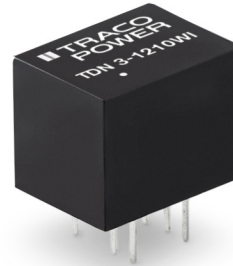


## DC/DC Converter

## TDN 3WI Series, 3 Watt

- Ultra compact DIP package  
13,2 × 9,1 × 10,2 mm
- I/O-isolation 1'600 VDC
- Fully regulated outputs
- Operating temperature range  
-40°C to +70°C without derating
- Short circuit protection
- Remote On/Off
- 3-year product warranty
- Designed to meet UL 62368-1  
(UL 60950-1)



Also see:

**TDN 3WISM, SMD version**

[www.tracopower.com/products/tdn3wism.pdf](http://www.tracopower.com/products/tdn3wism.pdf)

The TDN 3WI series with 4:1 input voltage range is a selection of 3 Watt regulated dc/dc-converters. They come in a very compact DIP package (13.2 × 9.1 × 10.2 mm). The functional I/O-isolation system is designed to meet IEC/EN 62368-1 with a test voltage (60 s) of 1600 VDC.

Models				
Order code	Input voltage	Output voltage	Output current max.	Efficiency typ.
TDN 3-1210WI	4.5 – 18 VDC (12 VDC nominal)	3.3 VDC	700 mA	76 %
TDN 3-1211WI		5.0 VDC	600 mA	80 %
TDN 3-1219WI		9.0 VDC	333 mA	81 %
TDN 3-1212WI		12 VDC	250 mA	83 %
TDN 3-1213WI		15 VDC	200 mA	84 %
TDN 3-1215WI		24 VDC	125 mA	82 %
TDN 3-1221WI		±5.0 VDC	±300 mA	80 %
TDN 3-1222WI		±12 VDC	±125 mA	82 %
TDN 3-1223WI		±15 VDC	±100 mA	82 %
TDN 3-2410WI	9 – 36 VDC (24 VDC nominal)	3.3 VDC	700 mA	77 %
TDN 3-2411WI		5.0 VDC	600 mA	80 %
TDN 3-2419WI		9.0 VDC	333 mA	81 %
TDN 3-2412WI		12 VDC	250 mA	83 %
TDN 3-2413WI		15 VDC	200 mA	83 %
TDN 3-2415WI		24 VDC	125 mA	82 %
TDN 3-2421WI		±5.0 VDC	±300 mA	80 %
TDN 3-2422WI		±12 VDC	±125 mA	82 %
TDN 3-2423WI		±15 VDC	±100 mA	82 %
TDN 3-4810WI	18 – 75 VDC (48 VDC nominal)	3.3 VDC	700 mA	77 %
TDN 3-4811WI		5.0 VDC	600 mA	80 %
TDN 3-4819WI		9.0 VDC	333 mA	81 %
TDN 3-4812WI		12 VDC	250 mA	83 %
TDN 3-4813WI		15 VDC	200 mA	83 %
TDN 3-4815WI		24 VDC	125 mA	82 %
TDN 3-4821WI		±5.0 VDC	±300 mA	80 %
TDN 3-4822WI		±12 VDC	±125 mA	82 %
TDN 3-4823WI		±15 VDC	±100 mA	82 %



### General Specifications

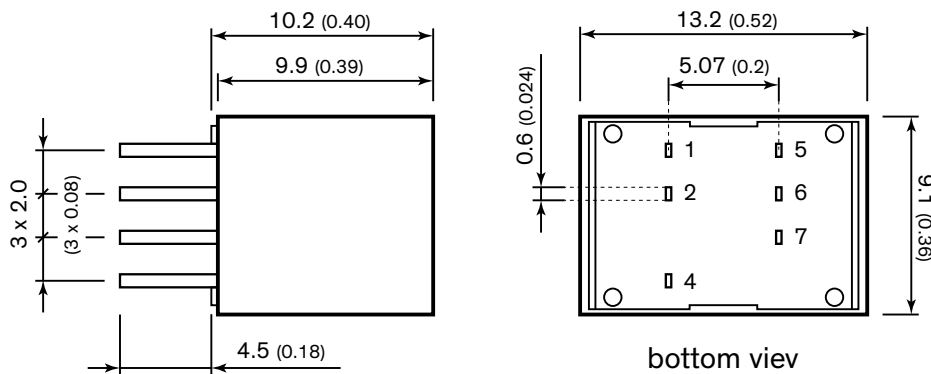
Isolation voltage	– I/O isolation voltage (60 sec.)	1'600 VDC
Isolation capacitance (input/output)		50 pF typ.
Isolation resistance (input/output)		>1 GOhm
Reliability, calculated MTBF (MIL-HDBK-217F at +25°C, ground benign)		5'627'000 h
Switching frequency		100 kHz min. Pulse frequency modulation.
Thermal shock & vibration		MIL-STD-810F
Remote On/Off	– On: – Off: – Off idle current:	open circuit or high impedance 2 – 4 mA current applied via 1kOhm resistor 2.5 mA max.
Safety standards	– Designed to meet (no certification)	IEC/EN/UL 62368-1, UL 60950-1
Environmental compliance	– Reach – RoHS	<a href="http://www.tracopower.com/info/reach-declaration.pdf">www.tracopower.com/info/reach-declaration.pdf</a> RoHS directive 2011/65/EU

### Physical Specifications

Casing material		non-conducting FR4 (UL 94V-0 rated)
Potting material		Silicone (UL 94V-0 rated)
Pin material		tinned copper
Package weight		2.7g (0.10oz)
Soldering temperature		max. 260°C / 10 sec.

**Supporting Documents:** [www.tracopower.com/overview/tdn3wi](http://www.tracopower.com/overview/tdn3wi)

### Outline Dimensions



Pin-Out		
Pin	Single	Dual
1	+Vin (Vcc)	+Vin (Vcc)
2	-Vin (GND)	-Vin (GND)
4	On/Off	On/Off
5	no con.	-Vout
6	-Vout	Common
7	+Vout	+Vout

Dimensions in [mm], ( ) = Inch

Tolerances: x.x ±0.5 (±0.02)

Pin pitch tolerances ±0.25 (±0.01)

pin dimension tolerance ±0.1 (±0.004)