Common Resources

Source of common resources used across the Open IoT and IIoT Gateways documentation

Tables

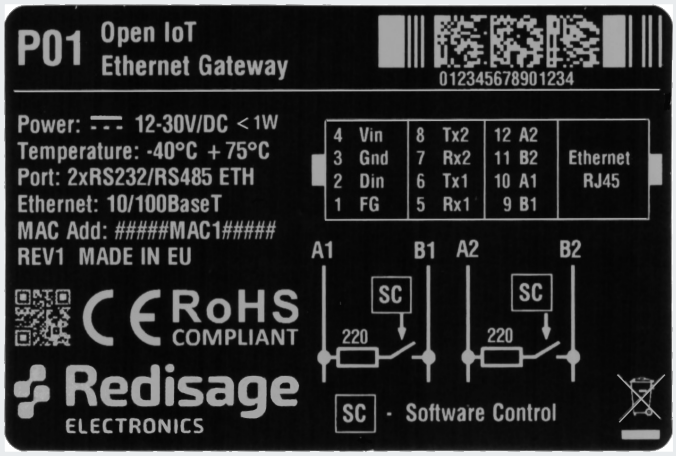
Specifications

Redisage PN		P01	P02
Ports	RS232	-	-
	RS485	-	-
	RS232/RS485	2x	2x
Microcontroller		ESP32	
WiFi		N/A	802.11 b/g/n 150 Mbps / 2.4 GHz
Bluetooth		N/A	v4.2 BR/EDR and BLE
SMA socket connector for WiFi/BT antenna		:x:	:white_check_mark:
Tactile switch		:white_check_mark:	:x:
Power	Voltage	12-30 VDC	
	Power	< 1 W	
Frame ground protection		yes	
Baud rate		up to 115200 bps	
LED indicators		power, link activity, programmable RGB	
RS485 termination		120 ohm manually enabled	

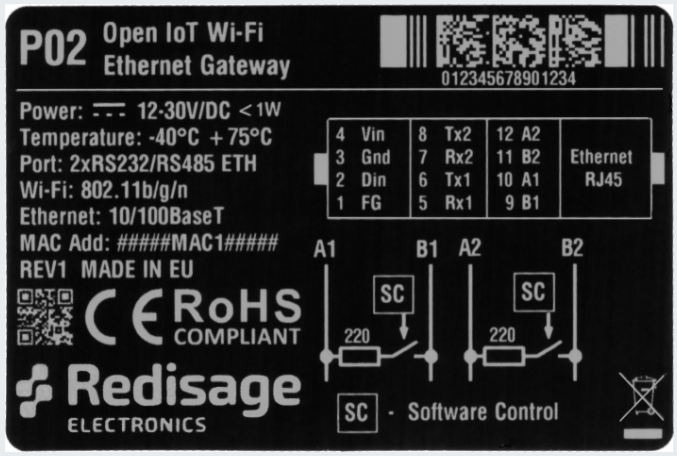
Redisage PN		P01	P02
Connector	RS232/RS485	8-pin terminal block max. 2.5 mm^2 wire	
	Power	3-pin terminal block max. 2.5 mm^2 wire	
	Ethernet	RJ45	
Transmission distance	RS485	max. 1,200 m at 9.6 kbps; max. 400 m at 115.2 kbps (Belden 9841 2P twisted-pair cable, if different cables are used, the transmission distance may change)	
	RS232	max. 15 m at 115.2 kbps	
Mounting and enclosure		DIN rail, plastic PA - UL 94 V0, black/green	
Temperatures		-40°C to +75°C operating and storage	
Humidity		10 - 90% RH, non-condensing	
ESD protection		±4 kV contact discharge / ±8 kV air discharge	
Certification		CE, RoHS, EMC, LVD	
Norms		61000-6-2 - Immunity standard for industrial environments 61000-6-4 - Emission standard for industrial environments	

Pin assignments

P01


P01
Open IoT
Ethernet Gateway
012345678901234
Power: 12-30V/DC <1W
Temperature: -40°C +75°C
Port: 2xRS232/RS485 ETH
Ethernet: 10/100BaseT
MAC Add: #####MAC1#####
REV1 MADE IN EU
4 Vin
3 Gnd
2 Din
1 FG
8 Tx2
7 Rx2
6 Tx1
5 Rx1
12 A2
11 B2
10 A1
9 B1
Ethernet
RJ45
A1
B1
A2
B2
SC
220
SC
220
CE RoHS
COMPLIANT
Redisage
ELECTRONICS
SC - Software Control

P02


P02
Open IoT Wi-Fi
Ethernet Gateway
012345678901234
Power: 12-30V/DC <1W
Temperature: -40°C +75°C
Port: 2xRS232/RS485 ETH
Wi-Fi: 802.11b/g/n
Ethernet: 10/100BaseT
MAC Add: #####MAC1#####
REV1 MADE IN EU
4 Vin
3 Gnd
2 Din
1 FG
8 Tx2
7 Rx2
6 Tx1
5 Rx1
12 A2
11 B2
10 A1
9 B1
Ethernet
RJ45
A1
B1
A2
B2
SC
220
SC
220
CE RoHS
COMPLIANT
Redisage
ELECTRONICS
SC - Software Control

Introduction

ESP32 Open IoT and IIoT Gateways (P01 & P02)

Open IoT Gateway is also called as a PAC (Programmable Automation Controller). PAC products combine the functionality and openness of a PC, the reliability of a programmable logic unit like PLC and the intelligence of I/O modules with flexible software tools for a wide range of applications from data acquisition, process control, motion control to energy and building management.

Our PAC family includes FreeRTOS PACs and MicroPython PACs for different requirements in OS, CPU and development platform.

The P01 and P02 Gateways are based on **ESP32 Xtensa LX6**.