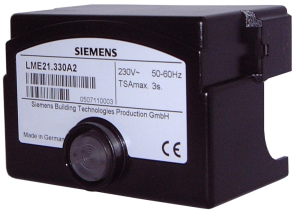
SIEMENS

7101



LME1 / LME2 / LME4

LME3

Product Range Overview

LME1…
LME2…
LME3…
LME4…

LME are used for the startup and supervision of stage or modulating oil / gas burners in intermittent operation.
Flame supervision takes place via an ionization probe or a QRA UV flame detector with/without AGQ3 ancillary unit, or, in the case of blue-burning flames, with a QRC blue-flame detector.

- Applications in accordance with EN 267: Forced draft burners for liquid fuels
- Type-tested and approved in accordance with DIN EN 298
- Applications in accordance with EN 676: Automatic forced draft burners for gaseous fuels

Features of the LME:

- Undervoltage detection
- Air pressure supervision with function check of the air pressure switch during startup and operation
- Electrical remote lockout reset facility
- Multicolor indication of fault status messages and operating states
- Restart limitation
- Accurate sequence times thanks to digital signal handling
- Controlled intermittent operation after 24 hours of continuous operation

Documentation

The present documentation gives an **overview** of the product range.

Target groups

- Sales engineers
- Internal staff
- Burner specialists

Functions

	LME11	LME21	LME22	LME23	LME39.1	LME39.4	LME41	LME44
Basic applications								
Single-stage forced draft burners	●							
2-stage forced draft burners		●	●	●	●			
Atmospheric burners, single stage, with / without auxiliary fan						●	●	
Atmospheric burners, 2 stage, with / without auxiliary fan						●		●
Control of ignition valve						●	●	●
Air damper control			●	●	●			
Temperature controller in mains supply line	●	●	●	●			●	●
Temperature controller in control loop					●	●		
Air pressure supervision with function check of air pressure switch during startup and operation	●	●	●	●	●			
Status input CPI						●	●	●
General								
Undervoltage detection	●	●	●	●	●	●	●	●
Electrical remote lockout reset facility	●	●	●	●	●	●	●	●
Multicolor indication of operating state and fault status messages	●	●	●	●	●	●	●	●
Accurate sequence times thanks to digital signal handling	●	●	●	●	●	●	●	●
Controlled intermittent operation	●	●	●	●	●	●	●	●
Restart limitation	●	●	●	●	●	●	●	●
Unit parameter adjustable					●	●		
Flame detectors for intermittent operation								
Ionization probe	●	●	●		●	●	●	●
UV flame detector QRA with AGQ3 (only for AC 230 V)		●	●		●	●	●	●
Blue-flame detector QRC				●				
Valve proving system LDU11								
Pressures switch – valve proving		●	●		●			
Communication interfaces								
BCI for AZL2 or OCI410					●	●		
OCI400 for optical interface	●	●	●	●	●	●	●	●
OCI410 BCI / USB interface converter					●	●		
ACS410 PC software for visualization	●	●	●	●	●	●	●	●
ACS410 PC software for parameterization					●	●		
Display								
7-segment display and operating unit AZL21					●	●		
7-segment display and operating unit AZL23					●	●		
3-colored LED, build-in	●	●	●	●	●	●	●	●

Detector

QRA2
UV cell

QRA4

QRA10

QRB4

QRC
UV diode

Ionization

Pressure switch

QPL15 **QPL25**

Display and operating units

AZL21
IP40

AZL23
IP54

Burner controls

LME1 / LME2 / LME4

Burner controls

LME3

Unidirectional

Communication

ACS410 / OCI400

Service tools

ACS410 / OCI410

Actuators

SQN3
0.8...3 Nm

SQN4
6 Nm

SQN7
0.7...1.3 Nm

SQN9
0.8...2.4 Nm

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Burner control

LME1 / LME2 / LME4
Gas burner controls for supervision of single- or 2-stage forced draft gas burners and atmospheric burners of small to medium capacity, intermittent operation.

LME3
Parameterized gas burner controls for the supervision of 1- or 2-stage forced draft gas burners and atmospheric burners of small to medium capacity (typically up to 350 kW), in intermittent operation.

Connection accessories for small burner controls

AGK11 (not for LME39)
Article no.: **BPZ:AGK11**
Plug-in base for connecting small burner controls to the burner plant.

AGK11.6
Article no.: **BPZ:AGK11.6**
Plug-in base (Grey) for connecting LME39 to the burner plant.

AGK66
Article no.: **BPZ:AGK66**
Cable holder for use with AGK11 plug-in base.

AGK65
Article no.: **BPZ:AGK65**
Cable holder for use with AGK11 plug-in base.

Flame detectors

QRA2
UV flame detector for use with Siemens burner controls, for the supervision of gas flames and yellow/blue-burning oil flames as well as for ignition spark control. Plastic insulated housing, metalized to prevent static charging caused by the air flow from the fan. For direct mounting on the burner. Delivery optional with / without flange and clamp.

QRA4
UV flame detector for use with Siemens burner controls, for the supervision of gas flames and yellow/blue-burning oil flames as well as for ignition spark control.

QRA10
UV flame detector for use with Siemens burner controls, for the supervision of gas flames and yellow/blue-burning oil flames as well as for ignition spark control. Die-cast aluminum housing with a 1 in. mounting coupling and connection facility for cooling air. The housing of this detector has a bayonet fitting which allows it to be secured either directly to the 1 in. mounting coupling or to the AGG06. The 1 in. mounting coupling can be screwed to a viewing tube or to the AGG07. The Pg cable gland can be removed and replaced, if some other detector cable shall be used.

QRC
Blue-flame detector for use with Siemens burner controls, for the supervision of blue- and yellow-burning oil or gas flames. QRC is used especially in connection with burner controls for burners of small capacity.

Frontal illumination:

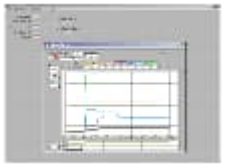
Lateral illumination:

Service tools

OCI400
Article no.: **BPZ:OCI400**
Optical interface between burner control and PC.
Facilitates viewing and recording of setting parameters on site using the ACS410 PC software.

OCI410
Article no.: **BPZ:OCI410**
BC interface module between burner control and PC.
Facilitates viewing and recording of setting parameters on site using the ACS410 PC software.

ACS410
Article no.: **BPZ:ACS410**
PC software for setting the parameters and for visualizing the burner controls.



Actuators

SQN3 / SQN4

Electromotoric actuators for use with air dampers and control valves of oil or gas burners of small to medium capacity.

- Impact-proof and heat-resistant plastic housing
- Screw terminals for the electrical connections
- Maintenance-free gear train, which can be disengaged
- Internal and external position indication
- Easy-to-adjust end and auxiliary switches for setting the switching points

Holding torque:

- SQN3	0.8...3 Nm
- SQN4	6 Nm

Running time:

- SQN3	4.5...30 s
- SQN4	120 s

Direction of rotation:

- SQN30	counterclockwise
- SQN31 / SQN41	clockwise

SQN7

Electromotoric actuators for air dampers and control valves of oil and gas burners of small to medium capacity.

- Impact-proof and heat-resistant plastic housings
- Screw terminals for the electrical connections
- Maintenance-free gear train, which can be disengaged
- Internal position indication
- Easy-to-adjust end and auxiliary switches for adjusting the switching points
- Integrated electronic circuits
- With synchronous motor

Holding torque:

- SQN70 / SQN71 / SQN75	0.7...1.3 Nm
- SQN74	0.7 Nm

Running time:

- SQN70 / SQN71 / SQN75	4...30 s
- SQN74	4 s

Direction of rotation:

- SQN70 / SQN74	counterclockwise
- SQN71 / SQN75	clockwise

Actuators

SQN9

Electromotoric actuators for air dampers and control valves of oil and gas burners of small to medium capacity.

- Impact-proof and heat-resistant plastic housings
- Screw terminals for the electrical connections
- Maintenance-free gear train, which can be disengaged
- Internal position indication
- Easy-to-adjust end and auxiliary switches for adjusting the switching points
- Integrated electronic circuits

Holding torque:	0.8...2.4 Nm
Running time:	4...24 s

Direction of rotation:

- SQN90	counterclockwise
- SQN91	clockwise

Display and operating units

AZL21.00A9

Article no.: **BPZ:AZL21.00A9**

Display and operating unit, separate unit for various types of installation with LCD, 8 digits, 5 buttons, BC interface to LME39, degree of protection IP40.

AZL23.00A9

Article no.: **BPZ:AZL23.00A9**

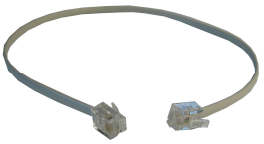
Display and operating unit, separate unit for various types of installation with LCD, 8 digits, 5 buttons, BC interface to LME39, degree of protection IP54.

Accessories

AGK20
Article no.: **BPZ:AGK20**
Extension of lockout reset button.

AGV50.100
Article no.: **BPZ:AGV50.100**
Signal cable for AZL2, with RJ11 connector, cable length 1 m, pack of 10.

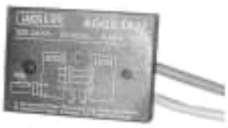
AGV50.300
Article no.: **BPZ:AGV50.300**
Signal cable for AZL2, with RJ11 connector, cable length 3 m, pack of 10.



ARC466890660
Article no.: **BPZ:ARC466890660**
RC unit for ionization current supervision in networks with non-earthed neutral conductor.

AGK25
Article no.: **BPZ:AGK25**
PTC resistor (AC 230 V) as a burden for terminal 3 (for burners without fan motor, such as atmospheric gas burners).

AGQ3
Ancillary unit for UV supervision, can be fitted under the plug-in base.
AGQ3.1A27: Cable length 500 mm
Article no.: **BPZ:AGQ3.1A27**
AGQ3.2A27: Cable length 300 mm
Article no.: **BPZ:AGQ3.2A27**



LDU11 (only LME22 and LME39.1)
The valve proving system for monitoring the leakage of the shutoff valves for gas burners and gas devices.
In the event of inadmissible leakage, the system prevents the burner from starting up.

QPLx5
The pressure switches are used for monitoring gas or air pressures. When the pressure falls below or exceeds the adjusted switching point, the respective electrical circuit will be opened or changes over.

QPL15.xxxB

QPL25.xxxB

Available documentation

Type reference (ASN)	Title	Documentation no.
ACS410	Software	CC1J7352
AGK11	Plug-in base	CC1N7201
AGK20	Extension of lockout reset button	---
AGK25	PTC resistor	---
AGK65	Cable holder	CC1N7201
AGK66	Cable holder	CC1N7201
AGQ3	Ancillary unit	---
AGV50.100	Signal cable	---
AGV50.300	Signal cable	---
ARC466890660	RC unit	---
AZL21	Display and operating units	CC1N7542
AZL23	Display and operating units	CC1N7542
LDU11	Valve proving system	CC1N7696
LME11	Burner control	CC1N7101
LME21	Burner control	CC1N7101
LME23	Burner control	CC1N7101
LME39	Burner control	CC1N7106
LME41	Burner control	CC1N7101
LME44	Burner control	CC1N7101
OCI400	Optical interface	CC1N7614
OCI410	BC interface module	CC1N7615
QPLx5	Pressure switch	CC1N7221
QRA2	Flame detector	CC1N7712
QRA4	Flame detector	CC1N7711
QRA10	Flame detector	CC1N7712
QRC	Blue flame detector	CC1N7714
SQN3	Actuators	CC1N7808
SQN4	Actuators	CC1N7808
SQN7	Actuators	CC1N7804
SQN9	Actuators	CC1N7806