



## 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<br>2A, 2B, 2C = DPST N.O., DPST N.C., DPDT<br>3A, 3B, 3C = 3PST N.O., 3PST N.C., 3PDT<br>4A, 4B, 4C = 4PST N.O., 4PST N.C., 4PDT                                                                                    |
| Contact Rating      | 1 Pole : 20A @ 277VAC & 28VDC<br>2 Pole : 12A @ 250VAC & 28VDC<br>2 Pole : 10A @ 277VAC; 1/2hp @ 125VAC<br>3 Pole : 12A @ 250VAC & 28VDC<br>3 Pole : 10A @ 277VAC; 1/2hp @ 125VAC<br>4 Pole : 12A @ 250VAC & 28VDC<br>4 Pole : 10A @ 277VAC; 1/2hp @ 125VAC |

|                           |                        |
|---------------------------|------------------------|
| Contact Resistance        | < 50 milliohms initial |
| Contact Material          | AgSnO <sub>2</sub>     |
| Maximum Switching Power   | 5540VA, 560W           |
| Maximum Switching Voltage | 300VAC                 |
| Maximum Switching Current | 20A                    |

## 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  |                                                   |                                                   |                     |                 |                 |
| 6                | 7.8   | 40                        | N/A   | N/A   | 4.50                                              | .6                                                | .90<br>1.40<br>1.50 | 25              | 25              |
| 12               | 15.6  | 160                       | 100   | 96    | 9.00                                              | 1.2                                               |                     |                 |                 |
| 24               | 31.2  | 650                       | 400   | 360   | 18.00                                             | 2.4                                               |                     |                 |                 |
| 36               | 46.8  | 1500                      | 900   | 865   | 27.00                                             | 3.6                                               |                     |                 |                 |
| 48               | 62.4  | 2600                      | 1600  | 1540  | 36.00                                             | 4.8                                               |                     |                 |                 |
| 110              | 143.0 | 11000                     | 8400  | 6800  | 82.50                                             | 11.0                                              |                     |                 |                 |
| 220              | 286.0 | 53778                     | 34571 | 32267 | 165.00                                            | 22.0                                              |                     |                 |                 |

## 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 |                                                   |                                                   |                      |                 |                 |
| 6                | 7.8   | 11.5                      | N/A   | N/A   | 4.80                                              | 1.8                                               | 1.20<br>2.00<br>2.50 | 25              | 25              |
| 12               | 15.6  | 46                        | 25.5  | 20    | 9.60                                              | 3.6                                               |                      |                 |                 |
| 24               | 31.2  | 184                       | 102   | 80    | 19.20                                             | 7.2                                               |                      |                 |                 |
| 36               | 46.8  | 370                       | 230   | 180   | 28.80                                             | 10.8                                              |                      |                 |                 |
| 48               | 62.4  | 735                       | 410   | 320   | 38.40                                             | 14.4                                              |                      |                 |                 |
| 110              | 143.0 | 3900                      | 2300  | 1680  | 88.00                                             | 33.0                                              |                      |                 |                 |
| 120              | 156.0 | 4550                      | 2530  | 1990  | 96.00                                             | 36.0                                              |                      |                 |                 |
| 220              | 286.0 | 14400                     | 8600  | 3700  | 176.00                                            | 66.0                                              |                      |                 |                 |
| 240              | 312.0 | 19000                     | 10555 | 8280  | 192.00                                            | 72.0                                              |                      |                 |                 |

Dimensions shown in mm. Dimensions are shown for reference purposes only.

Specifications and availability subject to change without notice.

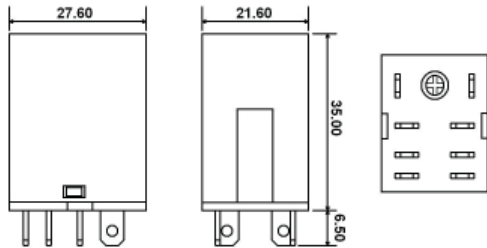
| <b>General Data</b>                                        |                                                                    |
|------------------------------------------------------------|--------------------------------------------------------------------|
| Electrical Life @ rated load                               | 100K cycles, typical                                               |
| Mechanical Life                                            | 20M cycles (1 & 2 pole), typical; 10M cycles (3 & 4 pole), typical |
| Insulation Resistance                                      | 100M Ω min. @ 500VDC                                               |
| Dielectric Strength, Coil to Contact<br>Contact to Contact | 1500V rms min. @ sea level<br>1500V rms min. @ sea level           |
| 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                                          |

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

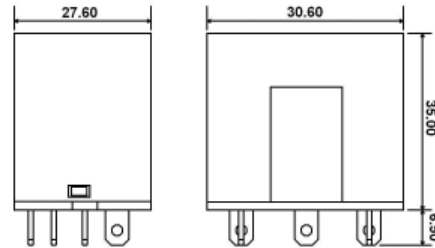
# J151

## Dimensions

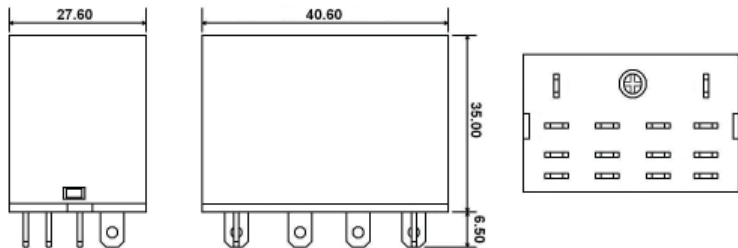
Units = mm



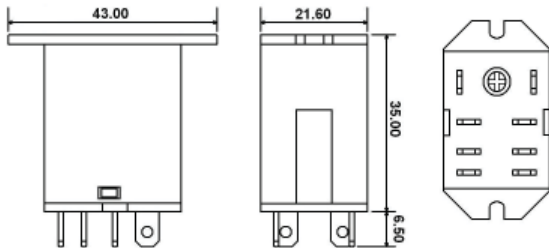
**1 & 2 Pole**



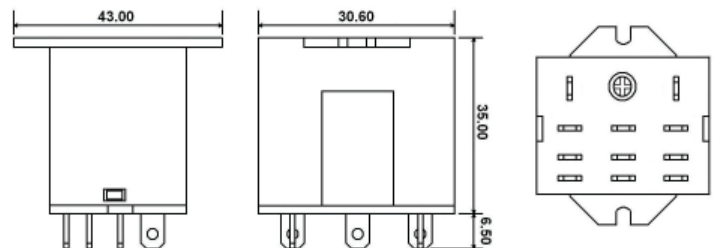
**3 Pole**



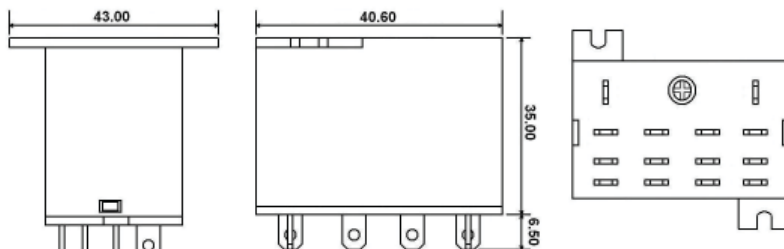
**4 Pole**



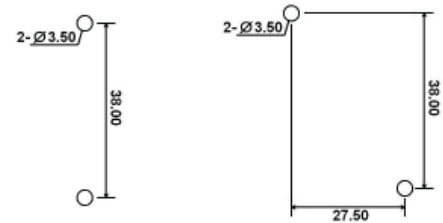
**1 & 2 Pole with Flange**



**3 Pole with Flange**

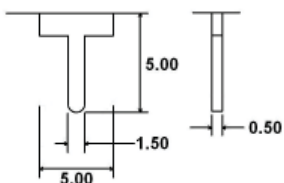


**4 Pole with Flange**

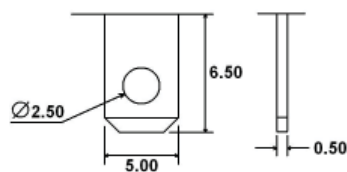


**Flange Mount Layouts**

## Termination Options



**PC Pins**



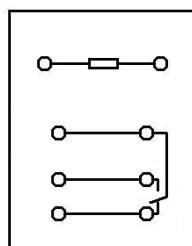
**Solder Tabs**

Dimensions shown in mm. Dimensions are shown for reference purposes only.

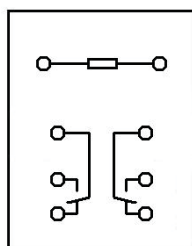
Specifications and availability subject to change without notice.

## Schematics & PC Layouts

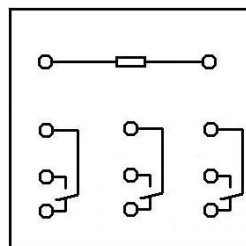
### Bottom Views



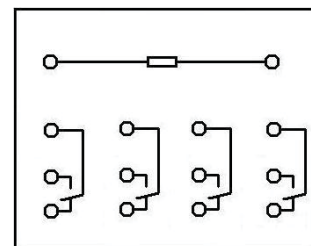
1C



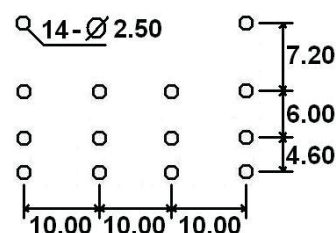
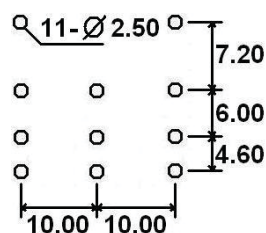
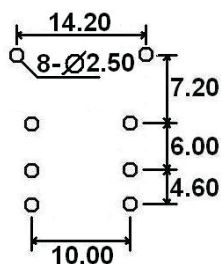
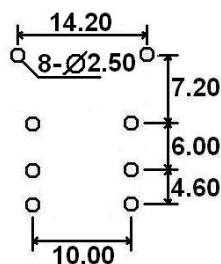
2C



3C



4C



Specifications and availability subject to change without notice.

Dimensions shown in mm. Dimensions are shown for reference purposes only.