



**Input:** 115 VAC or Optional 230 VAC  
**Output:** 5 VDC to 32 VDC or  $\pm 5$  VDC to  $\pm 15$  VDC

- Wide Range of Output Voltages
- High Output Capability
- Conservative Design for High Reliability
- Available as 115 VAC or 230 VAC Powered
- Power Indicator LED
- Output Power LED

## Applications

- Power Passive 4-20 mA Sensors
- Plug-in Spare Loop Supply
- Reliable, Proven Design

## Specifications

### Input Voltage

Standard: 115 VAC  $\pm 10\%$ , 50/60 Hz, 2.5 W max.  
**A230** option: 230 VAC  $\pm 10\%$ , 50/60 Hz, 2.5 W max.

### Output Voltages and Currents

Model	Voltage	Current
API 9046-05	5 VDC	250 mA
API 9046-06	6 VDC	200 mA
API 9046-09	9 VDC	150 mA
API 9046-10	10 VDC	140 mA
API 9046-12	12 VDC	125 mA
API 9046-15	15 VDC	100 mA
API 9046-18	18 VDC	85 mA
API 9046-24	24 VDC	75 mA
API 9046-28	28 VDC	60 mA
API 9046-32	32 VDC	50 mA
API 9046-CH-05	$\pm 5$ VDC	150 mA
API 9046-CH-06	$\pm 6$ VDC	150 mA
API 9046-CH-12	$\pm 12$ VDC	150 mA
API 9046-CH-15	$\pm 15$ VDC	150 mA

Other output voltages available  
 Consult factory with your requirements

### Noise and Ripple

Less than 5 mV

### Regulation

Line: Less than  $\pm 0.5\%$  of output for  $V_{in} \pm 10\%$   
 Load: Less than  $\pm 3\%$  for load range of 10 to 100% of rating

### Output Adjustment (9046)

Potentiometer for fine output adjustment  
 $\pm 10\%$  of span adjustment range typical

### Output Adjustment (9046-CH)

None

### Ambient Temperature Range

$-10^{\circ}\text{C}$  to  $+60^{\circ}\text{C}$  operating ambient



## Description and Features

The **API 9046** power supplies are designed to provide DC power to two-wire transmitters, panel meters, or any device requiring a source of well-regulated DC voltage.

The **API 9046-CH** bipolar power supplies are designed to work with devices requiring dual, balanced DC supplies with excellent line and load regulation while maintaining output voltage ripple at a minimum.

Features include a power indicator LED and short-circuit protection for the output. The transformer secondary is full-wave rectified, filtered and regulated. The designs include high-rated temperature components, increased regulator heat sinking for excellent reliability, and greater output current capabilities than competitive designs. Input voltages of 115 VAC or 230 VAC are factory configured via a dual primary power transformer.

**API 9046** output voltage is factory selected and may be fine-tuned by adjusting the top-accessible output voltage fine adjust potentiometer.

The **API 9046** and **API 9046-CH** plug into an industry standard 8-pin socket sold separately. The convenient plug-in design simplifies installation and wiring. Sockets **API 008** and finger-safe **API 008 FS** allow either DIN rail or panel mounting.

## Models & Options

<b>API 9046-05</b>	5 VDC output, 115 VAC powered
<b>API 9046-06</b>	6 VDC output, 115 VAC powered
<b>API 9046-09</b>	9 VDC output, 115 VAC powered
<b>API 9046-10</b>	10 VDC output, 115 VAC powered
<b>API 9046-12</b>	12 VDC output, 115 VAC powered
<b>API 9046-15</b>	15 VDC output, 115 VAC powered
<b>API 9046-18</b>	18 VDC output, 115 VAC powered
<b>API 9046-24</b>	24 VDC output, 115 VAC powered
<b>API 9046-28</b>	28 VDC output, 115 VAC powered
<b>API 9046-32</b>	32 VDC output, 115 VAC powered
<b>API 9046-CH-05</b>	$\pm 5$ VDC output, 115 VAC powered
<b>API 9046-CH-06</b>	$\pm 6$ VDC output, 115 VAC powered
<b>API 9046-CH-12</b>	$\pm 12$ VDC output, 115 VAC powered
<b>API 9046-CH-15</b>	$\pm 15$ VDC output, 115 VAC powered

Optional—Add to end of model number

<b>A230</b>	Powered by 230 VAC, 50/60 Hz
<b>U</b>	Conformal coating for moisture resistance

Accessories—Order as separate line item

<b>API 008</b>	8-pin socket
<b>API 008 FS</b>	8-pin finger safe socket
<b>API TK36</b>	DIN rail, 35 mm W x 39" L, aluminum

**MOD-TRONIC**  
 INSTRUMENTS LIMITED

1 Delta Park Blvd #12  
 Brampton, ON L6T 5G1  
 905-457-6322 or 800-794-5883  
 www.mod-tronic.com



## ELECTRICAL CONNECTIONS

**WARNING!** All wiring must be performed by qualified personnel only. This module requires an industry-standard 8-pin socket. Order API 008 or finger-safe API 008 FS socket separately.

**Power Input** – Power supplies operate on 115 VAC. Models with A230 option operate on 230 VAC.

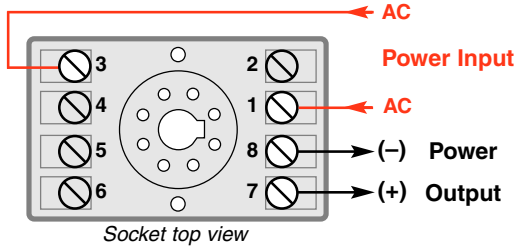
**Power Output** – Polarity must be observed when connecting the power output to the load.

### API 9046 Power Input

Terminal 1 AC  
Terminal 3 AC

### API 9046 Output

Terminal 8 negative (-)  
Terminal 7 positive (+)



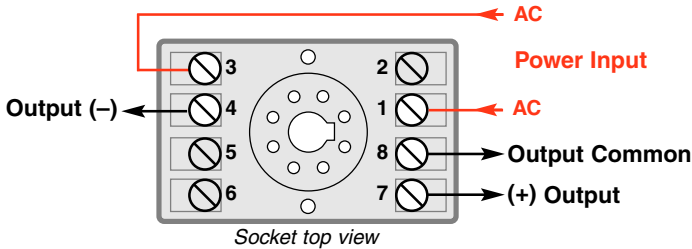
### API 9046 Series

### API 9046-CH Power Input

Terminal 1 AC  
Terminal 3 AC

### API 9046-CH Output

Terminal 4 negative (-)  
Terminal 7 positive (+)  
Terminal 8 output common



### API 9046-CH Bipolar Output Models

## CALIBRATION

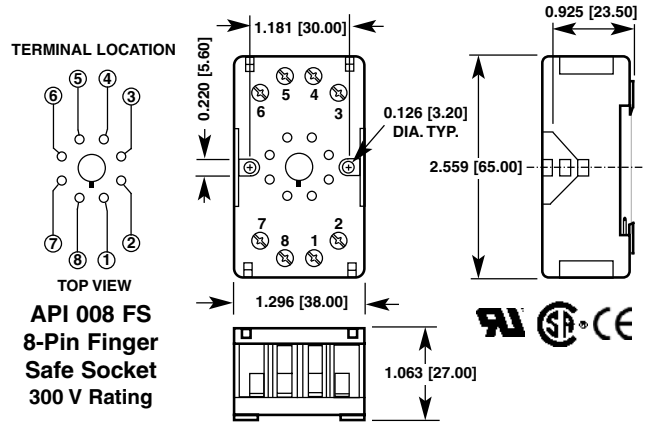
The API 9046 is factory calibrated and should not require recalibration in the field. Should recalibration (fine-tuning) be desired, an Output Adjust potentiometer is accessible through the top of the unit to adjust the voltage output for non-CH models.

1. Wire unit as shown, apply power, and allow a minimum 20 minute warm-up time.
2. Using an accurate voltmeter, adjust the Output Adjust potentiometer to the desired voltage.

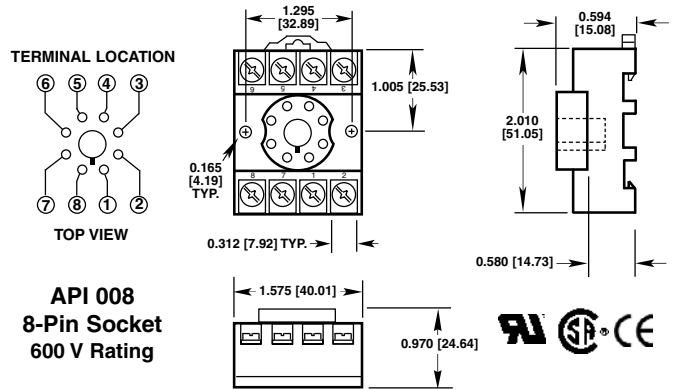
## OPERATION

The dual-primary transformer is factory-configured for 115 VAC or 230 VAC operation. The transformer secondary is full-wave rectified, filtered and regulated by an adjustable IC regulator which also provides output short-circuit protection.

Output voltage is factory selected and may be fine-tuned by adjusting the output voltage fine adjust potentiometer on non-CH models. The RED power LED provides a visual indication that the unit is functioning. Failure to illuminate may indicate a problem with the module power.



### API 008 FS Finger-Safe Socket



### API 008 Socket



1 Delta Park Blvd #12  
Brampton, ON L6T 5G1  
905-457-6322 or 800-794-5883  
www.mod-tronic.com