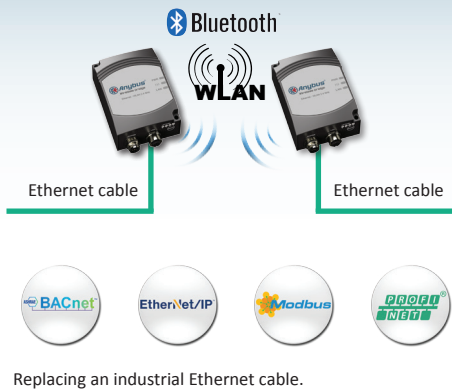# Anybus®

Wireless Bridge

Anybus Wireless Bridge enables you create a robust wireless connection to an industrial device. The solution is ideal for communication through hazardous areas or hard-to-reach locations where cables are not desirable.
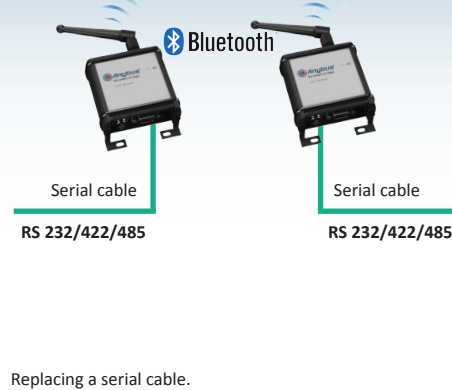
Wireless transmission is made via Bluetooth or WLAN technology and there are several versions available for both serial and industrial Ethernet communication.
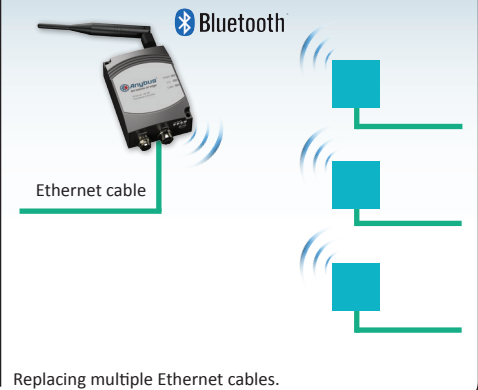

EXAMPLE 1: Point-to-point Ethernet

Bluetooth
WLAN

Ethernet cable   Ethernet cable

BACnet   EtherNet/IP   Modbus   PROFINET

Replacing an industrial Ethernet cable.

EXAMPLE 2: Point-to-point serial

Bluetooth

Serial cable   Serial cable
RS 232/422/485   RS 232/422/485

Replacing a serial cable.

EXAMPLE 3: One access point for several nodes.

Bluetooth

Ethernet cable

Replacing multiple Ethernet cables.

Availability

021440-B
Ethernet WLAN 2.4 GHz

021450-B
Ethernet WLAN 5 GHz

024120-B
Ethernet WLAN
Dual Band 2.4/5 GHz

023140-B
Ethernet Bluetooth

024130-B
Ethernet Bluetooth Access Point

024140-B
Serial Bluetooth

Accessories
023040-B
Cable kit (cables and power adapter not included by default)

HMS provides a full 3 year product guarantee

Serial or industrial Ethernet

Anybus Wireless Bridge comes in different versions for serial communication (RS232/422/485) or industrial Ethernet (for example PROFINET, EtherNet/IP, Modbus-TCP and BACnet/IP).

Point-to-point or multipoint

Wireless Bridge is often used as cable replacement in point-to-point communication (serial or Ethernet). But it can also be used as an access point for several Bluetooth nodes within range.

Features and benefits

- Range up to 400 meters.
- Rugged design with IP65-classed housing.
- Unique method to handle interference disturbances without consequences to the Bluetooth conformity or the interoperability with other devices.
- Support for redundant wireless networks for critical applications.
- Easy configuration via push button or via web configuration pages.

WLAN or Bluetooth?

WLAN

- Provides higher bandwidth (wider frequency range)
- Point-to-point
- Wireless LAN client adapter in an infrastructure setup

Bluetooth

- Even more reliable and noise immune wireless link since Bluetooth switches between different frequencies.
- Point-to-point or multipoint
- Preferred physical media for wireless PROFINET (PNO) and approved for PROFIsafe

---

Anybus® *Industrial networking made easy!*

TECHNICAL SPECIFICATIONS

	Ethernet bridge via WLAN 2.4 GHz	Ethernet bridge via WLAN 5 GHz	Ethernet bridge via WLAN Dual-band (2.4/5 GHz)	Ethernet bridge via Bluetooth	Ethernet access point via Bluetooth	Serial bridge via Bluetooth
Description	Ethernet bridge via WLAN 2.4 GHz	Ethernet bridge via WLAN 5 GHz	Ethernet bridge via WLAN Dual-band (2.4/5 GHz)	Ethernet bridge via Bluetooth	Ethernet access point via Bluetooth	Serial bridge via Bluetooth
Order code	021440-B	021450-B	024120-B	023140-B	024130-B	024140-B
Range	400 meters	200 meters	400 meters	300 meters	300 meters	300 meters
Antenna	Built in	Built in	External (RPSMA)	Built in	External (RPSMA)	External
Operating temperature	-30 to +65 °C	-30 to +65 °C	-30 to +65 °C	-30 to +65 °C	-30 to +65 °C	-30 to +85 °C
Weight	120 g	120 g	130 g	120 g	130 g	190 g
Housing	Plastic (IP65)	Plastic (IP65)	Plastic (IP65)	Plastic (IP65)	Plastic (IP65)	Metal (IP65)
Dimensions W×H×D	91 x 66 x 36.2 mm	91 x 66 x 36.2 mm	91 x 66 x 36.2 mm	91 x 66 x 36.2 mm	91 x 66 x 36.2 mm	76 x 85 x 35 mm
Connectors	M12 (Ethernet/Power)	M12 (Ethernet/Power)	M12 (Ethernet/Power)	M12 (Ethernet/Power)	M12 (Ethernet/Power)	Male DSUB (Serial) Binder 712 (power)
ELECTRICAL CHARACTERISTICS						
Output power	20 dBm	11 dBm	20 dBm	13 dBm	20 dBm	13 dBm
RF power supply	9-30 VDC	9-30 VDC	9-30 VDC	9-30 VDC	9-30 VDC	8-30 VDC
Power consumption	47mA @30V (min.) 59 mA @30V (average)	47mA @30V (min.) 59 mA @30V (average)	47mA @30V (min.) 59 mA @30V (average)	35mA @30V (min.) 43 mA @30V (average)	35mA @30V (min.) 43 mA @30V (average)	9mA @30V (min.) 20 mA @30V (average)
WIRELESS COMMUNICATION						
Communication type	WLAN 802.11 b, g, n	WLAN 802.11 b, g, n	WLAN 802.11 b, g, n	Bluetooth v4.0 (Bluetooth low energy and Classic Bluetooth)	Bluetooth v4.0 (Bluetooth low energy and Classic Bluetooth)	Bluetooth v4.0 (Bluetooth low energy and Classic Bluetooth)
Ethernet interface	10/100BASE-T with automatic MDI/MDIX cross-over	10/100BASE-T with automatic MDI/MDIX cross-over	10/100BASE-T with automatic MDI/MDIX cross-over	10/100BASE-T with automatic MDI/MDIX cross-over	10/100BASE-T with automatic MDI/MDIX cross-over	-
Supported Ethernet protocols	IP, TCP, UDP, HTTP, LLDP, ARP, DHCP Client/Server, DNS support, SNMP user management and access control	IP, TCP, UDP, HTTP, LLDP, ARP, DHCP Client/Server, DNS support, SNMP user management and access control	IP, TCP, UDP, HTTP, LLDP, ARP, DHCP Client/Server, DNS support, SNMP user management and access control	IP, TCP, UDP, HTTP, LLDP, ARP, DHCP Client/Server, DNS support, SNMP user management and access control	IP, TCP, UDP, HTTP, LLDP, ARP, DHCP Client/Server, DNS support, SNMP user management and access control	-
Supported Bluetooth profiles	-	-	-	Generic Attribute Profile (GATT), Personal Area Networking Profile (PAN), PANU and NAP roles (one connection)	Generic Attribute Profile (GATT), Personal Area Networking Profile (PAN), PANU and NAP roles (one connection)	Generic Attribute Profile (GATT) Serial Port Profile (SPP). Personal Area Networking Profile (PAN), PANU and NAP roles (one connection)
Throughput	14 Mbps	14 Mbps	14 Mbps	1 Mbps	1 Mbps	460.8 Kbps
Max number of slaves	1	1	1	1	7 Classic Bluetooth 3 Classic/low energy	7 Classic Bluetooth 3 Classic/low energy
Security	WEP64, WEP128,WPA-PSk, WPA2-PSK, TKIP, CCMP (AES), LEAP, PEAP	WEP64, WEP128,WPA-PSk, WPA2-PSK, TKIP, CCMP (AES), LEAP, PEAP	WEP64, WEP128,WPA-PSk, WPA2-PSK, TKIP, CCMP (AES), LEAP, PEAP	Simple pairing	Simple pairing	Simple pairing
CERTIFICATIONS						
Europe	ETSI R&TTE	ETSI R&TTE	ETSI R&TTE	ETSI R&TTE	ETSI R&TTE	ETSI R&TTE
U.S.	FCC/CFR 47 part 15 unlicensed modular transmitter approval	FCC/CFR 47 part 15 unlicensed modular transmitter approval	FCC/CFR 47 part 15 unlicensed modular transmitter approval	FCC/CFR 47 part 15 unlicensed modular transmitter approval	FCC/CFR 47 part 15 unlicensed modular transmitter approval	FCC/CFR 47 part 15 unlicensed modular transmitter approval
Canada	IC RSS	IC RSS	IC RSS	IC RSS	IC RSS	IC RSS
Japan	MIC - formerly TELEC	-	2.4 GHz only MIC- formerly TELEC	MIC - formerly TELEC	MIC - formerly TELEC	MIC - formerly TELEC
UL - Hazardous location	cUL Class 1 Div 2	cUL Class 1 Div 2	cUL Class 1 Div 2	cUL Class 1 Div 2	cUL Class 1 Div 2	-
Medical qualification	-	-	-	-	-	IEC 60601-1-2

For more technical details and specifications, visit anybus.com

Anybus® Industrial networking made easy!