Regulated DC Power Supplies — API 9046 Series

Input: ***115 VAC or Optional 230 VAC***
Output: ***5 VDC to 32 VDC or ±5 VDC to ±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 ±10%, 50/60 Hz, 2.5 W max.
A230 option: 230 VAC ±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	±5 VDC	150 mA
API 9046-CH-06	±6 VDC	150 mA
API 9046-CH-12	±12 VDC	150 mA
API 9046-CH-15	±15 VDC	150 mA

Other output voltages available
Consult factory with your requirements

Noise and Ripple

Less than 5 mV

Regulation

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

Output Adjustment (9046)

Potentiometer for fine output adjustment
±10% of span adjustment range typical

Output Adjustment (9046-CH)

None

Ambient Temperature Range

–10°C to +60°C operating ambient

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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 reliably, 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

API 9046-05	5 VDC output, 115 VAC powered
API 9046-06	6 VDC output, 115 VAC powered
API 9046-09	9 VDC output, 115 VAC powered
API 9046-10	10 VDC output, 115 VAC powered
API 9046-12	12 VDC output, 115 VAC powered
API 9046-15	15 VDC output, 115 VAC powered
API 9046-18	18 VDC output, 115 VAC powered
API 9046-24	24 VDC output, 115 VAC powered
API 9046-28	28 VDC output, 115 VAC powered
API 9046-32	32 VDC output, 115 VAC powered
API 9046-CH-05	±5 VDC output, 115 VAC powered
API 9046-CH-06	±6 VDC output, 115 VAC powered
API 9046-CH-12	±12 VDC output, 115 VAC powered
API 9046-CH-15	±15 VDC output, 115 VAC powered

Optional—Add to end of model number

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

Accessories—Order as separate line item

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

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API 9046 Series — Installation and Setup

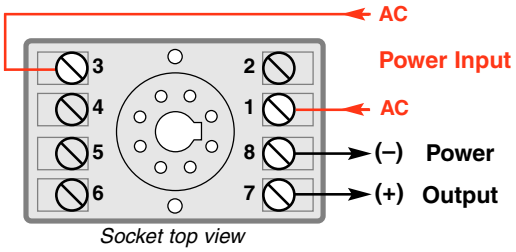
ELECTRICAL CONNECTIONS

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.

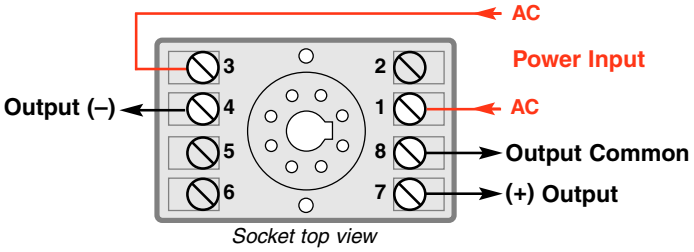
Power Output – Polarity must be observed when connecting the power output to the load.

API 9046 Power Input	API 9046 Output
Terminal 1 AC	Terminal 8 negative (–)
Terminal 3 AC	Terminal 7 positive (+)



API 9046 Series

API 9046-CH Power Input	API 9046-CH Output
Terminal 1AC	Terminal 4 negative (–)
Terminal 3 AC	Terminal 7 positive (+)
	Terminal 8 output common



API 9046-CH Bipolar Output Models

CALIBRATION

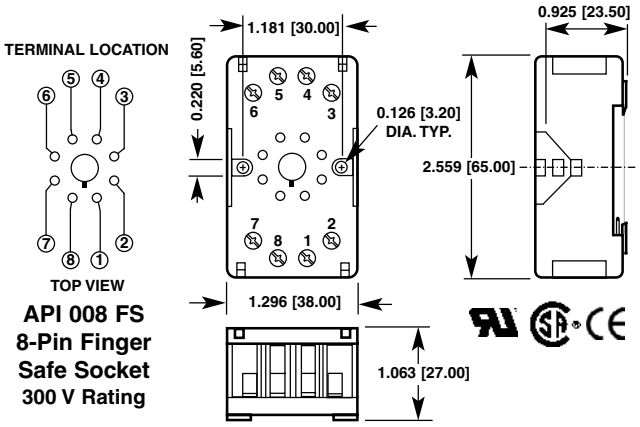
The **API 9046** is factory calibrated and should not require recalibration in the field. Should recalibration (fine-tuning) be desired, an Output Adjust potentiometer is accessible through the top of the unit to adjust the voltage output for non-CH models.

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.

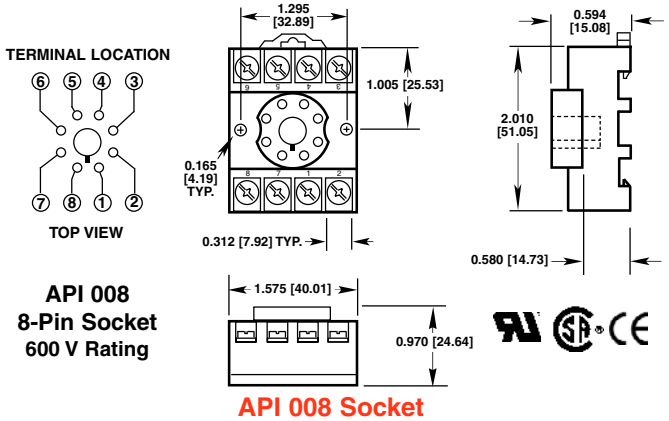
OPERATION

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

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API maintains a constant effort to upgrade and improve its products. Specifications are subject to change without notice. Consult factory for your specific requirements.