

A close-up photograph of a white Industrial Shields development board. The board features a central microcontroller, various integrated circuits, and a large terminal block with green and orange pins. The text 'Industrial Shields' and 'www.industrialshields.com' are printed on the top left. The board is shown from a slightly elevated angle, highlighting its components and the terminal block.

Industrial Equipment based on Arduino, Raspberry Pi and ESP32

The Liberalization of the Industry
with Open Source Technology.



Industrial Shields®

ARDBOX

Also Available with:
GPRS
WiFi , Bluetooth LE &
LoRa

Original
Arduino Leonardo
included



■ PLC Arduino Ardbox
20 I/Os Analog HF +

10 Inputs:

- (2x) Digital Optoisolated Inputs (5-24Vdc)
- (8x) 10 bit Analog Inputs (0-10V) | Digital (5-24Vdc) Inputs configurable by software
- (1x) Interrupt (5-24Vdc). "Can work like Digital (5-24Vdc)"

10 Outputs:

- (3x) Digital Optoisolated Outputs (5-24Vdc)
- (7x) Analog (0-10Vdc) and Digital / PWM Isolated (5-24Vdc)



■ PLC Arduino Ardbox
20 I/Os RELAY HF +

10 Inputs:

- (2x) Digital Optoisolated Inputs (5-24Vdc)
- (8x) 10 bit Analog Inputs (0-10V) | Digital (5-24Vdc) Inputs configurable by software
- (1x) Interrupt (5-24Vdc). "Can work like Digital (5-24Vdc)"

8 Outputs:

- (8x) Relay (220Vac-5A)

EEPROM 1KB | SRAM 2.5 KB | Flash 32 KB | CPU Speed 16 MHz

Industrial Protocols

RS485 · RS232 · SPI · I2C · Modbus RTU

GPRS

The GPRS/GSM family offers the possibility to expand up to 127 modules through I2C, which means that you can have up to 7100 Inputs / Outputs in "Master-Slave" connections, plus sensors, etc...

Standard Industrial Communications:

Ethernet - TCP / IP - Modbus RTU / TCP - RS485 - RS232 - SPI - TTL - I2C

WIFI

-40 nm ultra-low power TSMC.

-Combined 2.4 GHz Wi-Fi and Bluetooth chip.

-For wireless connection projects.

-It can be used as a bridge to connect equipment on the network.

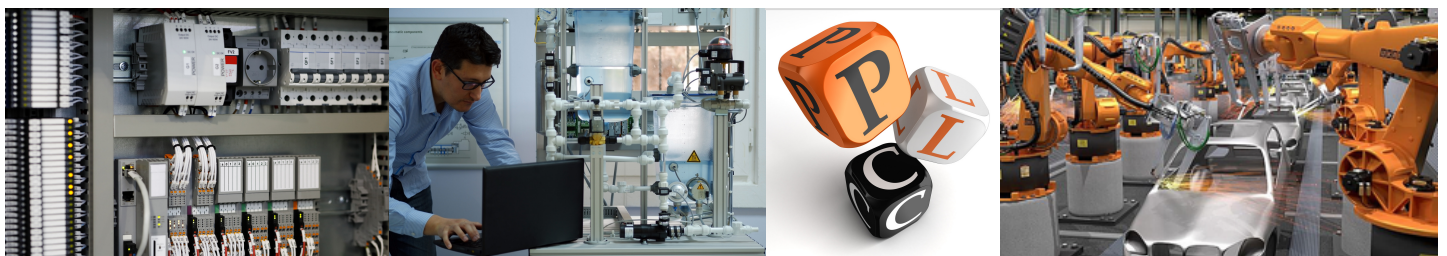
LoRa

Applications:

- Low power IoT sensor concentrator over long distances.
- Low-power generic IoT data loggers in hard-to-reach areas.
- LoRa mesh network.

It offers advanced capabilities for monitoring, diagnostics and remote control.

It operates a wide range of sensors taking advantage of the efficiency and extended range of LoRa technology.



ETHERNET

M-DUINO PLUS

- ✓ Plus SECURITY
- ✓ Plus PROTECTION
- ✓ Plus ESD improvement
- ✓ Modbus RTU
 - Half-duplex
 - Full-duplex
- ✓ Modbus TCP
- ✓ RTC
- ✓ MicroSD socket

RS485
RS232
SPI
TTL
I2C

Original **Arduino Mega** included



Industrial Standard Communications

Ethernet
TCP / IP
Modbus RTU
Modbus TCP

M-DUINO

M-DUINO PLC Arduino 19R



6 Inputs:

- (2x) Digital Optoisolated (5-24Vdc)
- (4x) Analog (0-10Vdc, 10bit) / Digital (5-24Vdc) configurables by software
- (2x) Interrupt (5-24Vdc). "Are part of the Digital inputs (5-24Vdc)"

11 Outputs:

- (3x) Analog (0-10Vdc, 8 bit) / Digital (5-24Vdc) / PWM Isolated (5-24Vdc)
- (8x) Relay (220Vac-5A)

M-DUINO PLC Arduino 21



13 Inputs:

- (7x) Digital Optoisolated (5-24Vdc).
- (6x) Analog (0-10Vdc, 10bit) / Digital (5-24Vdc) configurables by software
- (2x) Interrupt (5-24Vdc). "Are part of the Digital inputs (5-24Vdc)"

8 Outputs:

- (5x) Digital Optoisolated(5-24Vdc)
- (3x) Analog (0-10Vdc, 8 bit) / Digital (5-24Vdc) / PWM Isolated (5-24Vdc)

M-DUINO PLC Arduino 38AR



19 Inputs:

- (9x) Digital Optoisolated (5-24Vdc)
- (10x) Analog (0-10Vdc, 10bit) / Digital (5-24Vdc) configurables by software
- (4x) Interrupt (5-24Vdc). "Are part of the Digital inputs (5-24Vdc)"

19 Outputs:

- (5x) Digital Optoisolated (5-24Vdc)
- (6x) Analog (0-10Vdc, 8 bit) / Digital (5-24Vdc) / PWM Isolated (5-24Vdc)
- (8x) Relay (220Vac-5A).

M-DUINO PLC Arduino 38R



12 Inputs:

- (4x) Digital Optoisolated (5-24Vdc)
- (8x) Analog (0-10Vdc, 10bit) / Digital (5-24Vdc) configurables by software
- (4x) Interrupt (5-24Vdc). "Are part of the Digital inputs (5-24Vdc)"

22 Outputs:

- (6x) Analog (0-10Vdc, 8 bit) / Digital (5-24Vdc) / PWM Isolated (5-24Vdc)
- (16x) Relay (220Vac - 5A)

M-DUINO PLC Arduino 42



26 Inputs:

- (14x) Digital Optoisolated (5-24Vdc)
- (12x) Analog (0-10Vdc, 10bit) / Digital (5-24Vdc) configurables by software.
- (4x) Interrupt (5-24Vdc). "Are part of the Digital inputs (5-24Vdc)"

16 Outputs:

- (10x) Digital Optoisolated (5-24Vdc)
- (6x) Analog (0-10Vdc, 8 bit) / Digital (5-24Vdc) / PWM Isolated (5-24Vdc)

ETHERNET

■ M-DUINO PLC Arduino 50RRA



22 Inputs:

- (10x) Digital Optoisolated (5-24Vdc)
- (12x) Analog (0-10Vdc, 10bit) / Digital (5-24Vdc) configurables by software
- (6x) Interrupt (5-24Vdc). "Are part of the Digital inputs (5-24Vdc)"

28 Outputs:

- (4x) Digital Optoisolated (5-24Vdc)
- (8x) Analog (0-10Vdc, 8 bit) / Digital (5-24Vdc) / PWM Isolated (5-24Vdc)
- (16x) Relay (220Vac-5A)

■ M-DUINO PLC Arduino 53ARR



25 Inputs:

- (11x) Digital Optoisolated (5-24Vdc)
- (14x) Analog (0-10Vdc, 10bit) / Digital (5-24Vdc) configurables by software
- (6x) Interrupt (5-24Vdc). "Are part of the Digital inputs (5-24Vdc)"

28 Outputs:

- (5x) Digital Optoisolated (5-24Vdc).
- (8x) Analog (0-10Vdc, 8 bit) / Digital (5-24Vdc) / PWM Isolated (5-24Vdc)
- (15x) Relay (220Vac-5A)

■ M-DUINO PLC Arduino 54ARA



29 Inputs:

- (15x) Digital Optoisolated (5-24Vdc).
- (14x) Analog (0-10Vdc, 10 bit) / Digital (5-24Vdc), configurable by software
- (6x) Interrupt (5-24Vdc). "Are part of the Digital inputs (5-24Vdc)"

25 Outputs:

- (9x) Digital Optoisolated (5-24Vdc)
- (8x) Analog (0-10Vdc, 8 bit)/Digital (5-24Vdc) / PWM Isolated (5-24Vdc)
- (8x) Relay (220Vac-5A)

■ M-DUINO PLC Arduino 57R



18 Inputs:

- (6x) Digital Optoisolated (5-24Vdc)
- (12x) Analog (0-10Vdc, 10 bit)/ Digital (5-24Vdc) configurable by software
- (6x) Interrupt (5-24Vdc) "Are part of the Digital inputs (5-24Vdc)".

31 Outputs:

- (8x) Analog (0-10Vdc, 8 bit) / Digital (5-24Vdc) / PWM Isolated (5-24Vdc).
- (23x) Relay (220Vac - 5A).

■ M-DUINO PLC Arduino 57AAR



32 Inputs:

- (16x) Digital Optoisolated (5-24Vdc)
- (16x) Analog (0-10Vdc, 10bit) / Digital (5-24Vdc) configurable by software
- (6x) Interrupt (5-24Vdc). "Are part of the Digital inputs (5-24Vdc)"

25 Outputs:

- (10x) Digital Optoisolated (5-24Vdc)
- (8x) Analog (0-10Vdc, 8 bit) / Digital (5-24Vdc) / PWM Isolated (5-24Vdc)
- (7x) Relay (220Vac - 5A)

■ M-DUINO PLC Arduino 58



36 Inputs:

- (20x) Digital Optoisolated (5-24Vdc).
- (16x) Analog (0-10Vdc) / Digital (5-24Vdc) configurable by software
- (6x) Interrupt (5-24Vdc). "Are part of the Digital inputs (5-24Vdc)"

22 Outputs:

- (14x) Digital Optoisolated (5-24Vdc)
- (8x) Analog (0-10Vdc, 8 bit) / Digital (5-24Vdc) / PWM Isolated (5-24Vdc)

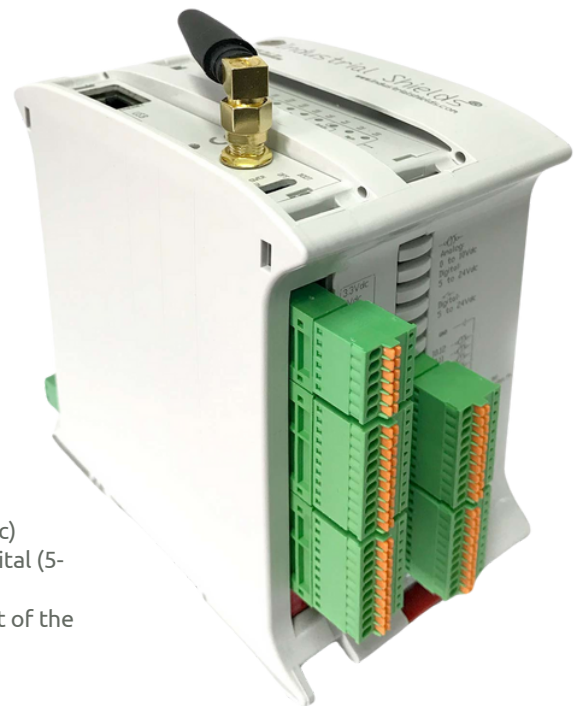
The M-Duino range has multiple communication options to adapt to all types of projects. From LoRa for IoT solutions, to DALI for lighting solutions in Smart Rural or Smart City projects, to other types of wireless communications such as WiFi or GPRS, which adapt to all types of industrial or professional needs.



ESP32 PLC



ESP32 SRAM 512 KB | CPU Speed 160/240 MHz



■ ESP32 PLC 14

Up to 4 digital outputs
Up to 9 digital inputs
2 analog inputs (0-10 V / 4-20 mA)
1 relay output

■ ESP32 PLC 19R

6 Inputs:

- (2x) Digital Optoisolated (5-24Vdc)
- (4x) Analog (0-10Vdc, 11bit) / Digital (5-24Vdc) configurables by software
- (2x) Interrupt (5-24Vdc). "Are part of the Digital inputs (5-24Vdc)".

11 Outputs:

- (3x) Analog (0-10Vdc, 12bit) / Digital (5-24Vdc) / PWM Isolated (5-24Vdc)
- (8x) Relay (220Vac - 5A)

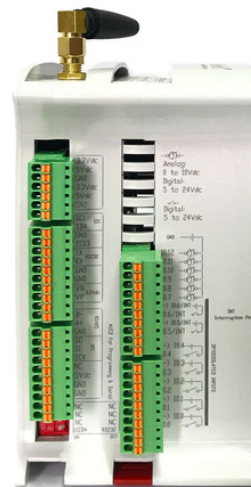
■ ESP32 PLC 21

13 Inputs:

- (7x) Digital Optoisolated (5-24Vdc)
- (6x) Analog (0-10Vdc, 11bit) / Digital (5-24Vdc) configurables by software
- (2x) Interrupt (5-24Vdc). "Are part of the Digital inputs (5-24Vdc)".

8 Outputs:

- (5x) Digital Optoisolated (5-24Vdc)
- (3x) Analog (0-10Vdc, 12bit) / Digital (5-24Vdc) / PWM Isolated (5-24Vdc)



Ethernet
WiFi
Bluetooth LE
TCP / IP
Modbus RTU
Modbus TCP
RS485
Serial Port
SPI
TTL
I2C

Industrial Standard Communications

■ ESP32 PLC 38R

19 Inputs:

- (9x) Digital Optoisolated (5-24Vdc)
- (10x) Analog (0-10Vdc, 11bit) / Digital (5-24Vdc) configurables by software
- (4x) Interrupt (5-24Vdc). "Are part of the Digital inputs (5-24Vdc)".

19 Outputs:

- (5x) Digital Optoisolated (5-24Vdc)
- (6x) Analog (0-10Vdc, 12bit) / Digital (5-24Vdc) / PWM Isolated (5-24Vdc)
- (8x) Relay (220Vac-5A).

■ ESP32 PLC 38R

12 Inputs:

- (4x) Digital Optoisolated (5-24Vdc)
- (8x) Analog (0-10Vdc, 11bit) / Digital (5-24Vdc) configurables by software
- (4x) Interrupt (5-24Vdc). "Are part of the Digital inputs (5-24Vdc)".

22 Outputs:

- (6x) Analog (0-10Vdc, 12bit) / Digital (5-24Vdc) / PWM Isolated (5-24Vdc)
- (16x) Relay (220Vac - 5A)

■ ESP32 PLC 42

26 Inputs:

- (14x) Digital Optoisolated (5-24Vdc)
- (12x) Analog (0-10Vdc, 11bit) / Digital (5-24Vdc) configurables by software
- (4x) Interrupt (5-24Vdc). "Are part of the Digital inputs (5-24Vdc)".

16 Outputs:

- (10x) Digital Optoisolated (5-24Vdc)
- (6x) Analog (0-10Vdc, 12bit) / Digital (5-24Vdc) / PWM Isolated (5-24Vdc)

ESP32 PLC



ESP32 PLC 50RRA

23 Inputs:

- (11x) Digital Optoisolated (5-24Vdc)
- (12x) Analog (0-10Vdc, 11bit) / Digital (5-24Vdc) configurables by software
- (6x) Interrupt (5-24Vdc). "Are part of the Digital inputs (5-24Vdc)"

30 Outputs:

- (5x) Digital Optoisolated (5-24Vdc)
- (9x) Analog (0-10Vdc, 12bit) / Digital (5-24Vdc) / PWM Isolated (5-24Vdc)
- (16x) Relay (220Vac-5A)



ESP32 PLC 53ARR

25 Inputs:

- (11x) Digital Optoisolated (5-24Vdc)
- (14x) Analog (0-10Vdc, 11bit) / Digital (5-24Vdc) configurables by software
- (6x) Interrupt (5-24Vdc). "Are part of the Digital inputs (5-24Vdc)"

30 Outputs:

- (5x) Digital Optoisolated (5-24Vdc).
- (9x) Analog (0-10Vdc, 12bit) / Digital (5-24Vdc) / PWM Isolated (5-24Vdc)
- (16x) Relay (220Vac-5A)

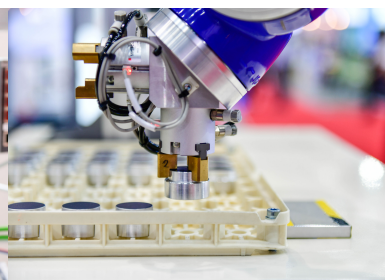
ESP32 PLC 54ARA

30 Inputs:

- (16x) Digital Optoisolated (5-24Vdc)
- (14x) Analog (0-10Vdc, 11bit) / Digital (5-24Vdc) configurables by software
- (6x) Interrupt (5-24Vdc). "Are part of the Digital inputs (5-24Vdc)"

27 Outputs:

- (10x) Digital Optoisolated (5-24Vdc)
- (9x) Analog (0-10Vdc, 12bit) / Digital (5-24Vdc) / PWM Isolated (5-24Vdc)
- (8x) Relay (220Vac-5A)



ESP32 PLC 57R

18 Inputs:

- (6x) Digital Optoisolated (5-24Vdc)
- (12x) Analog (0-10Vdc, 11bit) / Digital (5-24Vdc) configurables by software
- (6x) Interrupt (5-24Vdc). "Are part of the Digital inputs (5-24Vdc)"

33 Outputs:

- (9x) Analog (0-10Vdc, 12bit) / Digital (5-24Vdc) / PWM Isolated (5-24Vdc)
- (24x) Relay (220Vac - 5A).

ESP32 PLC 57AAR

32 Inputs:

- (16x) Digital Optoisolated (5-24Vdc)
- (16x) Analog (0-10Vdc, 11bit) / Digital (5-24Vdc) configurables by software
- (6x) Interrupt (5-24Vdc). "Are part of the Digital inputs (5-24Vdc)"

27 Outputs:

- (10x) Digital Optoisolated (5-24Vdc)
- (9x) Analog (0-10Vdc, 12bit) / Digital (5-24Vdc) / PWM Isolated (5-24Vdc)
- (8x) Relay (220Vac - 5A)

ESP32 PLC 58

37 Inputs:

- (21x) Digital Optoisolated (5-24Vdc)
- (16x) Analog (0-10Vdc, 11bit) / Digital (5-24Vdc) configurables by software
- (6x) Interrupt (5-24Vdc). "Are part of the Digital inputs (5-24Vdc)"

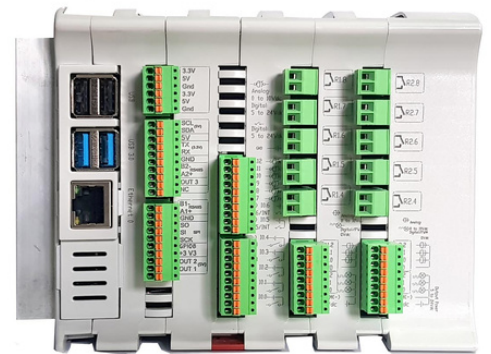
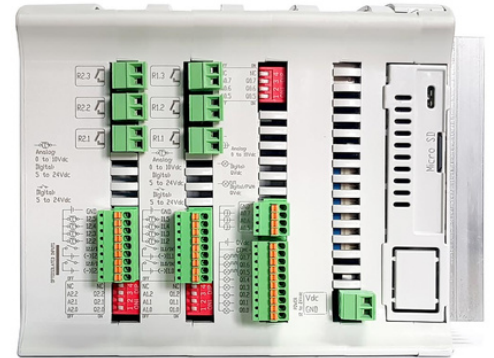
24 Outputs:

- (15x) Digital Optoisolated (5-24Vdc)
- (9x) Analog (0-10Vdc, 12bit) / Digital (5-24Vdc) / PWM Isolated (5-24Vdc)

PLC RASPBERRY



Original
Raspberry Pi
included



Raspberry PLC CPU:

52 Inputs:

- (16x) Analog (0-10Vdc) / Digital (5-24Vdc) software configurable
- (36x) Digital (5-24Vdc)

30 Outputs:

- (8x) Analog (0-10Vdc) / Digital (5-24Vdc)
- (22x) Digital (5-24Vdc)
- (23x) Relay (220Vac - 5A)
- (6x) Interruption (5-24Vdc).

Raspberry & GPRS PLC

39 Inputs:

- (18x) Analog (0-10Vdc)(10bit) / Digital (5-24Vdc) software configurable.
- (21x) Opto-isolated Digital (5-24Vdc)

33 Outputs:

- (9x) Digital/ Analog (10bit).
- (15x) Optoisolated Digital.

Raspberry PLC 19R

6 Inputs:

- (4x) Analog (0-10Vdc) / Digital (5-24Vdc) software configurable
- (2x) Optoisolated Digital (5-24Vdc)

11 Outputs:

- (3x) Analog (0-10Vdc) / Digital (5-24Vdc)
- (8x) Relay (220Vac - 5A)
- (2x) Interruption (5-24Vdc).

Raspberry PLC 21

13 Inputs:

- (6x) Analog (0-10Vdc) / Digital (5-24Vdc) software configurable
- (7x) Digital (5-24Vdc)

8 Outputs:

- (5x) Digital (5-24Vdc).
- (3x) Analog (0-10Vdc) / Digital (5-24Vdc).

Raspberry PLC 38AR

19 Inputs:

- (10x) Analog (0-10Vdc) / Digital (5-24Vdc) software configurable
- (8x) Digital (5-24Vdc)

19 Outputs:

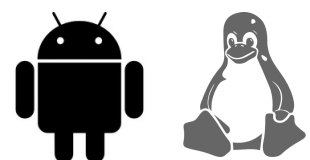
- (5x) Digital (5-24Vdc).
- (6x) Analog (0-10Vdc) / Digital (5-24Vdc).
- (8x) Relay (220Vac - 5A)



Industrial Solution
Scalable with multiple communications
Leverages the power of Linux and Android

The **Raspberry Pi PLC** has among the most important features, improving processing speed, using a wide range of communications and securing your data and operating system.

- UPS – UNINTERRUPTIBLE POWER SUPPLY
- MULTI-PROCESS
- HIGH PROCESSING SPEED
- MULTIPLE CONNECTIVITY, MULTIPLE OPTIONS
- RTC - REAL TIME CLOCK



PLC RASPBERRY

Raspberry PLC 38R

12 Inputs:

- (8x) Analog (0-10Vdc) / Digital (5-24Vdc) software configurable.
- (4x) Digital (5-24Vdc)

6 Outputs:

- (6x) Analog (0-10Vdc) / Digital (5-24Vdc)
- (16x) Relay (220Vac - 5A)
- (4x) Interruption (5-24Vdc).

Raspberry PLC 42

26 Inputs:

- (12x) Analog (0-10Vdc) / Digital (5-24Vdc) software configurable.
- (14x) Digital (5-24Vdc)

16 Outputs:

- (10x) Digital (5-24Vdc).
- (6x) Analog (0-10Vdc) / Digital (5-24Vdc)

Raspberry PLC 50RRA

25 Inputs:

- (14x) Analog (0-10Vdc) / Digital (5-24Vdc) software configurable.
- (11x) Digital (5-24Vdc)

27 Outputs:

- (5x) Digital (5-24Vdc).
- (9x) Analog (0-10Vdc) / Digital (5-24Vdc)
- (16x) Relay (220Vac - 5A)

Raspberry PLC 53ARR

25 Inputs:

- (14x) Analog (0-10Vdc) / Digital (5-24Vdc) software configurable.
- (11x) Digital (5-24Vdc)

36 Outputs:

- (5x) Digital (5-24Vdc)
- (9x) Analog (0-10Vdc) / Digital (5-24Vdc)
- (16x) Relay (220Vac - 5A)
- (6x) Interruption (5-24Vdc).

Raspberry PLC 54 ARA

32 Inputs:

- (16x) Analog (0-10Vdc) / Digital (5-24Vdc) software configurable.
- (16x) Digital (5-24Vdc)

33 Outputs:

- (10x) Digital (5-24Vdc)
- (9x) Analog (0-10Vdc) / Digital (5-24Vdc)
- (8x) Relay (220Vac - 5A)
- (6x) Interruption (5-24Vdc).

Raspberry PLC 57 AAR

32 Inputs:

- (16x) Analog (0-10Vdc) / Digital (5-24Vdc) software configurable.
- (16x) Digital (5-24Vdc)

30 Outputs:

- (10x) Digital (5-24Vdc)
- (9x) Analog (0-10Vdc) / Digital (5-24Vdc)
- (8x) Relay (220Vac - 5A)
- (8x) Interruption (5-24Vdc).

By using Raspberry Pi PLCs along with the right sensors and control elements, you can quickly implement dedicated industrial automation systems capable of meeting the requirements for a wide range of operations in industrial environments.

Raspberry PLC 57R

18 Inputs:

- (12x) Analog (0-10Vdc) / Digital (7-24Vdc) configurable by software.
- (6x) Digital (5-24Vdc)

33 Outputs:

- (9x) Analog (0-10Vdc) / Digital (7-24Vdc).
- (24x) Relay (220Vac - 5A)

Raspberry PLC 58

39 Inputs:

- (18x) Analog (0-10Vdc) / Digital (5-24Vdc) software configurable.
- (21x) Digital (5-24Vdc)

24 Outputs:

- (9x) Analog (0-10Vdc) / Digital (5-24Vdc).
- (15x) Digital (5-24Vdc)





Powered by
Raspberry Pi

PANEL PC

Panel PC with Linux or Android for industrial environment

■ TouchBerry 10"



TFT

10.1" TouchScreen LVDS, 315 nits, 170° viewing angle.
Format 16:9, 1280x720.

Video in

MIPI CSI connector which lets you install an RPF camera module.

Integrated Storage

SD /MMC / SDIO slot.

Power supply

12Vdc to 24Vdc (5.5x2.5 Jack)

Low level devices

10x GPIOs , SPI , I2C , UART

Current consumption

2.5A (12Vdc) // 1,25A (24Vdc)

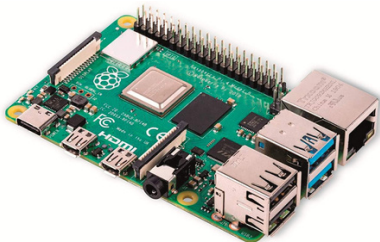
LAN connectivity

10/100 Ethernet (RJ-45)

■ CPU

Raspberry Pi

Quad-core A53 (ARMv8)
64-bit @ 1.4GHz



■ SOFTWARE

Linux

Android

You can choose among these three Operating Systems to boot the Panel PC.

Depending on the requirements and/or needs of your installation, you have the flexibility to select the option that best suits your project.

■ TouchBerry 7"

Panel PC based on Raspberry Pi 4, 7" TouchScreen.

From 12 to 24Vdc

5x optoisolated digital outputs (5-24Vdc)

3x optoisolated digital inputs (5-24Vdc)

2x analog inputs (4-20mA)

2x analog/digital inputs (5-24Vdc for digital) (0-10Vdc for analog)

1x Serial TTL-RS232* - 1x RS485 (half-full duplex) - 1x I2C - 1x SPI -

RTC (Real Time Clock)

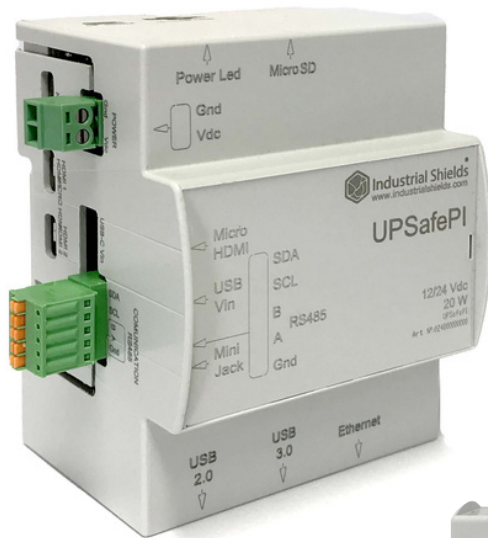
UPS included



Powered by
Raspberry Pi

UPSafePI

■ UPSafePI



Available with or without
Raspberry Pi

Enjoy unmatched power protection and reliability for your **Raspberry Pi**-based industrial projects with **UPSafePI**, the state-of-the-art industrial UPS that ensures uninterruptible power supply and protects your valuable data.

UPSafePI es la solución definitiva para proteger sus operaciones críticas, minimizar el tiempo de inactividad y asegurar su inversión en hardware.

Measurements UPS & RTC



Features:



Robust electrical protection

Guarantees a stable power supply, preventing hardware damage.



Optional Raspberry Pi package

For your convenience, UPSafePI is available in two variants: with or without Raspberry Pi.



Easy installation and configuration

UPSafePI has been designed with ease of use in mind.



Versatile connectivity

With UPSafePI, you can say goodbye to annoying power outages.



Long battery life

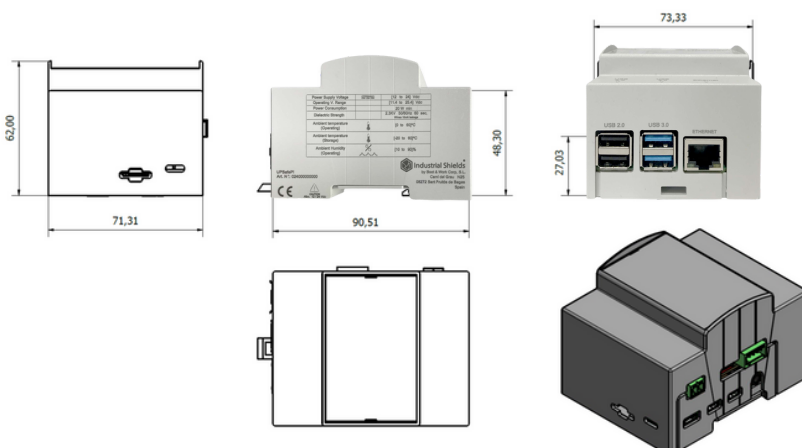
Equipped with a high capacity rechargeable battery.



Seamless energy continuity

UPSafePI offers several connectivity options, such as USB, Ethernet and GPIO ports.

■ Overall measurements of the device



For your professional solutions with Raspberry Pi, **UPSafePI** is your reliable partner. Ensure uninterrupted productivity and data integrity.



LIBRARIES, COMMUNICATIONS, PROTOCOLS

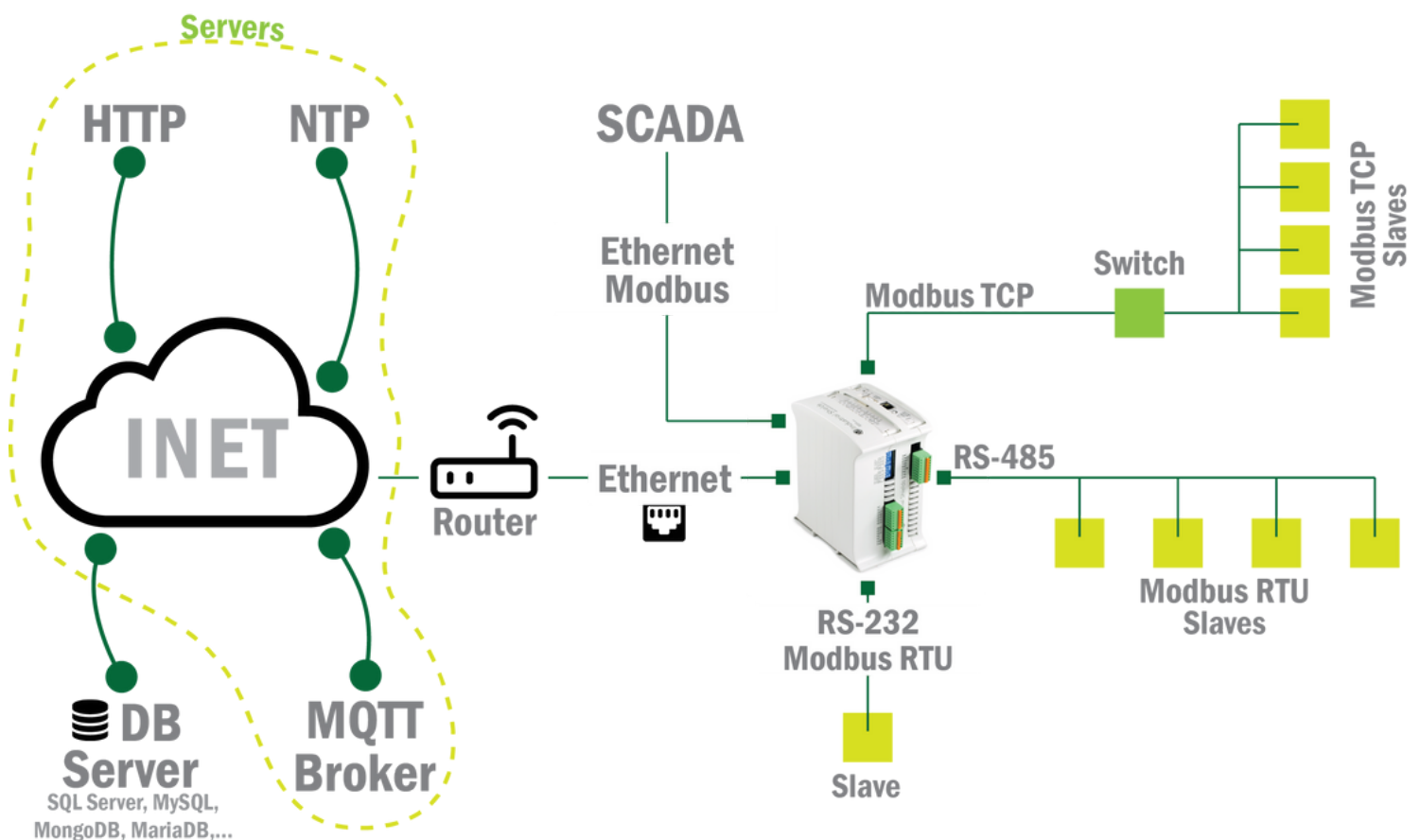
Available Libraries in our Blog and GitHub

	MySQL	SQL Server	SimpleComm	Modbus TCP	MQTT	http	Raw Data	NTD	Raw Data	Modbus RTU	SimpleComm	Raw Data	Modbus RTU	SimpleComm	Sensor Data	Sensor Data	Sensor Data
Application Layer	Data Base		SimpleComm	Modbus TCP	MQTT	http	Raw Data	NTD	Raw Data	Modbus RTU	SimpleComm	Raw Data	Modbus RTU	SimpleComm	Sensor Data	Sensor Data	Sensor Data
4- Transport	TCP							UDP									
3- Network	IP																
2- Data Link	Ethernet / WiFi								RS-485			RS-232		TTL/SPI	I2C	One Wire	
1- Physical	GPRS								Serial UART								

 <https://github.com/IndustrialShields>

 <https://www.industrialshields.com/blog/industrial-shields-blog-1>

With our PLC's you can communicate using several protocols like RS-232, RS-485, Modbus TCP, or using ethernet, etc.
It's possible to send and receive information from several server types (HTTP, NTP, MQTT) or DB Servers.



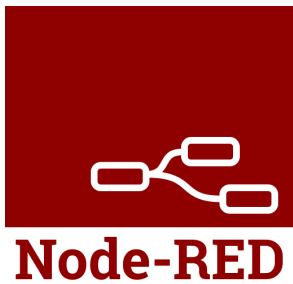
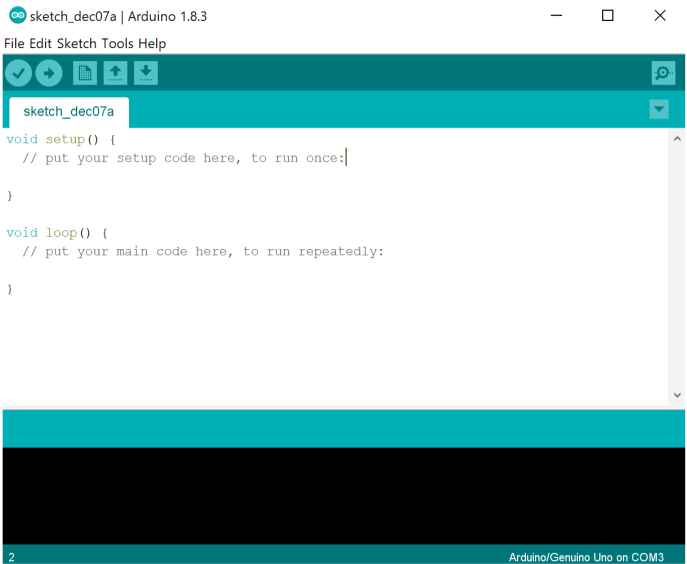


SOFTWARE

Arduino IDE is the Original platform to program Arduino boards

Our Arduino based PLCs use Original Arduino boards assembled inside all devices

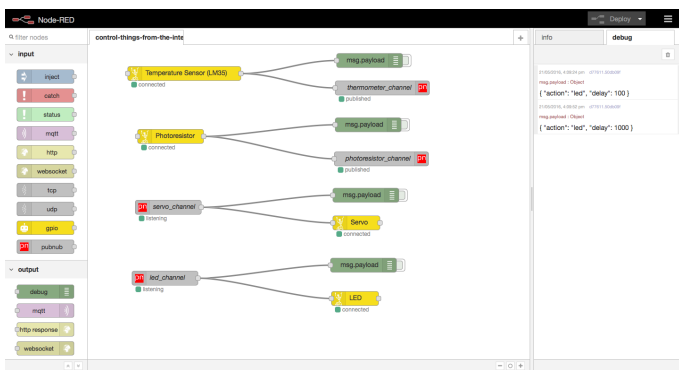
- Free software licenses
- Standard Libraries available
- Documentation and examples available, ready to use
- Industrial Shields libraries available to facilitate the programming of our PLCs



NodeRED. Platform to develop Apps, Servers, Dashboards and more.

Node-Red is a programming tool for wiring together hardware devices, APIs and online services in new and interesting ways. It is very intuitive, easy and fast-programming. It is an excellent tool for working graphically.

- It provides a browser-based editor that makes it easy to connect flows using nodes.
- Online debugging application

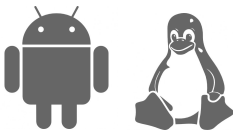


Our PLCs can be programmed with all software platforms compatible with Arduino IDE.

Electron · Codebender · Stino · Eclipse · Visual Studio · Gedit · Komodo Edit · MariaMole · Zeus · Atmel Studio · AVR-GCC · CodeBlocks · ROBOTC for Arduino · Xcode · ArduinoDroid · Notepad++ · Programino · and more...



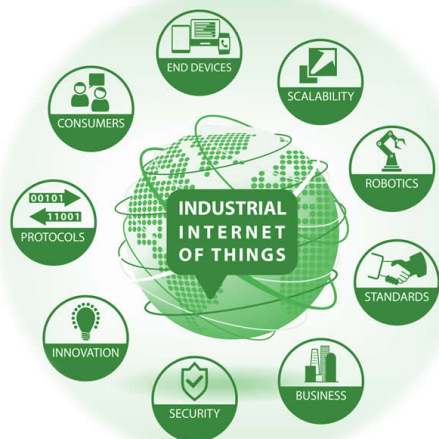
Our Panel PCs can work with Linux and Android which means that, if your team has enough knowledge, you can create a custom applications for the Panel PCs. You will have more flexibility to fit the needs of your installation or application.



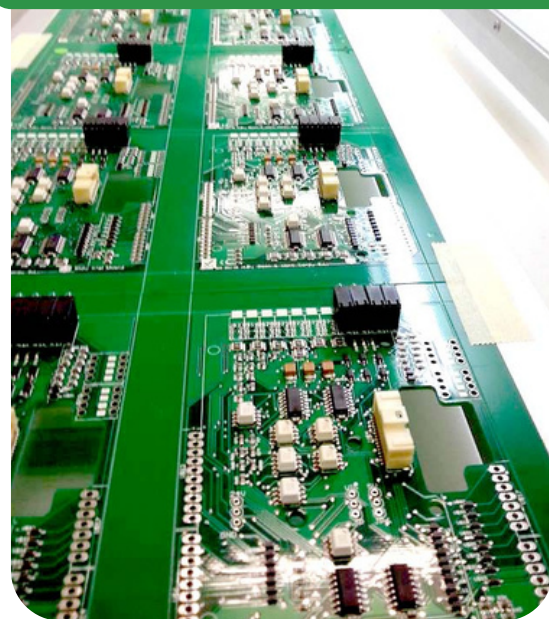
Industrial Shields was born in October 2012 from the hand of an engineer, who, searching for a more flexible PLC equipment and a better price, decided to develop his own solution using **Open Source Hardware**.

Therefore **Industrial Shields** is the brand that provides **Open Source Hardware** for industrial use, including all design and safety required, combining the best of two worlds.

Industrial Shields, designs, produces and markets the range of products based on **Open Source Hardware**.



COMPANY



Bigdata
Cloud Computing
Flexible Hardware
Industrial Internet of Things

Boot & Work Corp. S.L. is a company committed to the promotion, development, manufacture and sale of products based on Open Source technology to liberalize the industrial sector and boost the growth of its customers.

The aim of our company is to provide low-cost solutions for automation in industrial environments.

Open Source Hardware solutions are not yet widely introduced in the industrial sector, it is a growing market and we are its pioneers.

The balance between **quality and cost is very important** for us and therefore for the market, using Open Source solutions we can provide more specifications at a better price.

In addition, the Open Source solutions are **more flexible and accessible** than standard industrial solutions and, furthermore, **the software is license free**.

Industrial Shields is convinced with a focus on **Industry 4.0 and the Internet of Things**.

QUALITY

In compliance with :

EN61010-1 | EN61010-2-201 | EN61131-2:2007 (Clause 8: Zone A/B EMC and clause 11:LVD) |
EN61000-6-4:2007 + A1 2011 (Emissions) | EN 61000-6-2:2005 (Immunity) | EMC: FCC Part 15



Presence in more than 100 countries

CONTACT US



Industrial Shields has been working all over the world through distributors, or in direct contact with customers.

Our **sales, technical and support team** will advise you during the needs definition phase and for the implementation of your project.

Get in touch with us. We are here, glad to help and support you.



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