

Heating Control Processor HRP22-V

Basic function

For the control, management, optimization and monitoring of heating plants with boiler control or for a remote heating plant.

Bus- and modem-capable.

A maximum of two heating cycles and pre-controls possible.

Single knob operation and graphics, illuminated display for the entry and query of all DDC data.

Extensions of the basic function with HRP software menus such as optimization, room correction, limit, Stand-by, boiler control, circulation pump, operating hours, heat amounts counting, pump blocking protection.

With the inclusion of plant macros, the Heating Control Processor HRP is completely configured, the accompanying HRP software menus are set, the parameters are adjusted and the inputs and output signals are assigned as well.

the dialog guides the user through the plaintext-oriented menu technology.

Entry and query of the data in four priority levels by means of a code key.

Week and Annual program. trend value acquisition and display of important plant values.

Eight Heating Control Processors HRPs are administered on the HRP-LRP-Bus system for a total distance of 1000 m.

The communication of all Bus participants among each other in the form of queries or the modification of all parameter is integrated part of the Heating Control Processor HRP.

Direct connection to the BMS on the RS232 interface. For plants that are distantly removed from each other, data transmission to the BMS by modem on the public telephone network is possible.

Important messages can also be sent to a mobile telephone with a modem (GSM-SMS-Service).

Unlimited data backup on power failure.

- PLC functions with flags, timer and time programs, freely parameterizable
- 6 analog inputs for actives measuring element KP10
- 1 analog input 0..10 V
- 3 binary inputs
- 2 analog outputs 0..10 V
- 6 binary outputs max. 6(3) A; 230 V AC or zero-voltage
- plastic housing fire-resistant, for switching cabinet mounting
- mains 230 V AC \pm 10 % 50..60 Hz
- internal voltage source 24 V DC, 7 VA



HRP22-V Heating Control Processor**Device description****Technical data**

Inputs and outputs	3 binary inputs BE	zero-voltage contact of these, two are pulse inputs 20 Hz
	6 binary outputs BA	relay contact max. 6 (3) A; 230 V AC
	6 analog inputs AE	KP10, actives measuring element
	1 analog input AE	0..10 V continuous (setpoint remote setter)
	2 analog outputs AA	0..10 V; 5 mA at 10 V
	analog/digital converter	10 Bit
Interface	serial RS232, switchover possible to RS485	building management system BMS, Modem, J-Bus
Bus connection	CAN-Bus	maximum 8 HRP / LRP for a bus system
Nominal voltage	230 V AC \pm 10 %; 50..60 Hz;	
Nominal power	18VA; Current requirements 78 mA at 230 V AC	
Display	back-lighted graphic display HRP20-S, LED for error message and manual operation	
Diagnostic jack	diagnosis/ data backup	
Operating	single knob operation turning knob, selection key [SET], back step key [ESC]	
Fuse	fuse S1 6 A (T) for external switching fuse S2 630 mA (T) for electronics accessible from the reverse side	
Processor	80C592	
Memory	64 kByte RAM; 512 kByte Flash-PROM	
Operating system	multitasking	
Power failure data backup	lithium battery, 5 years	
Degree of enclosure protection	IP20	
Ambient temperature	0..45°C	
Ambient humidity	in operation: 20 – 80 % rF, not condensing out of operation: 5 – 90 % rF, not condensing	
Housing	plastic housing, fire-resistant	
Measurements	W/H/D: 110.0 mm x 198.5 mm x 77.5 mm (with wall console W/HRP 15.0 mm deeper)	
Front panel cut-out	200.4 mm x 112.0 mm	
Weight	1,2 kg	
Designation	CE	

Device description

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Temperature range:

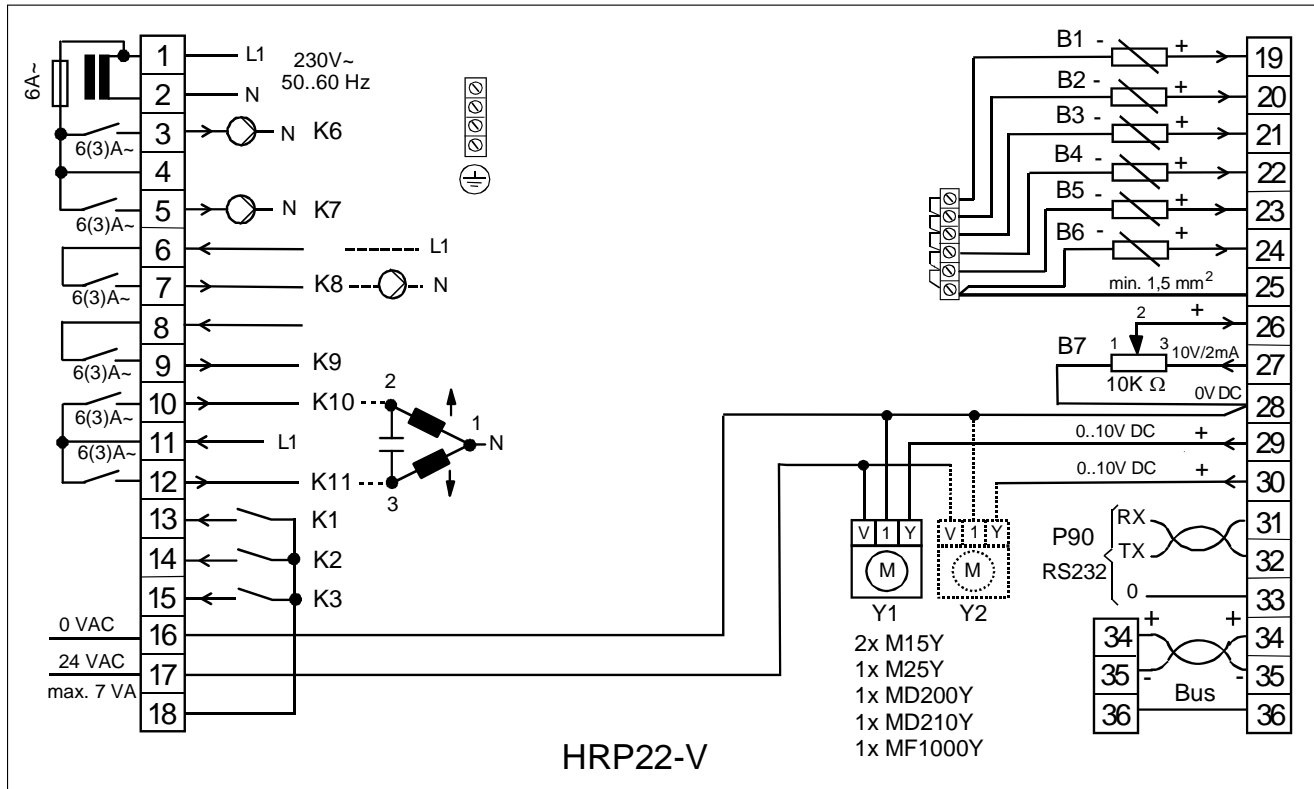
For the **trend curves and of the outside temperature assignment** please take into account the sensor range of the HRP.

For temperatures outside this range, these values will be represented as "---" (invalid)!

Par.No.(P90) Technical Address	Par.-Name	Lower limit	Upper limit	Basis value	Unit
b1	outside	-50.0	70.0	cur V. (KP10)	°C
b2	room	0.0	120.0	cur V. (KP10)	°C
b3	feed	0.0	120.0	cur V. (KP10)	°C
b4	sensor 4	0.0	120.0	cur V. (KP10)	°C
b5	sensor 5	0.0	120.0	cur V. (KP10)	°C
b6	sensor 6	0.0	120.0	cur V. (KP10)	°C
b7	sensor 7	0.0	100.0	cur V. (0-10V)	% *1)

*1) b7 is scalable between -1000.0 and +1000.0.

Connection figure



Device description

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Software menus available

Menu	No.	How often available	Comment
Basic menu (Heating)		2x	weather sensor feed temperature control, switchable to fixed setpoint control
Extensive control functions			free parameterization of the contact outputs – 16 flags – 8 timers
SW remote setter	12	1x	has an effect on the basic menu 1
Sequence reversal	17	1x	
Hours-run	18	2x	
Pulse counting	19	2x	effect on the contact inputs K2 and K3 (including power calculation)
Min/Max/Average	20	2x	
Limit values	23	8x	
Scaling	25	1x	scaling possibility for the input 0-10V (B7). The scaling is carried out by accessing the sensor
Utilization time	26	3x	there are 4 switching times are available for each utilization time. In addition, there are 4 special utilization times
Holiday periods	27	1x	
Modem	28	1x	
GSM-SMS	29	1x	
Minitel	30	1x	
J-Bus	31	1x	
Room correction	41	1x	
Stand-by	42	1x	
Optimization	43	1x	
Boiler regulation	46	1x	for heating drinking water
Chimney sweep	49	1x	effect in connection with the software menu Boiler control
Legionaire	50	1x	effect in connection with the software menu Boiler control
Remote operation	51	2x	
Plant message	52	8x	

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Menu	No.	How often available	Comment
Double pumps	53	1x	effect in connection with Basic menu 1 Heating
Boiler regulation	61	1x	
Pre-regulation	62	1x	
Circulation	63	1x	
3-point	64	2x	
Limit	65	2x	
M-bus	67	4x	has an affect only on HRP22-M
External bus		1x	has an affect only on HRP22-M