

## DATA SHEET



TigoBridge A1 is an IO-Link Wireless Class A Bridge with an IP67 enclosure. TigoBridge A1 converts IO-Link devices to IO-Link Wireless. The TigoBridge A1 houses an internal antenna and two M12 connectors for data and power.

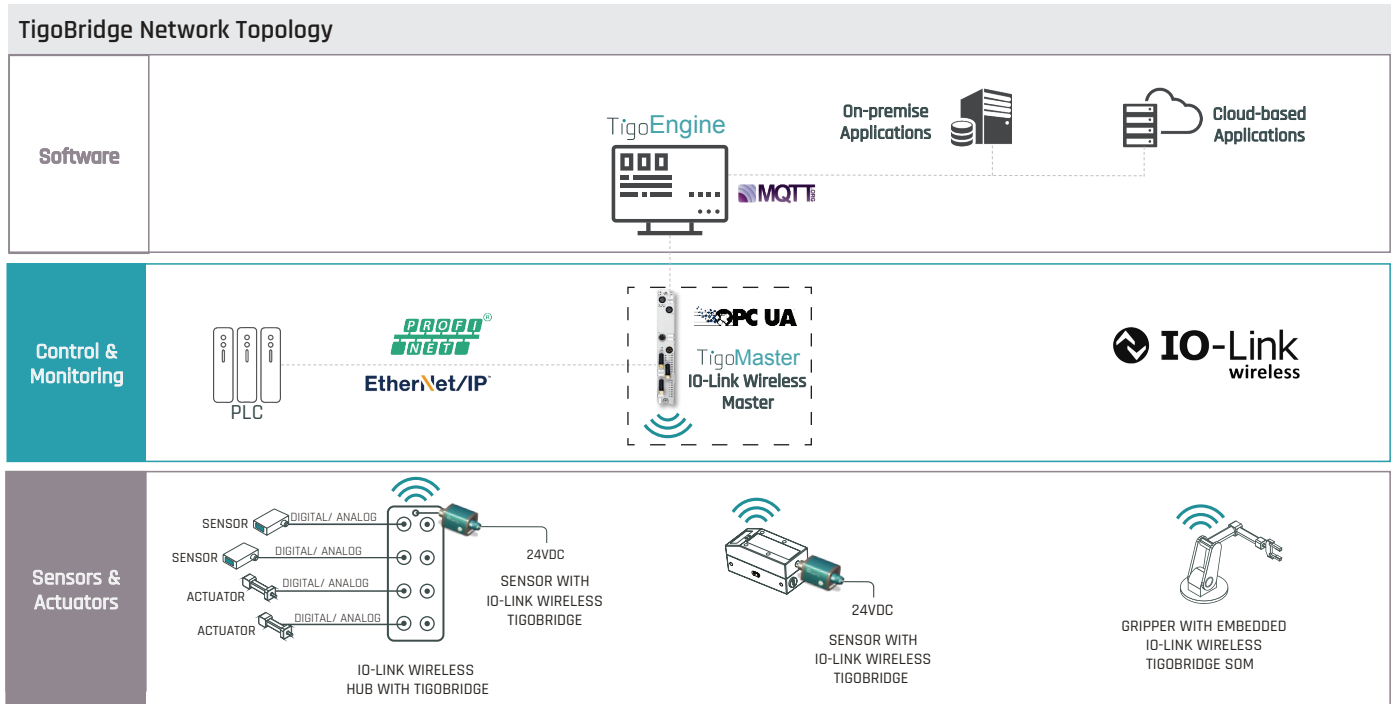
TigoBridge A1 is a device that connects a wired IO-Link device, via IO-Link Wireless, to an IO-Link Wireless Master. A device can be an IO-Link sensor, IO-Link actuator or IO-Link multiport I/O hub.

TigoBridge A1 is implemented based on the IO-Link Wireless standard for W-Bridge devices. TigoBridge A1 is part of an IO-Link Wireless environment. It communicates with an IO-Link Wireless Master.

### TigoBRIDGE A1 - CT221-0057-03

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

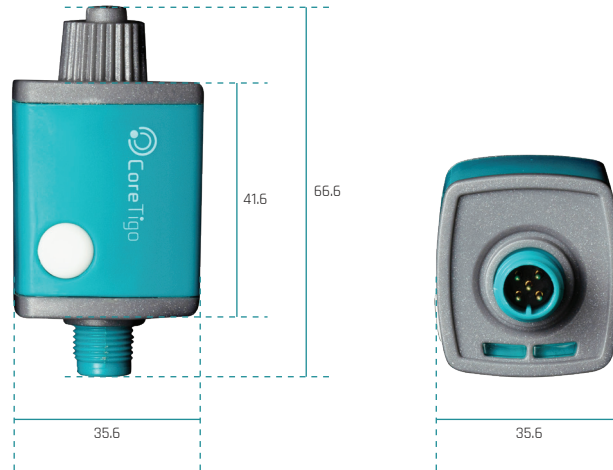


TigoBridge connected to I/O Hub

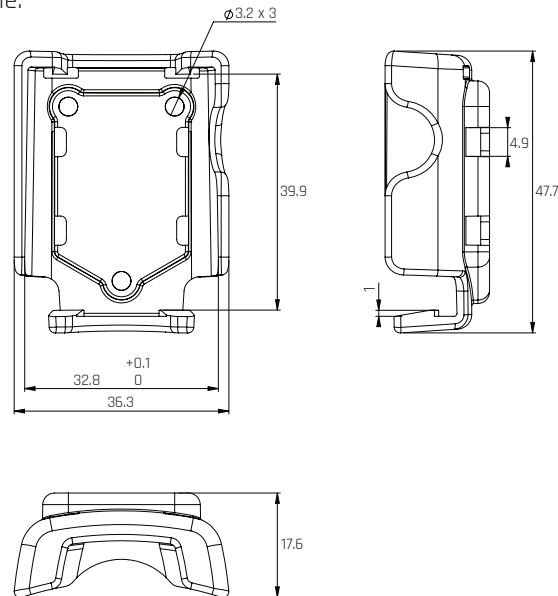
## Mechanical Data

### Dimensions

Units are in mm



Mounting cradle:



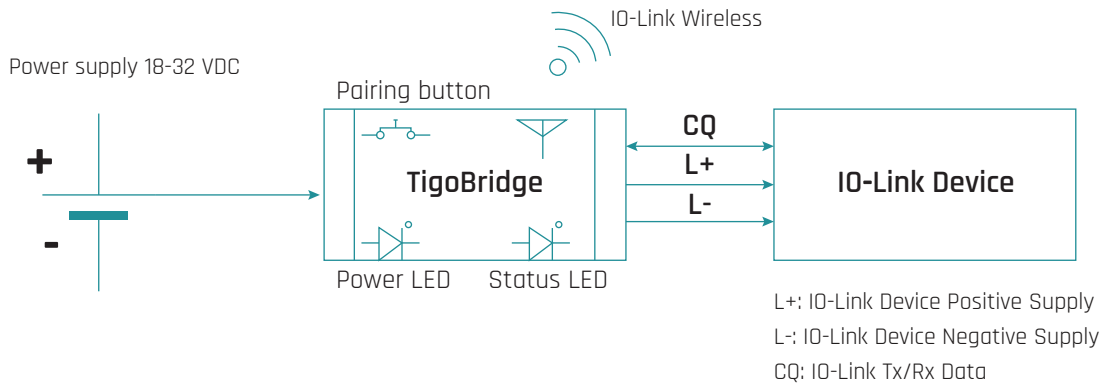
<b>Weight</b>	38 [gr]
<b>Mounting</b>	Mounting cradle
<b>Electrical Data</b>	
<b>Input Voltage</b>	18-32 [V]
<b>Output Voltage on L+</b>	Equals to Input Voltage
<b>Typical Current Consumption</b>	21 [mA]*
<b>Max Output Supply Current</b>	1 [A]
<b>Max Output Peak Current</b>	1.2 [A]**
<b>Max Radio Output Power</b>	10 [dBm]

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

\*\* For 30 minutes

Interfaces	
LEDs	<ul style="list-style-type: none"> <li>• IO-Link – RGB three color LED</li> <li>• Power – Green color LED</li> </ul>
Button	Pairing - external push button
Connectors	<ul style="list-style-type: none"> <li>• Input connector: Plug M12, A coded, power Connector <ul style="list-style-type: none"> <li>• Pin number 1: Input L+ Power supply</li> <li>• Pin number 3: Input L- GND</li> </ul> </li> <li>• Output Connector: Socket M12, A coded, IO-Link Class A Connector <ul style="list-style-type: none"> <li>• Pin number 1: L+ positive supply to IO-Link device</li> <li>• Pin number 3: L- GND supply to IO-Link device</li> <li>• Pin number 4: CQ IO-Link Serial Communication</li> </ul> </li> </ul>
Antenna	Internal isotropic antenna
Communication	
Protocols	<ul style="list-style-type: none"> <li>• IO-Link <ul style="list-style-type: none"> <li>• Supported transmission types: COM1, COM2, COM3</li> <li>• Revision 1.0</li> <li>• Class A</li> </ul> </li> <li>• IO-Link Wireless <ul style="list-style-type: none"> <li>• Version 1.1</li> </ul> </li> </ul>
Certifications and Approvals	
FCC	<ul style="list-style-type: none"> <li>• FCC ID: 2ATSM-TGBRIDGEA</li> <li>• FCC CFR Title 47 Part 15 Subpart C Section 15.247</li> <li>• FCC CFR Title 47 Part 15 Subpart B</li> </ul>
CE	<ul style="list-style-type: none"> <li>• EN 301489</li> <li>• EN 300328</li> <li>• EN 62479</li> <li>• EN 61326-1</li> </ul>
Safety	<ul style="list-style-type: none"> <li>• IEC 61010-1</li> </ul>
Emission	<ul style="list-style-type: none"> <li>• EN 61000-6-2 <ul style="list-style-type: none"> <li>• EN55016-2-3 Radiated emission</li> <li>• EN55022 Conducted emission</li> </ul> </li> </ul>
Immunity	<ul style="list-style-type: none"> <li>• EN 61000-6-2 <ul style="list-style-type: none"> <li>• EN31000-4-2 Electrostatic discharge</li> <li>• EN61000-4-4 Fast transients/burst</li> <li>• EN61000-4-5 Surge immunity</li> <li>• EN61000-4-6 Conducted immunity</li> </ul> </li> </ul>
Shock & Vibrations	<ul style="list-style-type: none"> <li>• Sine Vibration: IEC 60068-2-6</li> <li>• Random vibration: IEC 60068-2-64</li> <li>• Shock: IEC 60068-2-27</li> <li>• Bumps: IEC 60068-2-27</li> </ul>
Reach & RoHS	Complied
Operating Conditions	
Operating Temperature	-25°C to 60°C
IP Rating	IP67

## Block Diagram



## Electrical Connection

2X M12 5 pin A-Coded connectors

