



Powerful industrial wireless solutions for the modern factory





to a machine, it is possible to use

a tablet, laptop or smartphone as

a flexible and versatile HMI.

Anybus Wireless Bolt

### Set up a wireless LAN infrastructure

With an Anybus WLAN Access Point in your building, you can easily set up an industrial-grade wireless network.

Anybus WLAN Access Point

### Get rid of cables in harsh industrial environments

Use Anybus Wireless Bridge to create an industrial-strength wireless connection whenever cables are not desireable.

machines or devices connected to

wireless networks — intranet or

Anybus Wireless Bolt

external web services.

• Anybus Wireless Bridge II

# Connect a machine wirelessly **Data acquisition** Anybus wireless products can get By attaching Anybus Wireless Bolt



# Replace serial or Ethernet cabling with a robust wireless connection

Anybus Wireless Bridge is ideal for system integrators needing to establish a robust wireless connection for industrial use. The Wireless Bridge is often used in pairs but can also be used as an access point connecting up to 7 clients.

Range: Up to 400 meters

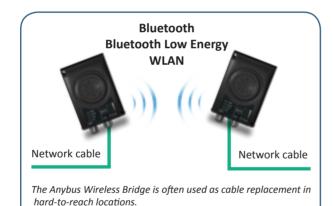
Mounting: DIN-rail or wall-mounted

class: IP6

Connectors: Push-button or web based

M12 (DSUB on serial version)

Wired: Ethernet or Serial
Wireless: Bluetooth or WLAN



### Give a machine wireless access

Anybus Wireless Bolt is ideal for machine builders wanting to give their machines wireless access. It is mounted onto a cabinet or a machine and connects using Ethernet, CAN or Serial communication.

Range: Up to 100 meters

**Mounting:** Screwed onto machine (M50 hole -50.5 mm)

IP class: IP67 outside (IP21 inside)

**Connector:** Web based, AT Commands or Easy Config modes 2x9p;3,5 Plug Connector or RJ45 connector with

PoE (inside the machine)

Wired: Ethernet

Wireless: Bluetooth, Bluetooth Low Energy or WLAN



The Anybus Wireless Bolt connects a machine or cabinet wirelessly and is ideal for data acquisition. This means that you no longer need an expensive HMI.



Serial over Bluetooth

Point-to-point or multipoint



Ethernet over Bluetooth and WLAN

Point-to-point or multipoint



## Ethernet over Bluetooth and WLAN

Point-to-point or multipoint

Related product from HMS

Need CAN-communication via

Bluetooth? Have a look at CANblue II.

www.ixxat.com



## Set up a WLAN infrastructure the easy way

Anybus WLAN Access Point allows you to set up an industrial wireless infrastructure by acting as an access point for several clients. It comes in two different versions, one for IP30 applications and one for IP67 (waterproof). Both have the same characteristics in range and functionality.

Range: Up to 400 meters

**Mounting:** DIN-rail, wall-mount, or pole mount

IP class: IP67 or IP30
Configuration: Web based

**Connector:** M12 (IP67 version) or RJ45 (IP30 version)

Wired: Ethernet
Wireless: WLAN only



WLAN Access point IP30

**WLAN Access Point** 

IP67 PoE M12





## Which wireless technology is best for you?

One wireless technology cannot cater for all application requirements. The standardized wireless technologies — WLAN, Classic Bluetooth and Bluetooth Low Energy — are good at different things.

WLAN (also commonly referred to as WiFi) is the most widely used wireless standard. It is often used for production planning and data acquisition as well as applications where rapid roaming is required. It provides very high data throughput but its wide bandwidth makes it vulnerable to disturbance.

Bluetooth is often used for Human Machine Interfaces (HMI),

ISM Band 2.4 - 2.4835 GHz

■ Bluetooth ■ Wireless LAN ■ 802.15.4

programming, service/maintenance and real-time control tasks. It has a small bandwidth which, together with functionality such as Adaptive Frequency Hopping (AFH), makes it less vulnerable to disturbances.

During the last few years, other technologies like Bluetooth Low Energy have become increasingly used for sensors, actuators and other small, often battery-driven, devices that need to be interconnected.

#### Security

Preventing unauthorized access is naturally of utmost importance when establishing a wireless connection. Bluetooth and WLAN have different ways of handling security. Whereas WLAN relies on standards such as WEP 64/128, WPA, WPA-PSK and WPA 2, Bluetooth provides three basic security services:

- Authentication & Authorization
- Encryption & Data Protection
- Privacy & Confidentiality

	Bluetooth technology	Wireless LAN / WLAN	Bluetooth low energy technology
Data throughput	+/-	++	-
Robustness	++	+/-	++
Range	10-400 m	50-400 m	10-250 m
Local system density	++	-	++
Roaming	+	++	N/A
Large scale network	-	+/-	+
Low latency	++	+/-	++
Connection set-up speed	-	+/-	++
Power consumption	+	-	+++
Cost	+	-	++

**Caption:** The table offers a quick overview of the differences between the wireless technologies.

- + = Good
- ++ = Strong
- +++ = Very strong
- +/- = Average
- = Weak

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## Network connectivity expertise at your service

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Customers include most major industrial automation companies such as Siemens, Mitsubishi, Yaskawa, Rockwell Automation, Schneider Electric, Toshiba, Panasonic, ABB and Hitachi, as well as small and medium-sized companies in a variety of industries.

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