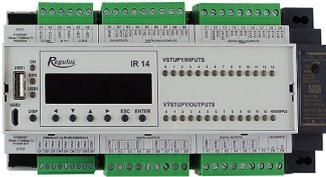


IR 14 RTC Smart Controller

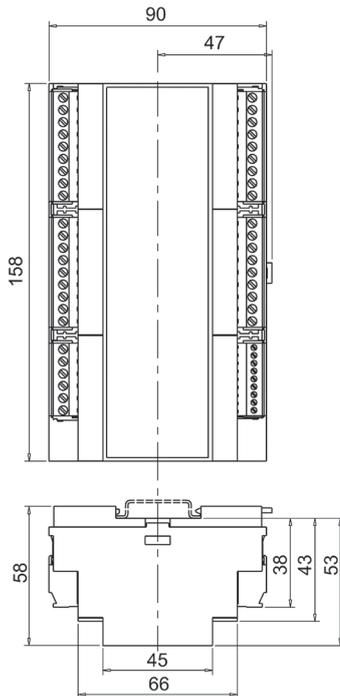
Main Features

Description	<p>Smart controller for control of RTC heat pumps, DHW heating and recirculation, a hot-water boiler or fireplace, a solar thermal system, two auxiliary heat sources, a HRV unit and up to two heating circuits.</p> <p>It contains 1 outdoor temperature sensor and 2 temperature sensors for a sheath (4 m).</p> <p>An integrated web server for remote access from a PC or a smartphone.</p> <p>The supply also includes a 32 GB microSD card (to save operating data) and a 15 W power supply, 24 VDC.</p>
Installation	on DIN rail (9 modules)
Code	18143 – Menu in Czech / 18239 – Menu in English

IR 14 Controller



Installation dimensions



Electric Data

Voltage	24 V DC ± 5%
Power input	max. 10 W
Internal fuse	resettable fuse
IP rating	IP 20
Protection class	II

Energy Efficiency Data (as per EC Regulation No. 811/2013)

Controller class	VIII
Contribution to seasonal space heating energy efficiency	5.00%

Digital and Analog Inputs and Outputs

11x input for Pt1000 temperature sensors (can be used as binary inputs too)
1x input for 4–20 mA pressure switch
3x binary input (2x iPWM feedback signal from circulation pump, 1x Ripple contr. input)
13x configurable output (11x mechanical relay, 2x PWM/0–10 V output)

Communication Interface

2x 10/100 Mb Ethernet interface
1x RS 485 interface for control of RTC heat pumps
2x USB interface (USB1 – USB host – type A connector, USB2 – USB device – type micro B connector)
1x CIB (max. 100 mA)
1x TCL2

Ambient Conditions

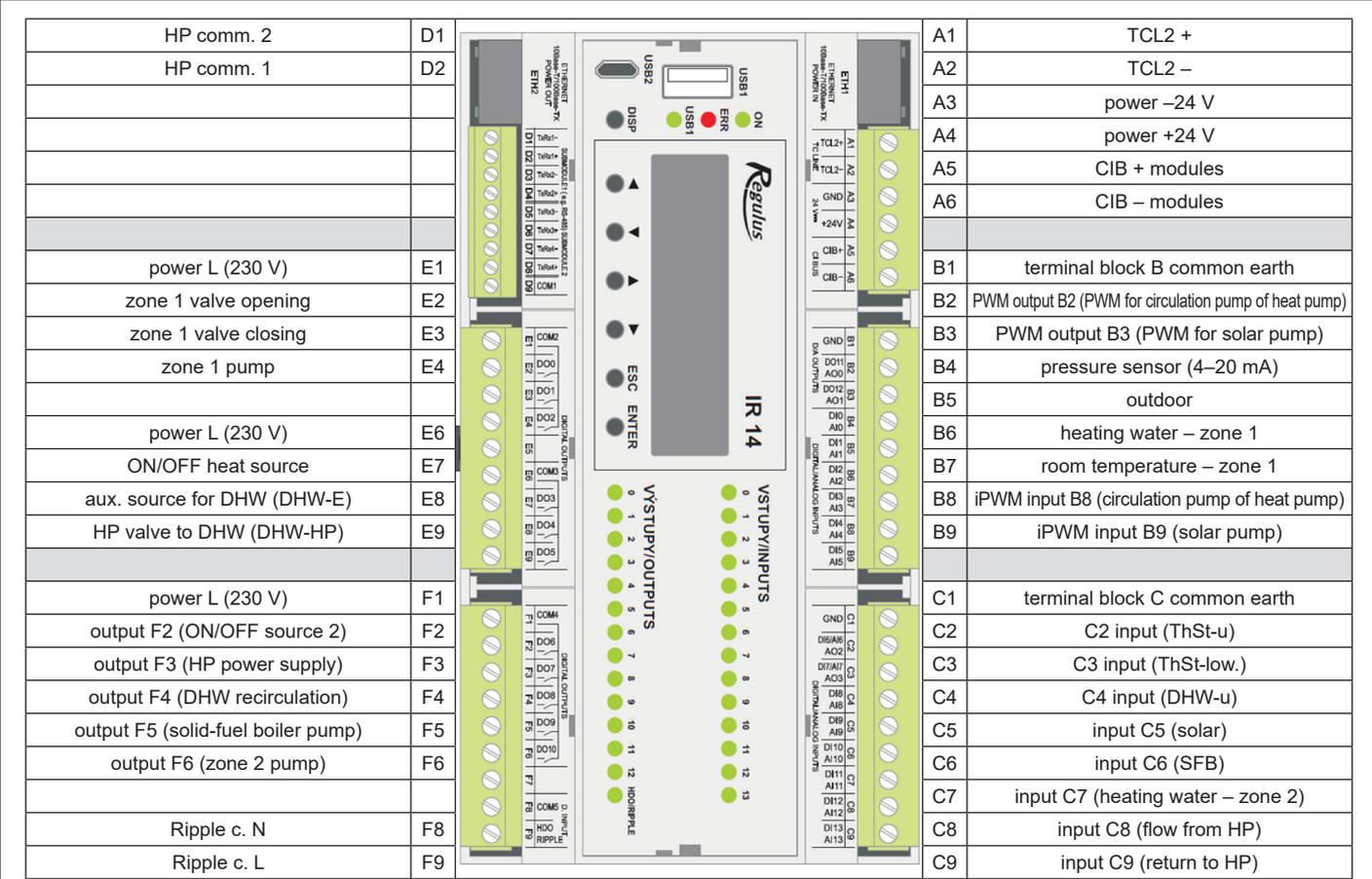
Ambient temperature – operation	–20 to 55 °C
Ambient temperature – storing	–25 to 70 °C
Relative air humidity for storing	0 to 80 %, non condensing
Relative air humidity during operation	10 to 95 %, non condensing

Other Data

Installation	into el. enclosure (on DIN rail)
Wiring	screw-in connectors
Max. conductor cross-section	2.5 mm ² (1.5 mm ² for D connector)
Overall dimensions	158 x 90 x 58 mm
Display	OLED 4 x 20 characters
Control	by 6 keys
LED	3x LED (operation, fault, USB)
Clock backup time	cca 500 hours

IR 14 RTC Smart Controller

Terminal Block Connection Diagram



Note: inputs can be also configured via the web interface of the controller.

Max. load of inputs, outputs

Mechanical relays DO0-DO5, DO07-DO10	max. 3 A (5 A in short term), min. 5 V DC, max. 250 V AC (both resistive and inductive)
Mechanical relay DO6	max. 10 A (16 A in short term), min. 5 V DC, max. 250 V AC (both resistive and inductive)
Common terminals COM2-COM4	max. 10 A (permanent)
Analogue outputs A00-A01	optional 0–10 V (12 bit) / transistor 24 V DC (e.g. PWM outputs)
Analogue input AI0	pressure sensor (current input 4–20 mA)
Analogue inputs AI1-AI3, AI6-AI13	PT1000 temperature sensors (measurement range –90 to 400 °C)
Binary inputs DI4, DI5	iPWM feedback signal from circulation pumps
Binary input for Ripple contr.	Ripple control signal, max. voltage 250 V AC

Power supply (included in supply)

Input voltage	100–240 V AC, 50–60 Hz
Output voltage	24 V DC ± 1 %
Rated output	15.2 W
Installation	on DIN rail
Connection	screw-in connectors
Max. cable cross section	2.5 mm ²
Overall dimensions	17.5 x 90 x 54.5 mm
IP rating	IP 20

Temperature resistance table for Pt1000 sensors

°C	0	10	20	30	40	50	60	70	80	90	100
Ω	1000	1039	1077	1116	1155	1194	1232	1270	1308	1347	1385