

# TF Mini Plus (ToF) Laser Range Sensors

## Product Overview

07/20/2022

For the most up-to-date information, visit [www.mouser.com](http://www.mouser.com) or the supplier's website.

## Description

DFRobot TF Mini Plus (ToF) Laser Range Sensors are single-point ranging sensors with unique optical-electrical algorithms. These sensors offer accurate and quick distance measurement with a stable and high-sensitive performance. This TFmini plus is based on the Time Of Flight (TOF) principle. The TFmini plus sensors periodically emit a modulation wave of a near-infrared ray that reflects after contracting an object. This TF mini plus sensors offer IP65 enclosures that prevent water and dust, making it more adaptable to outdoor light/environments with different temperatures and reflectance. These laser range sensors are compatible with UART and I<sup>2</sup>C communication and provide lower power consumption and flexible detecting frequency. These sensors are also compatible with all sorts of Arduino controllers.



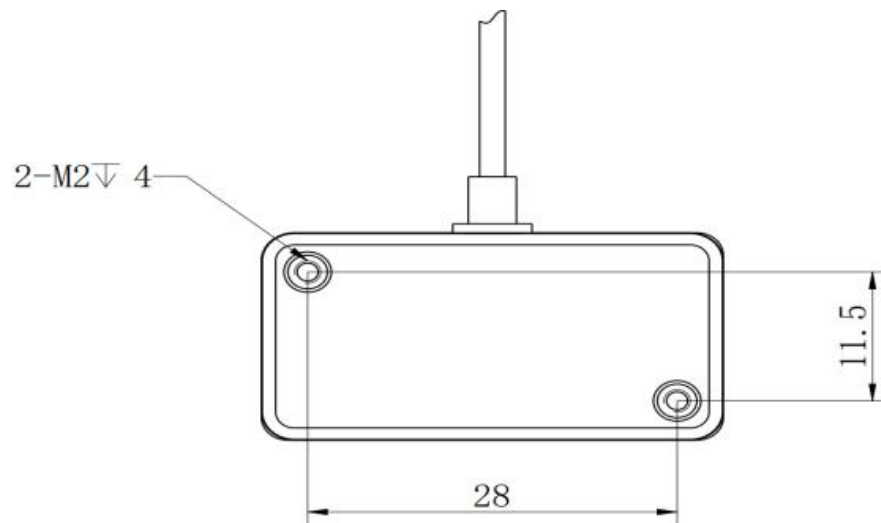
## Features

- Product characteristics:
  - Detecting ranges:
    - [SEN0309](#) – 12m sensing distance
    - [SEN0328](#) – 100m sensing distance
    - [SEN0329](#) – 180m sensing distance
  - $\pm 5\text{cm}$  at (0.1 to 6m),  $\pm 1\%$  at (6m to 12m) accuracy
  - 5mm resolution
  - 1Hz to 1000Hz (adjustable) frame rate
  - 70klux anti-ambient light
  - $-20^{\circ}\text{C}$  to  $60^{\circ}\text{C}$  operating temperature range
  - IP65 protection degree
- Optical characteristics:
  - LED light source
  - 850nm operating center wavelength
  - 3.6 signal acceptance angle

## Features

- Electrical characteristics:
  - 5V  $\pm$  0.5V input voltage
  - $\leq 110$ mA average current
  - 550mW (85mW low power mode) power consumption
  - 500mA peak current
  - LVTTTL (3.3V) communication level
  - UART, I<sup>2</sup>C, and I/O communication interface
- Others:
  - ABS+PC enclosure material
  - -20°C to 75°C storage temperature range
  - 12g weight
  - 30cm wire length

## Dimensions



## Mouser Part Numbers

[View All Parts](#)

To learn more, visit <https://www.mouser.com/new/dfrobot/dfrobot-tf-mini-plus-sensor/>