

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

FUNCTIONAL SAFETY CERTIFICATE

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

BCU 570

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 : 125767 (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 570 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.

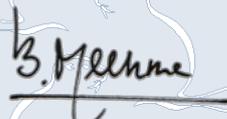
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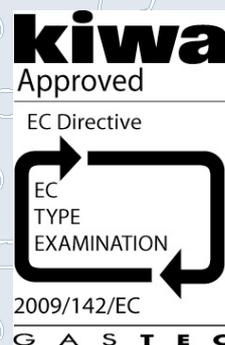
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GASTEC




Bouke Meekma
Kiwa



Electronic Safety Control.

List of all available types:

| Model breakdown | | | | | |
|---|---------------|------------------|---------------|---------------|------------------|
| BCU570 : For directly ignited burners or burners ignited by a pilot burner in intermittent or continuous operation and for monitoring and controlling modulating individual burners and forced draught burners of unlimited capacity. | | | | | |
| Q | 120V-50/60 Hz | | | | |
| W | 230V-50/60 Hz | | | | |
| C0 | | No valve proof | | | |
| C1 | | With valve proof | | | |
| F1 | | | IC interface | | |
| F2 | | | RBW interface | | |
| U0 | | | | UV flamesense | |
| K0 | | | | | No terminals |
| K1 | | | | | Screw terminals |
| K2 | | | | | Spring terminals |
| Note : The U0 version is for ionisation- or UV control in case of operation with gas | | | | | |

| Safety critical function | PFH (fit) | SFF | SIL function |
|---|-----------|-------|--------------|
| Tightness control | 7.2 | ≥ 99% | 3 |
| Emergency stop | 7.2 | ≥ 99% | 3 |
| Emergency stop with optional input | 7.1 | ≥ 99% | 3 |
| Minimum air flow safeguard | 7.2 | ≥ 99% | 3 |
| Minimum air flow safeguard with optional input | 7.1 | ≥ 99% | 3 |
| Purge safeguard | 7.2 | ≥ 99% | 3 |
| Purge safeguard with optional input | 7.1 | ≥ 99% | 3 |
| Flame supervision | 8.7 | ≥ 99% | 3 |
| Air damper, ignition position safeguard F1/mod IC20 | 8.0 | ≥ 99% | 3 |
| Air damper, ignition position safeguard F2/mod RBW | 7.9 | ≥ 99% | 3 |
| Air damper, ignition position safeguard F3/positional | 7.1 | ≥ 99% | 3 |
| Minimum gas pressure safeguard | 7.2 | ≥ 99% | 3 |
| Minimum gas pressure safeguard with optional input | 7.1 | ≥ 99% | 3 |
| Maximum gas pressure safeguard | 7.2 | ≥ 99% | 3 |
| Maximum gas pressure safeguard with optional input | 7.1 | ≥ 99% | 3 |

| SIL overall | PFH (fit) | SFF | SIL function |
|---------------------|-----------|-------|--------------|
| With IC20 interface | 14.6 | ≥ 99% | 3 |
| With RBW interface | 13.2 | ≥ 99% | 3 |