

Primary controller for external consumers



Load-dependent primary control of the main flow temperature through control of the mixing valve

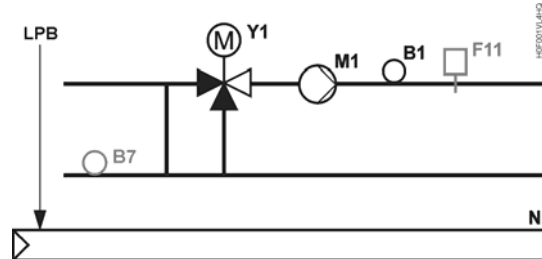
Use

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

Options

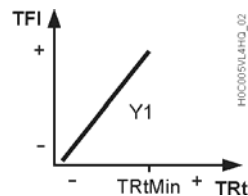
- Return temperature sensor

Plant diagram



Function diagrams

Limitation of return temperature



TFI Flow temperature
 TRt Return temperature
 TRtMin Return temperature minimum limit value

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

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

Options

- Minimum limitation of the return temperature
- Heating flow overtemperature protection with temperature limiter

Device list

Legend	Type of unit	Data sheet	Product No.	Qty.
N1	Heating controller	N2540	RVL480	1
B1	Strap-on temperature sensor LG-Ni 1000	N1801	QAD22	1
Y1	2- or 3-port valve	*	VV.. / VX.. / M..	1
	3-position valve actuator, AC 230 V	*	S..3...	1

Optional

Legend	Type of unit	Data sheet	Product No.	Qty.
B7	Strap-on temperature sensor LG-Ni 1000	N1801	QAD22	1
F11	Thermal detector or limiter	*	RAK-TW.. / RAK-TB..	1

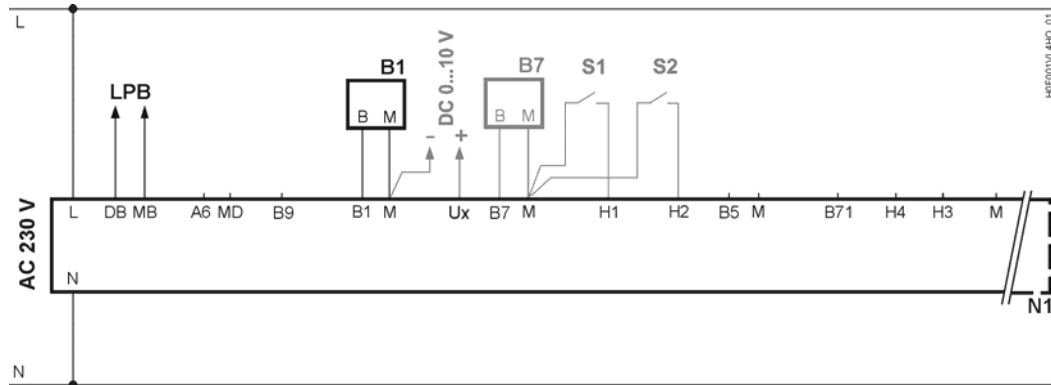
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Variants	Legend	Type of unit	Data sheet	Product No.	Qty.
	B1a	Immersion temperature sensor LG-Ni1000	*	QAE212..	1
	B7a	Immersion temperature sensor LG-Ni1000	*	QAE212..	1
	Y1a	3- or 4-port slipper valve	*	VB.. / VC..	1
		Electromotoric actuators 5...40 Nm for rotary actuators	*	SQK../SQL..	1

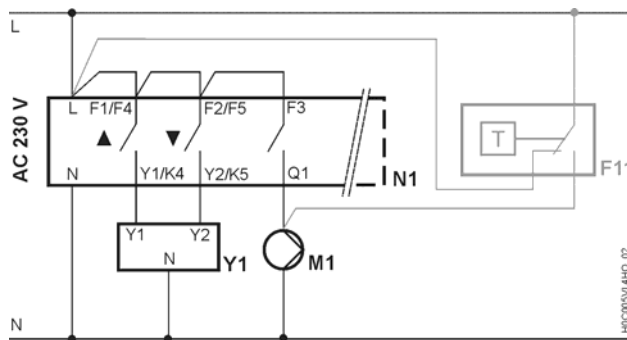
* For selection of actuators, valves, etc. refer to the Product Catalog

Connection diagram

Low voltage



Mains voltage



- 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	4

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Optional settings (refer also to the installation instructions G2540)

81	Maximum limitation of flow temperature
82	Minimum limitation of flow temperature
84	Excess flow temperature mixing valve
85	Actuator running time
86	P-band of control (Xp)
87	Integral action time of control (Tn)
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
181	Heat demand output Ux DC 0...10 V