

# PBH-154

(4-Port Serial to Ethernet/WLAN Converter)



## Overview

PBH-154 is a serial to Ethernet/WLAN converter that enables your serial devices to carry robust networking capabilities. This serial to Ethernet/WLAN converter offers 4 serial ports interfaced with RS232/RS422/RS485 and a frame delimiter for packet fragmentation.

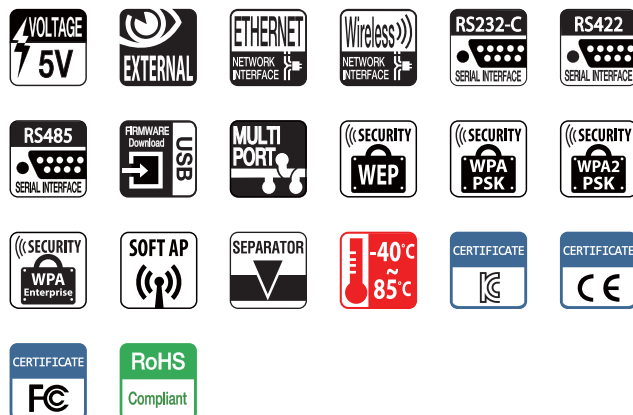
PBH-154 comes preloaded with Soft AP so it can simply be linked to any devices with WLAN by operating as an AP. It eases network construction with mobile devices such as smartphones, tablet PCs and laptops where an AP is unavailable.

Ensuring reliable operation with industrial temperature range of  $-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$ , along with an overvoltage, reverse voltage and overcurrent protection circuit, makes this Serial to Ethernet/WLAN converter suitable for harsh industrial environments.

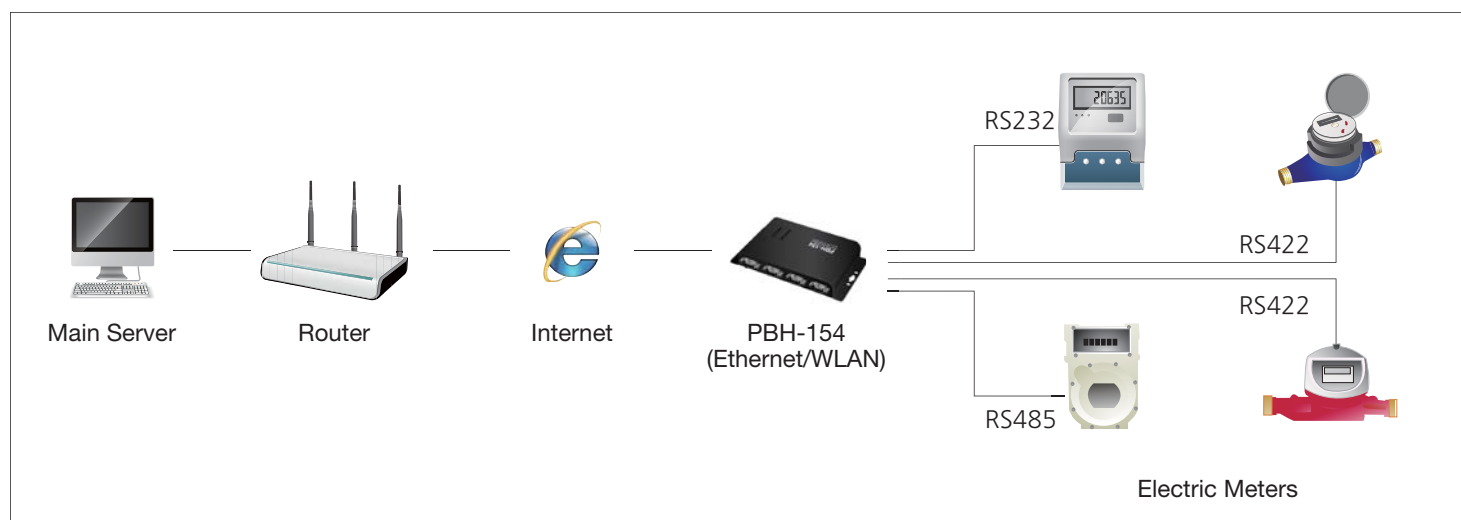
## Highlights

- RS232/RS422/RS485 to Ethernet and Wireless LAN Converter (\*USB Wireless LAN dongle required)
- 4 x RS232/RS422/RS485 (D-SUB 9pin Male, up to 230,400bps)
- Ethernet 10Base-T or 100Base-TX (Auto-Sensing)
- IEEE 802.11 b/g
- Infrastructure and Ad-hoc network
- Soft AP (setting and connection through a smartphone or laptop without an AP available)
- Security options (Password, WEP, WPA-PSK, WPA2-PSK)
- WPA Enterprise (EAP-TLS, EAP-TTLS, PEAP)
- Web configuration
- Industrial temperature range ( $-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$ )

## Icons



## Application



# Specifications

## Serial Physical Interface

Serial Interface	RS232 - RXD, TXD, RTS, CTS, DTR(Always ON), GND
	RS422 - TX+, TX-, RX+, RX-, GND with embedded 100K biasing resistors and TVS
	RS485 - TRX+, TRX-, GND with embedded 100K biasing resistors and TVS
Connector	9 pin D-sub male

## Serial Port Properties

Baudrate	COM1, COM4 : 2,400bps ~ 230,400bps
	COM2, COM3 : 1,200bps ~ 230,400bps
Data Bits	8 bits, 7 bits with parity
Parity	None, Even, Odd, Mark, Space
Stop Bit	1, 2
Flow Control	RTS/CTS, Xon/Xoff

## Network Interface

Ethernet	10Base-T or 100Base-TX (RJ45)
	Ethernet Speed Auto Sense
	1:1 or Cross-over Cable Auto Sense
Wireless LAN	Ralink RT3070/5370 USB wireless LAN dongle required on the USB A Connector
	IEEE 802.11b/g Wireless LAN
	WEP, WPA-PSK, WPA2-PSK, WPA-Enterprise (EAP-TLS, EAP-TTLS, PEAP)

## USB Interface

USB A Connector	Ralink RT3070/5370 USB wireless LAN dongle for Wireless LAN
USB B Connector	For PC connection to download firmware

## Software Functions

Protocols	TCP, IP, HTTP, DHCP, ARP
	IEEE 802.11b/g, WEP, WPA-PSK, WPA2-PSK, WPA-Enterprise

## Indicators (LEDs)

Power	Red
Status	Yellow
Serial TX (TCP)	Green
Serial RX (TCP)	Green

## Supplementary Software

PHPoC Writer	Firmware Upgrade, Management
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## Dimension

Size	180mm x 90mm x 24mm
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## Operating Environment

Input Voltage	DC5V $\pm$ 0.5V (DC jack or USB)
Current Consumption	Typically 235 mA
Power Protection	Reverse Voltage Protection, Surge Protection
Operating Temperature	-40°C ~ +85°C (without USB Wireless LAN adapter)
Storage Temperature	-40°C ~ +85°C (without USB Wireless LAN adapter)