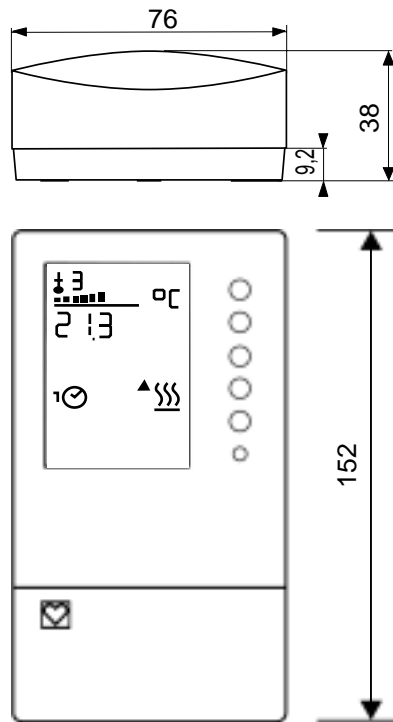


HERZ-RTR

Electronic room temperature controller

Data sheet
7791
Edition 0803 (0803)

Dimensions in mm



1 7791 23
1 7791 02

1 7791 00 Electronic room temperature controller 230V

1 7791 02 Electronic room temperature controller 3V

Electronic room temperature controller for individual adjustment of individual rooms, apartments or areas, with programmable time and temperature.

Suitable for private and business units. 2-point adjustment to drive thermal drives, pumps, refrigerating sets, boiler firing systems and electric heating systems.

Body made of non-flammable, pure white thermoplastic (RAL 9010). Front with easy-to-use keyboard and LCD display with icons and numbers (e.g. time, switching time, temperature and current relative energy consumption).

Digital timer with weekly and yearly programme. Automatic switching from summer to wintertime.

3 programmable temperature levels (reduced/normal/comfort), frost protection and burn-out protection. Programmable input function.

Model with additional pilot relay which regulates the room temperature controller synchronously between normal and reduced temperature (day/night), without a digital timer. Elapsed time indicator.

Model

We reserve the right to make modifications in line with progress in engineering.

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Suitable for mounting on a wall or a flush box. Electronic connection to a base socket by means of terminal screws for cables up to 2.5mm². Cable entry on the back. Electronics located in the attachable body. The device has to be supplied with power all year long.

Assembly instructions

1 7791 23
1 7791 02

The room temperature is measured by a precision temperature probe and compared with the current set value. Dependent on deviation and characteristics, the relay contact is switched and consequently the room is heated or cooled, ensuring constant room temperatures. Optimum modern comfort with minimum energy-consumption is achieved by choosing an individual daily temperature profile using a weekly programme. Other temperatures can be set using the temporary, time-limited or time-unlimited modes or the absence or party functions. Energy savings can be achieved by setting in advance for longer periods of absence, e.g. holidays, using the yearly switching programme.

Functioning

1 7791 23
1 7791 02

The installation's operating mode is shown by icons and a numeric field on the LCD display. The programming mode can be used to set an individual temperature profile of the switching programme which differs to the presetting. To adjust the device to the installation, use the service mode where the parameters for regulating, interference fit protection of pump, limitation of set value etc. can be entered.

1 7791 23	Electronic room temperature controller 230V	
	Supply voltage	230V ~ +/- 15%, 50...60 Hz
	Breaking capacity heating/cooling	5 (2) A, 24...250V ~
1 7791 02	Electronic room temperature controller 3V	
	Supply voltage	2 alkali-manganese batteries type LR6, AA, AM3 or round cells (not included in package) 1.5V
	Breaking capacity heating/cooling	0.2A, < 60V
	Lifetime of batteries	> 2 years (alkali-manganese)
	Warning batteries empty	approximately 3 months in advance
1 7791 23 and	Power consumption	> 1VA
1 7791 02	Set value range	8..38°C
	Switching difference	0.4...8 K
	Switching cycle	4... 30 min
	Proportional band	1..20K
	minimum switch pulse	30s
	Turn-on ratio E	display of 10 levels
	Working condition (heating/cooling)	can be switched
	Temperature levels	reduced/normal/comfort
	Frost protection temperature	8°C (if heating is turned off)
	Burn-out temperature protection	38°C (if cooling is turned off)
	Time constant	22min
	Delay time	2 min
	Permissible ambient temperature	0...50°C
	Permissible ambient humidity	5...95%r.F.
	Degree of protection	IP30 (EN 60529)
	Protection class	II (IEC 536)
	Interference degree	EN 55014 and EN 55022
	EMC-immunity	EN 50082-2
	EMC-radiation	EN 50081-1
	Conformity	EN 12098 and CE
	Safety	EN 60730-1
	Measurement of temperature	NTC sensor (internally)
	Entry for external temperature sensor	Ni 1000 (only 1 7791 23) selectable internally/externally
	Zero offset compensation, e.g. influence of wall	+/- 6K
	Resolution for set value entry	0.5K
	Resolution of actual value display	0.1K
	Measuring accuracy	0.3K at 20°C
	Limitation of adjustment, set value	by SERV limitation of set values possible (Tmin, Tmax) – presetting is not limited
	Universal contact input PROG	for external volt-free gold contact. Multiple controllers can be connected in parallel to one contact.
	Absence	energy-saving operation with reduced temperature level
	Presence	Normal temperature/comfort setting

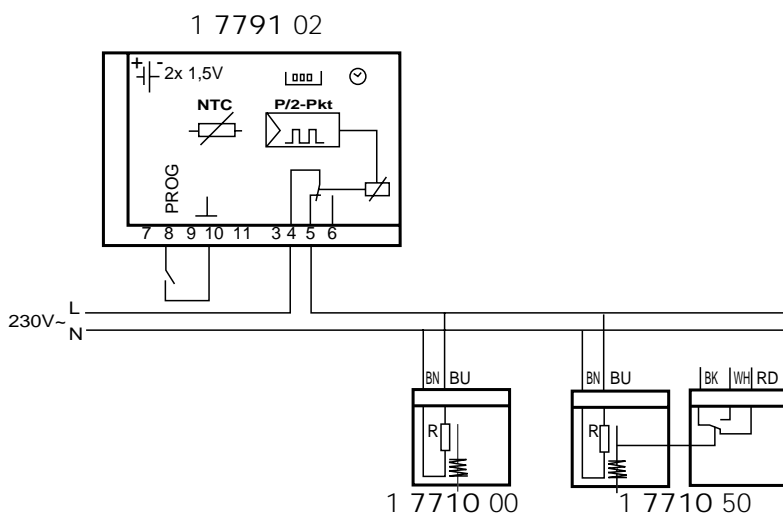
Technical data

Contact with window	reduced temperature level
Remote turn-on	Standby/automatic operation
Malfunction	Display by icon
Keyboard lock (key switch)	Display by icon
Interference fit protection of pump	after one week has passed, the relay output is activated every following Wednesday at 10 am for 0...15 minutes (can be set)
Frost/burn-out protection	can be deactivated using SERV
Childproof	Locking and cancellation by key sequence, display of icon
SERV parameter	not volatile EEPROM
Switch frequency, mechanical	> 5 million
Elapsed time indicator	0...9990h, cannot be deleted
Digital timer:	
Weekly programme	max. 42 switch command
Smallest switch time step	10 min
Yearly programme	max. 6 switch commands
Smallest switch distance	1 d
Accuracy	+/- 1 s/d at 20°C
Power reserve	>6 h (Super Cap, 20°C after 10 h loading)
During change of batteries	> 5 min
Parameter	not volatile
Switching between summer/winter	automatically by SERV, can be locked
Temporarily change of temperature	until following switching time
Time-delimited change of temperature	2 h at 5 d (days) with indication of remaining time

The yearly switching programme has a higher priority than the weekly switching programme.

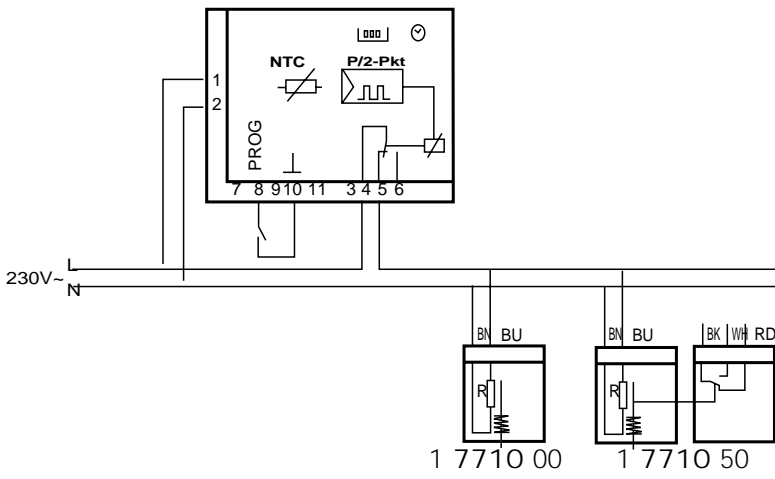
- 1 **7710** 00 HERZ actuating drive 230V
- 1 **7710** 50 HERZ actuating drive with auxiliary contact 230V
- 1 **7796** 02 HERZ safety transformer 230V / 24V, 50Hz, 50VA
- 1 **7710** 01 HERZ actuating drive 24V
- 1 **7710** 51 HERZ actuating drive with auxiliary contact 24V

Accessories

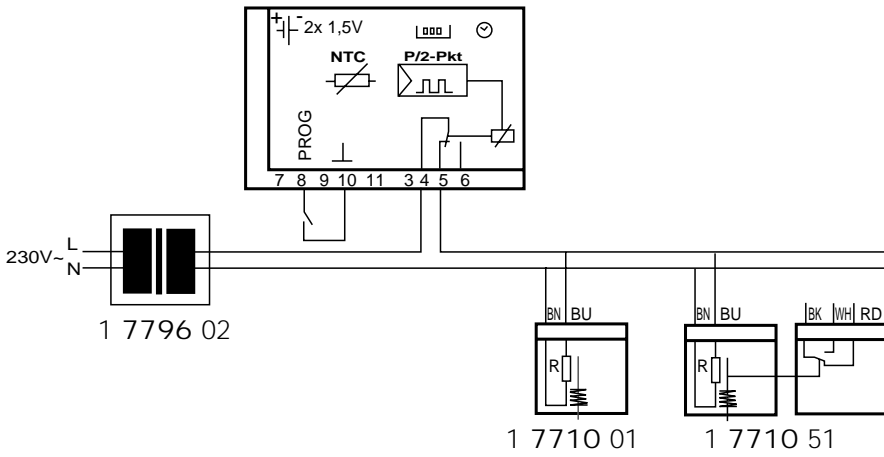


Connection plan

1 7791 23



1 7791 02



1 7791 23

