Safety instructions

- Electrical work may only be carried out by a qualified electrician.
- Carry out electrical work in accordance with the standards and local regulations which apply.
- Install the power supply so that it is fixed in place and in the correct phase.
- Ensure that the total current does not exceed the value stated on the data plate.
- Ensure that an emergency stop device (heating system emergency stop switch) is present as required by the relevant national regulations.
- In the case of systems with a three-phase current consumer, the emergency stop device must be integrated into the safety chain.
- Ensure that a circuit breaker to the required standard and, in accordance with BS EN 60335, is present for all-pole isolation from the mains power supply. If there is no circuit breaker present, you must install one.
- Before opening the control unit, disconnect all poles of the heating system via the circuit breaker. Secure it against unintentional reconnection.
- Size the cables according to the environmental conditions and the way in which the cables are to be laid. The cable cross-section for high-voltage components (pumps, mixers, etc.) must be at least 1.0 mm².
- Do not use the yellow/green earth lead as a control cable.
- Group and fasten together all common cables (e.g. with cable ties) or strip the cable sheath short, to prevent the risk of voltage flashes between 230 V and low voltage cables due to wires accidentally loosening.
- Observe the safety instructions in the documentation of the control unit and the modules used.
- If a condensate neutraliser is present, the contact for the overfill safety device must be incorporated into the safety chain.
- In the case of three-phase current consumers (e.g. burners, boiler circulation pumps), appropriate on-site switching devices must be connected upstream of the current consumers and fuse-protected.
- Observe the key in this document!

Note
The schematic figures show non-binding examples of hydraulic circuits. Always observe the local conditions and regulations.
**Legend**

**Terminals**
- **High-Voltage**: Control voltage 230 V~
- **1.5 mm²/AWG 14, max. 5 A**
- **Low-Voltage**: Extra-low voltage
- **0.4...0.75 mm²/AWG 18**

1) Mains supply from the power supply module or adjacent module
2) Mains supply for further modules
3) Internal BUS in the control unit

**Module designations**
- **BM591**: PCB module for internal BUS
- **FM-AM**: Function module

**Components**
1) FM-AM function module
2) Logamatic 5xxx/Control 8xxx control unit
3) DHW cylinder
4) Buffer cylinder
5) Alternative heat source
6) Gas / oil boiler

**General legend**
- **FAR**: Temperature sensor, system return
- **FPM**: Temperature sensor, buffer centre
- **FPO**: Temperature sensor, buffer top
- **FPU**: Temperature sensor, buffer bottom
- **FWG**: Temperature sensor, PT 1000, heat source flue gas
- **FWR**: Temperature sensor, heat source return
- **FWV**: Temperature sensor, heat source flow
- **PWE**: Pump, alternative heat source
- **SWE**: 3-way switching valve, heat source
- **SWR**: Heat source return actuator
- **WE ON**: Output for automatic heat source start signal (volt free)

**Example of hydraulics**
- Alternative buffer circuit