



POWERED BY
Raspberry Pi



Open Source

Compact Controller

RevPi Compact

One device - fully equipped!

**Use RevPi Compact to
realize your projects.**

Freely programmable

2 Ethernet interfaces

RS485 screw terminal

8 digital inputs

8 digital outputs

8 analog inputs

2 analog outputs

Node-RED

Python

The RevPi Compact is an open source compact control system based on the Raspberry Pi 3+ Compute Module. The open platform concept (including full root rights) allows the user maximum design freedom in the implementation of his projects.

To connect sensors and actuators, the RevPi Com-

compact is equipped with eight digital and analog inputs each as well as eight digital and two analog outputs. In addition, the device has also a 4-pole RS485 interface with screw terminals. Two Ethernet interfaces (each with a separate MAC address) enable the device to be integrated in two different networks at the same time.



The flat design of the RevPi Compact makes it possible to install it in a subdistribution system that is usually found in building automation.

A customized Raspbian with Real-Time Patch is used as operating system. Individual applications can be programmed via, amongst other things,

Node-RED, Python or directly in C. The popular industrial protocols Modbus RTU and Modbus TCP are supported by default.

Those who do not want to program by themselves can optionally use professional soft PLC and SCADA software for control and visualization.¹

¹ Paid software licenses required.



Interfaces

2 x RJ45 10/100 Ethernet (using separate MAC addresses)

4 x USB A (total current draw from all sockets max. 2 A)

1 x RS485 max. 500 kbps, termination switchable by software
(not galvanically isolated)

1 x Micro-USB (solely for image transfer to eMMC)

1 x HDMI

8 x digital inputs

24 V DC, input thresholds: At 24 V DC compatible according to EN 61131-2 to type I and III sensors

8 x digital outputs

High-side with 10 k pull down resistor, short-circuit proof (internal temperature switch-off), potential separation system/digital outputs, maximum current per output: 500 mA @ 24 V DC (resistive load), sum of all outputs: max. 2 A @ 24 V DC (resistive load)

8 x analog inputs

0-10 V DC, single ended, 16 Bit at piControl, 21 Bit raw value, 2.5 mA current source activatable by software

2 x analog outputs

0-10 V, short-circuit proof, protection against backfeeding, 8-bit resolution, 1 % accuracy, max. current load: 10 mA (10V DC @ 1 k)

Specifications

Housing dimensions (H x W x D)	90 x 160.6 x 58 mm
Housing type	DIN rail housing (for DIN rail version EN 50022)
Housing material	Polycarbonate
Weight	Approx. 290 g
IP Code	IP20
Processor	Broadcom BCM2837B0 quad-core ARM Cortex A53
Clock rate	1.2 GHz
Processor cooling	Passive with heat sink
RAM	1 GB
eMMC flash memory	8 GB
EERAM persistent memory	2 kB
Power supply - device	Typ. 24 V DC (10.8 ... 28.8 V DC)
Power supply - digital outputs	Typ. 24 V DC (11.4 ... 28.8 V DC)
Max. power consumption	20 W (incl. max. 10 W USB)
Operating temperature	-20 °C...+55 °C
Storage temperature	-40 °C...+85 °C
Humidity (at 40 °C)	93 % (non-condensing)
Software interface of inputs and outputs	Via GPIOs and process image
EMC interference emission	According to EN 61000-6-4
EMC immunity	According to EN 61000-6-2
Buffer time RTC	Min. 24 h
Optical indicator	3 status LEDs (bi-color), 2 of them freely programmable
RoHS conformity	Yes
CE conformity	Yes

Item no.

100272

REVOLUTION PI

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