

DC Power Supplies, Regulated

API 9046 G



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

Applications

- Power Passive 4-20 mA Sensors
- Easy to Install Plug-in Loop Supply
- Reliable, Proven Design

Specifications

Power

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

See table below right
 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°C to $+60^{\circ}\text{C}$ operating ambient

Description and Features

The API 9046 and API 9046-CH features include a power indicator LED and short-circuit protection for the output. The transformer secondary is full-wave rectified, filtered and regulated by an IC regulator which also provides output short-circuit protection. 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.

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.

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 output voltage is factory selected and may be fine-tuned by adjusting the top-accessible fine adjust potentiometer. The red power LED provides a visual indication that the unit is functioning.

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. The API 9046-CH output voltage is factory set. The red power LED provides a visual indication that the unit is functioning.



Installation and Operation

ELECTRICAL CONNECTIONS

WARNING! All wiring must be performed by qualified personnel only. 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.

CALIBRATION

The API 9046 is factory calibrated and should not require adjustment in the field. The API 9046-CH is factory set and has no output adjustments.

1. Wire unit as shown, apply power, and allow a 20 minute warm-up time.
2. Using an accurate voltmeter, adjust the Output Adj. potentiometer accessible through the top of the unit to the desired output voltage.

Models & Options

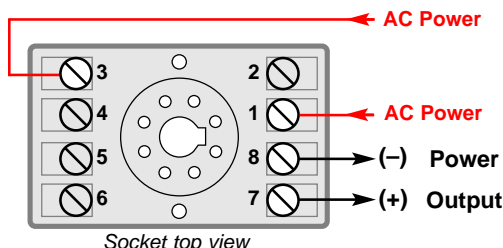
Model	Voltage	Current	Power
API 9046-05	5 VDC	250 mA max.	115 VAC
API 9046-06	6 VDC	200 mA max.	115 VAC
API 9046-09	9 VDC	150 mA max.	115 VAC
API 9046-10	10 VDC	140 mA max.	115 VAC
API 9046-12	12 VDC	125 mA max.	115 VAC
API 9046-15	15 VDC	100 mA max.	115 VAC
API 9046-18	18 VDC	85 mA max.	115 VAC
API 9046-24	24 VDC	75 mA max.	115 VAC
API 9046-28	28 VDC	60 mA max.	115 VAC
API 9046-32	32 VDC	50 mA max.	115 VAC
API 9046-CH-05	± 5 VDC	150 mA max.	115 VAC
API 9046-CH-06	± 6 VDC	150 mA max.	115 VAC
API 9046-CH-12	± 12 VDC	150 mA max.	115 VAC
API 9046-CH-15	± 15 VDC	150 mA max.	115 VAC

Optional—Add to end of model number

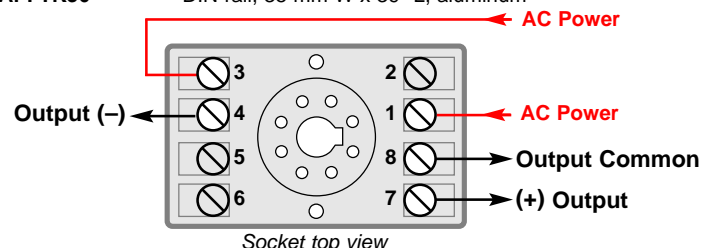
- A230 Powered by 230 VAC, 50/60 Hz
- U Conformal coating for moisture resistance

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



API 9046 Series



API 9046-CH Bipolar Output Models



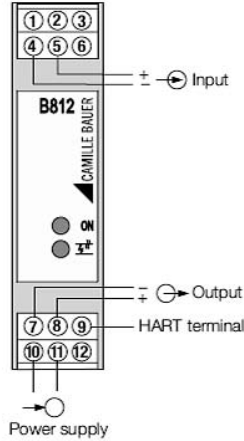
Sineax B 812 and B 840 Loop Power Supplies

B 812 Loop Power Supplies with Signal Transfer Output

- 17 VDC Output
- HART Communications Standard
- Diagnostic LEDs for Operational Status & Loop Fault
- Removable Plugs for Easy Hookup

Specifications

- Input**
4-20 mA
- Output**
4-20 mA, 17 VDC no load
- Indicators**
Green power LED
Red LED for open or short circuit monitoring
- Source Resistance**
350 Ω
- Burden**
Permitted load: 750 Ω, 550 Ω with HART
- Temperature**
Operation: -20 to 50°C
Storage: -20 to 70°C
- Dielectric Test**
3600 VAC
- Power**
20-70 VAC/VDC or 60-265 VAC/VDC
45-400 Hz for AC



ISO 9001 : 2000

B 812



Removable Plugs for Easy Hookup

Description and Features

The B 812 power supply unit provides DC power for 2-wire transmitters and transfers the measured variable unchanged to the electrically isolated output. Standard FSK communication is used with intelligent HART capable 2-wire transmitters.

Provision is made for monitoring the measurement/supply to detect short and open-circuits. Either of these faults is signalled by the red LED.

Models

Model	Output	Power
812-155110	17 V @ 0 mA 4-20 mA, HART	20-70 VAC/VDC
812-155128	17 V @ 0 mA 4-20 mA, HART	60-265 VAC/VDC

See www.apicb.com for technical data sheet or consult factory.

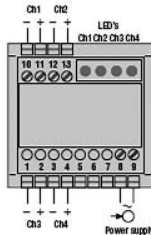
API maintains a constant effort to upgrade and improve its products. Specifications are subject to change without notice. Consult factory for your specific requirements.

B 840 Four Channel Loop Power Supplies

- 4 Isolated Power Supplies in One Package
- 24 VDC Output Limited to 25 mA
- LED Monitor for Each Channel

Specifications

- Input**
Four independent 4-20 mA loops
- Supply Voltage**
24 V at 20 mA
- Burden**
Permitted load: 750 Ω
- Temperature**
Operation: -10 to 55°C
Storage: -40 to 70°C
- Power Supply**
24 VAC, 115 VAC, or 230 VAC



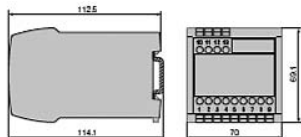
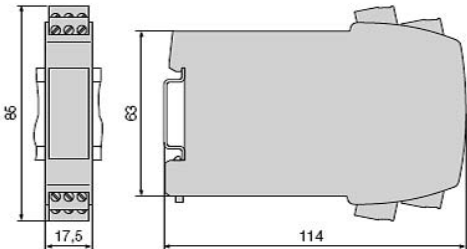
ISO 9001 : 2000



The B 840 provides DC power for 2-wire 4-20 mA transmitters. There are four power supply outputs available. Each power supply output is monitored by a green LED. The corresponding green LED is continuously lit when the measuring/supply circuit is closed.

Model	Output	Power Supply
840-147-464	4 Channels, 24 V @ 20 mA	24 VAC
840-147-472	4 Channels, 24 V @ 20 mA	115 VAC
840-147-480	4 Channels, 24 V @ 20 mA	230 VAC

See www.apicb.com for technical data sheet or consult factory.





Input: 85-264 VAC or 90-375 VDC
Output: 24 VDC, 630 mA or 1300 mA

- Universal Power Input
- High Output Capability
- 2 Year Warranty
- Voltage Adjustment Potentiometer
- Power Indicator LED

Applications

- Power Passive 4-20 mA Sensors
- Inexpensive Loop Supply

Specifications

Power
 85-264 VAC 47-63 Hz or 90-375 VDC

Output Voltage and Current
DPP15-24: 24 VDC, 630 mA, 15 W
DPP30-24: 24 VDC, 1300 mA, 30 W

Other output voltages available. Consult factory with your requirements

Connections
 Use copper wire 24 AWG to 12 AWG (0.5-2.5 mm²)

Noise and Ripple
 Less than 50 mV

Regulation
 Line: Less than ±0.5% of output
 Load: Less than ±0.5%

Output Adjustment
 Potentiometer for output adjustment
 ±1% of span adjustment range, approximately 22.5-28.5 VDC
 24 VDC output pre-set to 24.5 VDC

Ambient Temperature Range
 -10°C to +71°C operating ambient
 Convection cooled
 25 mm clearance required on all sides

Agency Approvals
 UL1310 Class 2
 UL60950-1
 UL508
 NEC Class 2(2)
 EN60950-1
 CE Mark
 ISA 12.12

Dimensions
DPP15-24: 0.9" W x 2.95" H x 3.81" D
DPP30-24: 1.77" W x 2.95" H x 3.58" D



Description and Features

The **DPP15-24** and **DPP30-24** 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 output voltage is factory set and may be fine-tuned by adjusting the voltage output potentiometer. The green power LED provides a visual indication that the unit is functioning. The **DPP15-24** and **DPP30-24** feature short-circuit protection for the output. Units can be mounted to an industry standard DIN rail sold separately.

Installation and Operation

ELECTRICAL CONNECTIONS

WARNING! All wiring must be performed by qualified personnel only.

Wire unit as shown on front of unit and apply power.

Power Input – Power supplies operate on any voltage within the ranges 85-264 VAC 47-63 Hz or 90-375 VDC

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

In Case of Overload – Cycle input power to reset unit.

VOLTAGE ADJUSTMENT

The **DPP15-24** and **DPP30-24** are factory set to approximately 24.5 VDC. For best output voltage accuracy, allow a 20 minute warm-up time before adjusting voltage. Using an accurate voltmeter and with a normal load on the output, adjust the Vout ADJ. potentiometer to the desired voltage.

Models

Model	Voltage	Current	Power
DPP15-24	24 VDC	630 mA max.	Universal
DPP30-24	24 VDC	1300 mA max.	Universal

Accessories—Order as separate line item

API TK36 DIN rail, 35 mm W x 39" L, aluminum

