display of the program status, unit parameters and flame signal; Manual mode for burner adjustment and for diagnostic purposes
- Visualisation and adaptation to the specific application via the PC programming and diagnostic software BCSoft to simplify logistics management.
- Spacious connection chamber with plug-in terminal blocks and plug-in cable glands for quick installation and servicing
- EC type-tested and certified



*The BCU unites the functionally inter-related components of automatic burner control unit, ignition transformer, Manual/Automatic mode and display of operating and fault statuses in a compact metal housing.*

### Application

Burner control unit BCU 440 controls, ignites and monitors gas burners in continuous operation.

It can be used for directly ignited industrial burners of up to 350 kW. The BCU is installed near the burner to be monitored.

The program status, the unit parameters and the level of the flame signal can be read directly from the unit.

If the local requirements on the burner control unit change, the PC software BCSOFT can be adjusted to the unit parameters of the application by using the optical interface.

The service personnel is supported by a convenient visualisation system of the input and output signals and the error history.



*Roller hearth kiln in the ceramics industry*

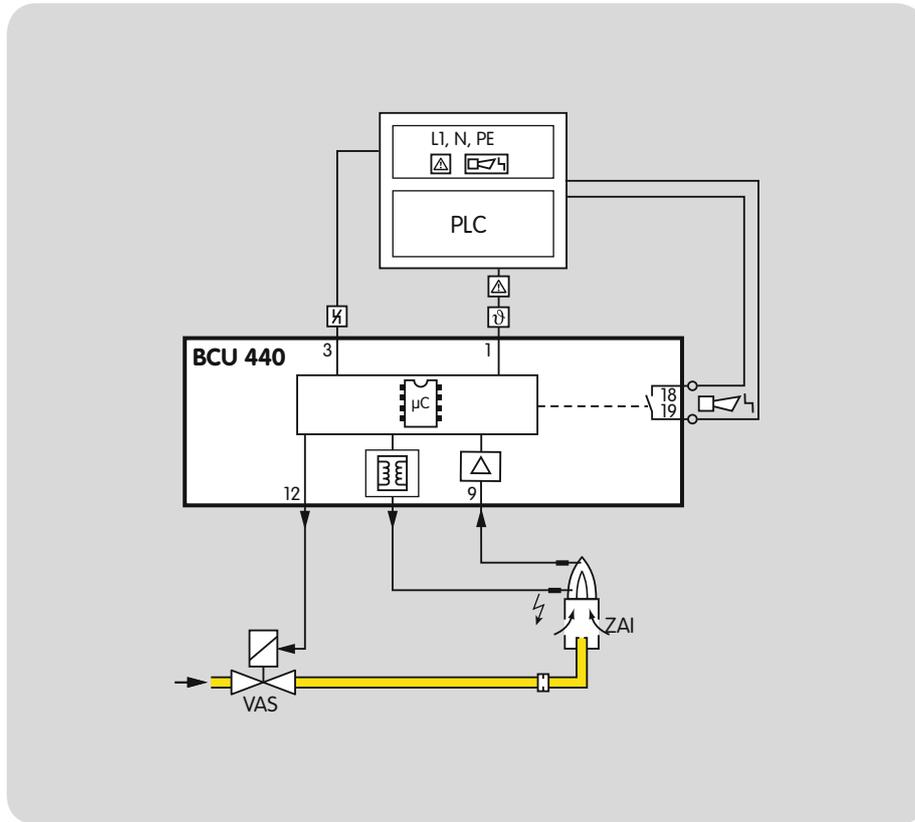


*Chamber kiln*



*Roller hearth kiln*

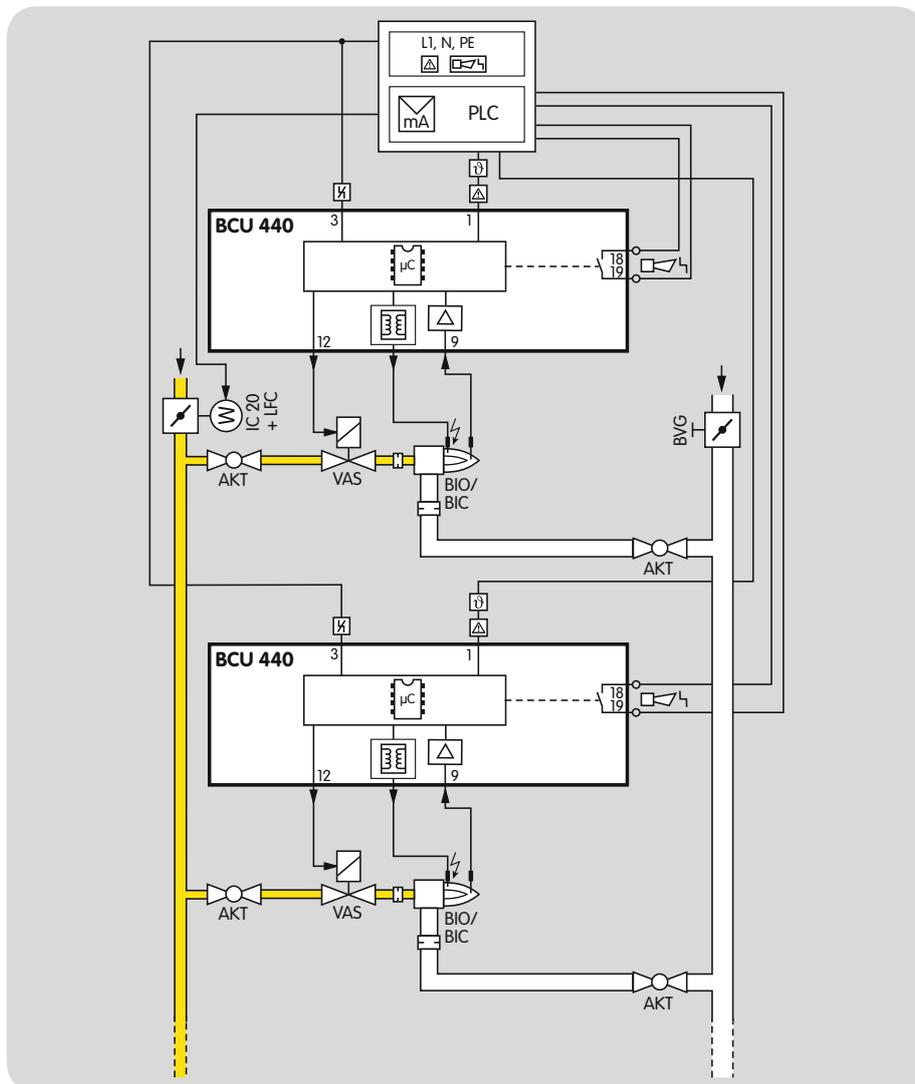
Examples of application



Atmospheric burners

Control: ON/OFF

The burner is ignited by the ignition electrode and is monitored by the ionisation electrode. In the event of a flame failure during start-up, an immediate fault lock-out occurs. In the event of a flame failure during operation, an immediate fault lock-out or a restart occurs, depending on the unit parameter settings.



BCU 440: Modulating-controlled burner

Control: continuous.

Modulating control of the gas flow rate with a constant air flow rate. The burners start at low-fire rate, and the actuator IC 20 controls the burner capacity via the linear flow control LFC after the operating state has been signalled.

## Technical data

### Mains voltage:

230 V AC. -15/+10%. 50/60 Hz,  
115 V AC. -15/+10%. 50/60 Hz,  
for grounded and ungrounded mains.

Voltage to inputs and valve = mains voltage.

Signal and control line: max. 2.5 mm<sup>2</sup>  
(AWG 14).

Cable for burner ground/PE wire: 4 mm<sup>2</sup>  
(AWG 12).

Input voltage of signal inputs:

Rated value	115 V AC	230 V AC
Signal "1"	80–126.5	160–253
Signal "0"	0–20	0–40
Frequency	50/60 Hz	50/60 Hz

Inherent current:

Signal „1“	typ. 2 mA
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Power consumption: approx. 9 VA plus  
inherent consumption of the integrated  
ignition transformer (50/60 Hz).

Inherent consumption of ignition trans-  
former:

Type	Input 230 V AC	Input 115 V AC	Output
TZI 5-15/100	0.45 (0.35)* A	0.9 (0.7)* A	5 kV 15 (11)* mA
TZI 7-25/20	1.1 (0.8)* A	2.2 (1.6)* A	7 kV 25 (18)* mA
TZI 7,5-20/33	0.9 (0.7)* A	1.8 (1.35)* A	7.5 kV 20 (15)* mA
TZI 7,5-12/100	0.6 (0.45)* A	1.2 (0.9)* A	7.5 kV 12 (9)* mA

\* Values in brackets apply to 60 Hz.

Output current: max. 2 A per output. but  
total current for valves and ignition trans-  
former max. 2.5 A.

Operation and fault signalling contacts:  
dry contact. max. 2 A. 264 V. not fused  
internally.

Flame control: sensor voltage approx.  
230 V AC, sensor current > 1 µA.

Length of sensor cable: max. 50 m (164 ft).

Fuse in unit:

F1: 3.15 A, slow-acting,  
H pursuant to IEC 127-2/5,  
F3: 3.15 A, slow-acting,  
H pursuant to IEC 127-2/5.

Ambient temperature:

-20 to +60°C (-4 to +140°F),  
climate: no condensation permitted.

Enclosure: IP 54 pursuant to IEC 529.

Max. number of operating cycles: 250,000,  
Mains switch: 1000,  
Reset/Information button: 1000.

Input/Output safety circuit:

All the inputs and outputs marked „■“ (see  
connection diagrams) may be used for  
safety tasks.

Weight: approx. 5 kg (11 lb) depending on  
version.

## Certification

The burner control unit BCU 440 is de-  
signed for applications pursuant to the  
Machinery Directive (98/37/EC).

EC type-tested and certified  
pursuant to

- Gas Appliances Directive (90/396/EEC) in  
conjunction with EN 298,
- Low Voltage Directive (2006/95/EC) in  
conjunction with EN 60730,
- Electromagnetic Compatibility Directive  
(2004/108/EC) in conjunction with the  
relevant standards relating to radiation.

### AGA

Approval No. 6478

### FM and CSA approved

Canadian Standards Association Class:  
3335-01 and 3335-81 "Systems (Gas)-Auto-  
matic Ignition and Components"

Factory Mutual Research Class: 7611 "Com-  
bustion Safeguards and Flame Sensing  
Systems"

Suitable for applications pursuant to  
NFPA 86



elster  
Kromschroeder

## Detailed information on this product



[http://docuthek.kromschroeder.com/doclib/main.php?language=1&folderid=206080&by\\_class=6](http://docuthek.kromschroeder.com/doclib/main.php?language=1&folderid=206080&by_class=6)

## Contact

[www.kromschroeder.com](http://www.kromschroeder.com) → Sales

Elster GmbH  
Postfach 2809 · 49018 Osnabrück  
Strothweg 1 · 49504 Lotte (Büren)  
Germany  
T +49 541 1214-0  
F +49 541 1214-370  
info@kromschroeder.com  
[www.kromschroeder.com](http://www.kromschroeder.com)

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