



# PT series

## 6 to 12 Amp Miniature Relay 2, 3 or 4 Pole, PCB or Plug-in

- UL File E 79990
- CSA File LR5947
- NR 5353
- CE

### Features

- Low profile height of 29mm.
- DPDT, 3PDT or 4PDT contact arrangements.
- Greater switching performance – up to 3,000VA.
- AC and DC coils.
- Mechanical indicator.
- Manual test tab with locking option.

### Contact Data @ 20°C

**Arrangements:** 2 Form C (DPDT), 3 Form C (3PDT) and 4 Form C (4PDT).  
**Material:** Silver-nickel 90/10 with optional gold plating.  
**Expected Mechanical Life:** DC coil 30million operations minimum.  
 AC coil 20 million operations minimum.

### Ratings:

Arrangement	2 Form C	3 Form C	4 Form C
Rated Current	12A	10A	6A
Rated Voltage	250VAC	250VAC	250VAC
Maximum Switching Voltage	440VAC	440VAC	440VAC
Rated Breaking Capacity	3,000VA	2,500VA	1,500VA
Make Current	24A	20A	12A

### Initial Dielectric Strength

**Between Open Contacts:** 1,500VAC.  
**Between Coil and Contacts:** 2,500VAC.  
**Between Poles:** 2 and 3 Pole:2,500VAC, 4 Pole: 2,000VAC.

### DC Coil Data @ 20°C (Nominal Coil Power: 750mW)

Nominal Voltage VDC	DC Resistance in Ohms ±10%	Must Operate Voltage VDC	Drop-out Voltage VDC	Nominal Coil Current (mA)
06	48	4.5	0.9	125.0
12	192	9.0	1.8	62.5
24	777	18.0	3.6	31.3
48	3,072	36.0	7.2	15.6
60	4,845	45.0	9.0	12.5
110	16,133	82.5	16.5	6.8
220	64,533	165.0	33.0	3.4

### AC Coil Data @ 20°C (Nominal Coil Power: 1.0VA)

Nominal Voltage VAC	DC Resistance in Ohms ±10%	Must Operate Voltage VAC	Drop-out Voltage VAC	Nominal Coil Current (mA)
06	11	4.8	1.8	166.5
12	48	9.6	3.6	83.3
24	192	19.2	7.2	41.6
48	777	38.4	14.4	21.3
60	1,306	48.0	18.0	16.7
115	4,845	92.0	34.5	8.8
230	19,465	184.5	69.0	4.3

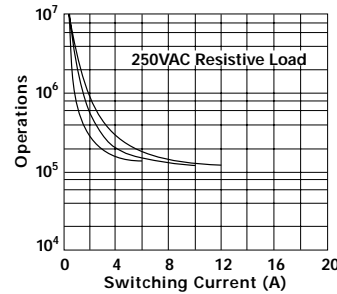
### Operate Data

**Must Operate Voltage:** See Coil Data table.  
**Operate Time :** 15 ms typical, at nom. voltage.  
**Release Time :** 10 ms typical, at nom. voltage.  
**Bounce Time:** 5 ms typical, at nom. voltage.  
**Switching Rate:** 6 ops./minute max. at rated load.

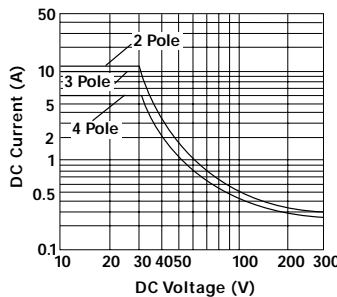
### Environmental Data

**Temperature Range:**  
**Storage:**  
**Operating:** -45°C to +70°C.  
**Vibration:** 55 to 150 Hz. at 7g N/O, 4g N/C.  
**Shock:** 20g N/O, 5g N/C.

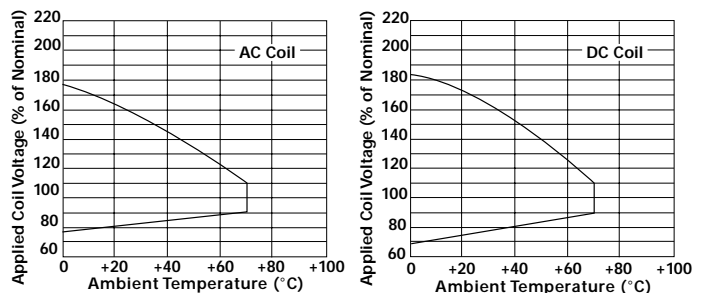
### Electrical Life (preliminary data)



### Max. DC Load Breaking Capacity (resistive load)



### Coil Operating Range



**Ordering Information**

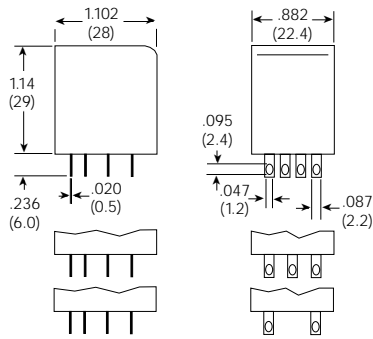
<b>Typical Part Number</b> ▶	<b>PT</b>	<b>2</b>	<b>7</b>	<b>0</b>	<b>024</b>
<b>1. Basic Series:</b> PT = General purpose relay.					
<b>2. Contact Arrangement:</b> 2 = 2 Form C (DPDT)    3 = 3 Form C (3PDT)    5 = 4 Form C (4PDT)					
<b>3. Contact Material:</b> 7 = Silver-Nickel 90/10 with test button. 8 = Silver-Nickel 90/10, with gold plating, and test button.					
<b>4. Termination:</b> 0 = Socket mount, solder terminals.    1 = Printed circuit board terminal.					
<b>5. Coil Voltage:</b> 006 = 6VDC    012 = 12VDC    024 = 24VDC    048 = 48VDC    060 = 60VDC    110 = 110VDC    220 = 220VDC 506 = 6VAC    512 = 12VAC    524 = 24VAC    548 = 48VAC    560 = 60VAC    615 = 115VAC    730 = 230VAC					

**Stock Items – We recommend that our authorized distributors stock the following items for immediate delivery.**

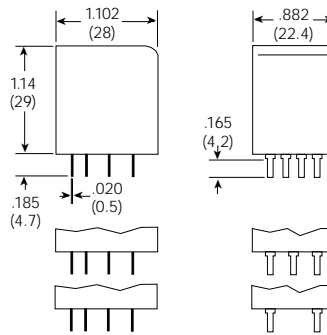
PT270024	PT370024	PT570024	PT580024
PT270524	PT370524	PT570524	PT580524
PT270615	PT370615	PT570615	PT580615

**Outline Dimensions**

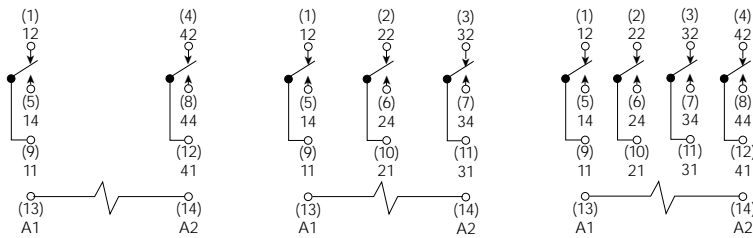
**Socket Mount, Solder Terminals**



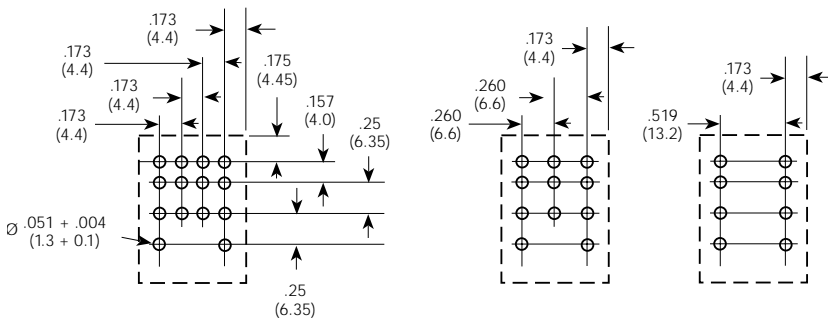
**Printed Circuit Board Terminals**



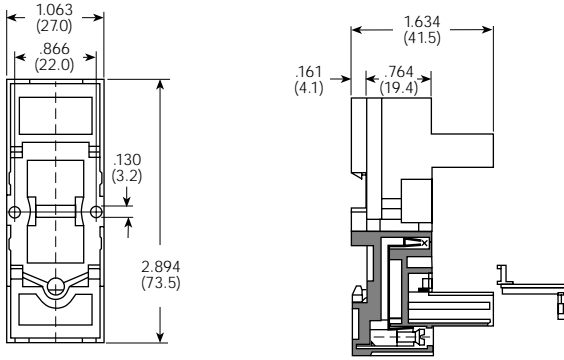
**Wiring Diagrams (Bottom Views)**



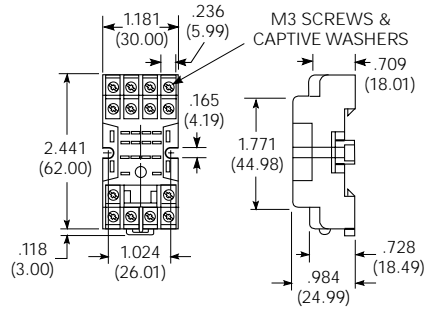
**PC Board Layout (Bottom Views)**



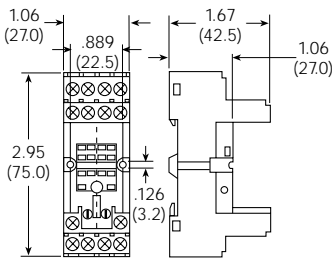
**ZG78700**  
DIN Rail Socket with Screw Terminals, 4 pole



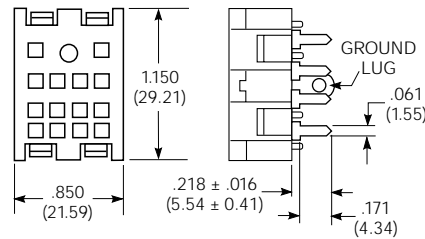
**27E894**  
DIN Rail Socket with Screw Terminals, 4 pole



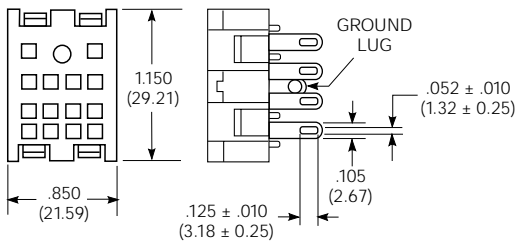
**PT78702, PT78703, PT78704 (2, 3 and 4 Pole)**  
DIN Rail Socket with Screw Terminals



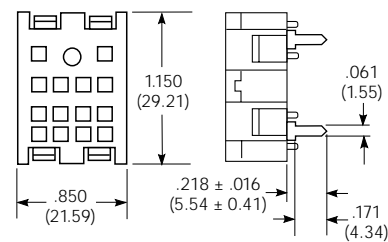
**27E023**  
4 Pole Socket with PCB Terminals



**27E006**  
4 Pole Socket with Solder Terminals



**27E220**  
2 Pole Socket with PCB Terminals



**Socket Selection Table**

Stock items are boldfaced.

Socket Part No.	Socket Termination	Mounting Style	No. of Poles	Accepts Modules?
<b>ZG78700</b>	Screw Terminals	DIN-rail	4	No
<b>27E894</b>	Screw Terminals	DIN-rail	4	No
<b>PT78702</b>	Screw Terminals	DIN-rail	2	Yes
<b>PT78703</b>	Screw Terminals	DIN-rail	3	Yes
<b>PT78704</b>	Screw Terminals	DIN-rail	4	Yes
<b>27E006</b>	.375 (9.53) Solder Terminals	Panel Cutout	4	No
<b>27E220</b>	.218 (5.54) Solder Terminals	PC Board	2	No
<b>27E023</b>	.218 (5.54) PCB Terminals	PC Board	4	No

**LED and Protection Module Selection Table**

Stock items are boldfaced.

Module Part No.	Type
<b>RPM T0 0A0</b>	Protection diode 1N4007 (Note 1)
<b>RPM U0 548</b>	RC network 24-48VAC
<b>RPM U0 730</b>	RC network 110-230VAC
<b>RPM L0 024</b>	LED 12-24VDC (Note 1)
<b>RPM L0 524</b>	LED 12-48VAC/VDC
<b>RPM L0 110</b>	LED 110VDC (Note 1)
<b>RPM L0 730</b>	LED 110-230VAC

Note 1: Standard polarity: A1: +, A2: -