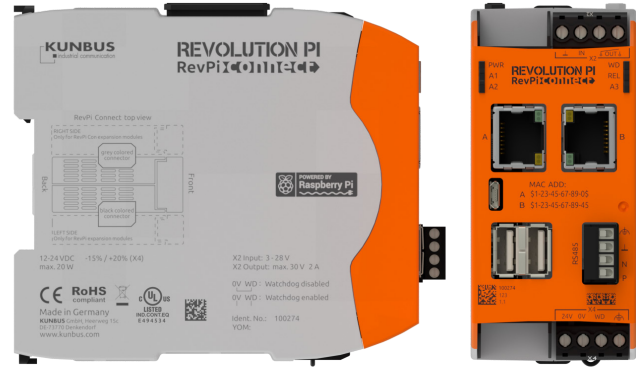


REVOLUTION PI

RevPi Connect

Article No.: 100274



Technical Data

| | |
|--------------------------------|--|
| Housing dimensions (H x W x D) | 96 x 45 x 110.5 mm |
| Housing type | DIN rail housing (for DIN rail version EN 50022) |
| Housing material | Polycarbonate |
| Weight | approx. 197 g / 224 g (incl. connectors) |
| IP Code | IP20 |
| Power supply | 12-24 V DC -15 % / +20 % |
| Max. power consumption | 20 Watt (incl. 1 A total USB output current) ¹ |
| Operating temperature | -40 °C....+55 °C ² |
| Storage temperature | -40 °C....+85 °C |
| Humidity (at 40 °C) | 93 % (non-condensing) |
| Interfaces | 2 x USB A (Total current draw from both sockets max. 1 A) ³ 2 x RJ45 10/100 Ethernet (using separate MAC addresses) 1 x RS485 screw-type terminal (not galvanically isolated) 1 x Micro-USB (solely for image transfer to eMMC) 1 x Micro HDMI 1 x PiBridge system bus 1 x ConBridge system bus |
| Connectors | 1 x 4-pole screw-type terminal for relay contact and signal input 1 x 4-pole screw-type terminal for power supply |
| Processor | Broadcom BCM2837 quad-core ARM Cortex A53 (ARMv8) |
| Clock rate | 1.2 GHz ² |
| Processor cooling | Passive with heat sink |
| RAM | 1 GB |
| Flash memory | 4 GB |

¹ The average power consumption without USB load varies greatly and depends on the use of the interfaces, the GPU and the CPU. It is usually well below 4 watts without HDMI.

² There should be no cutbacks of power at ambient temperatures below 20°C. At 25°C ambient temperature 3 cores may run with full clock speed while with 4 cores the clock frequency is lowered from 1.2 to 1.1 GHz after 10 to 20 minutes of full stress. At 40°C ambient temperature 4 cores under full stress will still work with 1 GHz while stressing just 1 core results in no down clocking. At 50°C ambient temperature 4 fully stressed cores are running at average 0.7 GHz, having short down clockings to 0.6 GHz and short up clockings to 0.9 GHz. 1 core under full stress does result in no down clocking. At 65°C ambient temperature and either 4 or 1 core under full stress results in an "emergency mode" with just 0.4 GHz, after longer periods even 0.3 GHz.

³ 1 A USB output current (total of both USB outputs) is only available for input voltages >11 V. The bridging time of at least 10 ms required by EN 61131-2 is only guaranteed with a 20.4 to 28.8 V power supply. With a 12 V power supply, this time is significantly reduced, especially when power is drawn from the USB ports.

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|--|---|
| Number of digital input channels | 1 |
| Input type | 24 V control voltage (e.g. for power-good signal of a UPS) |
| Input thresholds | approx. 3.0 V (0 -> 1) / 2.3 V (1 -> 0) |
| Input protection | against overvoltage, negative voltages |
| Number of digital output channels | 1 |
| Output type | Relay contact, approval up to 30 V switching voltage (e.g. for power supply of a router) |
| Maximum current load of the contact | 2 A @ 30V DC (resistive load!) |
| Software integration of input and output | Via GPIOs and process image. Output is optionally switched by hardware watchdog. |
| Hardware watchdog functionality | Can be disabled by bridging the 4-pin screw-type terminal. Reset by toggling a GPIO or alternatively a bit in the process image. |
| Hardware watchdog intervall | Trigger after approx. 60 seconds without toggling the reset bit. |
| Compatible modules for system expansion | All RevPi IO modules and RevPi Gate modules can be connected via the PiBridge system bus. Various transceiver modules can be connected via the ConBridge system bus. |
| Protection of the power supply inputs | Reverse polarity protected, overvoltage protection |
| ESD protection | 4 kV / 8 kV (according to EN 61131-2 and IEC 61000-6-2) |
| EMI tests | Passed (according to EN 61131-2 and IEC 61000-6-2) |
| Surge/Burst tests | Passed (according to EN 61131-2 and IEC 61000-6-2) |
| Buffer time RTC | min. 24 h |
| Optical indicator | 6 status LEDs (bi-color), two of them freely programmable |
| RoHS conformity | Yes |
| CE conformity | Yes |
| UL certification | Yes, UL-File-No. E494534 Note: The device may only be supplied from circuits that comply with Class 2 or Safety Extra Low Voltage (SELV) according to Class 9.4 of UL 61010-1. |