

DATA SHEET



TigoBridge B1 is an IO-Link Wireless Class B Bridge with an IP67 enclosure. TigoBridge B1 converts IO-Link devices to IO-Link Wireless. The TigoBridge B1 houses an internal antenna and two M12 connectors for data and power.

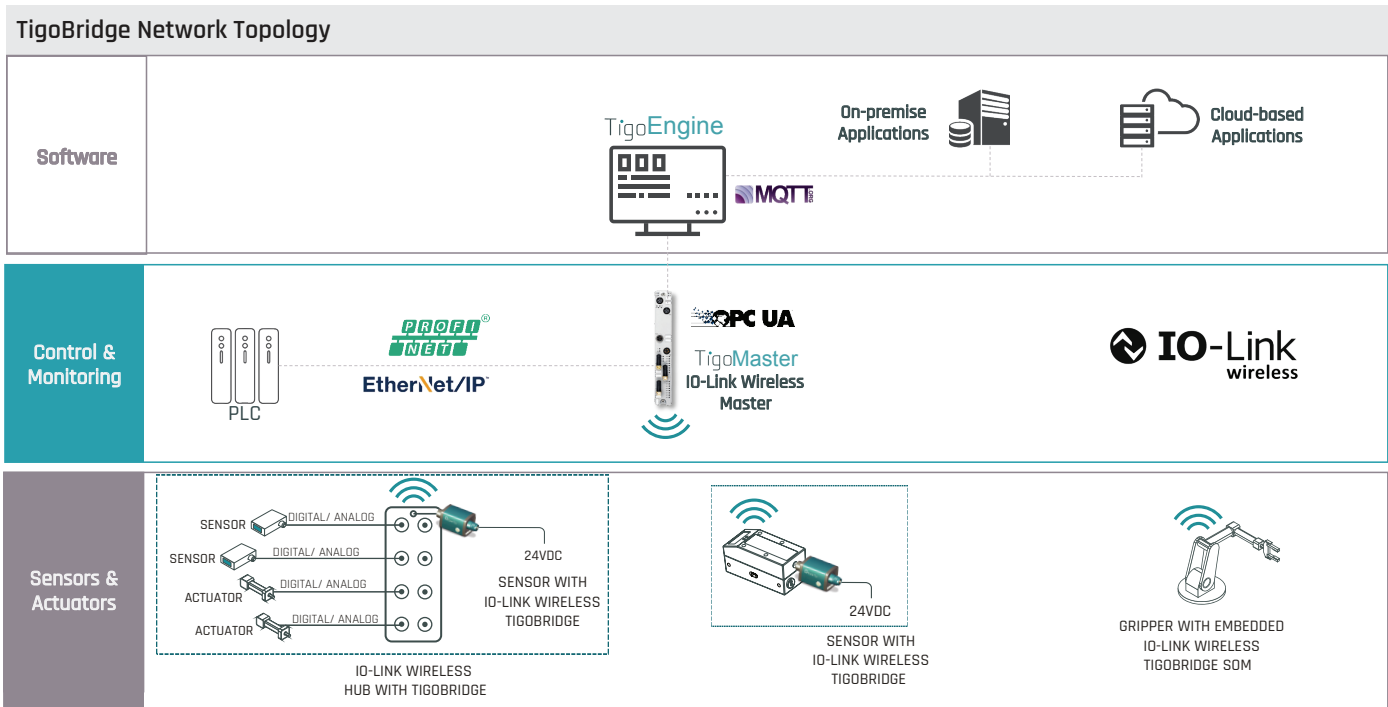


TigoBridge B1 is a device that connects a wired IO-Link device, via IO-Link Wireless, to an IO-Link Wireless Master. A device can be an IO-Link sensor, IO-Link actuator or IO-Link multiport I/O hub. TigoBridge B1 is implemented based on the IO-Link Wireless standard for W-Bridge devices. TigoBridge B1 is part of an IO-Link Wireless environment. It communicates with an IO-Link Wireless Master.

TigoBRIDGE B1 - CT231-0057-01

TigoBridge can be used in a variety of industrial applications, such as:

- Machine Retrofit - wireless connection of multiple sensors for condition monitoring and predictive maintenance
- Rotating components, such as rotary tables where the Bridge can be connected to clamps, valves and sensors on board the rotary table
- Enabling smart transport track and conveying systems by connecting bridge to fast moving devices such as grippers and vacuum pumps



TigoBridge connected to Actuator



TigoBridge connected to Sensor

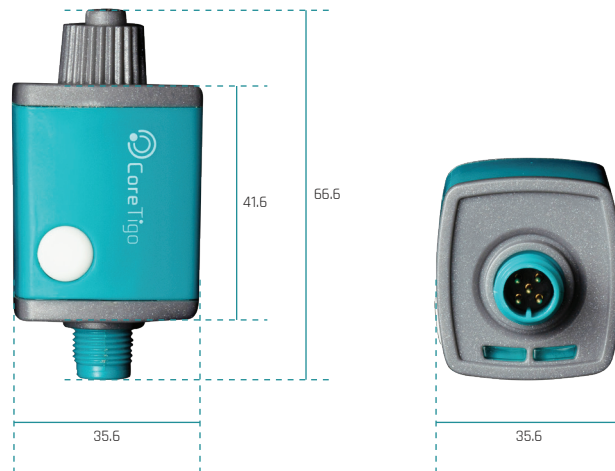


TigoBridge connected to I/O Hub

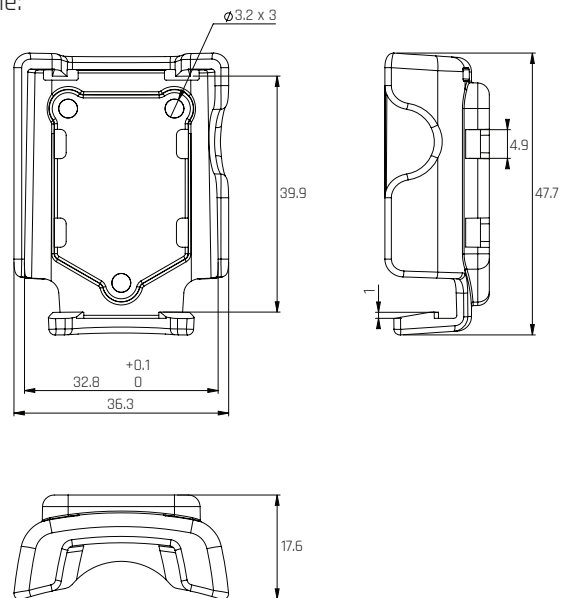
Mechanical Data

Dimensions

Units are in mm



Mounting cradle:



Weight	38 [gr]
Mounting	Mounting cradle
Electrical Data	
Input Voltage	18-32 [V]*
Output Voltage on 1L+ and 2L+	Equals to Input Voltage
Typical Current Consumption	21 [mA]**
Max Output Supply Current - 1L+	1L+ = 1 [A]
Max Output Supply Current - 2L+	Max current of 2.5[A] under 50°C, linearly derated to 1[A] at 60°C.
Max Output Peak Current	1L+ = 1.2 [A]***
Max Radio Output Power	10 [dBm]

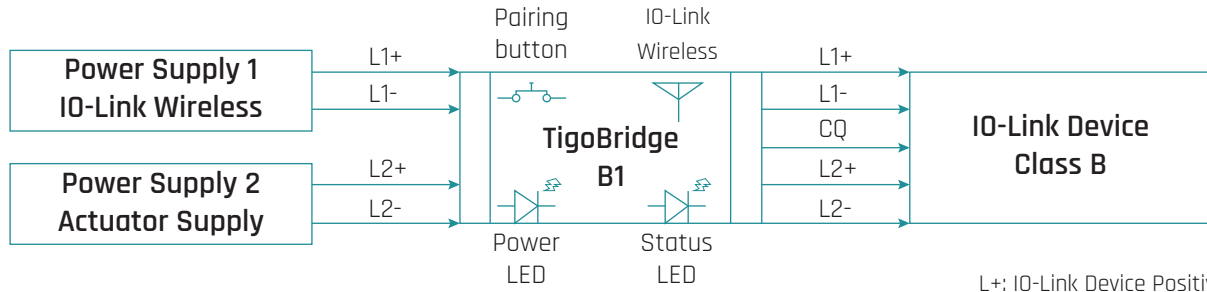
* TigoBridge should be supplied from a limited, Class 2, power supply or via overcurrent protective device (fuse, breaker, etc.) rated 3A max.

** For 24 VDC Supply input, without IO Link device current consumption

*** For 30 minutes

Interfaces	
LEDs	<ul style="list-style-type: none"> • IO-Link – RGB three color LED • Power – Green color LED
Button	Pairing - external push button
Connectors	<ul style="list-style-type: none"> • Input connector: Plug M12, A coded, power Connector <ul style="list-style-type: none"> • Pin number 1: Input 1L+ Power supply • Pin number 2: Input 2L+ Power supply • Pin number 3: Input 1L- GND • Pin number 5: Input 2L- GND • Output Connector: Socket M12, A coded, IO-Link Class B Connector <ul style="list-style-type: none"> • Pin number 1: 1L+ positive supply to IO-Link device • Pin number 2: 2L+ positive supply to IO-Link device • Pin number 3: 1L- GND supply to IO-Link device • Pin number 4: CQ IO-Link Serial Communication • Pin number 5: 2L- GND supply to IO-Link device
Antenna	Internal isotropic antenna
Communication	
Protocols	<ul style="list-style-type: none"> • IO-Link <ul style="list-style-type: none"> • Supported transmission types: COM1, COM2, COM3 • Revision 1.0 • Class B • IO-Link Wireless <ul style="list-style-type: none"> • Version 1.1
Certifications and Approvals	
Safety	<ul style="list-style-type: none"> • IEC 61010-1
Emission	<ul style="list-style-type: none"> • EN 61000-6-2 <ul style="list-style-type: none"> • EN55016-2-3 Radiated emission • EN55022 Conducted emission
Immunity	<ul style="list-style-type: none"> • EN 61000-6-2 <ul style="list-style-type: none"> • EN31000-4-2 Electrostatic discharge • EN61000-4-4 Fast transients/burst • EN61000-4-5 Surge immunity • EN61000-4-6 Conducted immunity
Shock & Vibrations	<ul style="list-style-type: none"> • Sine Vibration: IEC 60068-2-6 • Random vibration: IEC 60068-2-64 • Shock: IEC 60068-2-27 • Bumps: IEC 60068-2-27
Reach & RoHS	Complied
Operating Conditions	
Operating Temperature	-25°C to 60°C
IP Rating	IP67

Block Diagram



L+: IO-Link Device Positive Supply
 L-: IO-Link Device Negative Supply
 CQ: IO-Link Tx/Rx Data

Electrical Connection

2X M12 5 pin A-Coded connectors

