AC Voltage

2869 Series Digital Panel Meter

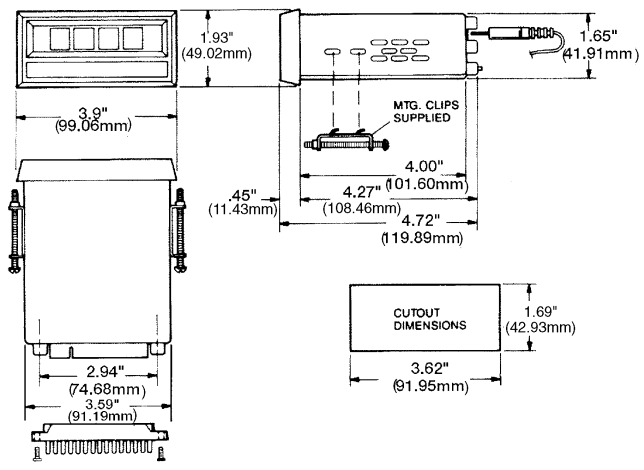
- ***Four Voltage Ranges Available: 200mV, 2V, 20V, 200V***
- ***Jumper-Selectable Decimal Point***
- ***Input Edge Connector***
- ***3-1/2 digit, 0.56" Red LED Display***
- ***117VAC Power Supply***
- ***Additional Rear Terminal Connector Available***
- ***Optional "U" Shaped Mounting Bracket***

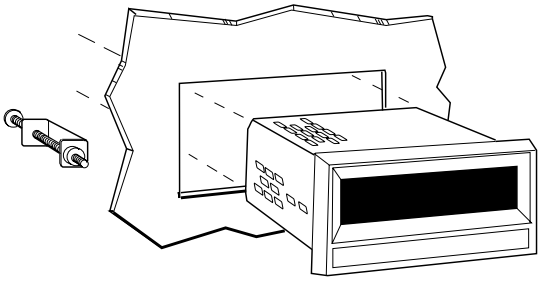
Simpson's 2869 Series meters offer high accuracy and a two-piece edge connector for easy wiring of the input signal. Additional two-piece connectors are available from your Authorized Simpson Distributor. Model 2869 requires a 117 VAC power source at 50-400Hz. The large red 3-1/2-digit display is easily read from a distance of about 25 feet, and in low to moderate light conditions. Panel cutout adapters are available for 1/8 DIN panel cutouts, and for domestic sized cutouts. In addition, a large "U" shaped mounting bracket is available for applications where the panel strength is unknown or weak.

The optional Display Hold can be activated from the rear connector, and activated with a switch (optional).

The 2869 Series has a jumper-selectable decimal point, which can be remotely changed (if installed by an Authorized Service Center).

Installation and Panel Cutout





Mounting Requirements

The 2869 indicators are installed with the mounting hardware provided. Slide the meter through the panel cutout. Next, insert a side mounting bracket to each side of the meter. Use the two holes located near the bezel to attach them to the meter. Slide the brackets back until they lock into the meter. Turn the screws in each bracket until they firmly contact the panel surface. Attach the wiring connections to the meter.

Specifications

DISPLAY
Type: 7-segment, red LED
Height: 0.56” (14.2mm)
Decimal point: Jumper-selectable
Overrange indication: All digits blink "0"

POWER REQUIREMENT
AC Voltages: 117 V, ±10%, 50Hz to 400Hz, 3VA

Rated Circuit to Ground Voltage: 250 VDC

ACCURACY @ 23ºC, ±2ºC
±(1.0% of input +5 counts) 45Hz to 1KHz

ENVIRONMENTAL
Operating Temperature: 0 to 55°C
Storage Temperature: -40 to 60 °C
Relative Humidity: 0 to 85%, non-condensing
Temp. Coefficient: ±(0.1% of input) per ºC
Warmup time: 15 minutes

ANALOG TO DIGITAL CONVERSION
Technique: Dual slope
Rate: 2.5 samples/second-nominal

MECHANICAL
Bezel: 1.93" x 3.9" (49mm x 99mm)
Depth: 4.72" (109mm)
Panel cutout: 1.68" x 3.622" (42.72mm x 92mm
Weight: 12.5oz (354.3g)

INPUTS

Range	Display Resolution	Input Resistance
200mV	100µV	≥100MΩ
2V	1mV	10MΩ
20V	10mV	10MΩ
200V	100mV	10MΩ

Overload protection = 250VRMS on all ranges

Connections

These instruments are designed for maximum safety to the operator when mounted in a panel according to instructions. They are not to be used unmounted or for exploratory measurements in unknown circuits.

Pin Connections
The signal and power inputs are made on the rear connector. Make sure the connector is firmly attached to the meter. This allows the meter to be used in multiple locations by moving it from connector to connector. Additional connectors are available. Connections for each pin are summarized in the table below.

Input Signal
The "+" signal input is connected to Pin S. The "-" signal input (common) is connected to Pin P.

Display Hold
This optional feature must be specified when ordering. By shorting Pin H to Pin J, the displayed value can be held indefinitely. This short can be controlled by a switch (also optional). This will allow the operator to flip the switch (holding the display) and take a reading. The switch is then turned off and the display functions normally again.

Supply Power
If the unit is VAC powered, attach the neutral to Pin C. The ground is connected to Pin #1 and A. The high (or hot) is connected to Pin E. If your application changes and you want the unit to be 220 VAC power supplied, return the unit to our factory or to an Authorized Service Center.

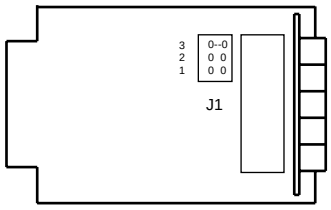
Remote Decimal Point
This option allows you to remotely select different decimal points without opening the meter to make the changes. This option can be installed by the factory or one of our Authorized Service Centers. Remote Decimal Point uses the same terminal points as BCD outputs, eliminating the BCD capabilities if specified.

Pin Number	2869 Circuit	Pin Number	2869 Circuit
1	3rd wire GND	A	3rd wire GND
2	NC	B	NC
3	NC	C	120VAC Neutral
4	NC	D	NC
5	NC	E	120VAC High
6	NC	F	NC
7	NC	H	DP Common
8	NC	J	Digital Common
9	NC	K	(DP3)
10	(-REF/HOLD)	L	(DP2)
11	(+REF)	M	(DP1)
12	NC	N	NC
13	NC	P	"-" Input Common
14	NC	R	NC
15	NC	S	"+" Input

Jumper Decimal Point

The decimal point can be changed by moving Jumper J1 inside the unit. The meter must be disassembled, exposing the main board. The edge connector should be removed first. Next, remove the two screws on the back of the bezel. Remove the front bezel, and slide out the main board.

Jumper Position	Decimal Point
1	100.0
2	10.00
3	1.000



Accessories

Optional Mounting Hardware	Catalog Number
1/8 DIN Panel Adapter	22992
"U" Type Mounting Bracket	22991
Extra Edge Connector	22990

Please see the Accessory Section for full details on Mounting Hardware.

Safety Symbols

The WARNING sign denotes a hazard. It calls attention to a procedure, practice, or the like, which, if not correctly performed or adhered to, could result in personal injury.

The CAUTION sign denotes a hazard. It calls attention to an operating procedure, practice, or the like, which, if not correctly adhered to, could result in damage to or destruction of part or all of the instrument.

Ordering Information

Range	Model 2869 117VAC
200mV	24630
2V	24631
20V	24632
200V	24633