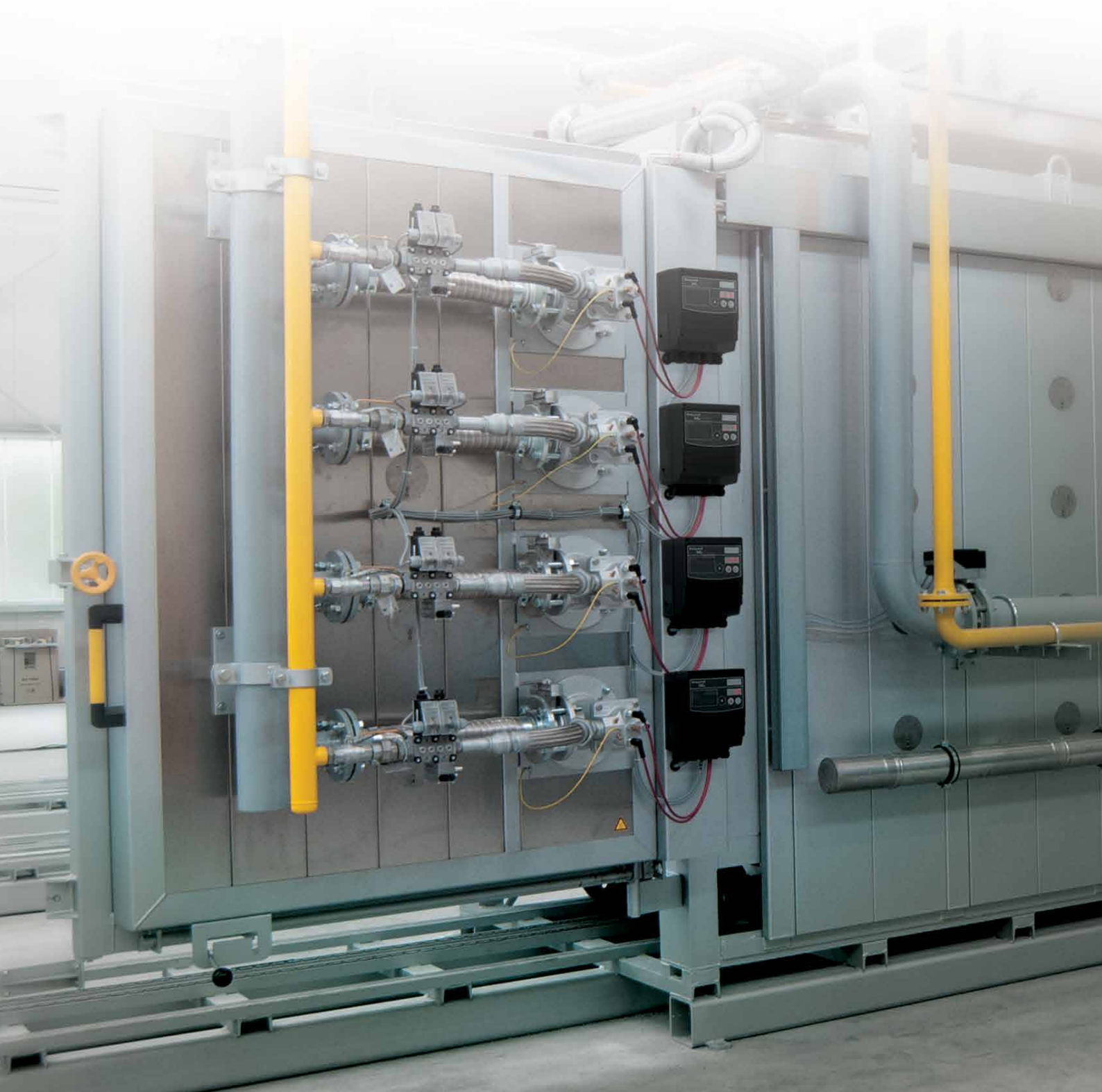
Honeywell | Thermal Solutions

KROMSCHRÖDER® BCU 4 SERIES NEXT-GENERATION BURNER CONTROL UNIT

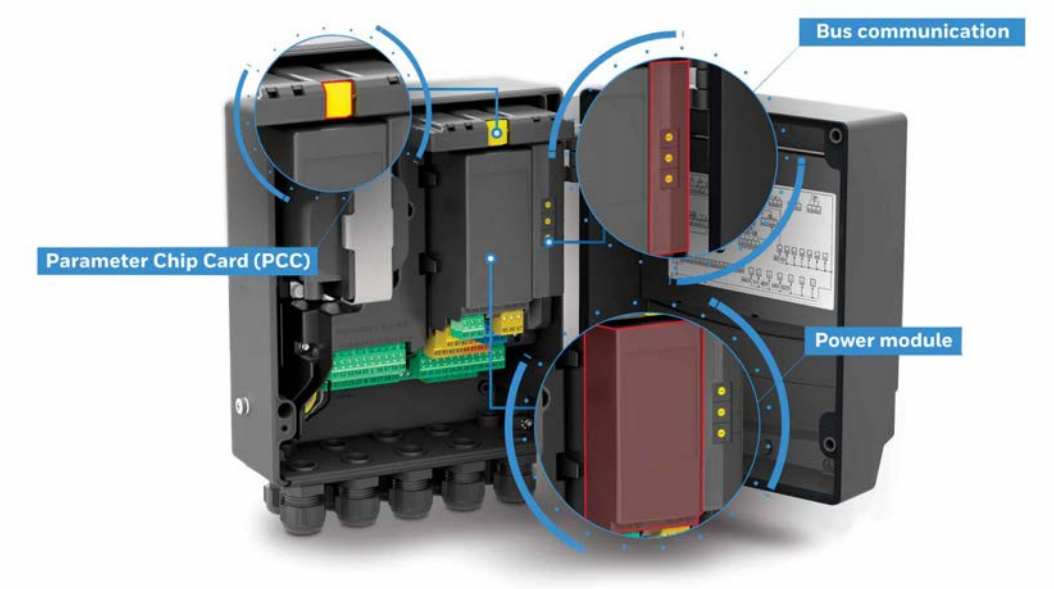
All-in-one modular solutions for industrial multi-burner applications



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 metal housing. The BCU 4 Series has a replaceable power module that facilitates SIL approval and helps extend product life. It can be optionally configured with high temperature control, low NO_x running mode, a valve proving system and a bus module.



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
	Previously unavailable	Automatic relay testing
Valve proving system	*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_x



Common BCU 4 Series Features

The BCU 460, 465 and 480 models share a number of innovative and practical features and benefits. These include:

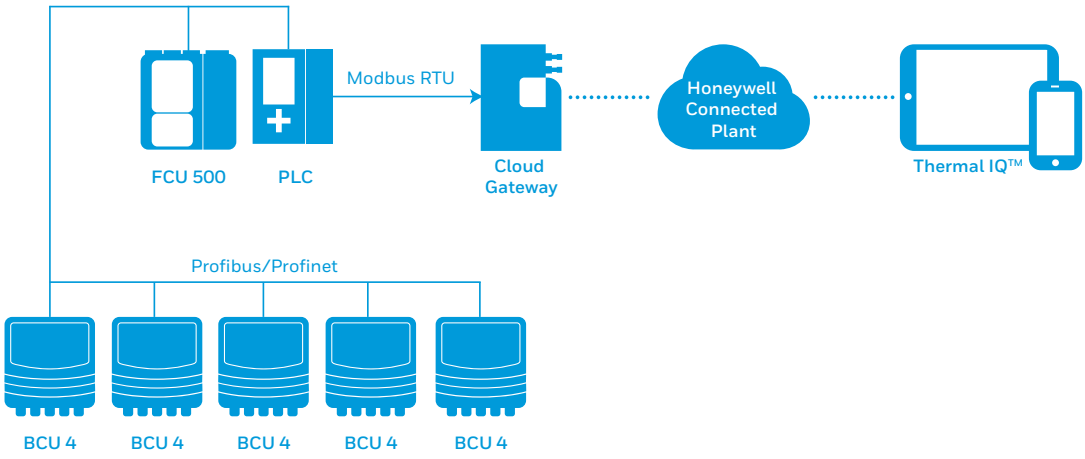
- **Simplified burner system integration** – BCU 4 Series models can be mounted close to industrial burners versus being housed in a separate cabinet, enabling better system integration.
- **Unit parameter adjustment** – If local requirements for the burner control unit change, unit parameters can easily 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.
- **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.
- **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).
- **Power management** – A power management feature reduces installation and wiring costs. The power for the valves and ignition transformer is supplied via the BCU main 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.
- **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 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**	☑	☑	☑
Modulating or **stage-controlled burners**	☑	☑	☑
Pilot **burner ignition**	-	-	☑
Interrupted or **permanent pilot burner**	-	-	☑
Support protective process control, e.g **cooling, purging** and **capacity control**	optional	☑	☑
Air flow monitoring	-	☑	-
Pre- and **post-ventilation** for **self-recuperative burners**	-	☑	-
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 or contact your Honeywell Sales Engineer.

Honeywell Process Solutions

Honeywell Thermal Solutions (HTS)
1250 West Sam Houston Parkway South
Houston, TX 77042

Strotheweg 1,
49504 Lotte, Germany

Building #1, 555 Huanke Road,
Zhangjiang Hi-Tech Industrial Park,
Pudong New Area, Shanghai 201203

www.honeywellprocess.com

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

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