

Modbus to LAN converter

Modbus to LAN/WiFi converter. PE11 (Ethernet) and PW11 (WiFi) models for wireless connection of Modbus devices to TapHome.





Quick Facts

Dimensions	72 x 100 x 25 mm
Operating temperature	-40 ... 85 °C
IP rating	IP20

Transmission of Modbus communication via Ethernet or Wifi.

Product Variants

Order Code	Wifi/Ethernet	EAN
PROTOSS-PE11	Ethernet	 8586022945205
PROTOSS-PW11	Wifi	 8586022945212

Technical Specifications

ELECTRICAL	
Input voltage	9–48 VDC
Connection	WiFi + Ethernet
INTERFACE	
Protocol	Modbus TCP/RTU

Wifi version supports 802.11 b/g/n standard, WEP64 / WEP128 / TKIP / AES security

Ethernet version supports 10/100M Ethernet Auto-Negotiation

Properties

Supported network protocols: TCP, UDP, MQTT, HTTP, WebSocket

Security: TLS v1.2 AES 128Bit DES3

RS485 connection: Baud Rate 600 - 230400 Baud, Data bits 7 / 8, Stop bits 1 / 2, Parity None / Even / Odd

Working temperature: -40 ~ 85°C

Dimensions: 102 x 65 x 27.5 mm

Power supply: 9 ~ 48VDC @ ~200mA

Instructions



1 .. DC Power Input (VCC+) 9 - 48VDC **2** .. DC Power Input (GND-) **5** .. RS485 (B) **6** .. GND **7** .. RS485 (A)

Reload .. Restore to factory settings. For PW11 used also for initialisation of Wi-Fi connection. **Reset** ..

Hardware reset **Active** - Off: No data transfer - 0.3s Off → 0.9s on: UART TX Output - 0.3s Off → 0.3s On:

UART RX Receive **Link** - On: netp Socket connection OK - Off: no netp Socket connection **Net (PE11**

Ethernet version) - On: Ethernet connection is OK - Off: No Ethernet connection **Net (PW11 Wi-Fi version)** -

0.1s Off → 0.1s On: SmartLink Config Mode - 0.3s Off → 3s On: STA mode connected to router or AP mode being connected by other STA

- 0.3s Off → 0.3s On: No Wi-Fi Connection **Power**
- On: Power input OK
- Off: Power input NG

For Modbus RTU (RS485) communication, connect terminals A and B. Connecting GND is also recommended, if possible. The RS485 interface supports up to 32 devices. The maximum cable length is 1200 meters. A 120 Ohm termination resistor is required if the cable length exceeds 300 meters.

Connecting PW11 to an Existing Wi-Fi Network

1. Connect your computer to the Wi-Fi network named **PW11_xxx**.

2. Open a web browser and go to IP address **10.10.100.254**.
3. If the address is not accessible, use a third-party IP scanner to find the correct one.
4. Log in using the default credentials: Username: **admin** Password: **admin**
5. Navigate to **System Settings → WiFi Settings** and set **WiFi Mode** to **STA**.
6. Press the **Scan** button to search for available Wi-Fi networks. Select your desired network and enter its password in the **STA KEY** field. Click the **Submit** button to save the settings.
7. Go to the **Others** section and click **Restart**.
8. After the device restarts, reconnect your computer to your original Wi-Fi network.

Configuring PW11 and PE11 (All Versions)

In the TapHome App 1. Go to **Settings → IP Scanner**. Copy the IP address associated with the manufacturer “**Shanghai High-Flying Electronics**”.

1. Use this IP address when creating a new product from a template in **Hardware → Modbus TCP**. It will be stored in the corresponding Modbus module. **In a Web Browser**
2. Open the copied IP address in your browser. Log in with the default credentials: Username: **admin**
Password: **admin**
3. To ensure a stable connection between TapHome and the gateway, either:
4. Create a DHCP reservation for this MAC address in your router, or
5. Go to **System Settings → WAN Settings**, disable **DHCP**, and manually assign a static **WAN IP address**.
6. Match the serial port settings to your Modbus RTU device: Go to **Serial Port Settings → Basic Settings** and set the correct values for: **Baud Rate Data Bit Stop Bit Parity**
7. In **Serial Port Settings → Flow Control Settings**, select **Half Duplex**.
8. In **Serial Port Settings → Protocol**, select **Modbus**.
9. In **Communication Settings → Socket Settings**, set the **Local Port** to **502**.
10. Check if Modbus communication is working properly in **Status → Serial Port State**.



Product page

<https://hardware.taphome.com/modbus-to-ian/>

