



## Features

- Switching capacity up to 20A; small size and light weight
- Low coil power consumption; high contact load
- Strong resistance to shock and vibration

## Contact Data\*

|                     |  |                           |                        |
|---------------------|--|---------------------------|------------------------|
| Contact Arrangement | 1A, 1B, 1C = SPST N.O., SPST N.C., SPDT                    | Contact Resistance        | < 50 milliohms initial |
|                     | 2A, 2B, 2C = DPST N.O., DPST N.C., DPDT                    | Contact Material          | AgCdO                  |
| Contact Rating      | 3A, 3B, 3C = 3PST N.O., 3PST N.C., 3PDT                    | Maximum Switching Power   | 5540VA, 560W           |
|                     | 4A, 4B, 4C = 4PST N.O., 4PST N.C., 4PDT                    | Maximum Switching Voltage | 300VAC                 |
|                     | 1 Pole : 20A @ 277VAC & 28VDC, General Purpose             | Maximum Switching Current | 20A                    |
|                     | 2 Pole : 12A @ 250VAC & 28VDC, General Purpose             |                           |                        |
|                     | 2 Pole : 10A @ 277VAC, General Purpose; 1/2hp @ 125VAC     |                           |                        |
|                     | 3 & 4 Pole : 12A @ 250VAC & 28VDC, General Purpose         |                           |                        |
|                     | 3 & 4 Pole : 10A @ 277VAC, General Purpose; 1/2hp @ 125VAC |                           |                        |

## Coil Data DC Parameters\*

| Coil Voltage VDC |       | Coil Resistance Ω +/- 10% |       |       | Pick Up Voltage VDC (max)<br>75% of rated voltage | Release Voltage VDC (min)<br>10% of rated voltage | Coil Power W | Operate Time ms | Release Time ms |
|------------------|-------|---------------------------|-------|-------|---|---|--------------|-----------------|-----------------|
| Rated            | Max   | .9W                       | 1.4W  | 1.5W  |   |   |              |                 |                 |
| 12               | 15.6  | 160                       | 100   | 96    | 9.00  | .90<br>1.40                                       | 25           | 25              |                 |
| 24               | 31.2  | 650                       | 400   | 360   | 18.00   |   |              |                 |                 |
| 36               | 46.8  | 1500                      | 900   | 865   | 27.00   |   |              |                 |                 |
| 48               | 62.4  | 2600                      | 1600  | 1540  | 36.00   |   |              |                 |                 |
| 110              | 143.0 | 11000                     | 8400  | 6800  | 82.50   |   |              |                 |                 |
| 220              | 286.0 | 53778                     | 34571 | 32267 | 165.00  |   |              |                 |                 |

## Coil Data AC Parameters\*

| Coil Voltage VAC |       | Coil Resistance Ω +/- 10% |       |       | Pick Up Voltage VAC (max)<br>80% of rated voltage | Release Voltage VAC (min)<br>30% of rated voltage | Coil Power W | Operate Time ms | Release Time ms |
|------------------|-------|---------------------------|-------|-------|---|---|--------------|-----------------|-----------------|
| Rated            | Max   | 1.2VA                     | 2.0VA | 2.5VA |   |   |              |                 |                 |
| 12               | 15.6  | 46                        | 25.5  | 20    | 9.60  | 1.20<br>2.00<br>2.50                              | 25           | 25              |                 |
| 24               | 31.2  | 184                       | 102   | 80    | 19.20   |   |              |                 |                 |
| 36               | 46.8  | 370                       | 230   | 180   | 28.8  |   |              |                 |                 |
| 48               | 62.4  | 735                       | 410   | 320   | 38.4  |   |              |                 |                 |
| 110              | 143.0 | 3900                      | 2300  | 1680  | 88.00   |   |              |                 |                 |
| 120              | 156.0 | 4550                      | 2530  | 1990  | 96.00   |   |              |                 |                 |
| 220              | 286.0 | 14400                     | 8600  | 3700  | 176.00  |   |              |                 |                 |
| 240              | 312.0 | 19000                     | 10555 | 8280  | 192.00  |   |              |                 |                 |

# J151

## General Data\*

|                                      |  |
|--------------------------------------|--|
| Electrical Life @ rated load         | 100K cycles, average   |
| Mechanical Life                      | 20M cycles (1 & 2 pole), typical; 10M cycles (3 & 4 pole), average |
| Insulation Resistance                | 100M Ω min. @ 500VDC initial                                       |
| Dielectric Strength, Coil to Contact | 1500V rms min. @ sea level initial                                 |
| Contact to Contact                   | 1500V rms min. @ sea level initial                                 |
| Shock Resistance                     | 100m/s <sup>2</sup> for 11 ms                                      |
| Vibration Resistance                 | 1.27mm double amplitude 10~40Hz                                    |
| Terminal (Copper Alloy) Strength     | 10N  |
| Operating Temperature                | -40°C to +85°C   |
| Storage Temperature                  | -40°C to +155°C  |
| Solderability                        | 260°C for 5 s  |
| Weight                               | 2C: 40g; 3C: 50g; 4C: 60g  |

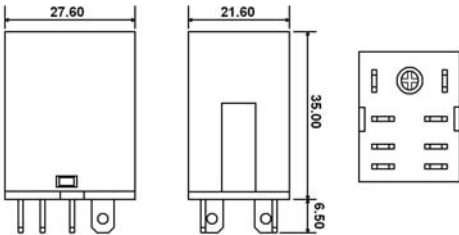
\* Values can change due to the switching frequency, desired reliability levels, environmental conditions and in-rush load levels. It is recommended to test actual load conditions for the application. It is the user's responsibility to determine the performance suitability for their specific application. The use of any coil voltage less than the rated coil voltage may compromise the operation of the relay.

## Ordering Information

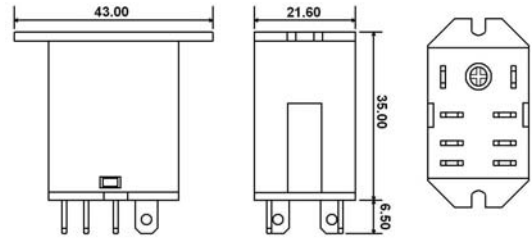
|                        |   |    |   |       |    |  |  |  |
|------------------------|---|----|---|-------|----|--|--|--|
| 1. Series              | J151  | 2C | T | 12VDC | .9 |  |  |  |
| J151                   |   |    |   |       |    |  |  |  |
| 2. Contact Arrangement | 1A, 1B, 1C<br>2A, 2B, 2C<br>3A, 3B, 3C <i>contact factory for availability</i><br>4A, 4B, 4C <i>contact factory for availability</i>  |    |   |       |    |  |  |  |
| 3. Termination         | T = Solder lugs / Plug-in<br>F = Solder lugs / Plug-in with Flange<br>P = PCB Terminals   |    |   |       |    |  |  |  |
| 4. Coil Voltage        | 12VDC                      110VAC<br>24VDC                      120VAC<br>36VDC                      220VAC<br>48VDC                      240VAC<br>110VDC<br>220VDC  |    |   |       |    |  |  |  |
| 5. Coil Power          | .9 = .9W (DC coil for use with 1 and 2 pole models only)<br>1.4 = 1.4W (DC coil for use with 3 pole models only)<br>1.5 = 1.5W (DC coil for use with 4 pole models only)<br>1.2 = 1.2VA (AC coil for use with 1 and 2 pole models only)<br>2.0 = 2.0VA (AC coil for use iwth 3 pole models only)<br>2.5 = 2.5VA (AC coil for use with 4 pole models only) |    |   |       |    |  |  |  |
| 6. Option LED          | Blank = No indicator LED<br>D = With indicator LED  |    |   |       |    |  |  |  |
| 7. Gold Option         | Blank = Standard contact<br>G = Gold over standard contacts   |    |   |       |    |  |  |  |
| 8. Push to Test Option | Blank = Without push to test button<br>T = With push to test button   |    |   |       |    |  |  |  |

## Dimensions

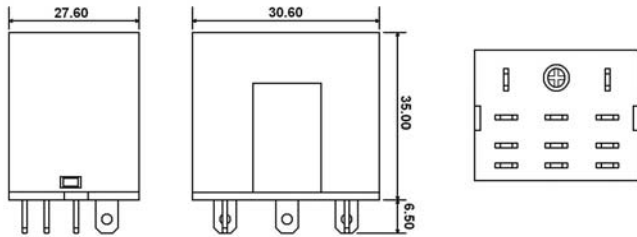
Units = mm



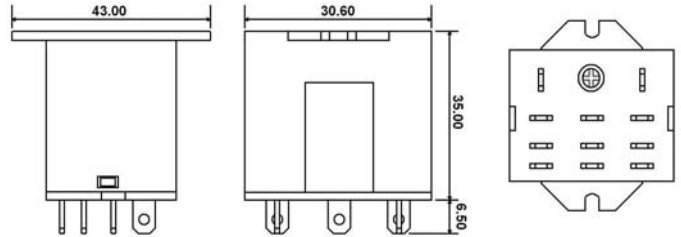
1 & 2 Pole



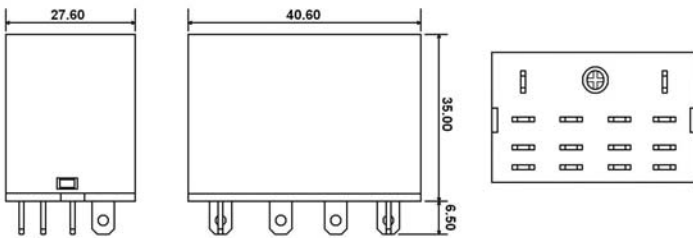
1 & 2 Pole with Flange



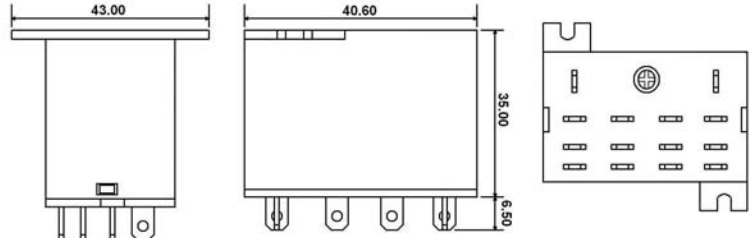
3 Pole



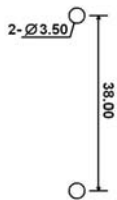
3 Pole with Flange



4 Pole



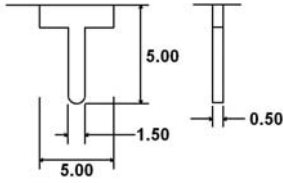
4 Pole with Flange



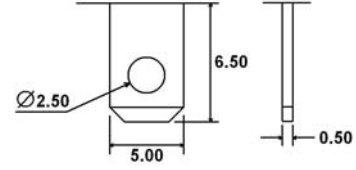
Flange Mount Layouts

# J151

## Termination Options

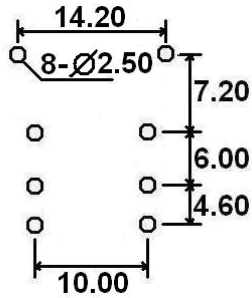
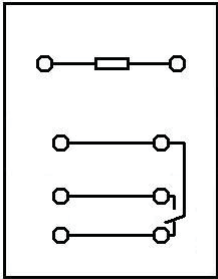


PC Pins

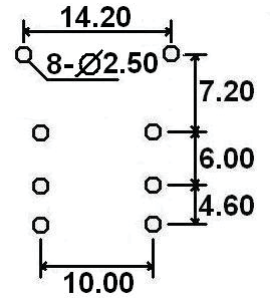
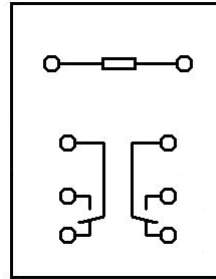


Solder Tabs

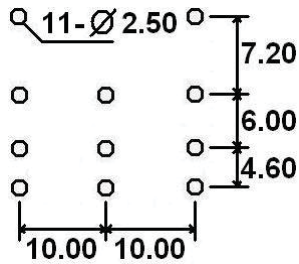
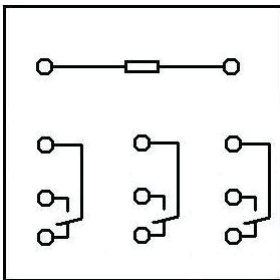
## Schematics & PC Layouts



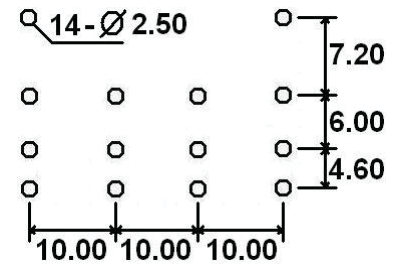
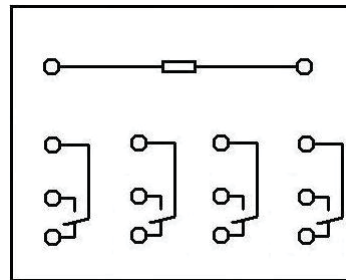
1C



2C



3C



4C