

# KROMSCHRÖDER BCU 4 SERIES NEXT-GENERATION BURNER CONTROL UNIT

All-in-one modular solutions for industrial multi-burner applications



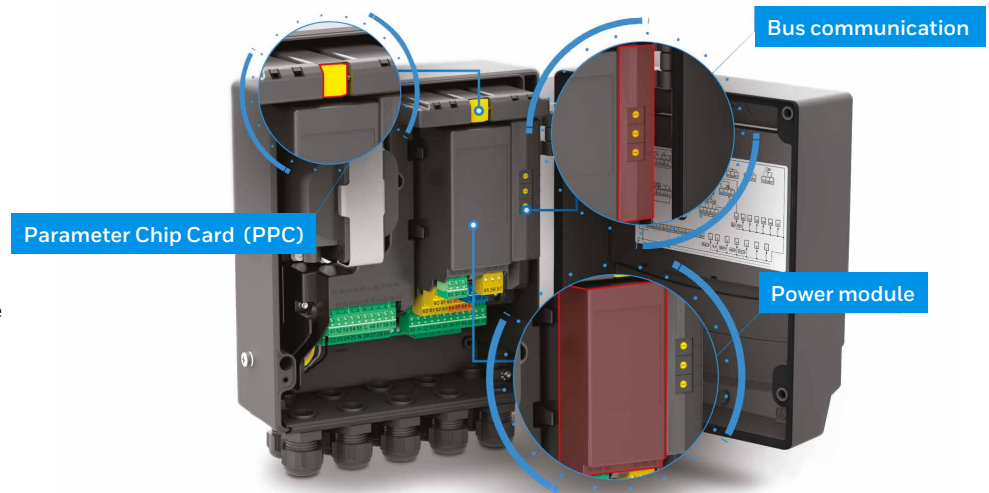
**Honeywell**

# KROMSCHRÖDER BCU 4 SERIES

Honeywell's next-generation Kromschröder® BCU 4 Series burner controls – encompassing BCU 460, 465 and 480 models – feature modular, all-in-one designs that can be mounted close to industrial burners to facilitate system integration, offering good value.

Developed for furnace builder OEMs, burner manufacturers and end users in sectors such as metals, ceramics, food and automotive, the next-generation BCU 4 Series gives industrial designers, engineers, operators and service technicians a multi-functional, space-efficient, modular control solution for virtually any multi-burner application. The units have been designed for simplified engineering, installation and start-up.

Replacing an earlier product line of the same name, the next-generation BCU 4 Series models come equipped with an ignition transformer, burner control and an embedded HMI – arranged within a compact housing. The BCU 4 Series can be optionally configured with high temperature control, low NO<sub>x</sub> running mode, a valve proving system, a bus module and a replaceable power module that facilitates SIL approval and helps extend product life.



## KEY FEATURES:

- Modular, all-in-one design
- Compact housing
- Multi-functional
- Easy system integration
- High number of switching cycles
- IIoT-ready
- Reduced maintenance
- Worldwide approvals

## COMPARING GENERATIONS

In comparison to the previous generation models, the next-generation BCU 4 Series incorporates a wide range of refinements, plus new technology, features and options to increase utility and effectiveness. The key differences include:

FEATURE	PREVIOUS GENERATION BCU 400	NEXT - GENERATION BCU 4 SERIES
Gas and air outputs	2 gas valve outputs for the BCU 460, 465	3 gas valve outputs for the BCU 460, 465
	2 gas valve outputs for the BCU 480	4 gas valve outputs for the BCU 480
	Relay output for air valve	Solid-state output for air valve to reach high number of switching cycles
Valve proving system	Previously unavailable	Automatic relay testing
	Previously unavailable	Optional valve proving system (tightness control, proof of closure)
Stage-controlled gas burner features	L (air valve)	F3 (air valve) and F1 (IC 40)
HMI features	2-digit information display	4-digit information display for vital information at a glance
	Push-button switch for mains and reset function	New push buttons: Reset/ Information and Main switch
	Optional Profibus	Optional Profibus, Profinet, EtherNet/IP incorporating improved bus communication
	Previously unavailable	Parameter Chip Card for easy replacement of the BCU without knowing the final parameter setting
	Optional high temperature operation	Optional high temperature and flameless operating mode to reduce thermal NO <sub>x</sub>



## FEATURES & BENEFITS

### UNIT PARAMETER ADJUSTMENT

If local requirements for the burner control unit change, unit parameters can easily be adjusted using BCSofT software. Parameters are automatically stored on the integrated Parameter Chip Card, which can be removed from one unit and inserted into another – for example, when replacing a BCU.

### VISUALIZATION CAPABILITIES

Visualization is achieved through the integrated display, which shows program status, error codes, statistics and parameter settings. Enhanced visualization displaying inputs and outputs is available via BCSofT or bus communication (Profinet, EtherNet/IP).

### VITAL INFORMATION AT A GLANCE

Program status, unit parameters and level of flame signal can be easily and conveniently read from the new, 4-digit unit display. The BCU also incorporates a manual mode for commissioning, maintenance, adjustments or diagnostics.

### OPTIONAL VALVE PROVING SYSTEM

An optional valve proving system consisting of a programming sequence and pressure switch continually checks automatic shut-off valves for leaks.

### POWER MANAGEMENT

A power management feature reduces installation and wiring costs. The power for the valves and ignition transformer is supplied via the BCU power supply, rather than the safety chain, and is protected by a replaceable fine-wire fuse. Outputs for the actuator and valves are monitored and can be easily replaced – in the case of a faulty relay – via a replaceable plug-in power module.

### SIMPLIFIED BURNER SYSTEM INTEGRATION

BCU 4 Series models can be mounted close to industrial burners versus being housed in a separate cabinet, enabling better system integration.

### IIOT-READY

The conventional, widespread systems used in industrial furnace and kiln construction must be connected for signal processing. An optional bus module connects the BCU to a fieldbus interface in a Profinet, EtherNet/IP or Profibus network. The bus module is designed to be mounted inside the BCU.

### STANDARDIZED FIELDBUS DESIGN

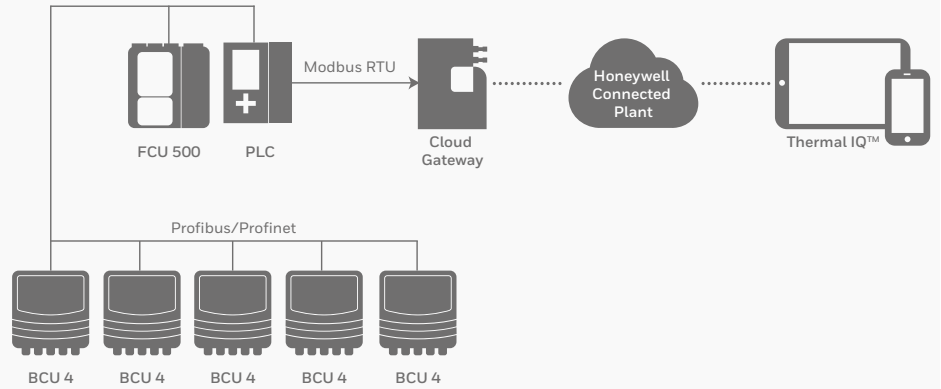
The BCU 4 Series uses a standard fieldbus system that helps to reduce development, installation and commissioning costs compared with conventional wiring or manufacturer-specific, bespoke solutions. Additionally, components, connection methods and tools can be purchased from a wide range of suppliers.

## SIMILAR IN DESIGN. DIFFERENT FUNCTIONS.

	BCU 460	BCU 465	BCU 480
Intermittent or continuous operation	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Modulating or stage-controlled burners	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Pilot burner ignition	-	-	<input checked="" type="checkbox"/>
Interrupted or permanent pilot burner	-	-	<input checked="" type="checkbox"/>
Support protective process control, e.g cooling, purging and capacity control	optional	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Air flow monitoring	-	<input checked="" type="checkbox"/>	-
Pre- and post-ventilation for self-recuperative burners	-	<input checked="" type="checkbox"/>	-
Valve Proving System (VPS)	optional	optional	optional
High temperature operation	optional	optional	optional

## REAL VISIBILITY. DELIVERED IN REAL TIME.

Developed by the thermal process experts at Honeywell, Thermal IQ™ is a remote monitoring solution that securely connects your combustion equipment - BCU 4 Series included - to the cloud, making critical thermal process data available anytime, anywhere, on any smart device.



### For more information

The Honeywell Thermal Solutions family of products includes Honeywell Combustion Controls, Honeywell Combustion Safety, Honeywell Combustion Service, Eclipse, Exothermics, Hauck, Kromschröder and Maxon.

To learn more about our solutions and services, visit [www.honeywellprocess.com/hts](http://www.honeywellprocess.com/hts) or contact your Honeywell Sales Engineer.

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We reserve the right to make technical modifications in the interests of progress.

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