Differential controller Lago SD

Product brochure · GB
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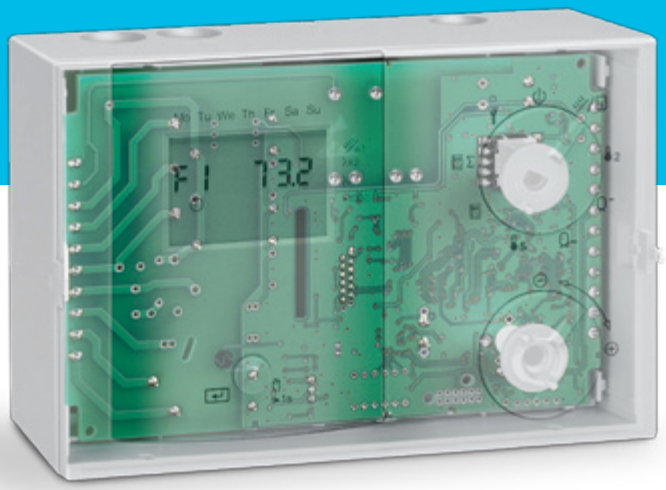

- Simple programming and operation
- Automatic configuration by selecting the system diagram
- Automatic sensor recognition
- LCD display to show temperatures, operating conditions and heat yield
- Pump blocking protection
- Collector protection function
- Determining the solar heat yield for a maximum of two collector panels
- Daily yield
- Total yield

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Lago SD1

Lago SD2

Lago SD3

Lago FB T-SD

Application and function

By using modern digital technology, the user has an intelligent control unit, which, despite its wide range of functions, is simple to use as a result of the time-tested Elster Kromschröder operating philosophy and the LCD display.

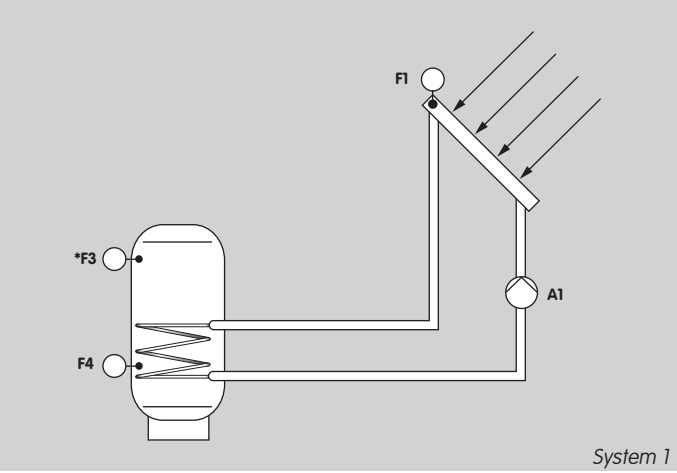
A high level of comfort is achieved by the direct display of temperatures, heat yields and pump conditions on the unit display. The differential controllers Lago SD are configured automatically using the connected sensors.

By selecting one of the system diagrams saved in the memory, the required default settings are made automatically.

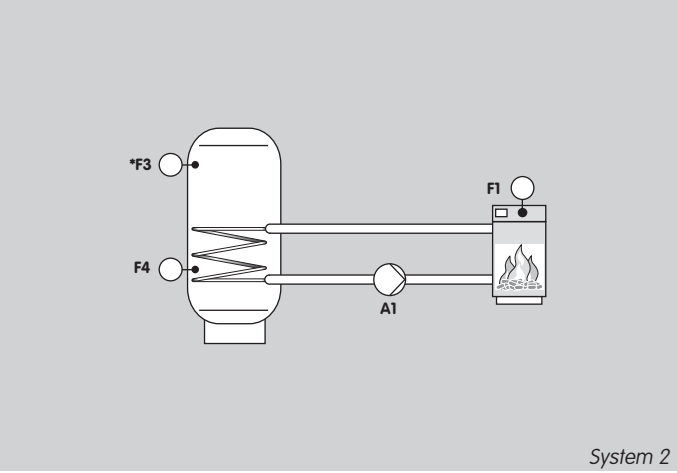
The differential controllers Lago SD are designed for use with flat and tubular collectors as well as solid fuel boilers and layer storage systems. In addition, return temperature increase via a mixer is possible.

The differential controller Lago SD3 is equipped with a CAN-bus communication interface. This allows displaying of the temperatures and operating conditions of the solar system on the remote solar display Lago FB T-SD or connection to the Elster Kromschröder control system (room control modules BM 8 and Merlin BM).

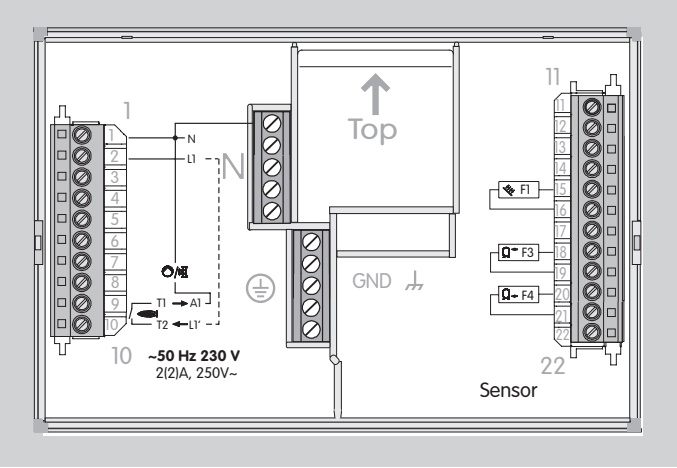
Lago SD1



System 1



System 2



Differential controller Lago SD1

This controller can be used to control solar storage tank charging (system 1) or storage tank charging by means of solid fuel boiler (system 2).

* Components and sensors can be used optionally.

Performance features

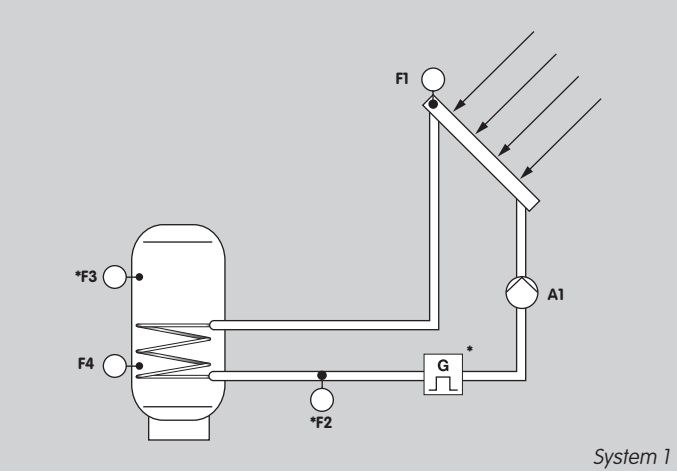
- 3 sensor inputs
- 1 relay output
- 1 controllable differential
- Hysteresis adjustable from 1 to 30 K
- Pump blocking protection
- Easy installation
- Wall-mounted housing

Differential controller Lago SD1 is supplied with 2 PT1000 sensors (collector and storage tank sensor) and a base for wall mounting.

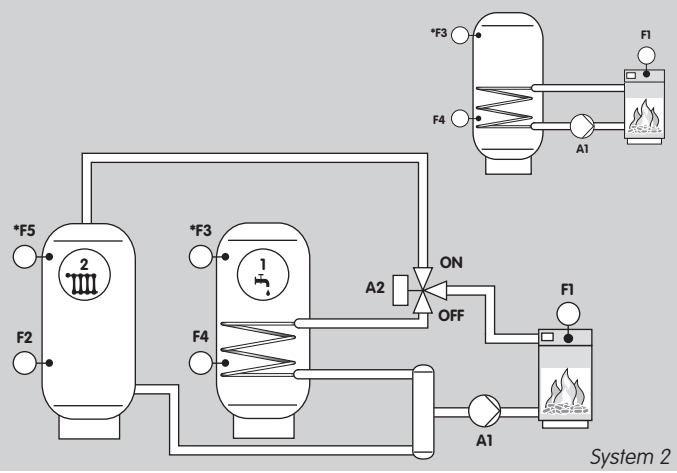
Lago SD1 setting and display options

⏻	No function/Off (display reads "---")
	Display F1 Temperature, collector/solid fuel
	Display F4 Temperature, storage tank bottom
	Solar operation (display F3 Temperature, storage tank top)
ΔT ON	Switch-on differential (adjustable)
ΔT OFF	Switch-off differential (adjustable)
max	Maximum storage tank temperature
max	Maximum collector/solid fuel boiler temperature
min	Minimum collector/solid fuel boiler temperature

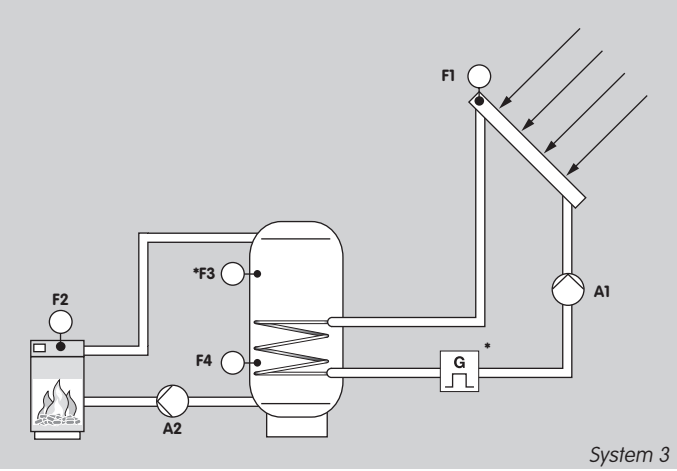
Lago SD2



System 1



System 2



System 3

Differential controller SD2

This controller can be used to control 9 system types:

System 1: Solar control

System 2: Solid fuel boiler control for two storage tanks

System 3: Solid fuel boiler control with solar control

System 4: Solar control with two collectors

System 5: Solar control with two storage tanks – switch-over via valve

System 6: Solar control with two storage tanks – 2 feed pumps

System 7: Solar control with reheating function

System 8: Solar control with heating system return temperature increase

System 9: Solar control with two storage tanks switched in cascade

* Components and sensors can be used optionally.

Performance features

- 5 sensor inputs
- 1 pulse input for heat volume metering
- 2 relay outputs
- Collector protection function / Storage tank cooling
- Reheating function for system 7
- Return temperature increase via mixer
- 2 controllable differentials
- Hysteresis adjustable from 1 to 30 K
- Pump blocking protection
- Pump kick function
- Heat volume calculation using a flow rate determination
- Floating contact, switching, for second heat generator
- Easy installation
- Wall-mounted housing

Differential controller Lago SD2 is supplied with 2 PT1000 sensors (collector and storage tank sensor) and a base for wall mounting.

Lago SD2 setting and display options

No function/Off (display reads "---")

Display F1 Temperature, collector/solid fuel

2 Display F2 Temperature, additional sensor

Display F3 Temperature, storage tank top

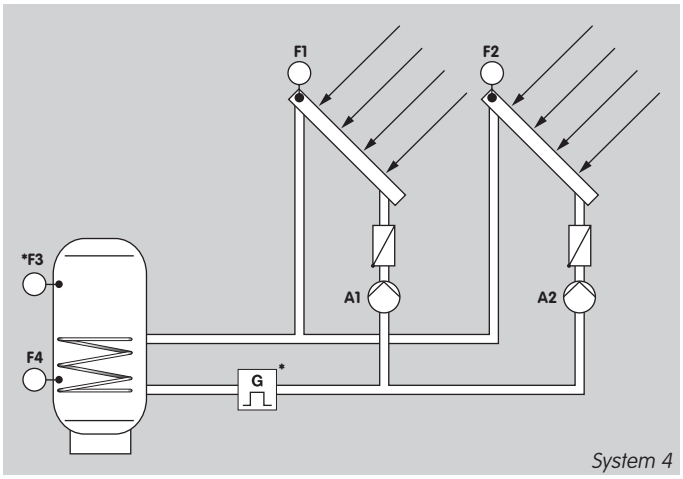
Display F4 Temperature, storage tank bottom

5 Display F5 Temperature, additional sensor

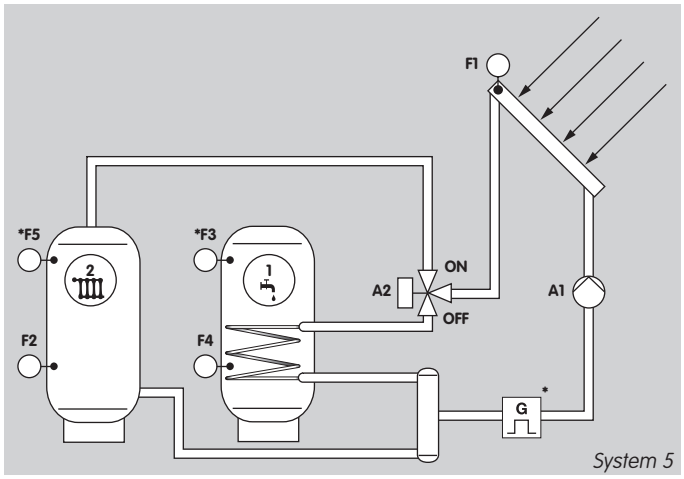
Display C1 Daily yield

Σ Display C2 Total yield

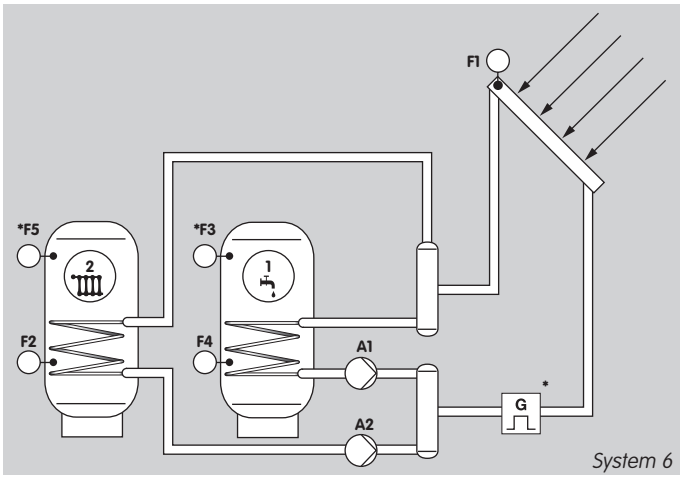
User and technician parameters



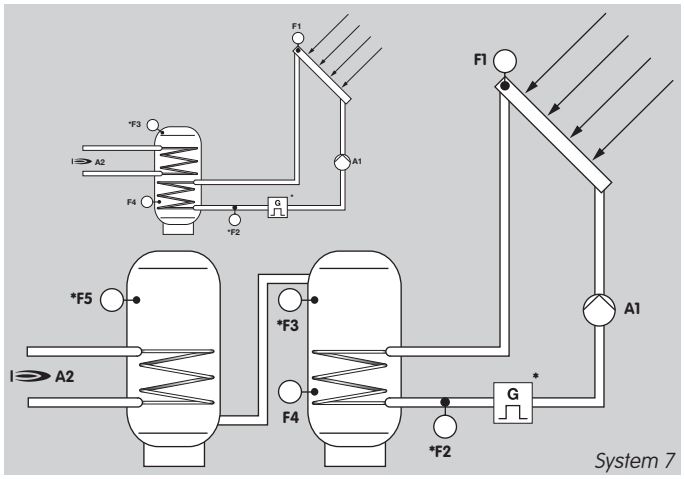
System 4



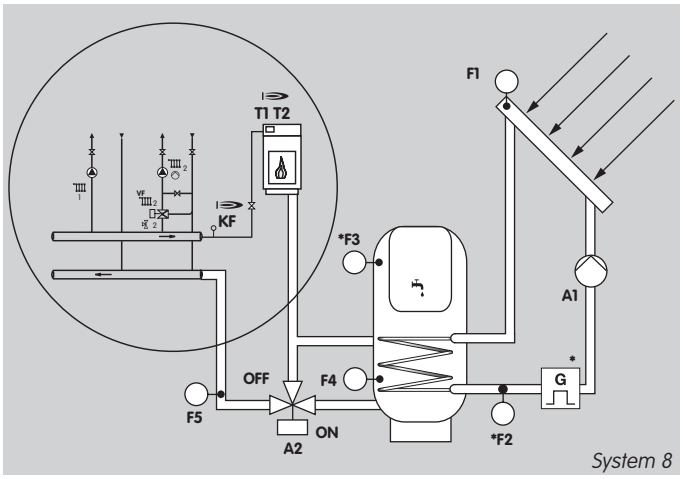
System 5



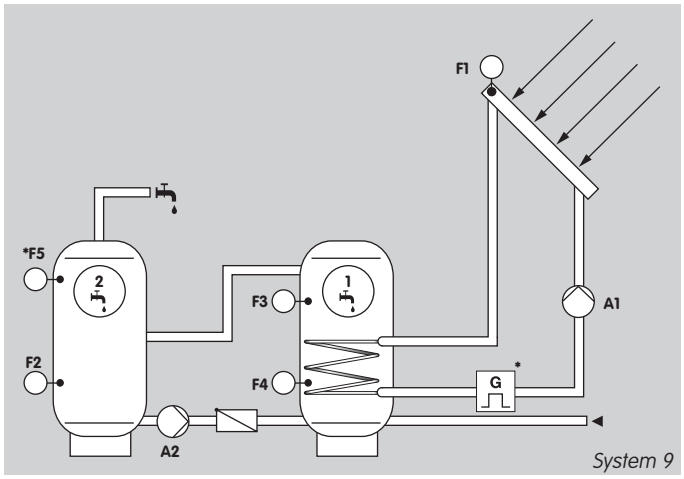
System 6



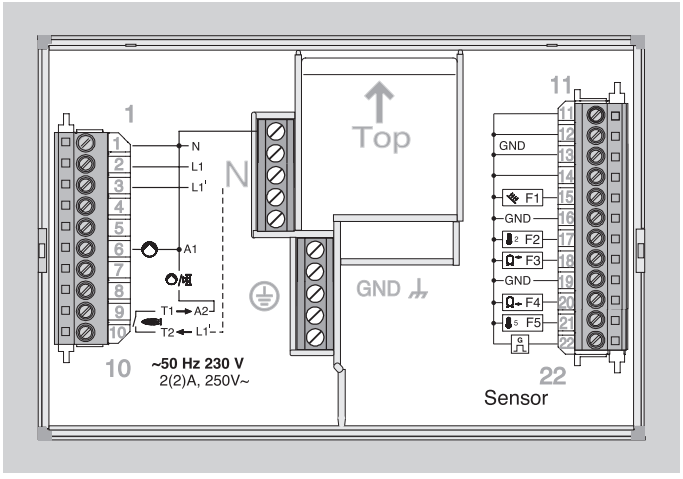
System 7



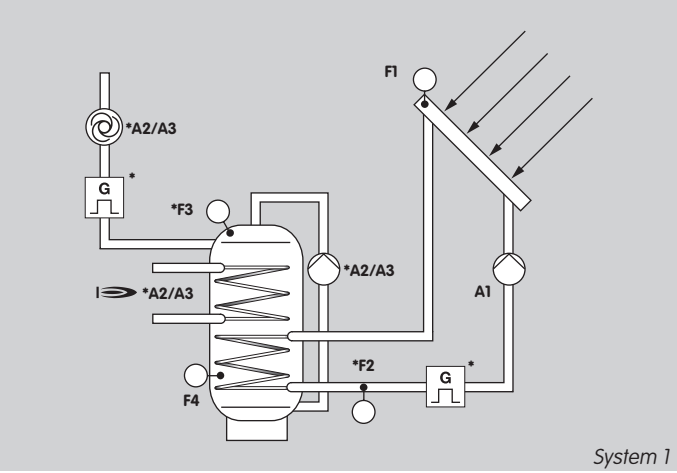
System 8



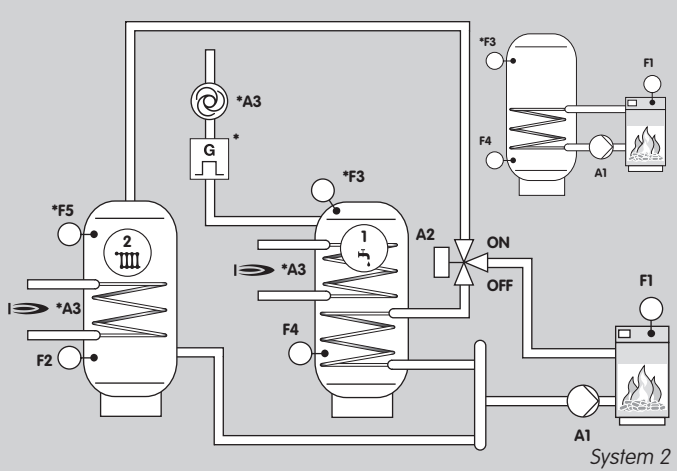
System 9



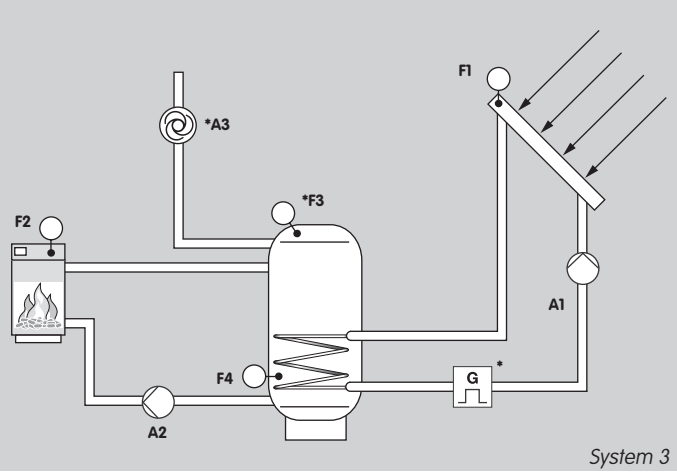
Lago SD3



System 1



System 2



System 3

Differential controller Lago SD3

This controller can be used to control 12 system types:

System 1: Solar control

System 2: Solid fuel boiler control for two storage tanks

System 3: Solid fuel boiler control with solar control

System 4: Solar control with two collectors

System 5: Solar control with two storage tanks – switch-over via valve

System 6: Solar control with two storage tanks -2 feed pumps

System 7: Solar control with reheating function

System 8: Solar control with heating system return temperature increase

System 9: Solid fuel boiler control with return temperature increase via mixer

System 10: Solar control with two storage tanks switched in cascade

System 11: Solar control with 2-layer storage system

System 12: Solar control with 3-layer storage system

* Components and sensors can be used optionally.

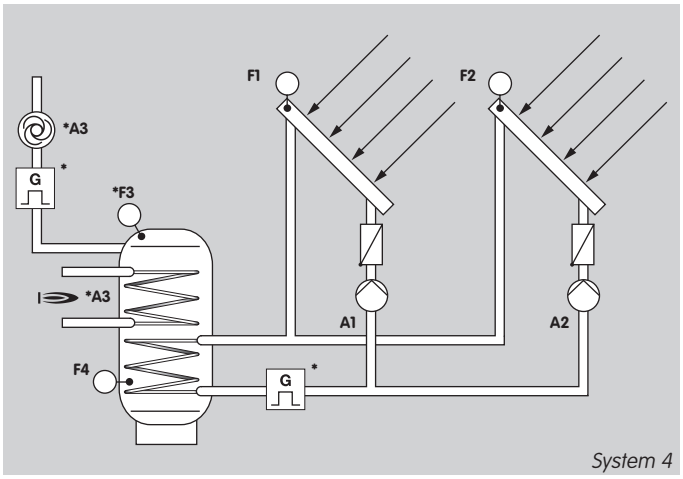
Performance features

- 5 sensor inputs
- 1 pulse input for heat volume metering
- 2 relay outputs
- 1 triac output (speed control)
- Collector protection function / Storage tank cooling
- Reheating function / Circulation function
- Return temperature increase via mixer
- 2 controllable differentials
- Hysteresis adjustable from 1 to 30 K
- Pump blocking protection
- Pump kick function
- Heat volume calculation using a flow rate determination
- Floating contact, switching, for second heat generator
- Easy installation
- Wall-mounted housing
- Speed-controlled collector pump, adjustable
- Communication CAN Bus

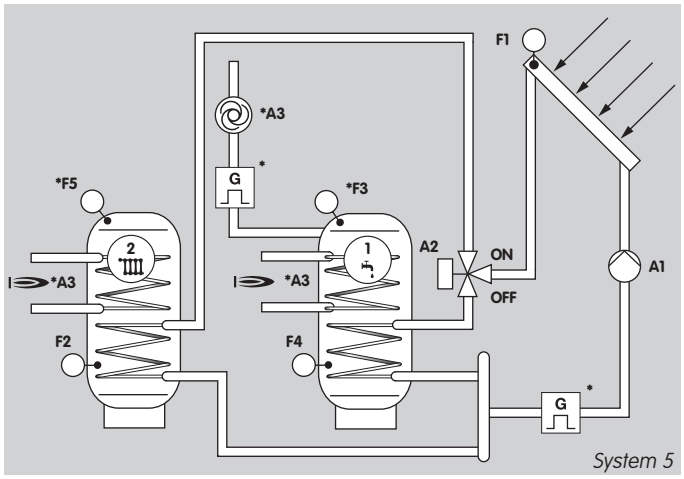
Differential controller Lago SD3 is supplied with 2 PT1000 sensors (collector and storage tank sensor) and a base for wall mounting.

Lago SD3 setting and display options

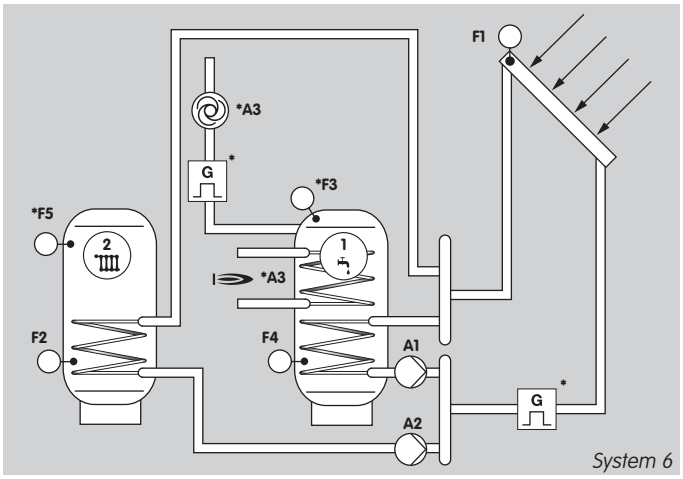
- No function (display indication ⏻ and "OFF")
- Display F1 Temperature, collector/solid fuel
- Display F2 Temperature, additional sensor
- Display F3 Temperature, storage tank top
- Display F4 Temperature, storage tank bottom
- Display F5 Temperature, additional sensor
- Display C1 Daily yield
- Display C2 Total yield
- User and technician parameters



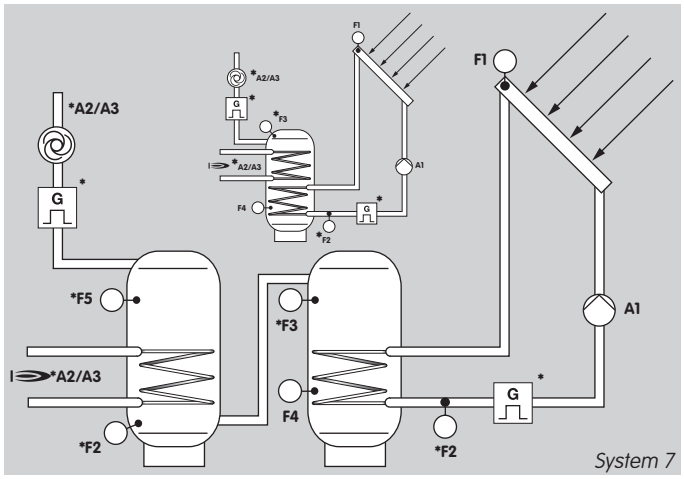
System 4



System 5



System 6



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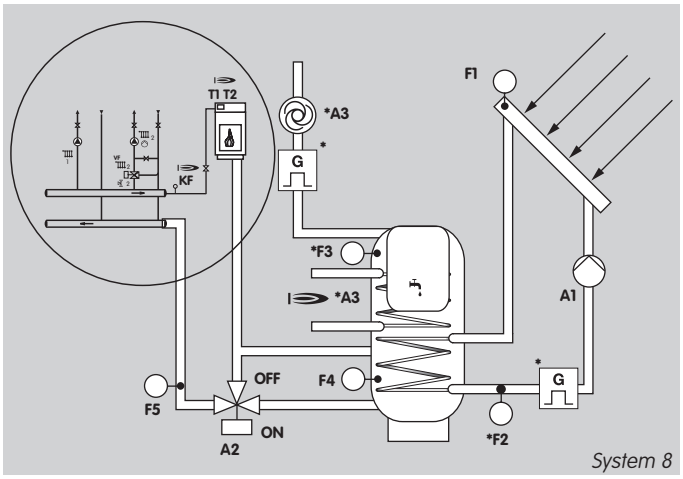

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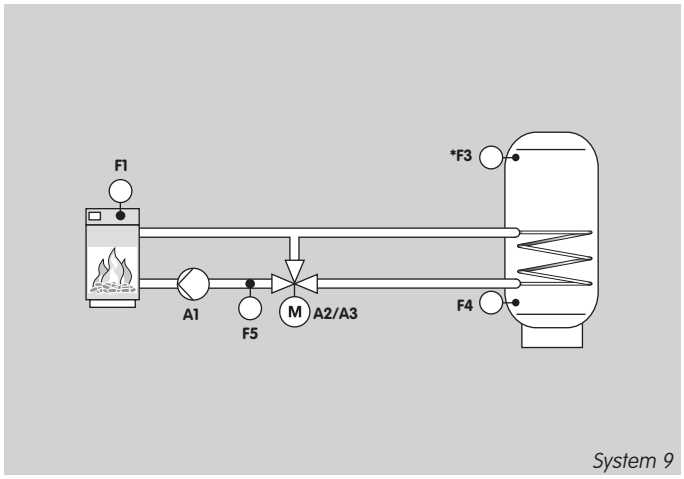

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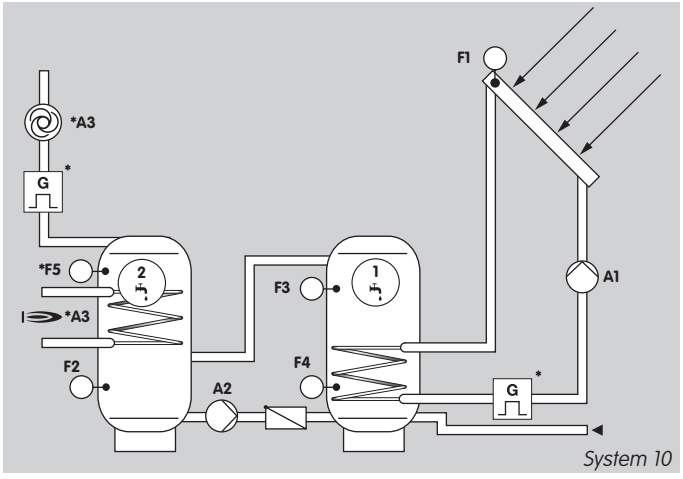

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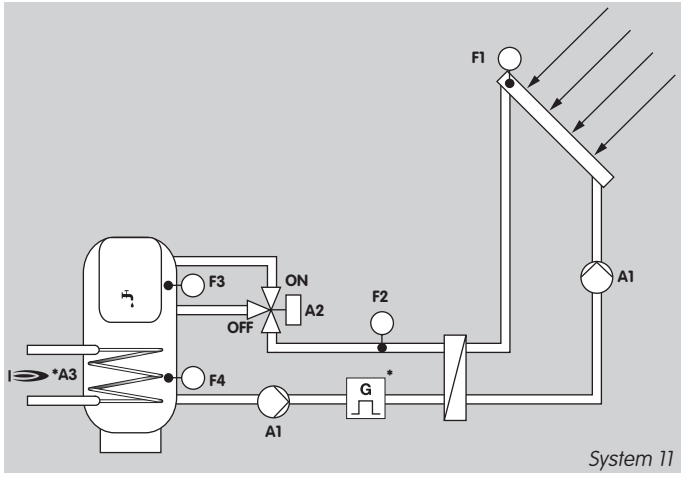
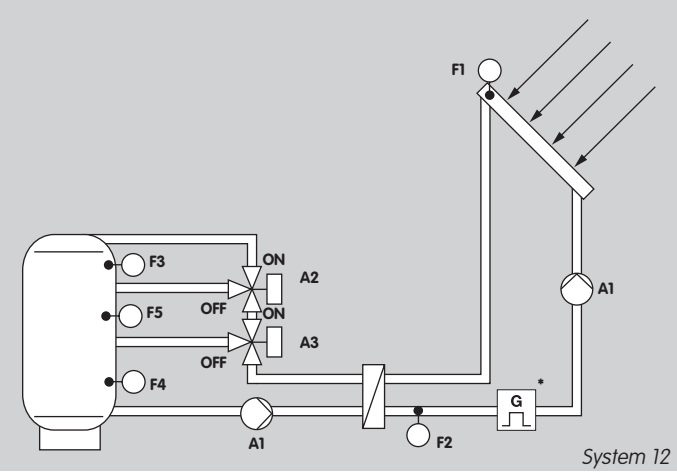
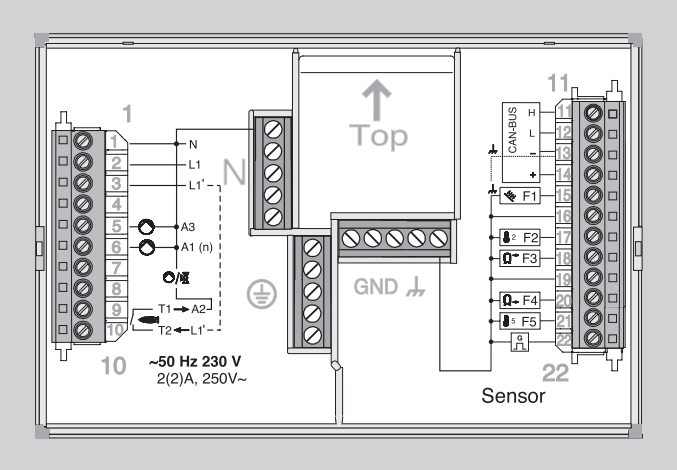


System 11



System 12



Technical data

Supply voltage pursuant to DIN IEC 60038: 230 V AC ± 10%.

Power consumption: max. 4 VA.

Switching capacity of the relays: 250 V, 2(2) A.

Switching capacity of the speed output: 250 V, 1 A.

Max. current on terminal L1': 6.3 A.

Enclosure pursuant to DIN EN 60529: IP 40.

Safety class pursuant to DIN EN 60730: II, totally insulated.

Power reserve of the timer: >10 hours.

Ambient temperature: 0 to 50°C.

Storage temperature: -30 to 60°C.

Sensor resistance F1–F5:
Test resistance PT1000, 1 kΩ ± 1% at 0°C.

Legend

Mains: N, L1, L1'.

Pump: A1 (PWM pulse width modulation).

Pumps/valves: A2, A3 (switch-controlled).

Burners: T1, T2.

Sensors: F1, F2, F3, F4, F5.

Detailed information on this product

www.docuthek.com

Contact

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