

**SIEMENS**

*Ingenuity for life*

# LME7 – The innovative burner control platform

Control Products & Systems OEM



[www.siemens.com/buildingtechnologies-oem](http://www.siemens.com/buildingtechnologies-oem)





# A solution for all applications

Whether it is a question of supplying medium-sized or large building complexes or of generating process heat in commercial and industrial applications, cost-effectiveness and environmental protection are becoming increasingly important.

Siemens is familiar with the special requirements of these areas and its many years of experience make it the perfect partner. How you stand to benefit: Efficient solutions that conserve resources and can meet any requirements.

With the LME7, Siemens is now able to offer a standardized burner control platform for all kinds of applications. This innovative solution standardizes burner design and production and simplifies installation and service work. It also makes it easier to adapt the solution to the customer's needs or to integrate various functions. LME7 – The cost-effective solution for the burner industry.

# Modular, communicationscapable, and extremely compact

## Customized for all market segments

In addition to products for floor-standing and wall-mounted boilers, we also develop and produce numerous components for use in forced draft and industrial burners.

Our diverse product range includes burner controls, actuators, flame detectors, valves, checking and testing equipment, as well as fully integrated system solutions.

Our extensive assortment of products is rounded off by perfectly matching standard components such as temperature and pressure sensors, boiler controllers, or process control systems. To name just one example, take our VGD40 double gas valves, which have been specially designed for large capacities. They feature a highly compact and flexible design and are flow-optimized.

Ultimately, this means that we can offer exactly the right solutions for all the market segments covered by our customers – from solutions for residential buildings and commercial buildings through systems for complex industrial plants.

## Flexible and powerful

LME7 is our innovative burner control platform that can be used to achieve high levels of efficiency. It can be flexibly adapted to all kinds of requirements, yet can still be integrated into development and production efficiently. LME7 is particularly suitable for controlling and monitoring single- or dual-fuel forced draft burners in the medium to large capacity range.

## Safe and reliable

Siemens likes to set standards, particularly when it comes to safety. What this means specifically in the case of the LME7 is that all signals are processed redundantly and compared by two powerful processors using 2 channels. This high standard of safety is important to us: Ultimately, we understand our responsibilities as a market leader and as a system supplier of burner control technology with an industry-wide reputation to uphold.

## HIGHLIGHTS

- Wide product range
- Optimum systems for solutions tailored to market needs
- Can be used worldwide thanks to global approvals (UL, CSA, CE)

### Fields of use

LME7

100 kW

2 MW

20 MW







LMV7-  
peripheral



Universal controller



Operating unit



Damper  
actuator



Flame detector



Interface  
module

## Easy to use and highly functional

Selection of peripheral products for the LME7

### Diverse application areas

The LME7 burner control platform is specifically designed for controlling modulating or multistage burners in the medium to large capacity range. In addition, we naturally also offer versions for gas burners with a PWM fan for modulation.

### Extensive functionality

LME7 offers you a choice of numerous different program modules and variable program sequences for burner control (depending on specific unit version).

This means you can choose between different program sequences, with or without a pilot burner and a valve proving function that can be selected via parameters. For quick burner start-up, you have the option of activating the valve proving function during postpurging. What's more, there is the option of having integrated actuator control, via analog or 3-point step signals, with an actuator for pneumatic or mechanical fuel/air ratio control.

Thanks to the various configuration options (such as a 3-point step signal, 4...20 mA or 0...10 V) you will have no problems integrating LME7 into a large number of applications. Even dual-fuel applications can be implemented easily in this way.

Additional parameterization also allows the unit to be easily and efficiently adapted to many different types of burner.

The LME7 burner control platform is designed for installation on the burner or in the immediate vicinity of the burner components. This means it can be placed in a user-friendly location, making it much easier to pinpoint any faults that may occur.

### HIGHLIGHTS

- Diverse program modules
- Integrated valve proving function
- Integrated actuator control
- Analog load controller inputs
- Continuous and intermittent operations





# Handy tools for effective work

### Parameterization at the touch of a button

In case of service, you can transfer the parameters stored in the PME program module to a new basic unit simply by touching a button. In addition to the information output on the display, diagnostics can also be performed using the ACS410 software tool.

### Easy and convenient operation

The user- and service-friendly interface with optional LCD enables you to commission the LME7 quickly and also makes maintaining the overall system more efficient and less expensive.

You can also use the AZL operating unit (in conjunction with the LME7 burner control platform) directly on

the burner or in control cabinets within the burner's immediate vicinity. The AZL2 is used for the display, operation, and parameterization of specific safety- and non-safety-related burner functions. To this end, key plant data and fault codes can be queried and displayed at any time.

### Direct troubleshooting

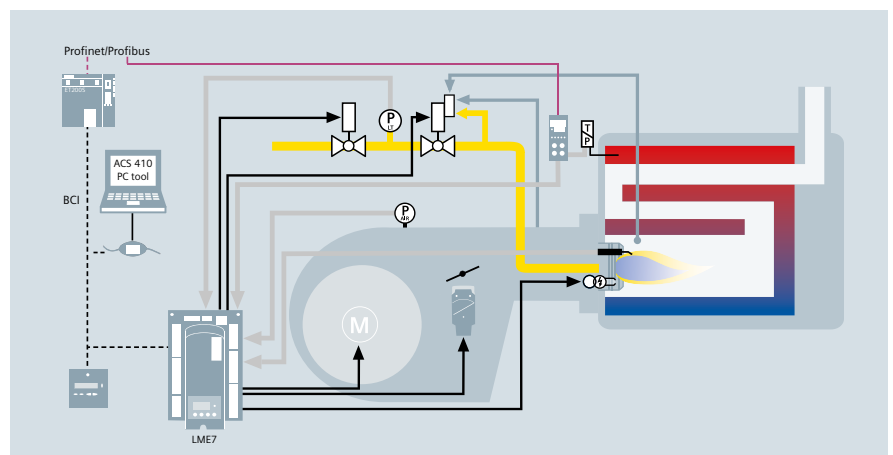
To provide you with quick and targeted diagnostics in the event of a fault, the entire diagnostic data is made available to the service engineer along with a history of recent faults.

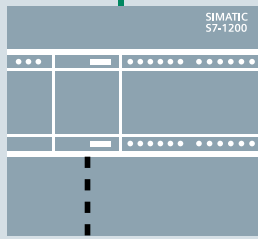
The comprehensive ACS410 software tool can be used to visualize, parameterize, and save the data for the LME7.

## HIGHLIGHTS

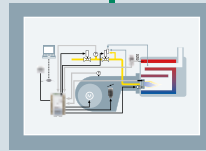
- Parameters stored in program module
- Display of operating states, fault codes, fault history, and program phases
- Plant-dependent setting of parameters
- software tool ACS410 for making settings, data management and featuring backup/restore function

LME7 in the pneumatic fuel/air ratio control with actuator control for an actuator





SIMATIC S7-1200



SIMATIC Panel



OCI412.10



LME7

# Communication with the Siemens SIMATIC PLC

### Automation solutions

Optimized solutions for every application are what you need to automate your machines and systems in a way that is both efficient and flexible. Whether you're only looking for control solutions or you want to perform other additional automation tasks – in the areas of visualization, technology or data archiving – we have the perfect solution for you!

The BCI on the LME7 and the optional OCI412 interface module give you the possibility of establishing a connection with the Siemens SIMATIC PLC.

### Integration into the SIMATIC PLC environment

The serial communication interfaces in the SIMATIC PLC make it easy to connect the LME7. Ready-made libraries for the SIMATIC ET200S or S7-1200 facilitate data exchange as well as integration into process control systems. Key status information for the LME7 can be obtained via data modules. As a result, process control centers are able to access LME7 data for visualization through the SIMATIC system integrator is also afforded the opportunity to integrate the LME7 into more complex process environments.

### HIGHLIGHTS

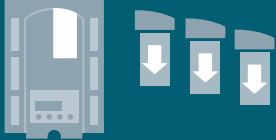
- Library for communication with Simatic ET200s
- Library for communication with Simatic S7-1200



Siemens can supply everything you need for a compact package. The right products for the system can be put together from our portfolio in line with your requirements and applications. Whether your system is large or small, we are sure to be able to meet your every need.



# The right module for every application

		PME71.111A...	PME71.112A...	PME71.401A...	PME71.402A...	PME71.901A...	PME73.810A...	PME73.811A...	PME73.812A...	PME73.820A...	PME73.830A...	PME73.831A...	PME73.840A...	PME75.231A...	PME75.811A...	PME75.812A...	PME75.831A...	PME76.231A...	PME76.811A...	PME76.812A...	PME76.831A...	
		PROGRAM MODULES																				
FIELD OF USE	For use with LME71.000A...	■	■	■	■	■																
	For use with LME73.000A...						■	■	■	■	■	■	■									
	For use with LME75.000A...													■	■	■	■					
	For use with LME76.000A...																	■	■	■	■	
	Forced draft burner gas program	■	■	■	■	■	■	■	■	■	■	■	■		■	■	■		■	■	■	■
	Atmospheric burner gas program		■												■	■	■		■	■	■	■
	Forced draft oil burner													■			■	■				■
	1-stage or 1-stage modulating	■	■	■	■	■	■	■	■	■	■	■	■		■	■	■		■	■	■	■
	2-stage or 1-stage modulating			■	■	■	■			■	■	■	■		■	■	■	■	■	■	■	■
	Pilot burner, simultaneous				■			■	■			■	■	■		■	■			■	■	
	Pilot burner, alternating														■	■	■	■	■	■	■	■
	Modulating via actuator (pneumatic or mechanical gas-air ratio control)							■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	Modulating via PWM fan (pneumatic gas-air ratio control)					■																
	Fan speed open-loop/closed-loop control via analog signal/ 3-point step signal					■																
	Actuator control via analog signals/3-point step signals for actuators without potentiometer							■	■	■		■	■		■	■	■	■	■	■	■	■
	3-point step signals for actuators without potentiometer										■		■	■	■	■	■	■	■	■	■	■
	POC (valve closure control)	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		■	■	■	
	Valve proving					■	■	■		■	■	■	■		■			■		■		■
	Input valve proving ON/OFF												■					■				■
	Gas pressure switch-max (depending on the parameterization)														■	■	■			■	■	■
Oil pressure switch-min / Oil pressure switch-max (depending on the parameterization)														■				■				
Oil preheater / Oil temperature limiter (depending on the parameterization)														■				■				

...A1 for 120 VAC with UL, CSA and FM approvals

...A2 for 230 VAC with CE approval

When building technology creates perfect places –  
that's Ingenuity for life.

Never too cold. Never too warm.  
Always safe. Always secure.

With our knowledge and technology, our products,  
our solutions and our services, we turn places into  
perfect places.

We create perfect places for their users' needs –  
for every stage of life.

**#CreatingPerfectPlaces**

[www.siemens.com/perfect-places](http://www.siemens.com/perfect-places)

Siemens Switzerland Ltd  
Building Technologies Division  
International Headquarters  
Gubelstrasse 22  
6301 Zug  
Switzerland  
Tel +41 41 724 24 24

Siemens AG  
Building Technologies Division  
Berliner Ring 23  
76437 Rastatt  
Germany  
Tel +49 7222 598 279

Article no. RA-500301903-en

Subject to changes and errors. The information given in this document  
only contains general descriptions and/or performance features which  
may not always specifically reflect those described, or which may undergo  
modification in the course of further development of the products. The  
requested performance features are binding only when they are expressly  
agreed upon in the concluded contract.

© Siemens AG, 2019

