

Series LV DC to DC Converters Single and Dual Output

**Wide Input Voltage (36-80VDC)
Hi Reliability Industrial Grade
Isolated 1000VDC
Fully Regulated - up to 10 Watts
Short Circuit Protected
Terminal Strip Available**

PICO's LV Series with wide input voltages are available in 88 different models. They accommodate a 36 to 80 VDC input, and offer both single and dual, regulated outputs. These isolated units will operate over a temperature range of -25° C to 70° C with no heat sink or electrical derating required. They are excellent for applications where the input voltage is highly variable such as in telecommunications systems.

FEATURES

- Excellent line regulation
- $\pm 1.0\%$ (36-80 VDC)
- Excellent load regulation
- 25% to 100%, $\pm 2\%$
- Continuous short circuit protection
- Encapsulated semiconductors, conservatively rated for maximum reliability.
- Isolation: 100 megohms at 1000 VDC
- Wide input 36 VDC to 80 VDC

TYPICAL CHARACTERISTICS:

- **Test conditions:** 25° C ambient
- **Input Voltage:** 36-80 VDC
- **Converter frequency:** 200KHz to 1 MHz
- **Operating temperature:** -20° C to +70° C ambient
- **Storage temperature:** -55° to +105° C
- **Output voltage temperature coefficient:** 0.02%/° C
- **Isolation:** 1000 VDC

Series LVA - Single Output - 3 Watts No Terminal Strip Available

Pico Part Number	Output Voltage (V DC)	Max. Load Current (mA)	Max. Output Power (watts)	EFF. @* Full Load Typical (%)	Output* Voltage Tolerance ($\pm\%$)*	** Load Regulation 25%-100% Load ($\pm\%$)*	Line Regulation @ Full Load ($\pm\%$)*	Output* Voltage Ripple Typical mv p-p	Price (US \$)
LVA3.3S	3.3	606	2	61	3	3.5	1.5	40	88.48
LVA5S	5	600	3	64	2	2	1	20	88.48
LVA5.2S	5.2	577	3	64	2	2	1	20	88.48
LVA12S	12	250	3	65	2	2	1	20	88.48
LVA15S	15	200	3	65	2	2	1	15	88.48
LVA24S	24	125	3	66	2	2	1	15	88.48
LVA28S	28	107	3	66	2	2	1	15	88.48
LVA48S	48	62	3	66	2	2	1	15	88.48

*Measurements taken at nominal input voltage.

**10% minimum load required.

Terminal strip not available LVA

Series LVB - Single Output - 5 Watts Series TLVB Terminal Strip Model****

**** Pico Part Number	Output Voltage (V DC)	Max. Load Current (mA)	Max. Output Power (watts)	EFF. @* Full Load Typical (%)	Output* Voltage Tolerance (±%)*	** Load Regulation 25%-100% Load (±%)*	Line Regulation @ Full Load (±%)*	Output* Voltage Ripple (mv p-p)	**** Price (US \$)
LVB3.3S	3.3	1212	4	62	3	3.5	1.5	80	101.30
LVB5S	5	1000	5	68	2	2	1	50	101.30
LVB5.2S	5.2	961	5	68	2	2	1	50	101.30
LVB12S	12	415	5	70	2	2	1	25	101.30
LVB15S	15	330	5	70	2	2	1	25	101.30
LVB24S	24	210	5	72	2	2	1	25	101.30
LVB28S	28	175	5	72	2	2	1	25	101.30
LVB48S	48	105	5	74	2	2	1	25	101.30

*Measurements taken at nominal input voltage.

**10% minimum load required.

****For terminal strip models begin Part Number with letter T. Add \$15.00 to prices shown

**Series LVC - Single Output - 8 Watts
Series TLVC Terminal Strip Model******

**** Pico Part Number	Output Voltage (V DC)	Max. Load Current (mA)	Max.*** Output Power (watts)	EFF. @* Full Load Typical (%)	Output* Voltage Tolerance (±%)*	** Load Regulation 25%-100% Load (±%)*	Line Regulation @ Full Load (±%)*	Output* Voltage Ripple (mv p-p)	**** Price (US \$)
LVC3.3S	3.3	1515	5	63	3	3.5	1.5	80	114.12
LVC5S	5	1400	7	68	2	2	1	50	114.12
LVC5.2S	5.2	1346	7	68	2	2	1	50	114.12
LVC12S	12	666	8	74	2	2	1	25	114.12
LVC15S	15	533	8	74	2	2	1	25	114.12
LVC24S	24	333	8	74	2	2	1	25	114.12
LVC28S	28	285	8	74	2	2	1	25	114.12
LVC48S	48	166	8	74	2	2	1	25	114.12

*Measurements taken at nominal input voltage.

**10% minimum load required.

***Max. power at nominal input. At 36 volt input derate by approx. 15%

****For terminal strip models begin Part Number with letter T. Add \$15.00 to prices shown

**Series LVD - Single Output - 10 Watts
Series TLVD Terminal Strip Model******

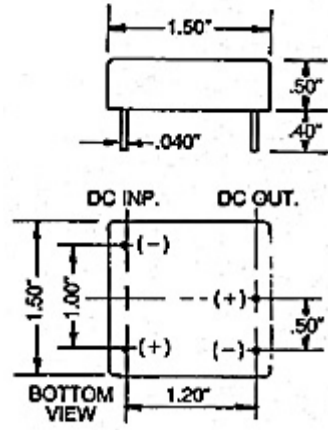
**** Pico Part Number	Output Voltage (V DC)	Max. Load Current (mA)	Max.*** Output Power (watts)	EFF. @* Full Load Typical (%)	Output* Voltage Tolerance (±%)*	** Load Regulation 25%-100% Load (±%)*	Line Regulation @ Full Load (±%)*	Output* Voltage Ripple (mv p-p)	**** Price (US \$)
LVD3.3S	3.3	2121	7	65	3	3.5	1.5	80	126.95
LVD5S	5	1800	9	70	2	2	1	50	126.95
LVD5.2S	5.2	1730	9	70	2	2	1	50	126.95
LVD12S	12	833	10	74	2	2	1	25	126.95
LVD15S	15	666	10	74	2	2	1	25	126.95
LVD24S	24	416	10	74	2	2	1	25	126.95
LVD28S	28	357	10	74	2	2	1	25	126.95
LVD48S	48	208	10	74	2	2	1	25	126.95

*Measurements taken at nominal input voltage.

10% minimum load required.*Max. power at nominal input. At 36 volt input derate by approx. 15%

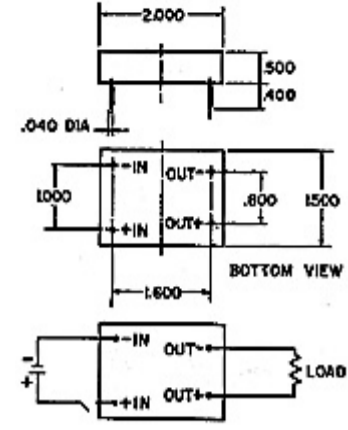
****For terminal strip models begin Part Number with letter T. Add \$15.00 to prices shown

**Series LVA
Single
Output / 3 Watts**



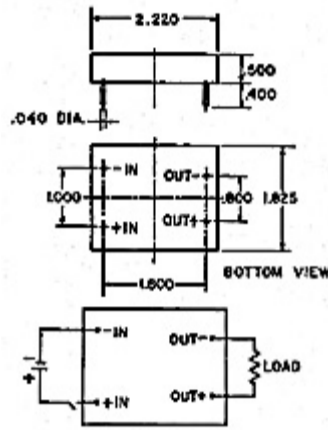
Larger Size Drawing and Schematic [1]

**Series LVB
Single
Output / 5 Watts**



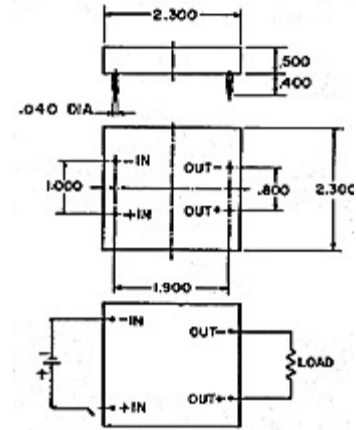
Larger Size Drawing and Schematic [2]

**Series LVC
Single
Output / 8 Watts**



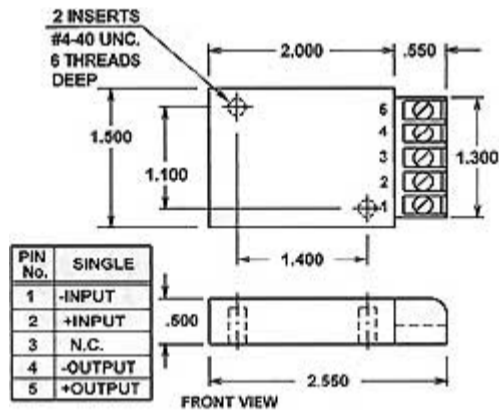
Larger Size Drawing and Schematic [3]

**Series LVD
Single
Output / 10 Watts**



Larger Size Drawing and Schematic [4]

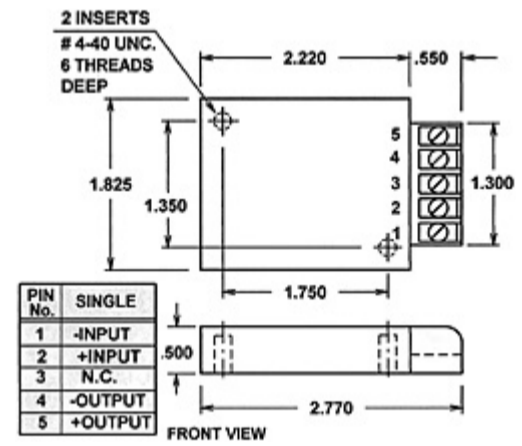
**Series TLVB
Single
Output / 5 Watts**



Note: The recommended torque for mounting screws is 3 to 5 In-Lbs.

Larger Size Drawing and Schematic [5]

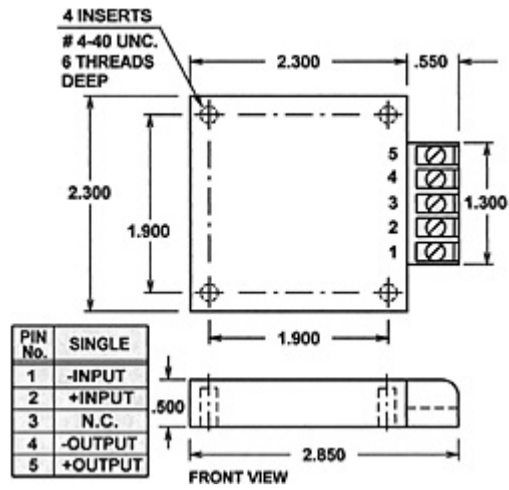
**Series TLVC
Single
Output / 8 Watts**



Note: The recommended torque for mounting screws is 3 to 5 In-Lbs.

Larger Size Drawing and Schematic [6]

**Series TLVD
Single Output / 10 Watts**



Note: The recommended torque for mounting screws is 3 to 5 In-Lbs.

[Larger Size Drawing and Schematic \[7\]](#)

**Series LVA - Dual Output - 3 Watts
No Terminal Strip Available**

Pico Part Number	Output Voltage (V DC)	Max. Load Current Per Out. (mA)	Max. Output Power Per Out (watts)	EFF. @* Full Load Typical (%)	Output Voltage Tolerance (±%)*	** Load Regulation 25%-100% Load (±%)*	Line Regulation @ Full Load (±%)*	Output* Voltage Ripple Typical mv p-p	Price (US \$)
LVA5D	±5	300	1.5	60	2	2	1	25	105.15
LVA12D	±12	125	1.5	65	2	2	1	25	105.15
LVA15D	±15	100	1.5	67	2	2	1	25	105.15

*Measurements taken at nominal input voltage.

**10% minimum load required.

Terminal strip not available LVA

**Series LVB - Dual Output - 5 Watts
Series TLVB Terminal Strip Model******

**** Pico Part Number	Output Voltage (V DC)	Max. Load Current Per Out (mA)	Max. Output Power Per Out (watts)	EFF. @* Full Load Typical (%)	Output Voltage Tolerance (±%)*	** Load Regulation 25%-100% Load (±%)*	Line Regulation @ Full Load (±%)*	Output* Voltage Ripple (mv p-p)	**** Price (US \$)
LVB5D	± 5	500	2.5	68	2	2	1	50	117.97
LVB12D	±12	200	2.5	70	2	2	1	25	117.97
LVB15D	±15	165	2.5	70	2	2	1	25	117.97

*Measurements taken at nominal input voltage.

**10% minimum load required.

****For terminal strip models begin Part Number with letter T. Add \$15.00 to prices shown

Series LVC - Dual Output - 8 Watts Series TLVC Terminal Strip Model****

**** Pico Part Number	Output Voltage (V DC)	Max.*** Load Current Per Out (mA)	Max. Output Power Per Out (watts)	EFF. @* Full Load Typical (%)	Output Voltage Tolerance (±%)*	** Load Regulation 25%-100% Load (±%)*	Line Regulation @ Full Load (±%)*	Output* Voltage Ripple (mv p-p)	**** Price (US \$)
LVC5D	±5	700	3.5	68	2	2	1	50	130.79
LVC12D	±12	333	4	74	2	2	1	25	130.79
LVC15D	±15	266	4	74	2	2	1	25	130.79

*Measurements taken at nominal input voltage.

**10% minimum load required.

Max. power at nominal input. At 36 volt input derate by approx. 15% BR clear=left>*For terminal strip models begin Part Number with letter T. Add \$15.00 to prices shown

Series LVD - Dual Output - 10 Watts Series TLVD Terminal Strip Model****

**** Pico Part Number	Output Voltage (V DC)	Max.*** Load Current Per Out (mA)	Max. Output Power Per Out (watts)	EFF. @* Full Load Typical (%)	Output Voltage Tolerance (±%)*	** Load Regulation 25%-100% Load (±%)*	Line Regulation @ Full Load (±%)*	Output* Voltage Ripple (mv p-p)	**** Price (US \$)
LVD5D	± 5	900	4.5	70	2	2	1	50	143.62
LVD12D	±12	415	5	74	2	2	1	25	143.62
LVD15D	±15	333	5	74	2	2	1	25	143.62

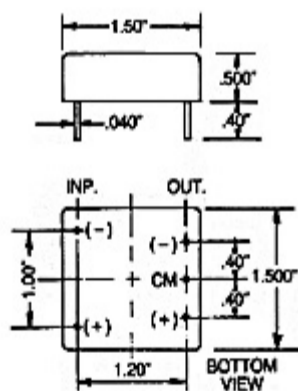
*Measurements taken at nominal input voltage.

**10% minimum load required.

***Max. power at nominal input. At 36 volt input derate by approx. 15%

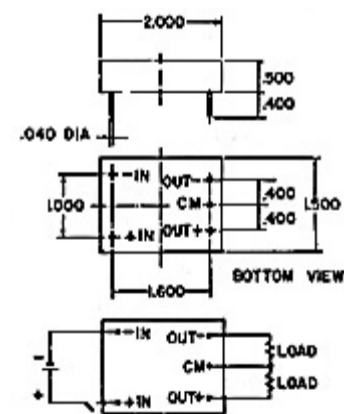
****For terminal strip models begin Part Number with letter T. Add \$15.00 to prices shown

Series LVA Dual Output / 3 Watts



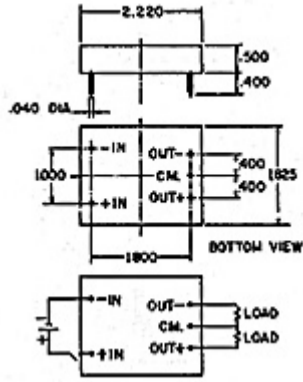
Larger Size Drawing and Schematic [8]

Series LVB Dual Output / 5 Watts



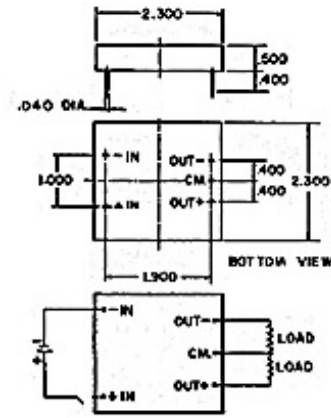
Larger Size Drawing and Schematic [9]

**Series LVC
Dual
Output / 8
Watts**



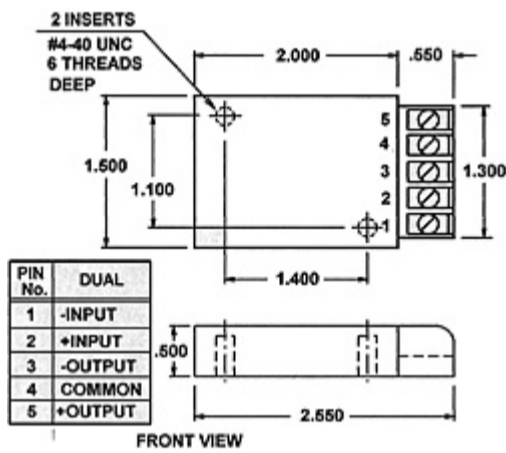
Larger Size Drawing and Schematic [10]

**Series LVD
Dual
Output / 10
Watts**



Larger Size Drawing and Schematic [11]

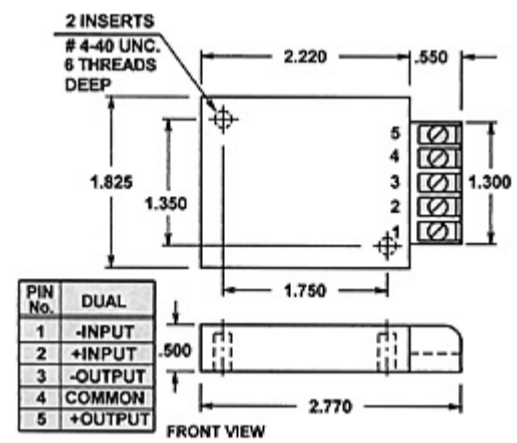
**Series
TLVB
Dual
Output / 5
Watts**



Note: The recommended torque for mounting screws is 3 to 5 In-Lbs.

Larger Size Drawing and Schematic [12]

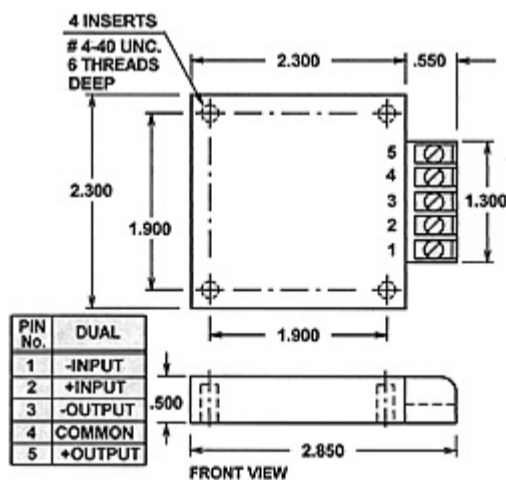
**Series
TLVC
Dual
Output / 8
Watts**



Note: The recommended torque for mounting screws is 3 to 5 In-Lbs.

Larger Size Drawing and Schematic [13]

**Series
TLVD
Dual
Output /
10 Watts**



Note: The recommended torque for mounting screws is 3 to 5 In-Lbs.

Larger Size Drawing and Schematic [14]

For immediate engineering assistance or to place an order:
Call Toll Free: 800-431-1064

PICO Electronics, Inc.

143 Sparks Ave. Pelham, NY 10803-1810
Tel: 914-738-1400 or Fax: 914-738-8225

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