SIEMENS

7118

LOA2... LOA3...

Oil Burner Controls LOA2... LOA3...

Oil burner controls for the supervision, startup and control of 1- or 2-stage forced draft oil burners in intermittent operation.
Oil throughput of less than 30 kg/h.

The LOA2... / LOA3... and this Data Sheet are intended for use by OEMs which integrate the oil burner controls in their products.

Use, features

Use

The LOA... are used for the startup, supervision and control of 1- or 2-stage forced draft oil burners in intermittent operation.
Yellow-burning flames are supervised with photoresistive detectors QRB..., blue-burning flames with blue-flame detectors QRC...

- Applications in accordance with EN 267: Automatic forced draft burners for liquid fuels
- Type-tested and approved in accordance with DIN EN 230:1991

General features

- Undervoltage detection
- Bridging contact for oil preheater (not with LOA28.173A27)

Specific features

- Special versions including models for incinerator plants and flash-steam generators
- LOA36... with color display of flame intensity and operating

Note!
Do not use for new designs.

Warning notes

To avoid injury to persons, damage to property or the environment, the following warning notes must be observed!

Do not open, interfere with or modify the unit!

- All activities (mounting, installation and service work, etc.) must be performed by qualified staff
- Before making any wiring changes in the connection area, completely isolate the plant from mains supply (all-polar disconnection). Ensure that the plant cannot be inadvertently switched on again and that it is indeed dead. If not observed, there is a risk of electric shock hazard
- Ensure protection against electric shock hazard by providing adequate protection for the burner control's connection terminals. If not observed, there will be a risk of electric shock
- Each time work has been carried out (mounting, installation, service work, etc.), check to ensure that wiring is in an orderly state and make the safety checks as indicated in *Commissioning notes* above. If this is not observed, there is a risk of loss of safety functions and a risk of electric shock.
- Press the lockout reset button / operating button only manually (applying a force of no more than ≤10 N), without using any tools or pointed objects. If this is not observed, there is a risk of loss of safety functions and a risk of electric shock.
- Fall or shock can adversely affect the safety functions. Such units must not be put into operation, even if they do not exhibit any damage. If this is not observed, there is a risk of loss of safety functions and a risk of electric shock.

Attention!
Earth the burner in compliance with the relevant regulations; earthing the boiler alone does not suffice!

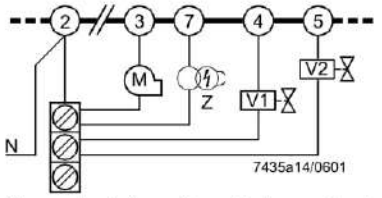
Mounting notes

Ensure that the relevant national safety regulations are complied with.

Installation notes

- Always run high-voltage ignition cables separately while observing the greatest possible distance to the unit and to other cables
- Make absolutely certain that live and neutral conductors are correctly connected to terminals 1 and 2 of the burner control
- Install switches, fuses, earthing, etc., in compliance with local regulations
- Ensure that the maximum permissible current load for the connecting terminals is not exceeded (refer to *Technical data)*
- Do not feed external mains voltage to the control outputs of the burner control. When testing the function of devices controlled by the burner control (fuel valves or similar), the burner control must not be connected
- To disconnect the unit from the mains, a complete shut-down must be carried out under overvoltage category III conditions in each pole
- Secure the earthing lug in the terminal base with a metric screw and a lockwasher or similar
- Switches, fuses, earthing, etc., must be in compliance with local regulations; primary fuse max. 10 A (fast)
- For safety reasons, feed the neutral conductor to the neutral distributor in the plug-in base, or to terminal 2. Connect the burner components (fan, ignition transformer and fuel valves) to the neutral distributor as shown in the figure 7435a14. The connection between the neutral conductor and terminal 2 is prewired in the terminal base

Example



Key

Vx	Fuel valve
M	Fan motor
Z	Ignition transformer

Correct wiring of neutral conductors!

Electrical connection of flame detectors

It is important to achieve practically disturbance- and loss-free signal transmission:

- Never run the detector cable together with other cables
  – Line capacitance reduces the magnitude of the flame signal
  – Use a separate cable
- Observe the permissible lengths of the detector cables, see *Technical data* and Data Sheet / Flame detector QRB (N7714) and QRC (N7716).

Commissioning notes

When commissioning the plant, when carrying out maintenance work, or after longer off periods, make the following safety checks:

	Safety check to be carried out	Anticipated response
a)	Burner startup with flame detector darkened	Lockout at the end of «TSA»
b)	Burner startup with flame detector exposed to extraneous light	Lockout after approx. 40 seconds
c)	Simulation of flame failure during operation. For that purpose, darken the flame detector during operation and maintain this state	Repetition followed by lockout at the end of «TSA»

Standards and certificates

CE

Applied directives:

- Low-voltage directive 2006/95/EC
- Electromagnetic compatibility EMC (immunity) *) 2004/108/EC

*) The compliance with EMC emission requirements must be checked after the burner control is installed in equipment

Compliance with the regulations of the applied directives is verified by the adherence to the following standards / regulations:

- Household and similar electrical appliances - Safety VDE 0700
- Electrical equipment of non-electric heated cooking and heating appliances VDE 0722

The relevant valid edition of the standards can be found in the declaration of conformity!

Note on **DIN EN 60335-2-102**
Household and similar electrical appliances - Safety - Part 2-102:
Particular requirements for gas, oil and solid-fuel burning appliances having electrical connections. The electrical connections of the LOA and the AGK11 comply with the requirements of EN 60335-2-102.

EAC Conformity mark (Eurasian Conformity mark)

ISO 9001:2008
ISO 14001:2004
OHSAS 18001:2007

China RoHS
Hazardous substances table:
http://www.siemens.com/download?A6V10883536

Service notes

The service adapters can only be used for a short time. They may only be used in supervised operation by qualified staff.