



LME – user-friendly burner controls

Highlights

- Program versions for atmospheric and forced draft gas burners
- Multicolor indication of operating status and fault status messages
- Controlled intermittent mode after 24 hours of continuous operation
- Limitation of the number of repetitions
- Remote reset facility
- Times can be parameterized
- Suitable for applications according to EN676 or EN746-2
- Approvals based on AGA and EN298:2012

LME burner controls ensure reliable operation and supervision of 1- or 2-stage gas burners with intermittent operation. The products have proven their reliability since many years and excel in a high level of safety while offering ease of operation.

Burner controls of the LME line feature a redundant, 2-channel microprocessor system and 2 independent shutdown paths for safety-related functions. An ionization probe or UV sensor is used for flame supervision.

Finally the PC software tool ACS410, for data analysis and parameterization, completes the range. The PC tool can be used with all product variants.

Technical data (extract)

For further information, see data sheets CC1N7101 and CC1N7106.

| | |
|--|---|
| Mains voltage | AC 120 V +10 % / -15 % AC 230 V +10 % / -15 % |
| Perm. cable length ION | Max. 1 m at 100 pF/m line capacitance Max. 3 m at 15 pF/m line capacitance |
| Perm. cable length from QRA... to AGQ3...A27 | Max. 20 m at 100 pF/m (lay separate cable) |
| Remote reset/alarm | Max. 20 m at 100 pF/m (lay separate cable) |
| Cable length UV-sensor QRC | Bis 700 mm |
| Cable lengths to valves/fan/LP | Max. 3 m at 100 pF/m |

Power and performance in a small package

The AZL2 display and operator units are designed for use with LME39 burner controls to be mounted directly on the burner or in control panels close to the burner.

They are designed for the display, operation and parameterization of specific safety and non-safety-related burner functions. Key plant data and lockout codes can be called up and displayed.

Alternatively the ACS410 software tool can be used with all standalone LME burner controls. It serves as a tool to display data, to set parameters and to store data.

Standards and certificates (extract)



Conformity to EC directives

- Electromagnetic compatibility EMC (immunity) 2004/108/EC
- Gas-fired appliances directive 90/396/EC
- Low-voltage directive 2006/95/EC



ISO 9001: 2008
ISO 14001: 2004



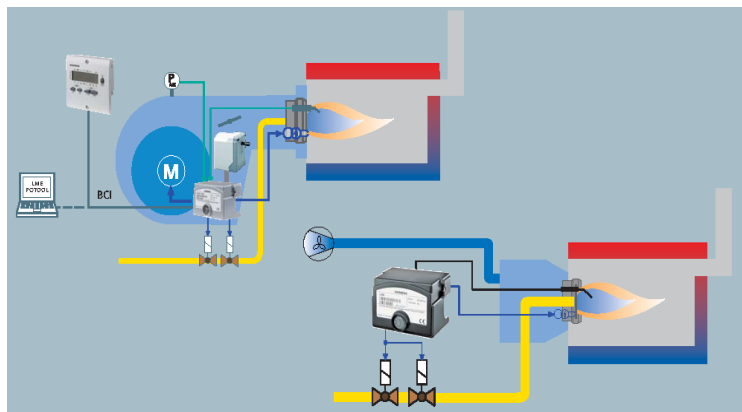
Type reference (extract)

Without information to plug-in bases and flame detectors. For further information, see data sheets CC1N7101 and CC1N7106.

| Flame detector | Type reference | Mains voltage | Prepurge/Purge min. s | Safety time max. s | Preignition time approx. s |
|--|----------------|---------------|----------------------------|--------------------|----------------------------|
| Burner controls for 1-stage burners (up to 120 kW output) | | | | | |
| Ionization probe (ION) | LME11.230C2 | AC 230V | 20 | 3 | 2 |
| | LME11.330C2 | AC 230V | 30 | 3 | 2 |
| Burner controls for 2-stage burners, without actuator control | | | | | |
| Ionization probe (ION) or flame detector QRA... ¹⁾ with AGQ3...A27 | LME21.130C2 | AC 230 V | 7 | 3 | 2 |
| | LME21.230C2 | AC 230 V | 20 | 3 | 2 |
| | LME21.330C2 | AC 230 V | 30 | 3 | 2 |
| | LME21.350C2 | AC 230 V | 30 | 5 | 2 |
| Burner controls for 2-stage burners, with actuator control | | | | | |
| Ionization probe (ION) or flame detector QRA... ¹⁾ with AGQ3...A27 | LME22.131C2 | AC 230 V | 7 | 3 | 3 |
| | LME22.232C2 | AC 230 V | 20 | 3 | 3 |
| | LME22.331C2 | AC 230 V | 30 | 3 | 3 |
| Blue flame detector QRC... | LME23.331C2 | AC 230 V | 30 | 3 | 3 |
| | LME23.351C2 | AC 230 V | 30 | 5 | 1 |
| Burner controls for atmospheric burners | | | | | |
| Ionization probe (ION) or flame detector QRA... ¹⁾ with AGQ3...A27 | LME41.051C2 | AC 230 V | 1 | 5 | 1 |
| | LME41.053C2 | AC 230 V | 10 | 5 | 1 |
| | LME41.091C2 | AC 230 V | 1 | 10 | 10 |
| | LME44.05xC2 | AC 230 V | 9 | 5 | 2 |
| Burner controls for 2-stage burners, with actuator control and communication | | | | | |
| Ionization probe (ION) or flame detector QRA... ¹⁾ with AGQ3...A27 | LME39.100C2 | AC 230 V | Times can be parameterized | | |
| | | | 0...75 | 1...5 | 1...38 |
| Burner controls for atmospheric, 2-stage burners without actuator control, with communication | | | | | |
| Ionization probe (ION) or flame detector QRA... ¹⁾ with AGQ3...A27 | LME39.400C2 | AC 230 V | Times can be parameterized | | |
| | | | 0...75 | 1...5 | 1...38 |

1)only for AC 230 V

Overview of burner systems with LME burner controls



Diagnostic possibilities of the LME burner controls

Color code table for multicolor signal lamp (LED)

| Status | Color code | Color |
|--|-----------------|-------------------|
| Waiting time «tw», other waiting states | ○ (Off)..... | Off |
| Ignition phase, ignition controlled | ● ○ ● ● ● ● ● ○ | Flashing yellow |
| Operation, flame o.k. | □ | Green |
| Operation, flame not o.k. | □ ○ □ ○ □ ○ □ ○ | Flashing green |
| Extraneous light on burner startup | □ ▲ □ ▲ □ ▲ □ ▲ | Green-red |
| Undervoltage | ● ▲ ● ▲ ● ▲ ● ▲ | Yellow-red |
| Fault, alarm | ▲ | Red |
| Error code output (press 3 s reset button)* | ▲ ○ ▲ ○ ▲ ○ | Flashing red |
| Interface diagnostics (press 2 x 3 s reset button) | ▲ ▲ ▲ ▲ ▲ ▲ | Red flicker light |

* Error code table

| Red blink code | Possible cause |
|----------------|--|
| 2 x blinks | No establishment of flame at the end of «TSA» |
| 3 x blinks | «LP» (air pressure switch) faulty |
| 4 x blinks | Extraneous light when burner startup |
| 5 x blinks | Time out «LP» (air pressure switch) |
| 7 x blinks | Too many losses of flame during operation |
| 10 x blinks | Wiring error or internal error, miscellaneous errors |
| 14 x blinks | CPI contact not closed |

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