TERABEE

TeraRanger Evo Swipe Plus

Detect people movement, trigger actions based on proximity, understand customer engagement and perform touchless gesture recognition with one compact ToF sensor
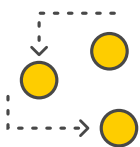
Evo Swipe Plus provides four complimentary modes in one small sensor module that is discreet and easy to integrate. The sensor will detect the presence of people and their proximity to the sensor, it will understand in which direction people are moving and switch to a touchless gesture recognition mode for people to interact with information panels, kiosks and other devices. Its touchless gesture recognition features offer convenience for users and companies by reducing the risk of virus transmission and the need for constant disinfection of user interfaces
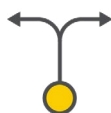
Key features

- 4 modes in one small sensor module - Presence and direction detection, engagement trigger, touchless gesture control
- Embedded algorithm for autonomous mode switching
- Small, discreet sensor (not a camera). GDPR compliant by design
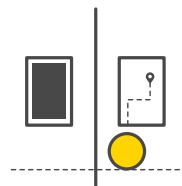- Easy integration. Ideal for OEM design-in projects

Applications

Traffic detection

Direction detection

Responsive display advertising

Touchless gesture recognition

Technical specifications

Part Number	TR-EVO-SWP-PL-USB TR-EVO-SWP-PL-UART
Performance	
Detection Principle	Infrared Time-of-Flight
Light Source Wavelength	940 nm
Use Environment	Indoor
Field of View	27°
Operation Modes	• Presence detection • Bidirectional people traffic detection • Engagement trigger • Gesture recognition
Electronics	
Supply Voltage V_{IN}	5V DC +/-5%
Current Consumption Average	50 mA
Initialization Time	< 1 s
Communication	
Serial Interface	USB 2.0 Micro-B UART, +3.3V level, 115200,8,1, None
Visual Notification	3 x LEDs (built-in backboards)
Mechanical data	
Dimensions	42 x 30 x 13 mm (incl. backboard)
Weight	9 g (incl. backboard)
Operating Temperature	-20° C to 75° C
Housing Material	ABS
Mounting Style	2 holes for M2 screws
Type of Connection	USB Backboard: USB 2.0 Micro-B I2C/UART Backboard: DF13-7p connector
Conformity	
Reference Standard	CE, RoHS

Details of operation modes

Mode	Output
Presence detection	Detect the presence of people and count the number passing by the sensor
Bidirectional people traffic detection	Count the number of people passing by the sensor and their direction of travel: left or right
Engagement trigger	Detect when a person stands in front of the sensor and triggers **gesture recognition mode**
Gesture recognition	**Swipe**: • Left to Right hand-movement • Right to Left hand-movement **Validation**: • Downward hand-movement to simulate a button press

Presence detection mode

Range mode	Long-Range
Range	~ 0.3 m to 1.7 m
Update Rate	25 Hz

Bidirectional people traffic detection mode

Range mode	Long-Range
Range	~ 0.2 m to 3 m
Update Rate	20 Hz

Engagement trigger mode

Range mode	Short-Range
Range	~ 0.5 m to 1.5 m
Update Rate	20-25 Hz

Gesture recognition mode

For optimal performance, the user's body should be more than 0.5 m from the sensor, with their hand swiping in the 0.1 m to 0.5 m range of the sensor
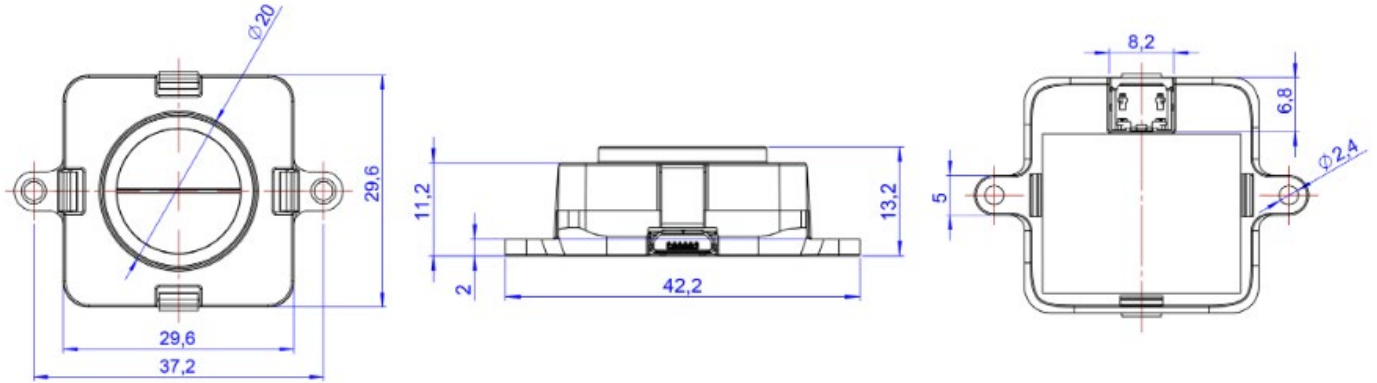
Gesture mode (Left / Right)

Range mode	Short-Range
Range	~ 0.1 m to 0.5 m
Update Rate	25 Hz

Gesture mode (Validation)

Range mode	Short-Range
Range	~ 0.01 m to 0.15 m
Update Rate	25 Hz

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Terabee, 90 Rue Henri Fabre, 01630,
St-Genis-Pouilly, France (5 km from Geneva Airport)

+33 7 50 15 16 64
terabee-sales@terabee.com
www.terabee.com

Dimensions

Installation

Back-panel installation

Front-panel installation

Have any questions? Contact us today!

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terabee-sales@terabee.com
www.terabee.com

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