



Anybus Wireless Bolt CAN

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Anybus Wireless Bolt CAN enables you to connect industrial machines and devices to a wireless network. It is attached onto a cabinet or a machine to enable wireless access over Bluetooth®, or Wi-Fi (Wireless LAN). It converts CAN data to/from TCP/IP communication over the wireless link.

With Anybus Wireless Bolt you get an All-in-one package featuring, connector, communication processor and integrated antenna in the same unit, with an industrial IP66/IP67 protection class.



FEATURES & BENEFITS

- CAN 2.0A/B (11/29 bit identifier) to wireless and TCP/IP conversion
- Supports e.g. J1939 and CANopen and transparent transfer of any CAN protocol
- Wireless communication using Wi-Fi or Bluetooth
- CAN cable replacement "CAN to wireless to CAN" using 2xBolts
- Wide baudrate support 10 kbps up to 1000 kbps
- Up to 28 freely customizable CAN receive pass-through filters
- Web-configuration over wireless or Ethernet LAN
- Available with white top Sunbolt enabling 30% higher surrounding temperature compared to black in direct sunlight
- Full compatibility with Anybus Wireless Bridge and Anybus Wireless Bolt Ethernet
- CLI (Command Line Interface) for configuration and diagnostics
- Individual baudrate support in a multi-node network

Key Use Cases

- **Cable Replacement**, point-to-point; CAN to Bolt to WLAN/BT to Bolt to CAN



- **Common bus**, multi-point; CAN to Bolt to WLAN/BT to many Bolt to CAN

Up to 8 wireless nodes (1 master and 7 slaves). Wireless multi-drop (master-slave). The Bolt is transparent. Message from host to Bolt is forwarded to all slaves. Every slave response forwarded to the host.



- **TCP/IP socket to CAN** - PC program or Phone/Tablet App to CAN via TCP/IP socket.



Technical Specifications

CAN interface	<p>CAN 2.0A/B (11/29 bit identifier).</p> <p>CAN Btrate 10 kbps to 1000 kbps freely selectable.</p> <p>Up to 28 freely customizable CAN receive pass-through filters.</p> <p>Advanced settings for Prescaler, Time Seg 1+2, SJW.</p> <p>Transparent transfer of any CAN based protocol including e.g. J1939 and CANopen.</p>
Ethernet interface	<p>Ethernet: 10/100BASE-T with automatic MDI/MDIX auto cross-over detection. For configuration only.</p>
WiFi interface	<p>Wireless standards: IEEE 802.11 a, b, g, n, d.</p> <p>Operation modes: Access point or Client</p> <p>Wireless LAN bands: 2.4GHz and 5GHz</p> <p>RF output power: 18 dBm EIRP (including antenna gain 3dBi)</p> <p>Max number of stations for access point: 7</p> <p>Power consumption: 54mA@24VDC</p> <p>Net data throughput: 20 Mbps. Link speed: max 65 Mbps (802.11n SISO)</p> <p>Security: WEP 64/128, WPA, WPA-PSK and WPA2, TKIP and AES/CCMP, LEAP, PEAP including MS-CHAP.</p>
Bluetooth interface	<p>Wireless standards (profiles): PANU, NAP & SPP</p> <p>Operation modes: Access point or Client</p> <p>RF output power: 14 dBm EIRP (including antenna gain 3dBi)</p> <p>Bluetooth conducted sensitivity: -90 dBm</p> <p>Max number of slaves for access point: 7</p>

	Power consumption: 36 mA@24VDC Net data throughput: ~1 Mbps Bluetooth version support: Classic Bluetooth v2.1 Security: Authentication & Authorization, Encryption & Data Protection, Privacy & Confidentiality, NIST Compliant, FIPS Approved
Dimensions	Diameter: 68 mm. Height: 75 mm (95 mm including connector. Outside height: 41 mm)
Weight	81g
Temperature Bolt (black)	Shadow: -40 to +65 °C Direct sunlight: -40 to +45 °C Storage temperature: -40 to +85 °C
Temperature Sunbolt (white)	Shadow and direct sunlight: -40 to +65 °C Storage temperature: -40 to +85 °C
Output Power	WiFi 18 dBm EIRP - Bluetooth 14 dBm EIRP - Bluetooth Low Energy 10 dBm EIRP All including antenna gain 3dBi
Power Supply	9-30 VDC (-5% +20%), Cranking 12V (ISO 7637-2:2011 pulse 4). Reverse polarity protection.
Power Consumption	0.7W idle, 1.7W max (54mA@24VDC with Wireless LAN and 36mA@24VDC with Bluetooth)
Enclosure 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.
Mechanical rating	IP66 and IP67 for top (outside the host), IP21 for bottom (inside the host), UL NEMA 4X
Mounting	M50 screw and nut (50.5 mm hole needed)
Max Range	100 meters
Antenna	One built in antenna
Connector	Included plug connector (2x9p; 3.5mm, Phoenix DFMC 1.5/9-ST-3.5, push-in spring connection)
Vibration Compatibility	Sinusoidal 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/s ² , Duration: 11 ms.

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)
USA	FCC 47 CFR part 15, subpart B. UL: Ind. Cont. Eq. also Listed Ind. Cont. Eq. for Haz. Loc. CL1, DIV 2, GP A,B,C,D, T4. UL file: E203225
Canada	ICES-003
Japan	MIC

Other countries	Brazil, Australia, Colombia, Turkey, Malaysia, Argentina, India, China, Korea, United Kingdom
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Ordering information

Order Code	AWB2020, AWB2021
Included components	<p>AWB2020: Anybus Wireless Bolt CAN - Black, 18-pin connector, 1x Installation guide.</p> <p>AWB2021: Anybus Wireless Bolt CAN - Sunbolt white top, black base, 18-pin connector, 1x Installation guide.</p>
Starterkit	<p>AWB2306: Anybus Wireless Bolt CAN Starterkit, 2 x Bolt CAN, cables & 2 x power world supply</p> <p>Max 1 Pcs / Customer.</p>
Accessories	<p>Order Code: 024703; Cable kit. Molded RJ45 Bolt connector wired with 1.5m Ethernet cable and 24 VDC power supply (world) + Extra Ethernet cable fastening to avoid cable strand breaks.</p> <p>Order Code: 024704; Bolt terminal to RJ45 female connector with total length of 20 cm.</p> <p>Order Code: 024708; Bolt base protector; Read more about the base protector here.</p> <p>Order Code: 024709; Bolt base Protector and Mounting Bracket kit; Read more about the base protector here.</p>

3 year guarantee. For purchasing instructions and terms and conditions, see: [How to buy](#).

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