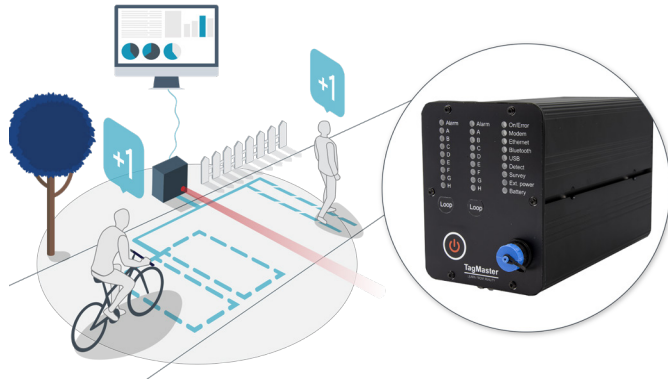


# Compact PLUS Cycle & Pedestrian

DATASHEET

## High accuracy cycle and pedestrian counting



### KEY FEATURES

- ▶ Loop, piezo and IR sensor support in a single unit
- ▶ Small size battery/solar powered counting
- ▶ Seamless data transmission via 3G/4G
- ▶ Automatic calibration for ease of use
- ▶ PoE (Power over Ethernet)

### Flexible and high accuracy counting

With the launch of the Compact PLUS Cycle & Pedestrian, TagMaster introduces the latest generation of technology into the marketplace for permanent cycle and pedestrian counting. The highly accurate and flexible system is perfect for obtaining trends over time and allows for the comparison of trends over consecutive months, seasons, or years. Real-time communication provides instant data to allow users to understand the potential impact on services and infrastructure.

The Compact PLUS Cycle & Pedestrian uses loop, piezo and pyroelectrical infrared sensors to precisely analyse the sensor output profile of each event using advanced signal processing. The unit measures the axle count, speed, and wheelbase for accurate counting and distinguishes cycles from prams, trolleys, motor bikes and mopeds using loop or piezo sensors. Built-in algorithms detect and report direction for pedestrians, cycles, cycle clusters (piezo only), cycles in two directions, cycles in parallel with pedestrians, and non-metallic cycles (piezo only). It also matches pedestrian and cycle data to avoid the riders of the cycles being counted as pedestrians.

### Standalone system with battery or solar power

The system is ideal for deploying on cycle paths and shared lanes with pedestrians and is an easy-to-use standalone system utilising battery or solar power options. PoE is also built-in as an alternative power option. The device is fully IP66 compliant while SIM card and memory card are still easily accessible. The unit has a built-in calibration process that will adjust the piezo settings automatically to achieve the best accuracy for cycle detection.

### Secure and easy installation

The unit has Bluetooth for easy installation and configuration. Smart security is implemented to ensure the high level of security that is a cornerstone of the TagMaster products and combine this with the easy-of-use that is expected. A physical pairing (requiring access to the padlock of the equipment) is always used when establishing a connection for the very first time. Later use of a Bluetooth connection with the same device is done via a unique password in the background, without requiring any specific user interaction.

### All tools needed in Android app

It is supported by EasySetup, a modern and very well-designed Android app for setup. This provides all the tools needed for site installation and commissioning, site validation and fault diagnostics as well as manual data collection if required. The Compact PLUS Cycle & Pedestrian is compatible with all TagMaster Traffic Monitoring software products and is UTM compatible in conjunction with the Catalyst. The middleware EasyData offers a Rest API running as a Docker image.

### PART NO. INFORMATION

### DESCRIPTION

201050, Compact PLUS Cycle & Pedestrian	Inputs for 2 loop, 2 piezo, 1 infrared sensor
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## TECHNICAL INFORMATION

### Sensor Input Characteristics

Sensor Inputs Supported	:	2 loop sensors, 2 piezo sensors, 1 pyroelectrical infrared sensor
Loop Maximum Feeder	:	50m
Loop Inductance Range	:	100-350µH
Loop Frequency Control	:	50-100KHz
Piezo Gain	:	Adjustable
Tracking	:	Automatic background tracking
Adjustable Threshold	:	Manual or automatic
Class Schemes	:	CA12, CYCLE2, PEDBIKE3
Speed Accuracy	:	Cycle +/-7% at a 95% confidence (using cycle loops)
Count Accuracy	:	Cycle Typically >95%, pedestrian typically > 80%
Logging Resolution	:	Speed : 0.1km/h, length:1cm
Arrival Time Resolution	:	1/100 or 1/10 s
Modes	:	VBV or binned logged on device or VBV sent real-time to server

### Electrical Characteristics

Power Supply	:	Battery 6/12VDC, Solar 15-26VDC, PoE IEEE 802.3af, mains with adapter
Power Consumption	:	Min 150mW, max 700mW.

### Mechanical Characteristics

Weight	:	1.65 kg
Dimensions (LxWxH)	:	212x103x142 mm (Including connectors 252x103x142 mm)
Material	:	Aluminium
Coating	:	RAL9005 Black
Water & Dust Protection	:	IP66
Connectors	:	Ethernet, M12-4 (power), M12-17 (loop, piezo, IR, output), RP-SMA, SMA, Mini USB
Operating & Storage Temperature	:	-40°C to +85°C

### Security, Environmental and Technical Certifications

Homologation	:	EN 62368-1, Electrical Safety General EN 60950-22, Electrical Safety Outdoor EN 62368-3: 2020 Electrical Safety EN 55032:2015, EN 61000-3-2:2019 Emissions EN 55035:2017, EN 61000-3-3:2013, Immunity EN 301 489-1: v2.2.3, Immunity EN 301 489-17 v3.2.4, Immunity IEC 60068-2-6 Fc, Sine IEC 60068-2-27 Ea, Shock IEC 60068-2-64 Fh, Vibration IEC 60529 2013 IP66 UL94 HB, Flammability 2002/95/EC, 2011/65/EU, 2015/863, RoHS/RoHS2/RoHS3
Time Synchronization	:	SNTP or Custom Protocol

### Data Input and Output

Output	:	3 configurable outputs of open collector type
USB	:	Yes
Ethernet	:	10/100Mbps Ethernet interface, PoE+
Protocols	:	TCP/IP, UDP/IP, SNMP, DNS, DDNS, HTTP
Modem	:	3G/4G
Data Storage	:	SD, 4GB, typical 4,000,000,000 vehicles
SW Support	:	EasySetup Android App for configuration and setup. EasyData or Catalyt for data collection and system integration

Due to TagMaster's continuous effort to develop the products in response to customer needs, the above specifications are subject to change.