

Manufactured and designed by Elster GmbH. Located at Lotte, Germany

FUNCTIONAL SAFETY CERTIFICATE

Kiwa hereby declares that the **Electronic Safety Control**.

BCU 4xx

Is suitable for inclusion in a S.I.L. 3 loop.

The compliance is based on an evaluation to EN 13611 A2 (2011) and EN 61508 (2010)

Report number

: 125388/1 (For available models see the Annex)

The systems and their associated components only comply with the above listed safety requirements if the specifications and instructions as detailed in the commissioning manual are met.

The BCU 4xx Electronic Safety Control provides the Burner Control Function, meaning it is able to perform a complete burner control cycle with use of a pilot, main gas supply and air blower and with the use of flame detection by ionisation.

Where a safety function is mandatory for the application, the system shall be included with fail safe sensors and valves.

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Electronic Safety Control.

List of all available types:

| Model: | Characteristics: | | | |
|-----------------|--|--|--|--|
| BCU 440 | For directly ignited burners up to 360KW without air valve control | | | |
| BCU 460 | For directly ignited burners of unlimited rating with or without air valve | | | |
| | control | | | |
| BCU 460_U | For directly ignited burners of unlimited rating with or without air valve | | | |
| | control. Flame monitoring prepared for UVD 1. | | | |
| BCU 460_B1 | For directly ignited burners of unlimited rating with or without air valve control. With PROFIBUS interface. | | | |
| BCU 460_U_B1 | For directly ignited burners of unlimited rating with or without air valve | | | |
| | control. Flame monitoring prepared for UVD 1 and with PROFIBUS | | | |
| | interface. | | | |
| BCU 465 | For directly ignited burners of unlimited rating with extended air control | | | |
| BCU 465_B1 | For directly ignited burners of unlimited rating with extended air control. With PROFIBUS interface | | | |
| BCU 480 | Version for pilot and main burners with air valve control | | | |
| BCU 480_U | Version for pilot and main burners with air valve control. Flame monitoring prepared for UVD 1. | | | |
| BCU 480_B1 | Version for pilot and main burners with air valve control. With PROFIBU | | | |
| | interface. | | | |
| BCU 480_U_B1 | Version for pilot and main burners with air valve control. Flame | | | |
| | monitoring prepared for UVD 1 and with PROFIBUS interface. | | | |
| BCU 400: Noxmat | Customer specific version with extended air control. | | | |
| BCU 400:CBFF | Customer specific version with extended air control. | | | |
| BCU 400:CBFFB1 | Customer specific version with extended air control and PROFIBUS interface. | | | |

| Safety critical function | PFH (fit) | SFF | SIL function |
|---|-----------|----------|--------------|
| Burner control function (logic solver 1002) | 19.2 | 90 - 99% | 3 |