

Primary controller for external consumers



Load-dependent primary control of the boiler temperature through control of the burner

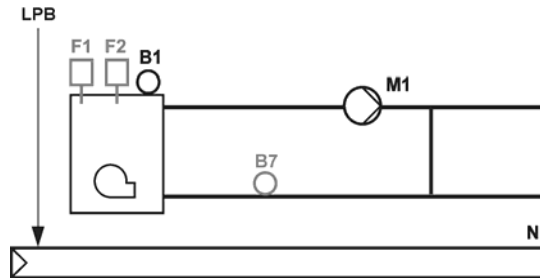
Use

- Single-family homes
- Multi-family homes
- Commercial buildings

Options

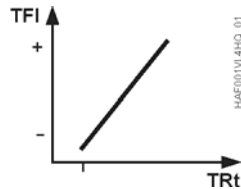
- Return temperature sensor
- Thermal reset limit thermostat and manual reset safety limit thermostat

Plant diagram



Function diagrams

Limitation of boiler return temperature



TFI Flow temperature  
TRt Return temperature

Description of Functions

Basic functions

- Load-compensated main flow temperature control with 3-position actuator acting on mixing valve
- Heat demand signal via data bus
- Frost protection for building and plant
- Digital yearly clock
- Limitation of flow temperature

Options

- Minimum limitation of the return temperature
- Thermal reset limit thermostat and manual reset safety limit thermostat

Auxiliary functions

- Display of actual and set temperatures, operating state and faults
- Communication to other LPB devices
- Communication via LPB / OCI6... to BMS
- Signal output DC 0...10 V for passing the heat demand to other units
- Relay and sensor test
- Pump overrun and pump kick

Device list

Legend	Type of unit	Data sheet	Product No.	Qty.
N1	Heating controller	N2540	RVL480	1
B1	Cable temperature sensor silicone 1.5 m, LG-Ni1000	N1831	QAP21.3	1

Optional

Legend	Type of unit	Data sheet	Product No.	Qty.
B7	Strap-on temperature sensor LG-Ni 1000	N1801	QAD22	1
F1	Thermal reset limit thermostat, 40...120 °C, capillary tube 700 mm, clamping band	N1202	RAK-TW.1200S-H	1
F2	Safety temperature limiter fixed 90...110 °C, pocket 100 mm, capillary 700 mm	N1204	RAK-ST.1310P-M	1

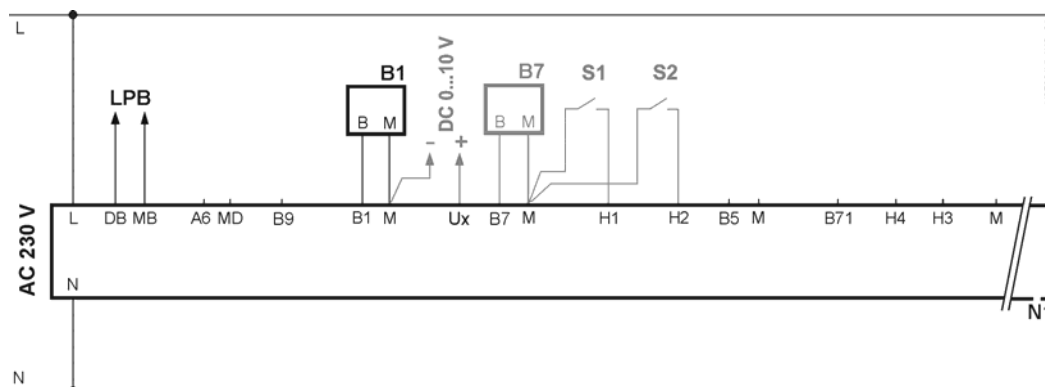
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Variants	Legend	Type of unit	Data sheet	Product No.	Qty.
	B1a	Cable temperature sensor LG-Ni1000, Pt1000, T1	*	QAP2..	1
	B7a	Immersion temperature sensor LG-Ni1000	*	QAE212..	1
	F1a	Thermal reset limit thermostat	*	RAK-TW.1..H	1
	F2a	Safety limit thermostat	*	RAK-ST..M	1

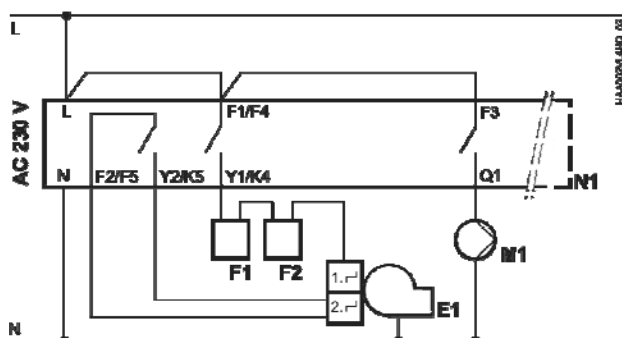
\* For selection of sensors, thermostats, etc. refer to the Product Catalog

Connection diagram

Low voltage



Mains voltage



- E1 2-stage burner
- LPB Data bus
- M1 Heating circuit pump
- S1 Remote control operating mode
- Ux Heat demand signal output

Parameter settings	Line	Function, display	Setting
<i>Basic settings</i>			
	38	Time of day	
	40	Date	
	41	Year	
	51	Plant type	5

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*Optional settings (refer also to the installation instructions G2540)*

91	Operating mode
92	Maximum limitation of boiler temperature
93	Minimum limitation of boiler temperature
94	Switching differential
95	Minimum burner running time
96	Release limit for second burner stage
97	Reset limit for second burner stage
98	Waiting time for second burner stage
101	Limitation of return temperature, constant value
169	Device number (LPB data bus)
170	Segment number (LPB data bus)
172	Operating mode when linking terminals H1–M