

Voltmeter Unit

SKU:U087



Description

Voltmeter Unit is a voltage meter that can monitor the voltage in real time. The 16-bit ADC (analog-to-digital) converter ADS1115 is used internally to communicate through I2C (0X49).

In order to ensure the measurement accuracy, there is a built-in DC-DC isolated power supply, and the I2C interface is also electrically isolated through the low-power isolator CA-IS3020S.

This prevents noise and surges on the data bus or other circuits from entering the local ground terminal to interfere or damage sensitive circuits. Each Unit is individually calibrated when leaving the factory, initial accuracy of 0.1%FS, ± 1 count, and a maximum measurement voltage of $\pm 36V$.

EEPROM (0x53) has built-in calibration parameters when leaving the factory. Please do not write to the EEPROM, otherwise the calibration data will be overwritten and the measurement results will be inaccurate.

Product Features

- $\pm 36V$ range
- LED power indicator
- 16-bit ADC conversion
- Resolution: Auto range, Count $\leq 16V$, 1mV; Count $> 16V$, 7.9mV
- Initial accuracy 0.1%FS, ± 1 count
- Built-in CA-IS3020S isolation chip, anti-interference
- Isolated DC-DC
- Up to 1000 VRMS isolation withstand voltage
- Development platform: Arduino, UIFlow (under development)
- 2x LEGO compatible holes

Includes

- 1x Voltmeter Unit
- 1x Grove Cable(20cm)

Application

- voltmeter



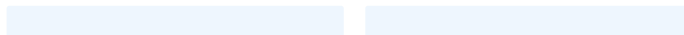
Specification

Resources	Parameter
Resolution	Auto range, Count \leq 16V, 1mV; Count $>$ 16V, 7.9mV
Measuring range	\pm 36V
Initial Accuracy	0.1%FS, \pm 1 count
Communication protocol	I2C:0x49
Net Weight	9g
Gross Weight	24g
Product Size	65*24*8mm
Package Size	136*92*12mm



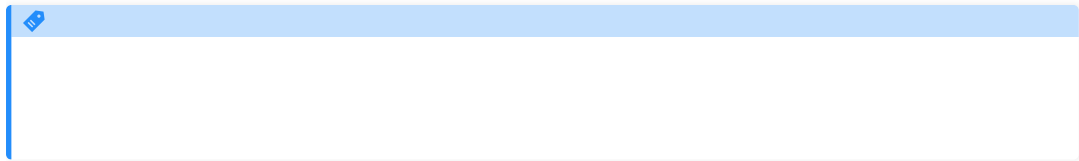
EasyLoader

EasyLoader is a concise and fast program writer, which has a built-in case program related to the product. It can be burned to the main control by simple steps to perform a series of function verification.





VMeter



PinMap

M5Core(GROVE A)	SDA(GPIO21)	SCL(GPIO22)	5V	GND
V Meter Unit	SDA	SCL	5V	GND

Schematic

