

# SIL10E Series

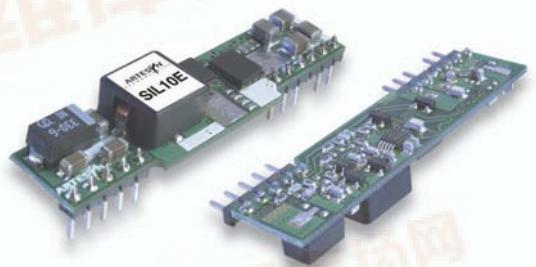
## Single output



DC/DC CONVERTERS E Class Non-isolated

1

**NEW Product**



The SIL10E series are non-isolated DC/DC converters packaged in a single-in-line footprint giving designers a cost effective solution for conversion from either a 5V or a 3.3V source. The SIL10E offers a range of fixed outputs and one wide trim output unit at an industry leading 10A which allows maximum design flexibility and a pathway for future upgrades. The SIL10E is designed for applications that include distributed power, workstations, optical network and wireless applications. Implemented using state of the art surface mount technology and automated manufacturing techniques, the SIL10E offers compact size and efficiencies of up to 95%.

**2 YEAR WARRANTY**

*All specifications are typical at nominal input, full load at 25°C unless otherwise stated*

### SPECIFICATIONS

#### OUTPUT SPECIFICATIONS

Voltage adjustability	Fixed output versions 5Vin with wide trim 3.3Vin with wide trim	±10% 3.6V to 0.8V 2.75V to 0.8V
Setpoint accuracy		±2.7%
Line regulation		±1.0%
Load regulation		±1.0%
Minimum load		0A
Overshoot/undershoot		None
Ripple and noise 0 to 20MHz BW		50mV pk-pk 25mV rms max.
Temperature co-efficient		±0.01% /°C
Transient response		50mV max. deviation 50µs recovery to within ±1.0%
Remote sense		10% Vo compensation

#### EMC CHARACTERISTICS

Electrostatic discharge	EN61000-4-2, IEC801-2
Conducted immunity	EN61000-4-6
Radiated immunity	EN61000-4-3

#### GENERAL SPECIFICATIONS

Efficiency	See table	
Insulation voltage	Non-isolated	
Switching frequency	Fixed	300kHz typ.
Approvals and standards	EN60950 UL/cUL60950	
Material flammability	UL94V-0	
Dimensions (Vertical version)	(LxWxH)	50.8 x 7.8 x 12.7mm 2.0 x 0.31 x 0.5 inches
Pin length	Vertical	0.135 ±0.02 in (3.43 ±0.5mm)
Weight		5g (0.18oz)
MTBF	Telcordia SR-332	7,042,000

#### ENVIRONMENTAL SPECIFICATIONS

Thermal performance	Operating ambient, (See Note 2)	-40°C to +100°C
	Non-operating	-40°C to +125°C

#### PROTECTION

Short-circuit protection	Continuous
Thermal protection	Automatic recovery

# SIL10E Series

## Single output



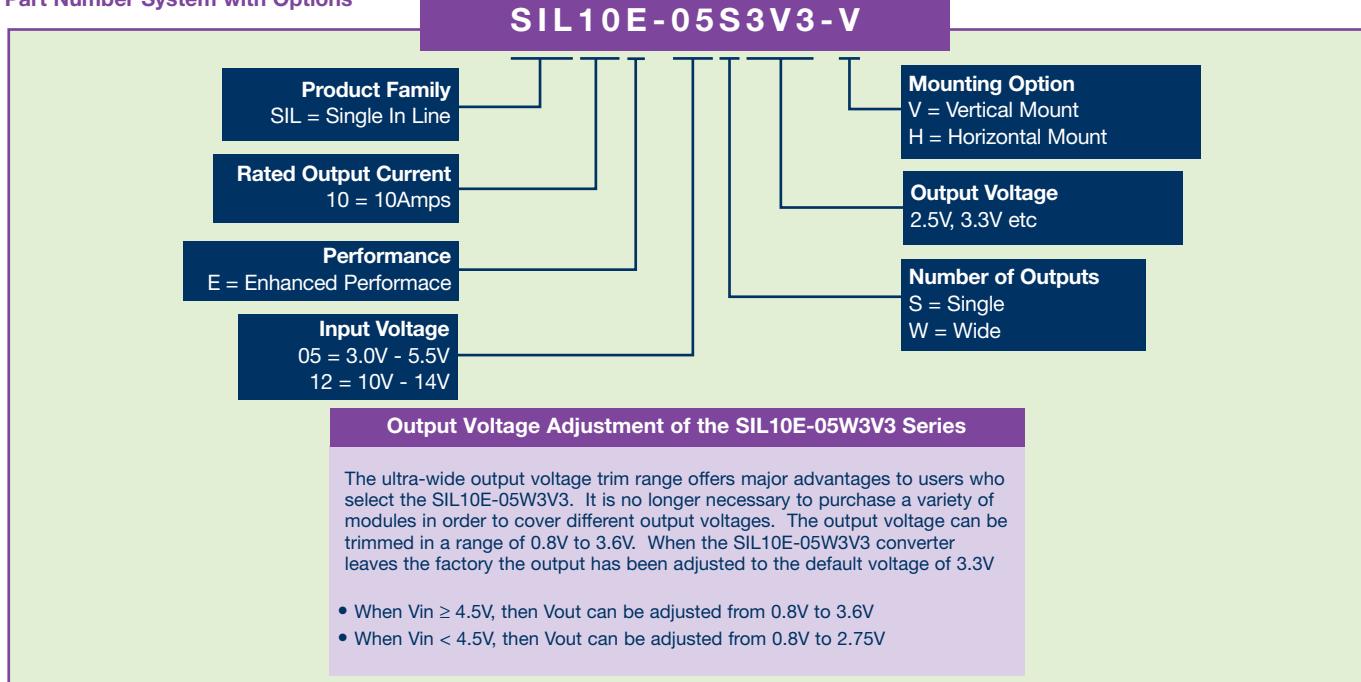
DC/DC CONVERTERS E Class Non-isolated

For the most current data and application support visit [www.artesyn.com/powergroup/products.htm](http://www.artesyn.com/powergroup/products.htm)

**NEW Product**

OUTPUT POWER (MAX.)	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT (MIN.)	OUTPUT CURRENT (MAX.)	EFFICIENCY (TYP.)	REGULATION	MODEL NUMBER
						LINE	LOAD
8.8W	3.0V - 5.5V	0.8V	0A	10A	83%	±1%	±1.5% SIL10E-05S0V8-V
11W	3.0V - 5.5V	1.0V	0A	10A	86%	±1%	±1.5% SIL10E-05S1V0-V
13.2W	3.0V - 5.5V	1.2V	0A	10A	88%	±1%	±1% SIL10E-05S1V2-V <sup>(3)</sup>
16.5W	3.0V - 5.5V	1.5V	0A	10A	90%	±1%	±1% SIL10E-05S1V5-V
19.8W	3.0V - 5.5V	1.8V	0A	10A	92%	±1%	±1% SIL10E-05S1V8-V
22W	3.0V - 5.5V	2.0V	0A	10A	93%	±1%	±1% SIL10E-05S2V0-V
27.5W	3.0V - 5.5V	2.5V	0A	10A	94%	±1%	±1% SIL10E-05S2V5-V <sup>(3)</sup>
36.3W	4.5V - 5.5V	3.3V	0A	10A	95%	±1%	±1% SIL10E-05S3V3-V
36.3W	4.5V - 5.5V	3.3V	0A	10A	95%	±1%	±1% SIL10E-05W3V3-V

### Part Number System with Options



### Notes

- 1 Referenced to ground for shutdown. If pin 6 is high unit will shutdown. If pin 6 is open unit will operate as normal. Converter is guaranteed OFF when control pin is greater than 1.2V.
- 2 Full de-rating curves available in both the Long Form Data Sheet and Application Note 134.
- 3 For certain applications that use low ESR capacitors on the output of the convertor and to insure maximum converter stability, please add the suffix '02' to the model, e.g. SIL10E-05S2V5-V02.

**CAUTION: High internal temperatures. Ensure that unit is not user accessible.**

# SIL10E Series

## Single output



DC/DC CONVERTERS E Class Non-isolated

3

For the most current data and application support visit [www.artesyn.com/powergroup/products.htm](http://www.artesyn.com/powergroup/products.htm)

**NEW Product**

### J1 PIN CONNECTIONS

PIN NUMBER	FUNCTION
1	+Vout
2	+Vout
3	Remote Sense (+)
4	+Vout
5	Ground

### J2 PIN CONNECTIONS

PIN NUMBER	FUNCTION
1	Ground
2	+Vin
3	+Vin
4	No Pin
5	Trim
6	Remote ON/OFF

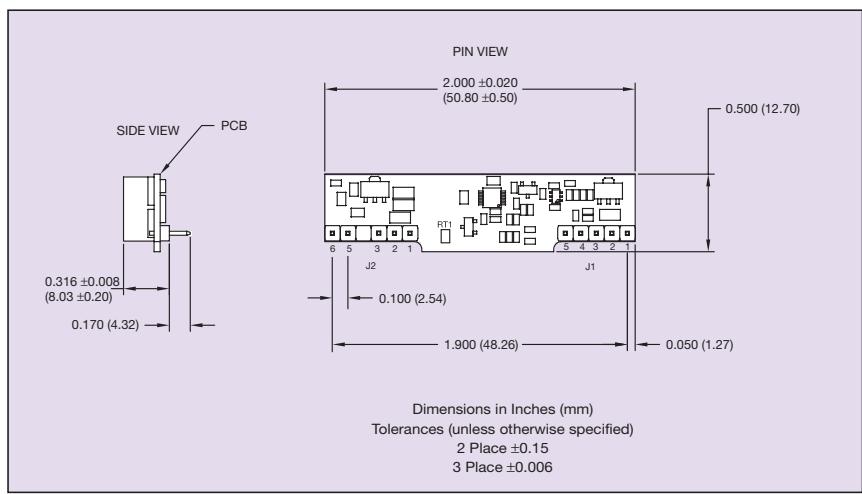


Figure 1: Mechanical Drawing - Horizontal Mount Version

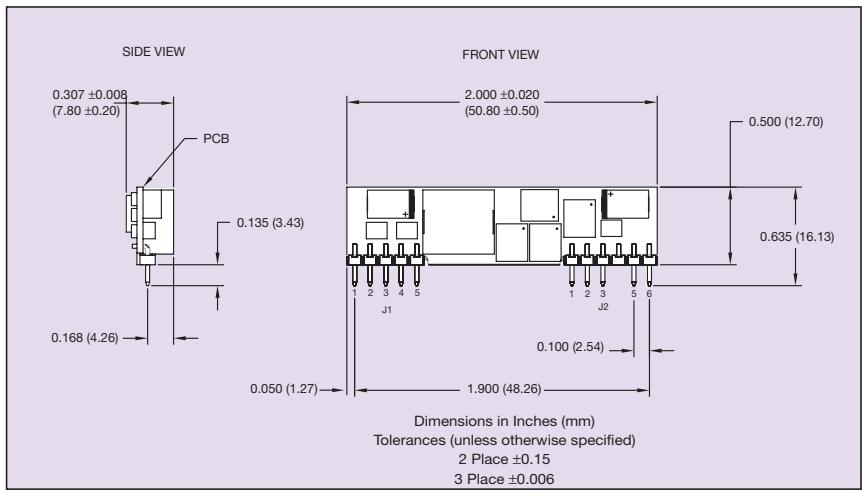


Figure 2: Mechanical Drawing - Vertical Mount Version