

The Anybus Wireless Bolt IoT gives devices, machines and equipment Internet connection. This solution uses the latest LTE standards NB-IoT and CAT-M1 and fits both stationary and mobile equipment.



The innovative hardware form-factor with its M50 through-hole mount enables effective access to good cellular connectivity, without losing coverage due to long and lossy antenna cable. The Bolt IoT is up-to-date with the latest 4G LTE standards NB-IoT and CAT-M1 and, to be globally effective, it uses 2G (GPRS/EDGE) fallback enabling deployment almost anywhere in the world.

### Key use cases

- Internet access for any machine or device with an Ethernet port
- Low Power/Sleep mode for connecting battery/wind/solar powered equipment
- Internet access using CAT-M1/NB-IoT for other HMS equipment including Anybus, Ewon, Intesis and Ixxat products

### Features and benefits

- Intuitive and interesting form-factor; M50 through-hole mount on any flat surface
- World-wide coverage on a single module with industry and mobile network certifications
- LPWA Global 13 band LTE NB-IoT, LTE CAT-M1 and GPRS/EDGE fallback
- Ultra-Low Power Mode; Reduce power consumption for battery or solar/wind powered applications
- Host interface RJ45 with 10/100 Mbit/s Ethernet
- PoE (Power over Ethernet) option, single cable with both power and communication
- Transparent transfer of any TCP/UDP based protocol
- Built-in firewall, NAT and DHCP server
- SIM card slot with eSIM option

### Availability

AWB1000  
Anybus Wireless Bolt IoT black

AWB1001  
Anybus Wireless Sunbolt IoT white top and black base

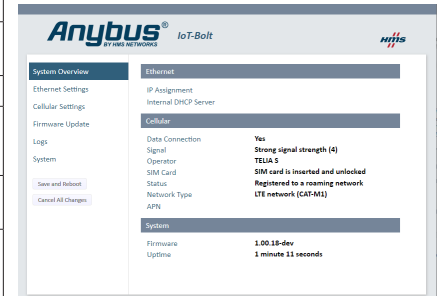
## TECHNICAL SPECIFICATIONS

<b>Order Codes</b>	AWB1000 (Anybus Wireless Bolt IoT black) AWB1001 (Anybus Wireless Sunbolt IoT white top and black base)
<b>Cellular standards</b>	4G LTE: Category Cat-M1 and NB-IoT. Frequency Bands B1, B2, B3, B4, B5, B8, B12, B13, B17, B18, B19, B20, B26, B28 2G: EDGE, GPRS bands 850, 900, 1800, 1900
<b>Host interface</b>	RJ45 Ethernet 10/100 Mbit/s
<b>Operating temperature</b>	Shadow black and white: -40 to +65 °C, Direct sunlight: Black -40 to +45 °C, White -40 to +65 °C (Storage temperature: -40 to +85 °C)
<b>Data speeds</b>	Peak Download Rate Cat-M1: 300kbps, NB-IoT: 27kbps, 2G/EDGE: 200kbps Peak Upload Rate Cat-M1: 375kbps, NB-IoT: 65kbps, 2G/EDGE: 200kbps
<b>Latency</b>	CAT-M1: 10ms–15ms. NB-IoT: 1.6s–10s 2G/GPRS/EDGE: 700ms–2s
<b>Power</b>	11-33 VDC, PoE (Power over Ethernet) PD according to IEEE 802.3af. Redundant or separate operation of PoE and screw terminals for increased robustness.  Power Consumption: Sleep Mode: DC terminal 0,1W. PoE 0,3W Idle Mode: DC terminal 0,6W. PoE 0,8W Worst Case (GPRS/2G): DC terminal 3,2W. PoE 3,6W. Max current: 0,6A@11VDC
<b>Weight</b>	95g
<b>Connectors</b>	RJ45 Ethernet/PoE, 3-pin screw connector for power
<b>Housing material</b>	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 746C. Base: Celanex: XFR 6840 GF15. PBT glass reinforced plastic.
<b>IP protection class</b>	IP67 and UL NEMA 4X for top (outside the host), IP21 for base (inside the host)
<b>Dimensions</b>	Diameter: 68 mm. Overall height: 75 mm without DC-connector, 84 mm incl. PS-connector. Installed outside height: 41 mm.
<b>Mounting</b>	M50 screw and nut (50.5 mm hole needed)
<b>Configuration</b>	Two different methods: 1. Accessing the built-in web pages via Ethernet. 2. Sending REST-commands via Ethernet.
<b>Vibration compatibility</b>	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 <sup>2</sup> , Duration: 11 ms.
<b>Humidity compatibility</b>	EN 60068-2-78: Damp heat, +40°C, 93% humidity for 4 days.
<b>Certifications</b>	CE/RED, FCC/IC, GCF and PTCRB, UL 62368/UL 60950 UL 61010-2-201 Ind. Cont. Eq. for Haz. Loc. CL1, DIV 2, GP A,B,C,D, T4 ATEX Category 3, zone 2 according to EN60079-15



### Mounting

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



### Configuration

You can configure the Bolt IoT by accessing the built-in web pages. You can also send REST-commands via Ethernet.

## Example use case

The Bolt IoT is ideal for a machine or application which is not connected to the electric grid for power supply. For example electric road signs, traffic metering systems or water level measuring stations.

