

DATA SHEET

TigoCounter C1 is an IO-Link Wireless Counter device. It connects to a Digital output and enables object counting capabilities along with transmission of the data wirelessly to an IO-Link Wireless Master.

It is used for a variety of industrial applications, such as:

- Object counting of products on a moving conveyor
- Motor rotation counting
- Power consumption metering

Counting objects on a production line is usually done by the PLC, which require the use of special-function PLC cards. The TigoCounter eliminates the need for such cards and further reduces the total cost of the solution by enabling a seamless and simple to deploy reliable wireless connection from the machine/production line. The IO-Link Wireless Master which collects the counter data from the TigoCounter, connects both at the OT level to the PLC and at the IT level to IIOT, Condition Monitoring and other enterprise applications.

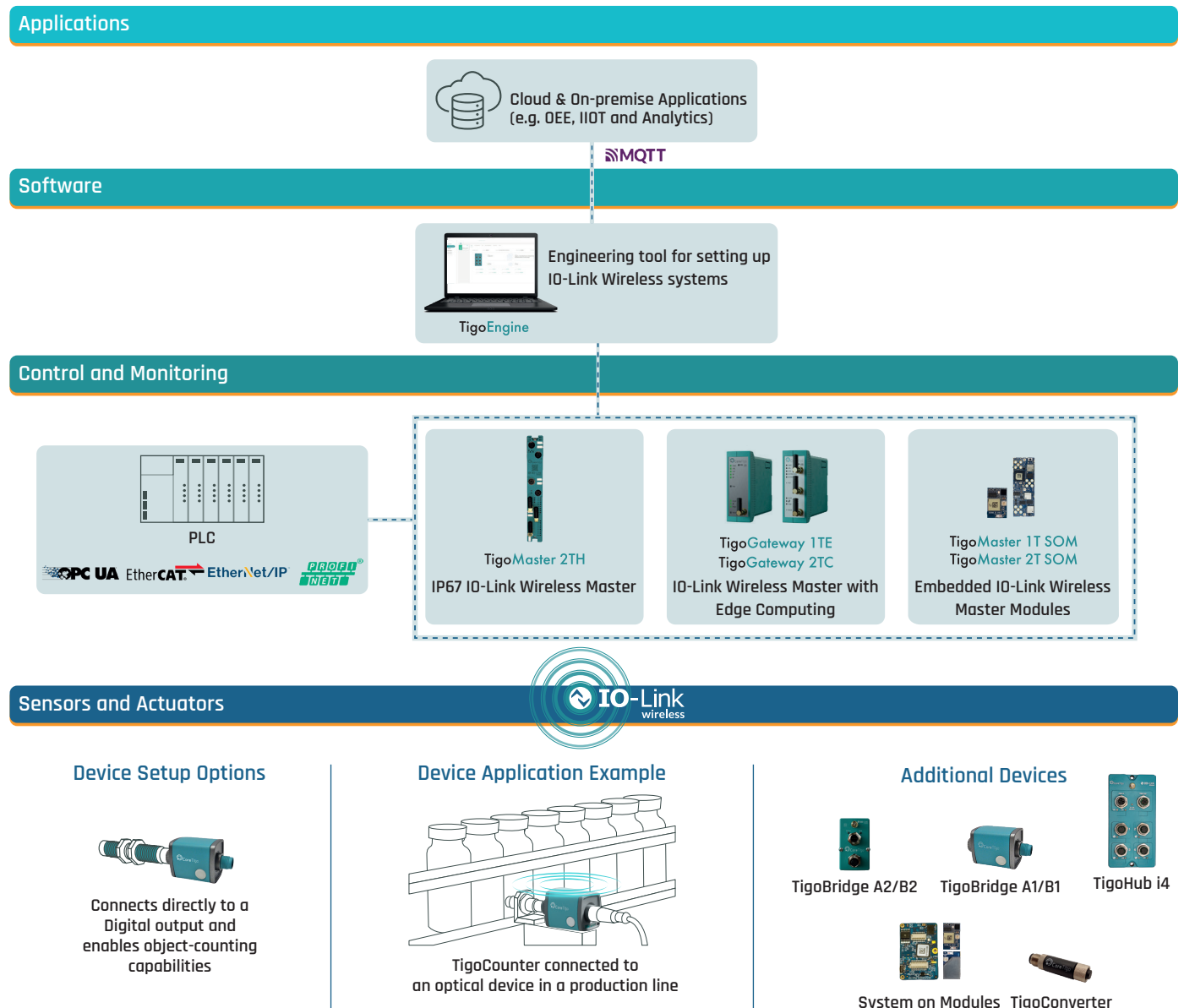
The TigoCounter C1 offers a fully integrated device with a variety of benefits:

- Simple configuration
- Built-in multipurpose counter
- Wireless communication



TigoCOUNTER C1 - CT281-0057-01

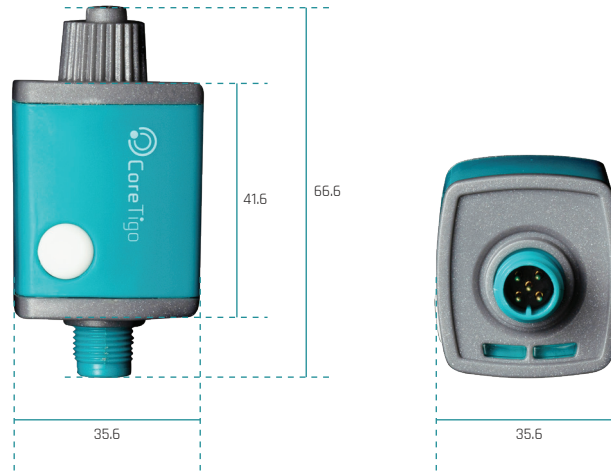
TigoCounter Network Topology



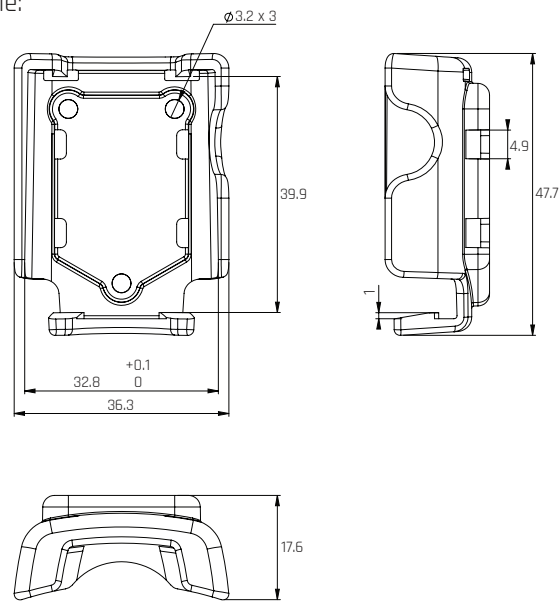
Mechanical

Dimensions

Units are in mm



Mounting cradle:



Package Dimensions	100x60x60 [mm]
Weight	38 [gr]
Mounting	Mounting cradle
Electrical Data	
Input Voltage	18-32 [V]
Output Voltage on L+	Equals to Input Voltage
Typical Current Consumption	21 [mA]*
Max Output Supply Current	1 [A]
Max Output Peak Current	1.2 [A]**
Max Radio Output Power	10 [dBm]

* For 24 VDC Supply input, without Digital device current consumption

** For 30 minutes

Frequency Range	Unlicensed 2401-2480 MHz ISM band***
Rx sensitivity	PER 30% @ -92 [dBm] or better
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 L+ Power supply • Pin number 3: Input L- GND • Output Connector: Socket M12, A coded <ul style="list-style-type: none"> • Pin number 1: L+ positive supply • Pin number 3: L- GND supply • Pin number 4: Digital Input
Antenna	Internal isotropic antenna
Communication	
Protocols	<ul style="list-style-type: none"> • IO-Link Wireless <ul style="list-style-type: none"> • IEC 61139-3 Standard
Certifications and Approvals	
FCC	<ul style="list-style-type: none"> • FCC ID: 2ATSM-TGBRIDGEA1 • FCC CFR Title 47 Part 15 Subpart C Section 15.247 • FCC CFR Title 47 Part 15 Subpart B
CE	<ul style="list-style-type: none"> • EN 301489 • EN 300328 • EN 62479 • EN 61326-1
UL	<ul style="list-style-type: none"> • UL 61010-1 • Initial Production Inspection
UKCA	<ul style="list-style-type: none"> • EN 62479 • EN 61326-1 • EN 300328 • EN 301489 • IEC 61010-1
Japan (MIC)	<ul style="list-style-type: none"> • MIC ID: R 210-174383
Canada ISED	<ul style="list-style-type: none"> • IC: 26463-TGBRIDGEA1 • RSS-247 Issue 2 • RSS-Gen Issue 5 • ICES-003 • IC RF Exposure report
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

*** All RF characteristics comply with the IO-Link Wireless Standard

Certifications and Approvals

Immunity

- EN 61000-6-2
 - EN31000-4-2 Electrostatic discharge
 - EN61000-4-4 Fast transients/burst
 - EN61000-4-5 Surge immunity
 - EN61000-4-6 Conducted immunity

Shock & Vibrations

- 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

Counter Parameters

Max counting rate

2kHz

Counter Edge Type

Rising, Falling

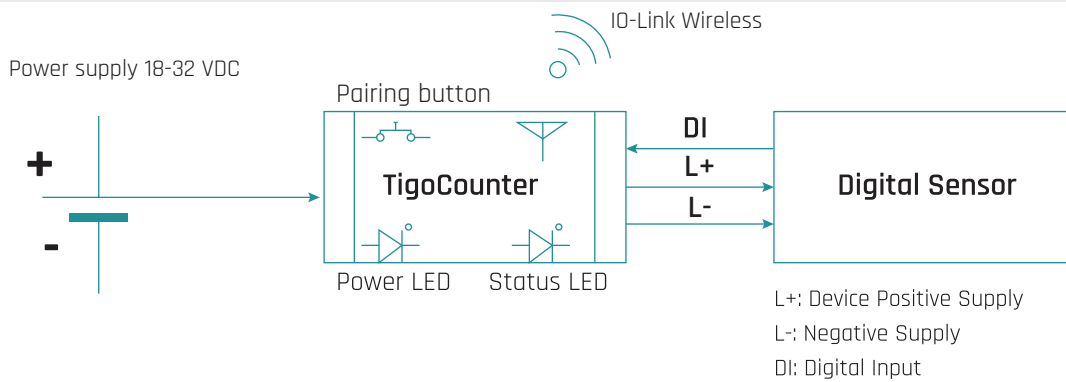
Reload Value

Configurable

Counting Direction

Up, Down

Block Diagram



Electrical Connection

2X M12 5 pin A-Coded connectors



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