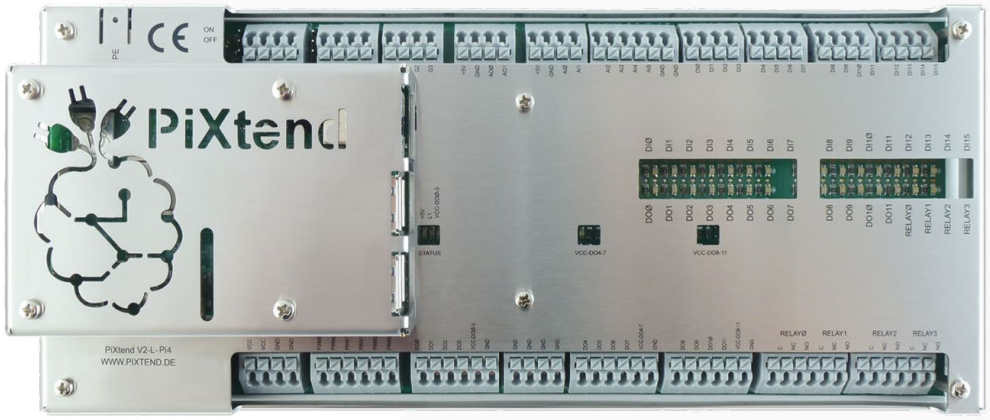
PiXtend® V2 -L- Pi 4 & Pixtend® V2 -L-

Raspberry Pi



Powerful and Industrially compatible

- Retain memory for data back up
- Industrial outputs, 12x High-Side switches with separate feed and all-round protection
- Use Node-RED to turn PiXtend® V2 into an edge device, data flows can be linked graphically and configured as required
- PiXtend® V2 Pi 4 housing with passive heat sink

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Technical Information

FUNCTION	PiXtend® V2 -L- Pi 4	PiXtend® V2 -L-
CPU	Broadcom BCM 2711, Raspberry Pi 4 Model B	Broadcom BCM 2837B0, Raspberry Pi 3 Model B+
POWER SUPPLY	24 V DC ±20 %	24 V DC ±20 %
RETAIN-/REMANENCE MEMORY	64 Bytes Flash EEPROM	64 Bytes Flash EEPROM
REAL TIME CLOCK (RTC)	with battery buffering	with battery buffering
TEMPERATURE- AND AIR HUMIDITY SENSORS	up to 4 DHT11, DHT22, AM2302	up to 4 DHT11, DHT22, AM2302
CAN BUS	1x**	1x**
RS232	1x*	1x*
RS485	1x *, Modbus RTU capable	1x *, Modbus RTU capable
DIGITAL INPUTS (DI)	16x 3,3 / 5 / 12 / 24 V	16x 3,3 / 5 / 12 / 24 V
DIGITAL OUTPUTS (DO)	12x PNP 5 / 12 / 24 V, 0,5 A	12x PNP 5 / 12 / 24 V, 0,5 A
ANALOG VOLTAGE INPUTS (AI-U)	4x 0...5 V, 0...10 V, 10 Bit	4x 0...5 V, 0...10 V, 10 Bit
ANALOG CURRENT INPUTS (AI-I)	2x 0...20 mA, 10 Bit	2x 0...20 mA, 10 Bit
ANALOG OUTPUTS (AO)	2x 0...10 V, 10 Bit	2x 0...10 V, 10 Bit
RELAIS	4x, max. 230 V / 6 A	4x, max. 230 V / 6 A
PWM-/SERVO OUTPUTS	6x, 16 Bit resolution, 5 V	6x, 16 Bit resolution, 5 V
GPIO	4x 5 V GPIO	4x 5 V GPIO
INTERFACES AND I/Os	Short circuit proof, supply with reverse polarity and overload protection (self-resetting safety device)	Short circuit proof, supply with reverse polarity and overload protection (self-resetting safety device)
MAX. TEMPERATURE RANGE	0 °C...50 °C	0 °C...50 °C
DIMENSION – WITHOUT HOUSING	236.3 x 101.8 x 27 mm	236.3 x 101.8 x 27 mm
TOP HAT RAIL HOUSING	Aluminium	Aluminium
EXTENSION BOARD & BASIC	1 B+, 2 B, 3 B, 3 B+, 4 B	1 B+, 2 B, 3 B, 3 B+, 4 B

* RS232 and RS485 cannot be operated simultaneously
**CAN interfaces and analog outputs cannot be used together

PiXtend® V2 can be programmed with the following Languages

- CODESYS® V3 – Professional programming system for PLC programming according to IEC 61131-3
- C – Linux programming standard
- Python – Script language on the Raspberry Pi
- FHEM – Open source home automation system, control homes via web or app
- Node-RED – Graphical flow programming for the IoT age

Product Highlights

PiXtend® is a programmable logic controller based on the high-performing Raspberry Pi single-board computer. It is available in two variants, with the RPi 3 B+ Broadcom BCM 2837B0 and new with the RPI 4 B Broadcom BCM2711, the most powerful processor of the Raspberry Pi Foundation.

The modules can be expanded with the PiXtend® eIO, an I/O system for digital and analog sensors and actuators that can be connected via Modbus. Other devices, controllers and computer system are easily connected via serial standard interfaces (RS232, RS485, CAN, Ethernet and WiFi). All these robust interfaces comply with the PLC standard (IEC 61131-2).

The PiXtend® controller can be programmed in common programming languages such as C or Python and is suitable for use with the CODESYS® SoftPLC. An integrated CODESYS® web visualization tool is available for displaying your control elements, diagrams and graphics on tablet or PC.

Client Benefits

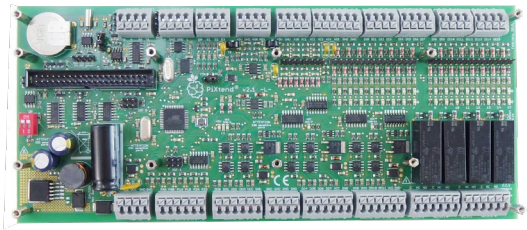
- Easy Design-In thanks to connection planner, 3D models and detailed manuals
- 6 times PWM for actuating drives and model servos, without costly add-on modules
- Perfect connections, high-grade clamps, optional plug-in version

Applications

- Mechanical engineering controller
- Plant engineering controller

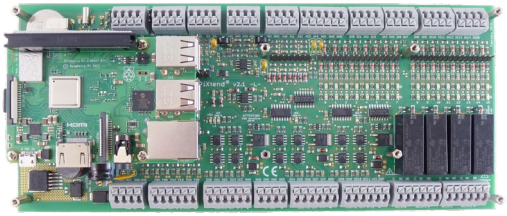
PiXtend® V2 -L- Extension Board

PRODUCT NAME	ARTICLE NO.	OPTIONS
PiXtend® V2 -L- EXTENSION BOARD	50199 001	Without Raspberry Pi



PiXtend® V2 -L- ePLC® Basic & Basic Pi 4

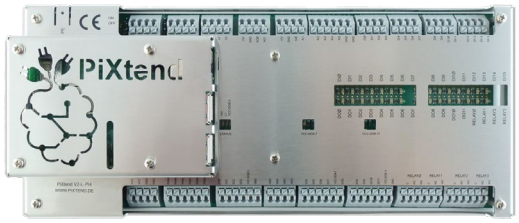
PRODUCT NAME	ARTICLE NO.	OPTIONS
PiXtend® V2 -L- ePLC® Basic Pi 4	50199 018	Preinstalled SD-Card, Basis Image
PiXtend® V2 -L- ePLC® Basic Pi 4	50199 019	CODESYS® Image
PiXtend® V2 -L- ePLC® Basic	50199 002	Preinstalled SD-Card, Basis Image
PiXtend® V2 -L- ePLC® Basic	50199 011	CODESYS® Image



- Board basic version
- Open version
- Product with Raspberry Pi 4 B or product with Raspberry Pi 3 B+

PiXtend® V2 -L- ePLC® Pro & Pro Pi 4

PRODUCT NAME	ARTICLE NO.	OPTIONS
PiXtend® V2 -L- ePLC® Pro Pi 4	50199 022	Preinstalled SD-Card, Basis Image
PiXtend® V2 -L- ePLC® Pro Pi 4	50199 023	CODESYS® Image
PiXtend® V2 -L- ePLC® Pro	50199 003	Preinstalled SD-Card, Basis Image
PiXtend® V2 -L- ePLC® Pro	50199 012	CODESYS® Image



- Complete device Pro
- Top hat rail housing
- Brushed stainless steel
- Product with Raspberry Pi 4 B or Product with Raspberry Pi 3 B+

About Kontron

Kontron is a global leader in IoT/Embedded Computing Technology (ECT) and offers individual solutions in the areas of Internet of Things (IoT) and Industry 4.0 through a combined portfolio of hardware, software and services. With its standard and customized products based on highly reliable state-of-the-art technologies, Kontronprovides secure and innovative applications for a wide variety of industries. As a result, customers benefit from aceerated time-to-market, lower total cost of ownership, extended product lifecycles and the best fully integrated applications.

For more information, please visit: **www.kontron.com**

About Kontron Electronics

Kontron Electronics GmbH is a full-service provider in the field of electronics, development and manufacturing services. Our business portfolio includes proprietary and client-specific products, development and design services for complex electronics components, modules and systems, as well as production and assembly services for entire devices. The company is part of the technology corporation Kontron AG.

For more Information please visit: **www.kontron-electronics.com**

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