



Monarco HAT for Raspberry Pi

Industrial Grade I/O Board for Monitoring, Archiving and Control



- Data acquisition (DAQ), data logging
- Monitoring of machines and processes
- Collecting data from legacy PLCs
- (I)IoT gateway for legacy systems
- Communication gateway (e.g. Modbus RTU/TCP, Modbus/MQTT)
- Universal PLC for prototyping and non-critical applications

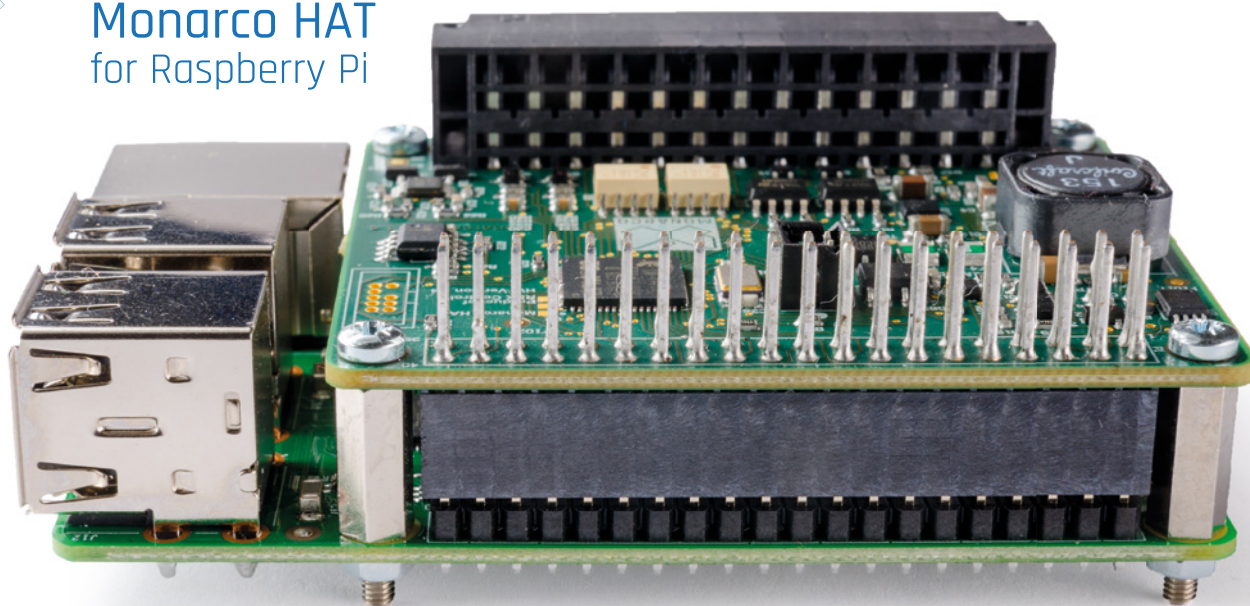
Works best with:



Open source libraries also available for:



Monarco HAT for Raspberry Pi



Technical specification

- **Power supply:** 10-30 VDC, powers also the Raspberry Pi
- **4 × digital IN:** 24 V tolerant, 5 V TTL compatible, optical isolation, common GND
 - 2 × counter (pulse/DIR) or 2 × encoder (A/B), up to 500 kHz
- **4 × digital OUT:** open-drain, max 40 VDC, 1 A per channel continuous
 - all with up to 100 kHz PWM
 - short-circuit protection (continuous)
- **2 × analog IN:** 0-10 V / 0-20 mA, 12-bit
 - electronic switching of voltage/current mode
 - protected against overvoltage and reverse polarity
 - 500 Hz bandwidth
- **2 × analog OUT:** 0-10 V, 0.5 ms settling time, 12-bit
- **1 × RS-485** with ESD protection
- **1 × 1-Wire** bus with ESD protection
 - power supply switch for resetting all devices on the bus
- **System status LED indicator**
- **8 × LED indicator:** DI and DO states (can be switched to user controlled mode)
- **High quality push-in terminals,** detachable 26-pin connector, 0.14-1.5mm²
- **Battery-backed RTC chip** for keeping the track of time
- **Hardware watchdog** for power-cycling the Raspberry
- **Metal enclosure for DIN rail mounting**
 - EMC tested, CE marked
 - Operating temperature: 0 °C to 55 °C
 - Operating relative humidity: 10 % to 90 %, non-condensing
 - Board dimensions: 65 mm x 56 mm, 3 mm radius corners
 - Dimensions of the enclosure: 93 mm x 60 mm x 40 mm
 - Supported Raspberry Pi models: B+, 2B, 3B, 3B+

Prices

Monarco HAT **129 EUR** (VAT excluded)
Metal enclosure . . . **19 EUR** (VAT excluded)

Programming

- **Works best with REXYGEN**
- Open source library for Node-RED
- Open source library for CODESYS
- Open source library for Node.js
- Open source library for C language
- Open source library for Python language
- Full documentation is available for integration in arbitrary system or framework

