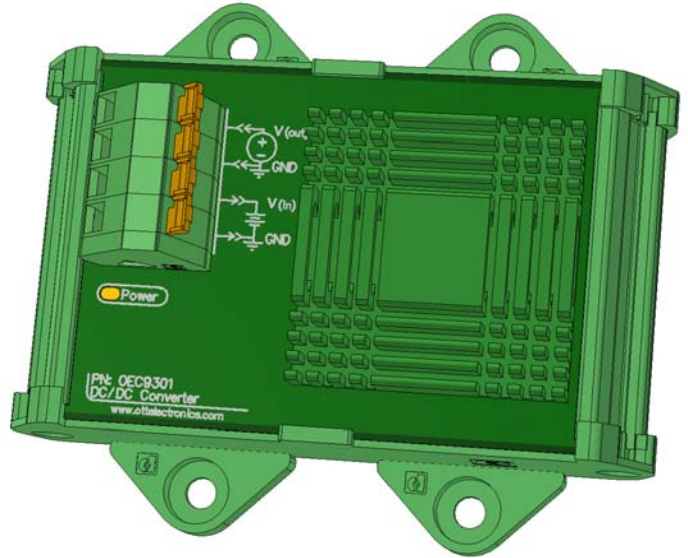


**Features**

- General purpose DC power supply designed for 12v and 24vdc applications
- Vibration resistant interconnects
- Rated to industrial temperature range of -40c to +85c (-40F to +185F)
- Standard output voltages: 3.3v, 5v, 9v, 12v & 15v
- 3 Amp maximum output
- Low ripple voltage of 50mV max full load
- Wide power supply range of (Vout + 3v) to 32Vdc
- Automatic current limiting protects device from overload
- Available in Surface Mount, and DIN Rail enclosures



**General Description**

The OEC9301 is a general purpose step-down DC/DC converter designed for 12vdc and 24vdc vehicle, marine and heavy equipment installations. The design uses a switch-mode power supply which creates much less heat than comparable linear or resistive type regulators.

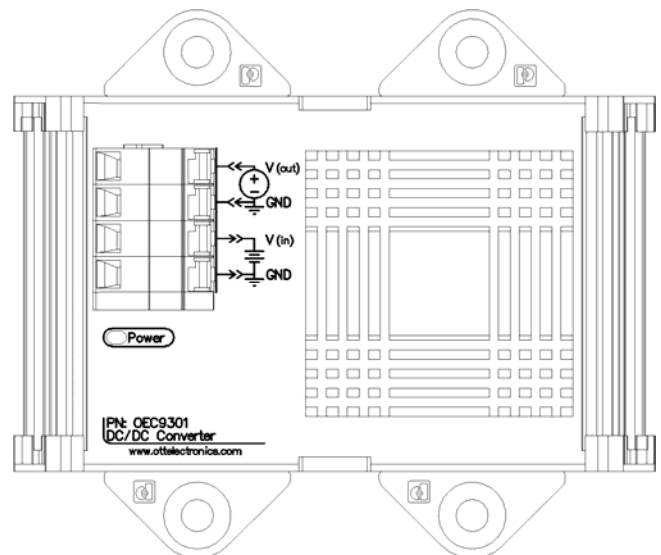
Wiring is simple and a power LED on the output indicates when the power supply is functioning. The terminal blocks are a vibration resistant spring/clamp design. The terminal clamp is opened by pressing down on the orange lever with a small straight-edge screwdriver. Stranded wire provides the best connection, and wire ferrules or tinning the leads with solder is not necessary or recommended.

The power supply features automatic current limiting which prevents overload by lowering the output voltage when the current limit is exceeded. Because the output is internally protected, no output fuse is needed; however an appropriate input fuse may be installed at the power source.

The proper fuse value will vary depending on the input and output voltage. Use the following formula as a guide, rounding up to the next standard value:  $Fuse\ Value\ in\ Amps = (Output\ Voltage * 5.175) / Input\ Voltage$

**Electrical Connections**

Pin # (From Top)	Function
1 - V(out)	Regulated Power Out.
2 - GND	Ground Output. Internally connected to Pin 4
3 - V(in)	Power In. +8vdc min / +32vdc max.
4 - GND	Ground In. Internally connected to Pin 2



## Specifications

	Conditions	Min	Max	Units
Input Voltage Range, 3.3v Output:		8	32	Volts
Input Voltage Range, 5.0v Output:		8	32	Volts
Input Voltage Range, 9.0v Output:		12	32	Volts
Input Voltage Range, 12v Output:		15	32	Volts
Input Voltage Range, 15v Output:		18	32	Volts

Ripple Voltage:	Output = 3 Amps		50	mV
Switching Frequency:		260		KHz
Over-Current Threshold:	<u>Note 1</u>	3.1	4.0	Amps
Operating Temperature Range:		-40 to +85 Degrees		Celsius
		-40 to +185 Degrees		Fahrenheit

Note 1: The actual point when the power supply begins limiting current will vary depending on output voltage, temperature and how quickly the excessive load is applied.

## Cautions and Warnings

Under full load the heatsink can get quite hot. While this is normal, please use caution when installing the module to avoid placing it in contact with combustible materials, or temperature sensitive materials (such as vehicle upholstery).

**Do not install the module near fuel lines!**

## Part Numbers

**O E C 9 3 0 1 - X X . X - X - X**

### Voltage Options

03.3 = 3.3v  
 05.0 = 5.0v  
 09.0 = 9.0v  
 12.0 = 12.0v  
 15.0 = 15.0v

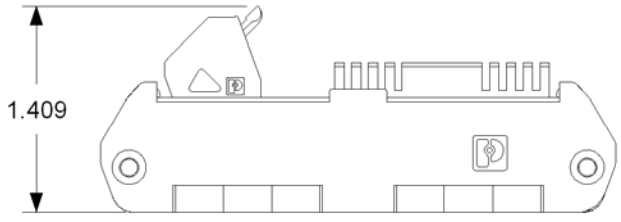
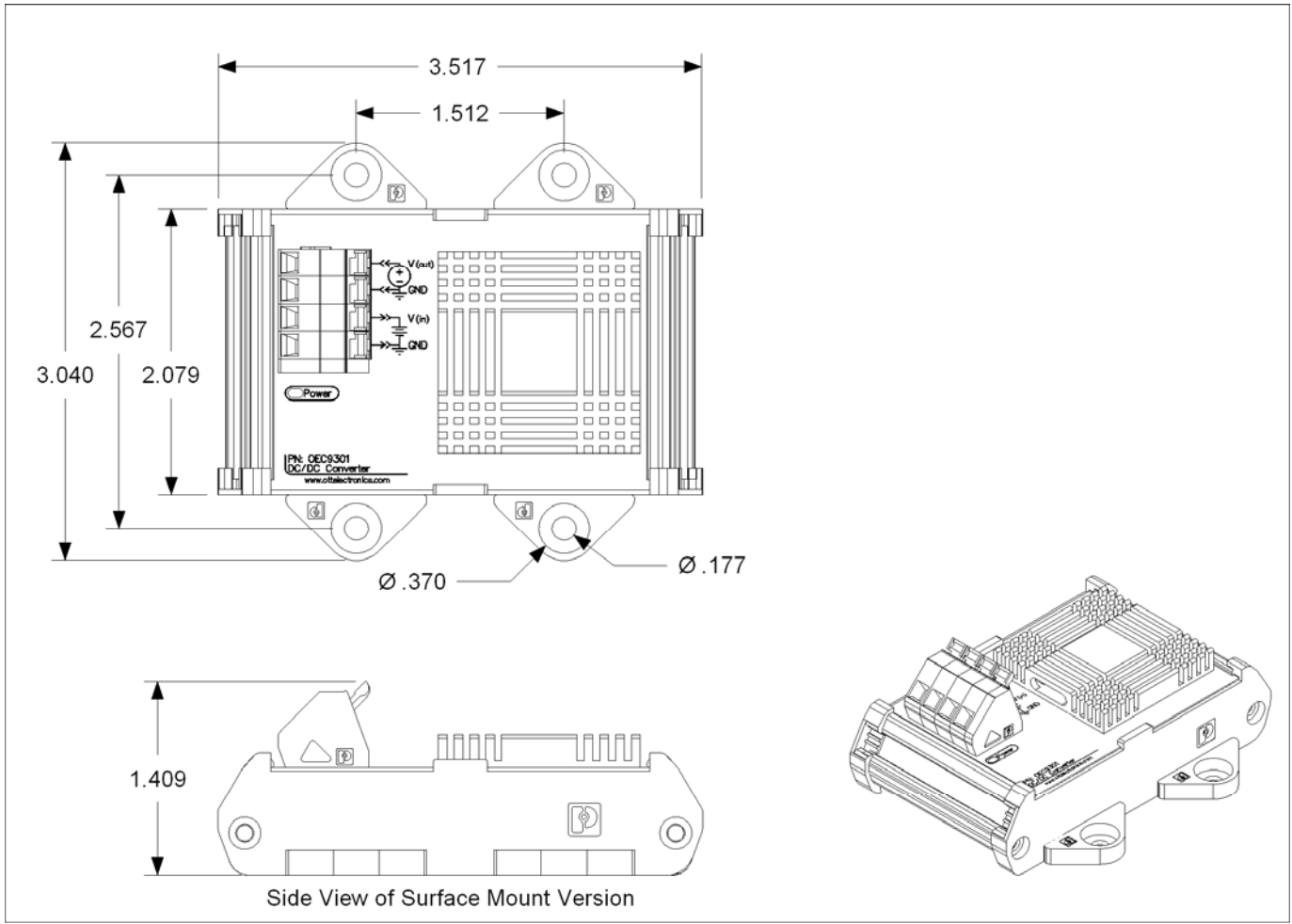
### Current Options

3 = 3 Amp

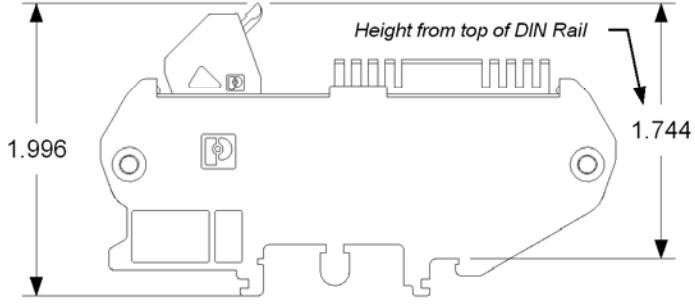
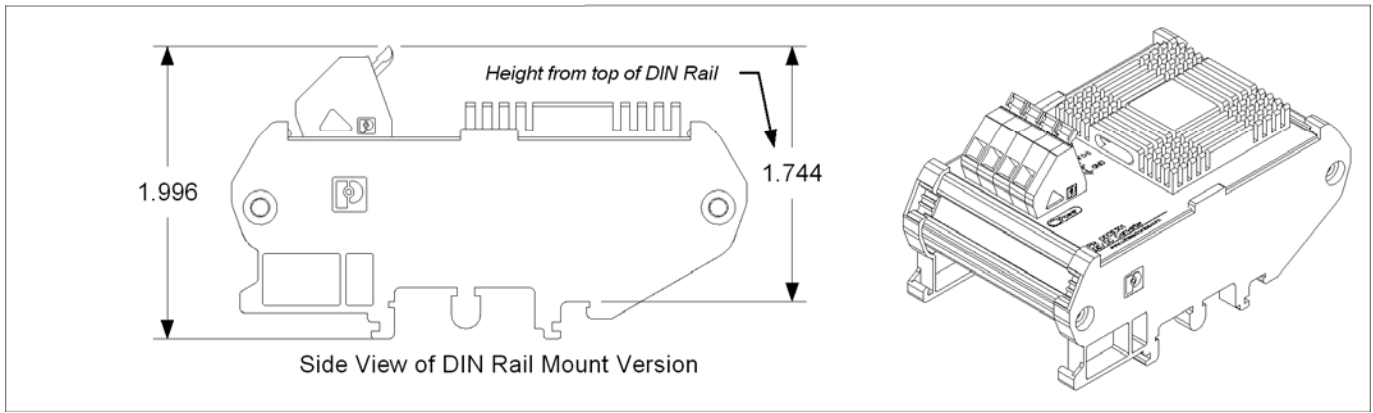
### Enclosure Options

S = Surface Mount  
 D = DIN Rail Enclosure

# Dimensions (In Inches)



Side View of Surface Mount Version



Side View of DIN Rail Mount Version

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## Warranty

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**LIMITED WARRANTY:** Ott Electronics Corp. expressly warrants that for a period of 90 days from the date of purchase, this product will be free of defects in material (parts) and workmanship (labor). Within the warranty period, a unit will be tested, repaired or replaced at our option, free of charge. Shipping instructions for any product requiring warranty repair may be requested at <http://www.ottelectronics.com/contact.html> Please provide a copy of your original packing slip, invoice, or other proof of date of purchase. If your unit is out of warranty we will quote repair charges necessary to bring your unit up to factory standards. All transportation costs including but not limited to: duties, tariffs, taxes or fees, will be the responsibility of the customer.

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