



**0.56" $3\frac{2}{3}$ Digital Red LED 30V Panel
Meter(Self-test)
User's Guide**

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0.56" $3\frac{2}{3}$ Digital Red LED 30V Panel Meter(Self-test)

NOTES:

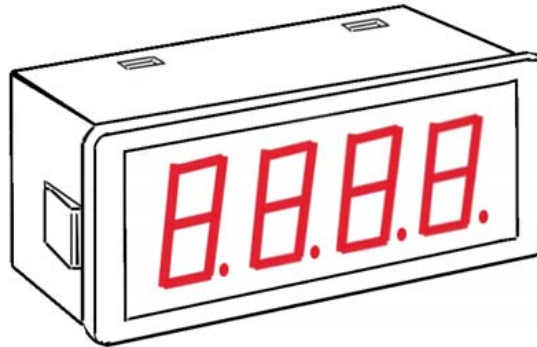
Product Version : Ver 1.2

Document Version : Ver 1.0

Chapter1.Overview

Thanks for using the panel meter by Sure Electronics. Please read this manual carefully prior to the installation of panel meter.

ME-SP038 digital voltmeter is a high-efficient yet flexible digital instrument which is normally used to measure the voltage of power supply of the panel meter itself. The A/D conversion module integrated is of a successive approximation type featuring high conversion speed and high accuracy. It is especially suitable for voltage measuring application in 12V singular or double set lead acid storage battery-based vehicle, yacht, electric toy, tool or motorcycle. It is also extremely suitable for a certain type of power supply, whose output voltage is rated as DC 8.5-30V, such as single output switched power supply, linear supply and UPS.

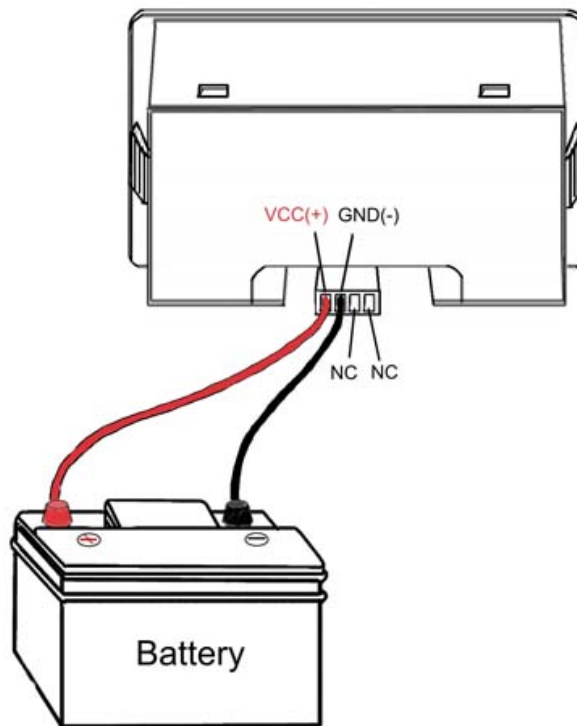


Main Features

- ① Large (0.56"/14.2mm) easy-to-read red LED display
- ② Miniature housing
- ③ Ideal for automotive, industrial applications
- ④ -10 to +60 °C operating temperature range
- ⑤ Simple wiring with only two pieces of leads as power positive and negative to perform the task of powering and measuring
- ⑥ Over 90% components are SMT based, which are reliable and environment-friendly
- ⑦ High-efficient DC-DC converter for powering, low operation temp rise, which is far below the temp rise of other competitive products
- ⑧ UL and CE-certified compound AWG22 cables are used, low pressure drop

Overview

Quick Start



Note :

- ① Connect VCC(+) and GND(-) to the positive and negative of power supply to be measured respectively with only two leads will make panel meter display its voltage. No additional power supply is required.
- ② Be very cautious when wiring, the panel meter will be burned if you mistakenly wire the two leads.
- ③ All diagrams and photos in this manual are for reference only.

Chapter2.Performance Specification

Analog Input	Min.	Typ.	Max.	Units
Scale Input Range:				
ME-SP038	8.5	-	30	V
Power Supply Requirements				
Supply Voltage:				
ME-SP038	8.5	12	30	V
Supply Current (@ VCC = 12V)				
ME-SP038	-	25	-	mA
Power consumption (@ VCC = 12V)				
ME-SP038	-	0.25	-	W
Performance				
Responding Rate:				
	-	1	-	s
Accuracy (@3 minute warm up)				
ME-SP038	0.01	0.08	0.15	V
Display				
Display Type and Size				
ME-SP038	$3\frac{2}{3}$ digit, 0.56"/14.2mm high LED			
Over-range Indication				
	"1 _ _ _"			
Physical/Environmental				
Operating Temperature				
	-10	-	60	°C
Storage Temperature				
	-40	-	75	°C
Humidity				
	0	-	85	%RH

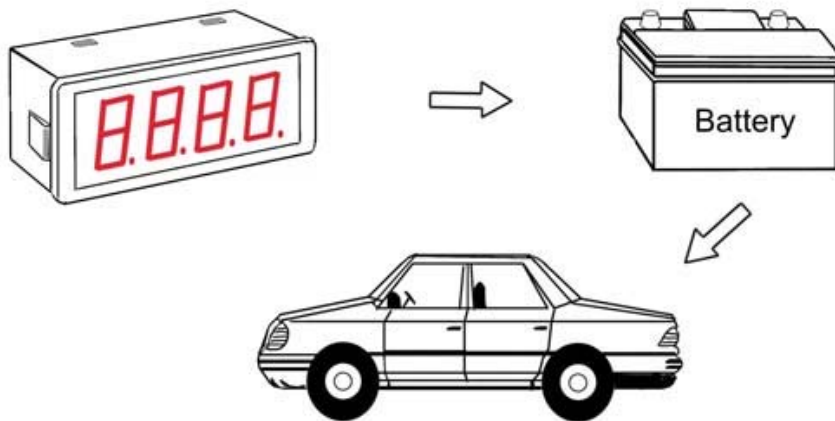
Notes :

- ① No over-range application is recommended, a voltage of over 30V may burn out the panel meter.
- ② Measuring accuracy cannot be guaranteed if the voltage to be measured is below 8.5V.

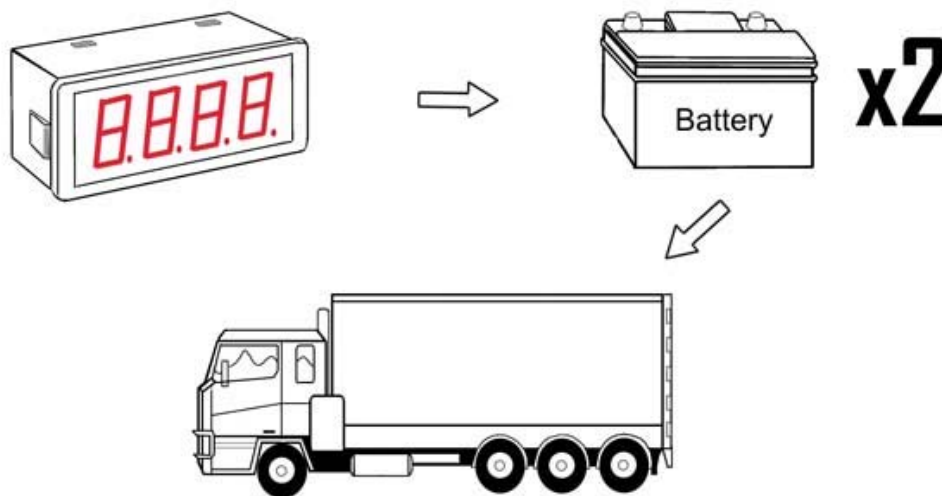
Chapter3.Applications

ME-SP038 voltmeter can be used to measure the voltage of various batteries ranging from DC 8.5-30V.

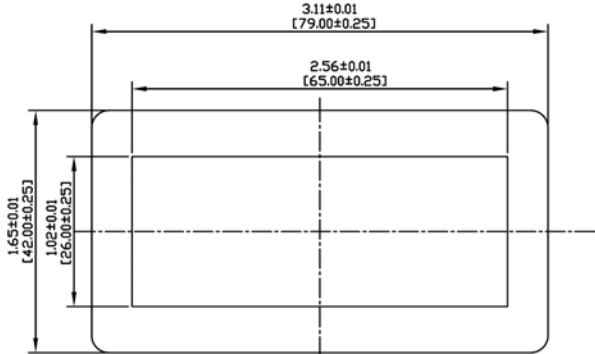
1. Suitable for sedan, bus or electric tools with single set of 12V lead acid storage battery.



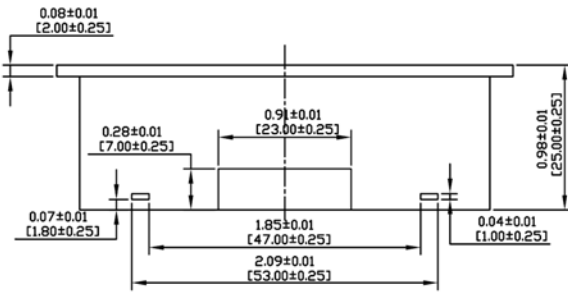
2. Suitable for applications(e.g. trucks) with two sets of 12V lead acid storage battery connected in series



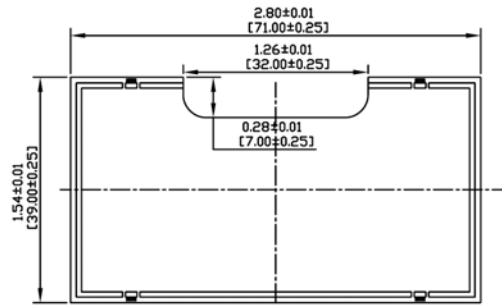
Chapter4.Mechanical Drawing



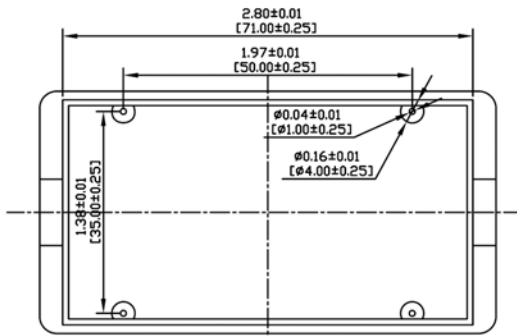
Top View



Side View



Back Cover



Bottom View

UNIT : INCH
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