Power Supplies

10 Series Transformers & Rectifiers

RUTHERFORD CONTROLS

In or Out...we make it Easy!®



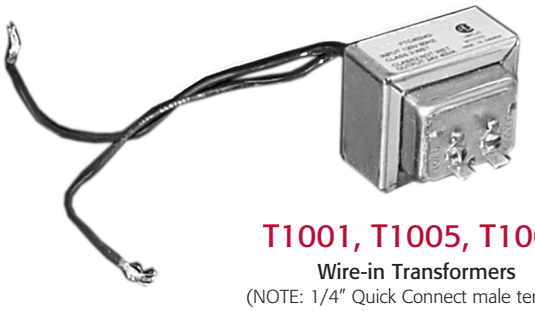
T1002, T1004, T1008
Plug-in Transformers



T1003
Plug-in Power Supply



10R1, 10R1-6, 10R3, 10R3-6
Bridge Rectifiers



T1001, T1005, T1009
Wire-in Transformers
(NOTE: 1/4" Quick Connect male terminals provided only on and T1009)

Features & Benefits

Transformers

- T1002, T1004 and T1008 plug into a standard 115V outlet
- T1002, T1004 and T1008 are thermally protected to prevent overload due to short
- T1003 plugs into a standard 115V outlet and provides a DC output
- T1001, T1005, and T1009 are for permanent installations which require hard wiring

Bridge Rectifiers

- Changes AC to DC for silent operation
- Shrink-connect leads

Transformers & Rectifiers

RCI's listed power-supply and transformers provide low-voltage power for AC and DC applications when used with electric locks and electric strikes. They are single primary with a single secondary output.

Models T1002, T1003, T1004 and T1008 are plug-in transformers which plug into 115 VAC, permitting easy installation.

For higher security, and where hard wiring is required, RCI's T1001, T1005 and T1009 wire-in transformers are ideal.

To change AC to DC power for silent operation of electrical door strikes, RCI offers 10R1 and 10R3 bridge rectifiers (also available with 6" leads).

Highlights

- UL and/or CSA Listed
- Wire-in or Plug-in Transformers
- 2-year Warranty

Applications

Indoor use with electrical products where low voltage, nonfiltered, unregulated power is required.

- Heathcare
- Industrial
- Commercial

Optional Accessories

- Pushbuttons
- Electric Strikes
- Electric Locks
- Card Readers

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Specifications

10 Series Transformers & Rectifiers

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NOTE: Specifications are subject to change without notice.

Model	Housing Dimensions	Voltage Input	Voltage Output	Power	Connection Means	Class	Certification
T1001	2-1/4" W x 2" H x 2" D (57.2 x 50.8 x 50.8mm)	120 VAC 60 HZ	12 VAC	20 VA	Wire-in/Screw Terminal	Class 2 Not Wet Class 3 Wet	UL and CSA
T1005	2-1/4" W x 2" H x 2-1/4" D (57.2 x 50.8 x 57.2mm)		16.5 VAC	37 VA			by CSA as noted *
T1009	2-1/4" W x 2" H x 2-1/4" D (57.2 x 50.8 x 57.2mm)		24 VAC	40 VA			by CSA as noted *
T1002	2-1/4" W x 3-3/16" H x 2" D (57.2 x 81.0 x 50.8mm)	120 VAC 60 HZ	12VAC	20 VA	Plug-in/Screw Terminals	Class 2 Not Wet Class 3 Wet	by CSA to UL1310 and C22.2 No 223-M91
T1004			16VAC				
T1008			24VAC				
T1003	2" W x 2-1/2" H x 1-3/8" D (50.8 x 63.5 x 35.05mm)	100-240 VAC 50/60 HZ	12 VDC	1.5 Amp	Plug-in/ 6' Wire leads (1.8M)	Dry location only	cULus
10R1	3/16" D x 3/8" Dia (4.8 x 9.5mm)	50 V max		1 Amp	1-1/4" Solder leads (31.8mm)	n/a	n/a
10R1-6				1 Amp	6" Wire leads (152.4mm)		
10R3	1/4" D x 5/8" Square (6.4 x 15.9mm)			3 Amp	3/4" min Solder leads (19.1mm)		
10R3-6				3 Amp	6" Wire leads (152.4mm)		

NOTE: Wire-in model T1005 is North American Approved by CSA to UL1585 and C22.2 No 223-M91

ORDERING A TRANSFORMER

When ordering a transformer you will generally be asked:

1. What voltage are you working with?
2. What VA or W rating is required?
3. Do you want a "plug-in" or "wire-in" transformer?

When ordering a power supply (whether it's a unit with many options, like an RCI 10 Series model, or just a transformer), the voltage you will use is often dictated by the locking and access control products being used. For example, assume you decide to use 24-volt electric strikes. You must then use a 24-volt power supply.

Next, make sure that this 24-volt power supply is large enough to power the locks. To do this, find out what current (amps or "A") each lock uses. This information can be found in product literature or on the label attached to the product. In this example, we'll use a typical RCI electric strike current rating. Current consumption is a low 0.1 amps (or 100 MA – milliamps) each.

Let's assume, for our example, that we are installing four of these strikes. They are 24V @ 0.1 amps. The voltage stays the same (24V strike - 24V power supply). We must, however, take the total current of all locks being used. Therefore, at 0.1 amps each (for 4 locks) the total is 0.4 amps. Multiply the total current (0.4 amps) using a safety factor (SF) of 2. (Using a safety factor is a good habit to develop.) We will, therefore, be using 0.8 amps as a safe figure to work with:

current per lock	x	number of locks	x	2 (SF)	=	total current
0.1	x	4	x	2	=	0.8 amps

Summary:
voltage x amperage = VA rating
24V x 0.8 amp = 19.2 VA

Therefore, a 24V-20VA transformer is required.

RCI also offers a complete line of Electromagnetic Locks, Electric Strikes, Electric Locks, Power Supplies, Switches, Keypads & Readers, Exit Devices, Systems & Door Hardware.

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