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# 司騰達股份有限公司

HMS 台灣總代理 – Remote Access 跨國遠端連線與自動化工業的最佳選擇

司騰達公司致力於推廣數位化工廠和 IIoT 工業物聯網的解決方案，並與歐洲最先進的公司 – HMS 集團合作，同時透過引進更多歐美的技術能量，提供客戶關於工業 4.0 的顧問諮詢服務，並將教育與產業連結，協助台灣產業逐步完成從現場設備、生產資訊、通訊 IoT 的垂直整合，並整合 M2M 工業總線與軟體開發，從而實現數位化工廠與自動化機械領域的創新。



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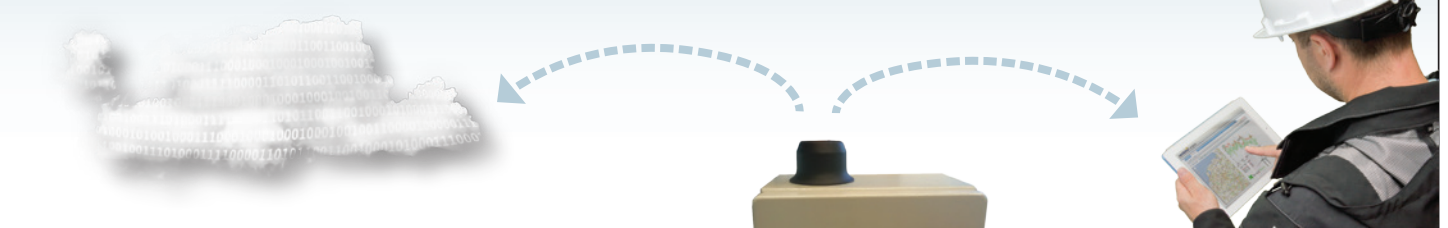
## Wireless Bolt™

Anybus Wireless Bolt enables you to connect industrial machinery to a wireless network. It is attached onto a cabinet or a machine to enable wireless access.

Wireless transmission is made via Bluetooth or Wireless LAN technology. The wired connection is made using Ethernet.



### EXAMPLE USE CASE



*The Wireless Bolt is typically used for configuration purposes. For example, you can bring your own device (BYOD) such as a tablet to a machine and use it as an HMI. Another typical use case is connecting a machine to a cloud service.*

### Availability

Anybus Wireless Bolt Ethernet.  
Bluetooth access point or client.  
WLAN 2.4 GHz/5 GHz access point or client.

#### AWB2000

18-pole push spring connector

#### AWB2000-B-RJ45PACK

18-pole push spring connector with RJ45 adapter pre-assembled

#### AWB2030

RJ45 connector and PoE (Power over Ethernet)

### Accessories

#### 024703

Bolt cable kit. Bolt connector with Ethernet cable (RJ45 male) and power supply (World) with cable.  
Both cables are 150cm. (for AWB2000 only)

#### 024704

Bolt RJ45 Adapter. Bolt connector with Ethernet cable (RJ45 female). Total length 20 cm. (for AWB2000 only)

#### AWB4005

PoE Injector, 100-240VAC

#### AWB4006

PoE Injector, 12-57VDC



HMS provides a full 3 year product guarantee

### Use your laptop, phone or tablet instead of an HMI

Connect a Wireless Bolt to your machine and access the internal web pages via a laptop, tablet or smartphone. BYOD (Bring Your Own Device) means that you no longer need an expensive HMI.

### Multipoint or point-to-point

Anybus Wireless Bolt is often used as an access point for several WLAN/Bluetooth nodes, but it can also be used as an Ethernet cable replacement (point-to-point communication).

### Features and benefits

- Range up to 100 meters.
- Rugged design with IP67-classed housing.
- Easy configuration via built-in web configuration pages.
- Mounted by making an M50 hole (50.5 mm) in the host cabinet/machine. The bottom part of the Bolt goes inside the cabinet and the top part is located on the outside.
- All-in-one package: Connector, communication hardware and integrated antenna in the same unit.
- Connects to your machine via Ethernet.
- Simultaneous operation of Bluetooth and WLAN allowing for bridging between the two.
- PoE (Power over Ethernet) for RJ45-version.

### Which wireless standard?

#### Use WLAN (aka WiFi) if:

- Interaction with other devices is needed, e.g. Bolt/AWB II to tablet/PC/phone or WLAN infrastructure.
- WLAN channel frequency planning is possible.
- Higher data throughput speed is necessary.
- Larger file transfers are expected.

#### Use Bluetooth if:

- The wireless link has Anybus products in both ends, e.g. Bolt to Bolt, AWB II to AWB II or Bolt to AWB II.
- A robust and reliable link without interruptions is important e.g. in an industrial environment with lots of disturbances, and maybe has been proven not to work well using WLAN.
- A Profinet or Ethernet/IP I/O cycle time of 64ms or higher is acceptable.
- The data throughput speed need is on the lower side.



## TECHNICAL SPECIFICATIONS



AWB2000



AWB2030

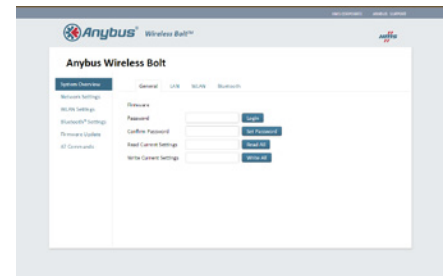


Type of wired interface	Ethernet	
Order code	AWB2000	AWB2030
Connector	Included plug connector (2x9p; 3.5mm, Phoenix DFMC 1.5/9-ST-3.5, push-in spring connection).	RJ45 Ethernet/PoE, 3 Pole screw connector for power
Range	100 meters	
Antenna	Built-in	
Operating temperature	-40 to +65 °C (Storage temperature: -40 to +85 °C)	
Weight	81 g	84 g
Housing material	Top: Valox 357X(f1) PBT/PC. Suitable for outdoor use with respect to exposure to ultraviolet light, water exposure and immersion in accordance with UL 476C. Bottom: Celanex: XFR 6840 GF15. PBT glass reinforced plastic.	
IP protection class	IP67 and UL NEMA 4X for top (outside the host), IP21 for bottom (inside the host).	
Dimensions	Diameter: 68 mm. Height: 75 mm (95 mm including connector). Outside height: 41 mm.	Diameter: 68 mm. Height: 75 mm without PS-connector, 84 mm incl. PS-connector. Outside height: 41 mm.
Mounting	M50 screw and nut (50.5 mm hole needed).	
Power	9-30 VDC (-5% +20%), Cranking 12V (ISO 7637-2:2011 pulse 4). Reverse polarity protection. (Consumption: 0.7W idle, 1.7W max.)	19-36 VDC, PoE (Power over Ethernet) DTE Type1 according to IEEE 802.3af.
Configuration	Three different methods: • Accessing the built-in web pages in the product • Sending AT-commands via Telnet/Raw TCP • Using Easy Config modes	
Vibration compatibility:	Sinosodial vibration test according to IEC 60068-2-6:2007 and with extra severities; Number of axes: 3 mutually perpendicular (X:Y:Z), Duration: 10 sweep cycles in each axes, Velocity: 1 oct/min, Mode: in operation, Frequency: 5-500 Hz, Displacement ±3.5 mm, Acceleration: 2g.  Shock test according to IEC 60068-2-27:2008 and with extra severities; Wave shape: half sine, Number of shocks: ±3 in each axes, Mode: In operation, Axes ± X,Y,Z, Acceleration: 30 m/s², Duration: 11 ms.	
Humidity compatibility:	EN 600068-2-78: Damp heat, +40°C, 93% humidity for 4 days.	
COMMUNICATION WITH HOST DEVICE		
Digital input	Usage: To control roaming between access points. (max 3 m signal cable).	None
Ethernet	10/100BASE-T with automatic MDI/MDIX auto cross-over detection. Supported Ethernet protocols: IP, TCP, UDP, HTTP, LLDP, ARP, DHCP Client/Server, DNS support. PROFINET IO, EtherNet/IP, Modbus-TCP. (SNMP user management and access control in pending release.)	
WIRELESS STANDARDS		
WLAN	Wireless standards: WLAN 802.11 a, b, g, n. (n in pending release) Operation modes: Access point or Client WiFi channels: 2.4 GHz, channel 1-11. 5 GHz Access Point: 36-48 (U-NII-1), 5 GHz Client: 36-140 (U-NII-1, U-NII-2A, U-NII-2C). RF output power: 16 dBm WLAN conducted sensitivity: 2.4 GHz: -95 dBm. 5 GHz: -90 dBm. Max number of slaves for access point: 7 Power consumption: 54mA@24VDC Net data throughput: 20 Mbps. Link speed: 54 Mbps (802.11 g) Security: WEP 64/128, WPA, WPA-PSK and WPA2, LEAP, PEAP (MS-CHAP pending).	
Bluetooth	Wireless standards (profiles): PANU & NAP Operation modes: Access point or Client RF output power: 10 dBm Bluetooth conducted sensitivity: -90 dBm Max number of slaves for access point: 7 Power consumption: 36 mA@24VDC Net data throughput: ~1 Mbps Bluetooth version support: v4.0 Security: Authentication & Authorization, Encryption & Data Protection, Privacy & Confidentiality, NIST Compliant, FIPS Approved	
Bluetooth Low Energy (Pending release)	Wireless standards (profiles): GATT Operation modes: Central or Peripheral RF output power: 7 dBm Max number of slaves for Central: 10 Power consumption: 36 mA@24VDC Net data throughput: ~200 kbps Bluetooth version support: v4.0 Security: AES-CCM cryptography	
CERTIFICATIONS		
Europe	ATEX: ATEX Category 3, zone 2 according to EN60079-15, product marking: EX II 3 G nA IIC T4. CE, 2014/53/EU Radio Equipment Directive (RED)	CE, 2014/53/EU Radio Equipment Directive (RED)
U.S.	FCC 47 CFR part 15, subpart B. UL OrdLoc: NRAQ-Programmable Controllers according to UL61010-2-201 and NRAQ7-Process control equipment according to CSA61010-2-201, UL file E214107. UL HazLoc: NRAQ-Programmable Controllers according to USL ANSI/ISA-12.12.01 (class 1 Div. 2) and CNL C22.2, Nos. 213-M1987, UL file E203225.	FCC 47 CFR part 15, subpart B. UL OrdLoc: NRAQ-Programmable Controllers according to UL61010-2-201 and NRAQ7-Process control equipment according to CSA61010-2-201, UL file E214107.
Canada	ICES-003	-
Japan	MIC	MIC
Taiwan	NCC (pending, pre-certified radio module)	-
South Korea (pending)	KCC (pending, pre-certified radio module)	-
Other countries	Australia, Colombia, Turkey, Malaysia Pending: Brazil, Argentina, India	-



### Mounting

The Anybus Wireless Bolt is mounted into a 50.5 mm (M50) hole in the host device. The top ("helmet") goes on the outside and provides an IP67 exterior. The bottom is located inside the machine or cabinet (IP21).



### Configuration

You can configure the Anybus Wireless Bolt by accessing the built-in web pages in the product. You can also send AT commands or use Easy Config modes.



### Bolt Cable Kit

Bolt connector with Ethernet cable (RJ45 male) and power supply (World) with cable. Both cables are 150cm. Order code: 024703 (AWB2000 only)

### Bolt RJ45 Adapter

Bolt connector with Ethernet cable (RJ45 female). Total length 20 cm. Order code: 024704 (AWB2000 only)



### Order a Starter Kit!

Includes: Two Wireless Bolts, Power Supply (world), cabling, Quick Start Guide. Order code: AWB2300

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自動化工業與跨國遠端連線的最佳選擇

Ewon Flexy205

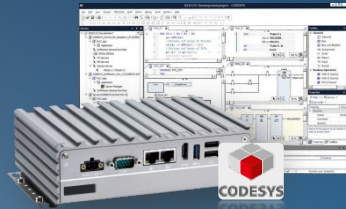
VPN+IOT 物聯網模組



Anybus X-Gateway



CODESYS SoftPLC



Jmobile Runtime IPC



## 工業 4.0 數位工廠與 工業物聯網解決方案

I4-SCADA IPC



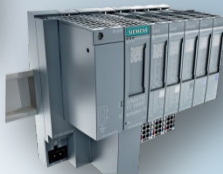
SIEMENS PLC

S7-1200



SIEMENS PLC

ET 200SP IO



SIEMENS PLC

S7-1500



SIEMENS HMI



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