

Dear Customer,

Thank you for purchase panel meters from Sure Electronics. We will try our best to help you if you have any questions in use. This is a power convert dongle and shunt resistor selection guide. Please read this carefully.

Power Convert Dongles Select Guide

Be sure that the power convert dongle is a 'separated' one, like shown in diagram1. And if you use the panel meter to measure a DC signal, the GND of power and signal can be a common one, shown in diagram 2.

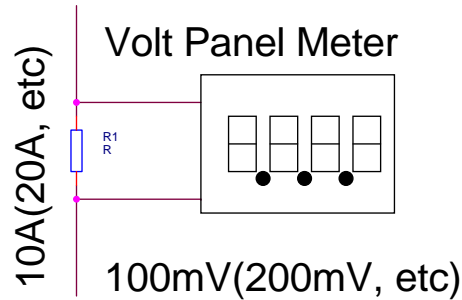
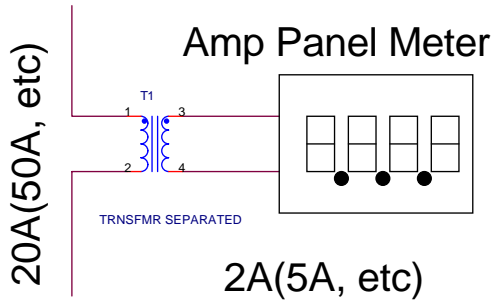
The diagram is only a simplified and equalized circuit. Just to show the connection. Those diagram can not work!

Shunt Resistor and Current Transformers Select Guide

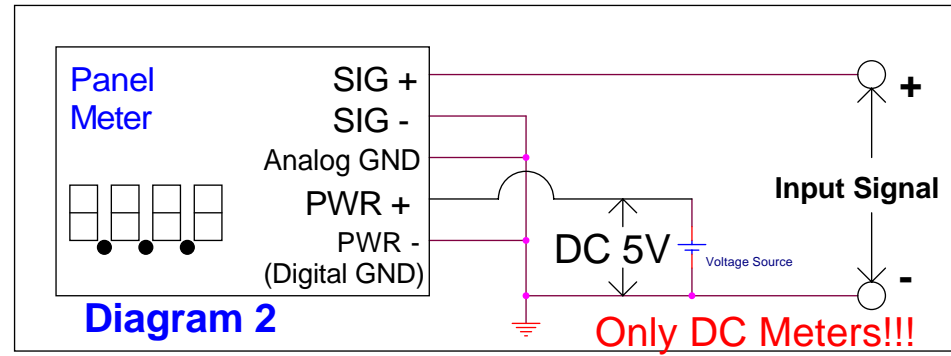
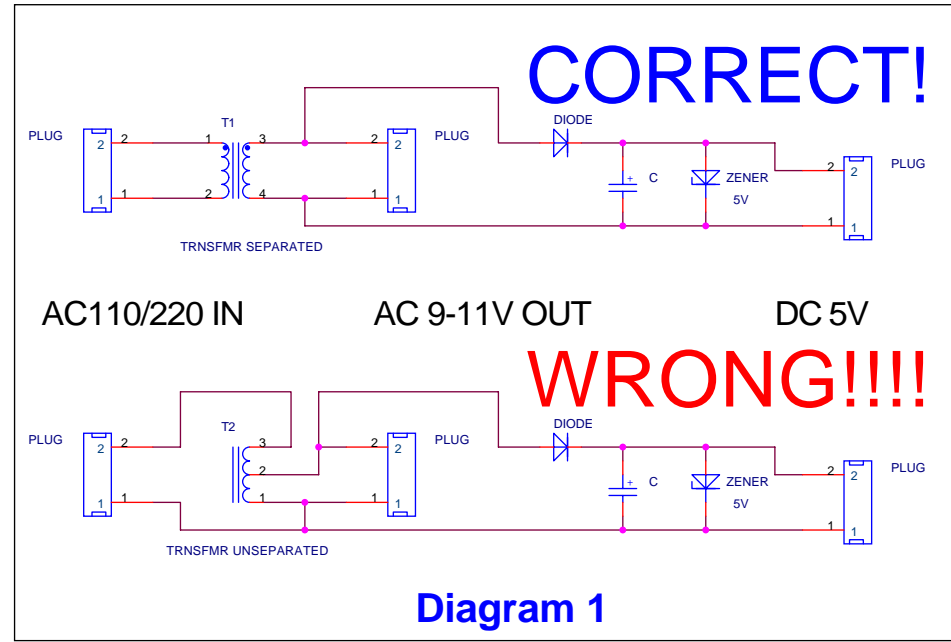
If you wanna measure a current ove 2 Amps, you will need a shunt resistor or a current transformer.

To select shunt resistors, the most simple way is choose a curr-volt type one. For example, when 10Amps passed through a 10mohm resistor, 100mV voltage will be generated, measure it with a 200mV type voltage meter, and adjust the DOT position, you will get a correct display.

Current transformers has lower power dissipation but only can be used in AC circuits! Normaly products are 50A-->2A; 50A-->5A; 20A-->2A, such like this, it is a separated solution, If there exists high voltage in the circuit, you should use curr transformers! Please contact us for availability if you choose a curr transformer.



Current to current(volt) trans ratio is marked on the current transformer or shunt resistor.



Notice:

Read this carefully before you install the panel meter.

This diagram shows the connection of Xieli XL5135 series DC panel meter.

XL5135 series panel meter use a single +5V power supply, and can only measure DC voltage or DC current. Measure range was marked at the back side of the panel meter, check it carefully to see whether it is which you want. !!!The power supply and the signal being measured has the same GND or the power converter is a separated one, BE SURE OF THIS OR YOUR PANEL METER MAY BE DAMAGED!!!

This series has a very good quality and appearance. It has an arc and glass feel surface. Selectable measure ranges are: +/- 1.999V DC, +/- 19.99V DC, +/- 199.9V DC, +/- 300V DC(With a maximum 700V input); +/- 1.999 mA DC, +/-19.99 mA DC, +/- 199.9 mA DC, +/- 1.999A DC(maximum input range is DC 3A).

We DO NOT PROVIDE A BLUE LED panel meter of this model, but this one really has a cool appearance.

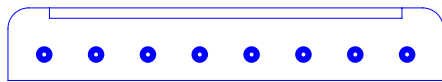
You can change the dot position as you like, just short the dot control pin with GND, the dot position has nothing to do with true value. For example, if you have a meter which measure range is +/- 1.999V DC to measure a 1V signal, the display will be like 1000, and no dot will be displayed, if you want the display be like 1.000, just close the dot control pin of digit 3 to GND.

If noise is heavy, please use a shielded cable to transfer the signal. And if still interfered, try to disconnect Pin3 and Pin8 if closed and connect this two pin if open(default status is closed).

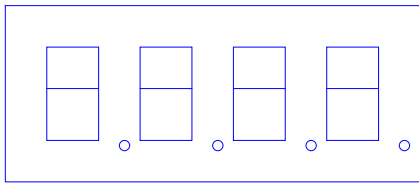
If only a 1 or -1 displayed in digit4, it means the input signal is over the measure range.

Measure Range Label, Check it carefully.

Example: * XL5135V -3 +/- 19.99V



Pin1 Pin3 Pin5 Pin7
Pin2 Pin4 Pin6 Pin8



XI ELI

Digit4 Digit3 Digit2 Digit1

Pin1: Power supply, DC IN, +5V
Pin2: Power supply, GND(Digital GND)
Pin3: Analog GND
Pin4: Dot control pin of digital4(thousand)
Pin5: Dot control pin of digital3(hundred)
Pin6: Dot control pin of digital2(ten)
Pin7: Signal in, Signal +, positive.
Pin8: Signal in, Signal -, negative. This pin is connect to Pin3 internally.

If you can not provide a common-GND for the signal to test and power supply, please be sure use a separated 5V as the power supply, and we do not suggest you use one power convert dogle to supply more than one panel meter. The power supply must be a single +5V supply, and error should be less than 5%. never use a more than 6V voltage to power your panel meter or your panel meter will be damaged immediately. And make sure the VCC and GND is connect correctly. The input signal can be a differential one, never connect pin 2 and pin 3, also please confirm the negative of input signal can never be far departure from digital GND at anytime.

Install hole size:
76mm*39mm

Notice:

Read this carefully before you install the panel meter.

This diagram shows the connection of Xieli XL5139 series AC panel meter.

XL5139 series panel meter use a AC 9V power supply, and can measure AC/DC voltage or AC/DC current. The power supply can be a separated 9V-11V AC or 9-12C DC source.

Measure range was marked at the back side of the panel meter, check it carefully to see whether it is which you want.

!!!The power supply must be a separated one,

BE SURE OF THIS OR YOUR PANEL METER MAY BE DAMAGED!!!

This series has a very good quality and appearance. It has an arc and glass feel surface. Selectable measure ranges are:

+/- 1.999V DC, +/- 19.99V DC, +/- 199.9V DC, +/- 300V DC(With a maximum 700V input);

+/- 1.999 mA DC, +/-19.99 mA DC, +/- 199.9 mA DC, +/- 1.999A DC(maximum input range is DC 3A).

199.9mV AC, 1.999V AC, 19.99V AC, 199.9V AC, 500V AC(maximum input range is 0-700V AC).

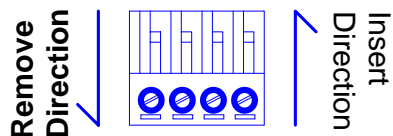
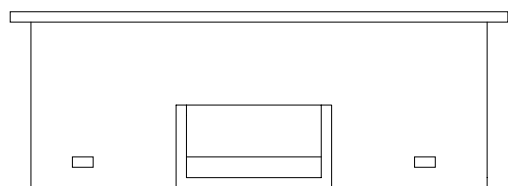
19.99mA AC, 199.9mA AC, 1.999A AC(maximum input range is 3A).

We DO NOT PROVIDE A BLUE LED panel meter of this model, but this one really has a cool appearance.

You can change the dot position as you like, just short the dot control pin with GND, the dot position has nothing to do with true value. For example, if you have a meter which measure range is +/- 1.999V DC to measure a 1V signal, the display will be like 1000, and no dot will be displayed, if you want the display be like 1.000, just close the dot control pin of digit 3 to GND.

If noise is heavy, please use a shielded cable to transfer the signal.

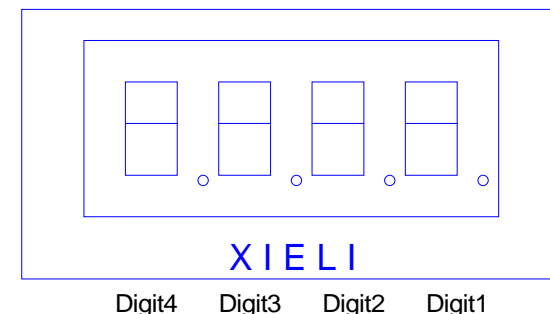
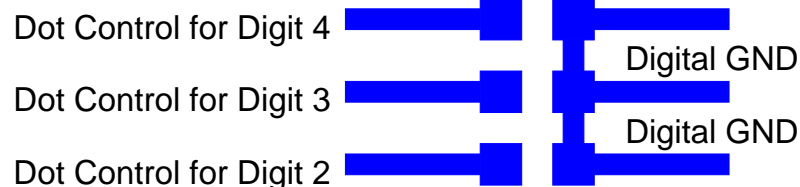
If only a 1 or -1 displayed in digit4, it means the input signal is over the measure range.



Pin4
Pin3
Pin2
Pin1

Pin1 & Pin2, AC9-11V in, or DC 9-12V in.
Either can be positive when use DC IN.
Pin3 & Pin4, Pin3 is the signal positive input, Pin4 is negative. When input signal is AC type, do not connect it.

Remove the back panel, in the bottom right corner you will see pads like this:
Close Dot control for digit 4, the dot between thousand and hundred will always light.
The dot position is set to default when shipping, if not or you wanna change it, connect it yourself.



Install hole size:
76mm*39mm

Notice:

Read this carefully before you install the panel meter.

This diagram shows the connection of YKE ZF5135 series DC panel meter.

ZF5135 series panel meter use a sigle +5V power supply, and can measure DC/AC voltage or DC/AC current. See ZF5135-AC for detailed AC current type panel meter introduction.

Measure range was marked at the back side of the panel meter, check it carefully to see whether it is which you want.

!!!The power supply and the signal being measured has the same GND or the power convertor is a separated one, BE SURE OF THIS OR YOUR PANEL METER MAY BE DAMAGED!!!

This series has a very good quality. Selectable measure ranges are:

+/- 1.999V DC, +/- 19.99V DC, +/- 199.9V DC, +/- 300V DC(With a maximum 700V input);

+/- 1.999 mA DC, +/-19.99 mA DC, +/- 199.9 mA DC, +/- 1.999A DC(maximum input range is DC 3A).

199.9mV AC, 1.999V AC, 19.99V AC, 199.9V AC, 500V AC(maximum input range is 0-700V AC).

19.99mA AC, 199.9mA AC, 1.999A AC(maximum input range is 3A).

We DO NOT PROVIDE A BLUE LED panel meter of this model, but this one really has a cool appearance.

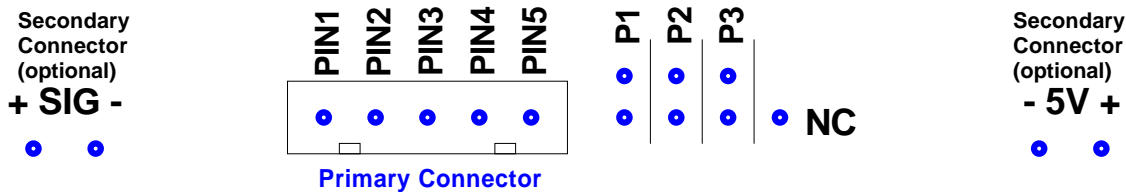
You can change the dot position as you like, just short the dot control pin with GND, the dot position has nothing to do with true value. For example, if you have a meter which measure range is +/- 1.999V DC to measure a 1V signal, the display will be like 1000, and no dot will be displayed, if you want the display be like 1.000, just close the dot control pin of digit 3 to GND.

If noise is heavy, please use a shielded cable to transfer the signal.

If only a 1 or -1 displayed in digit4, it means the input signal is over the measure range.

Measure Range Lable, Check it carefully.

Example: ZF5135- DC1000V



Pin1: Signal in, positive, input pin for voltage signal.

Pin2: Signal in, positive, input pin for current signal.

Pin3: Signal in, negative or analog GND, input pin for both vol and curr signal.

Pin4: Power in, digital GND, negative.

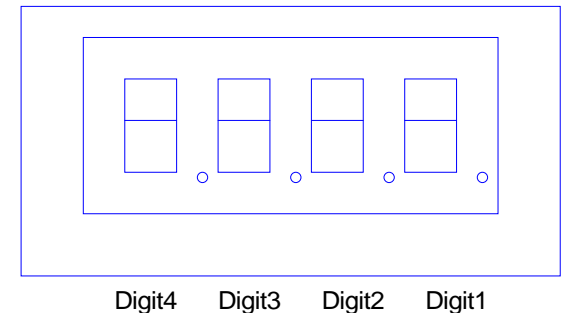
Pin5: Power in, +5V. Use isolated power converter.

CLOSE P1 to light the dot between digit 2 and 1.
CLOSE P2 to light the dot between digit 3 and 2.
CLOSE P3 to light the dot between digit 4 and 3.

The dot position is set to default when shipping, if not or you wanna change it, connect is yourself.

Current and Voltage Signals DO NOT USE SAME INPUT PIN(POSITIVE).

Use main connector in higher priority!



Install hole size:
76mm*39mm

Notice:

Read this carefully before you install the panel meter.

This diagram shows the connection of YKE ZF5135 series AC AMP panel meter.

ZF5135 series panel meter use a single +5V power supply, and can measure DC/AC voltage or DC/AC current. See ZF5135-AC for detailed AC current type panel meter introduction.

Measure range was marked at the back side of the panel meter, check it carefully to see whether it is which you want.

!!!The power supply and the signal being measured has the same GND or the power converter is a separated one,

BE SURE OF THIS OR YOUR PANEL METER MAY BE DAMAGED!!!

This series has a very good quality. Selectable measure ranges are:

+/- 1.999V DC, +/- 19.99V DC, +/- 199.9V DC, +/- 300V DC(With a maximum 700V input);

+/- 1.999 mA DC, +/-19.99 mA DC, +/- 199.9 mA DC, +/- 1.999A DC(maximum input range is DC 3A).

199.9mV AC, 1.999V AC, 19.99V AC, 199.9V AC, 500V AC(maximum input range is 0-700V AC).

19.99mA AC, 199.9mA AC, 1.999A AC(maximum input range is 3A).

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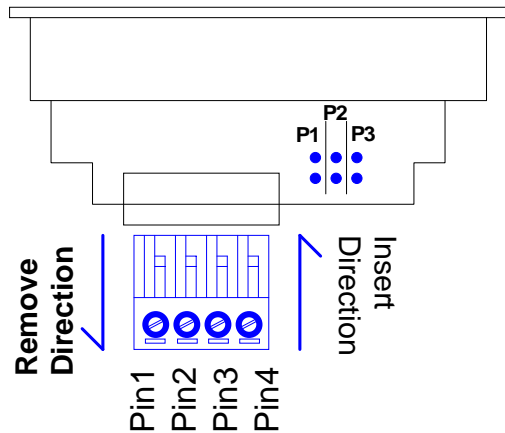
You can change the dot position as you like, just short the dot control pin with GND, the dot position has nothing to do with true

value. For example, if you have a meter which measure range is +/- 1.999V DC to measure a 1V signal, the display will be like

1000, and no dot will be displayed, if you want the display be like 1.000, just close the dot control pin of digit 3 to GND.

If noise is heavy, please use a shielded cable to transfer the signal.

If only a 1 or -1 displayed in digit4, it means the input signal is over the measure range.



CLOSE P1 to light the dot between digit 2 and 1.

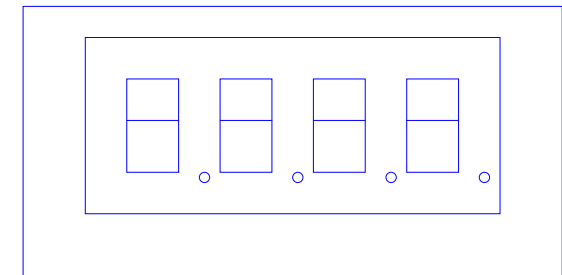
CLOSE P2 to light the dot between digit 3 and 2.

CLOSE P3 to light the dot between digit 4 and 3.

The dot position is set to default when shipping, if not or you wanna change it, connect it yourself.

Only AC 2A and 5A type use this type of connection!!!

If you find connection of the panel meter you bought is not similar to this one and is a YKE brand, please see other diagrams for details.



Digit4 Digit3 Digit2 Digit1

Install hole size:
76mm*39mm

Pin1: Power in, +5V.

Pin2: Power in, GND.(digital GND)

Pin3: Signal, AC current, either pole.

Pin4: Signal, AC current, either pole.

This diagram is only used in AC 2A & AC 5A

type. For other models, view ZF5135 for details.

Visit www.sure-electronics.net for More Details.			
Title YKE ZF5135 AC Current meter connection (AC 2A & 5A)			
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Plotted by David Shen, Sure Electronics			
Date: Tuesday, August 09, 2005	Sheet	5	of 5