# CIT *RELAY & SWITCH™*
Division of Circuit Interruption Technology, Inc.

## J120

30.0 x 15.5 x 23.3 (33.0) mm

c**UL**us  RoHS Compliant

E197851

## Features

- Switching capacity up to 20A
- PC pins and quick connect terminals
- Uses include household appliances
- High inrush capability
- Strong resistance to shock and vibration

## Contact Data

| Contact Arrangement | 1A = SPST N.O. |
|---|---|
| Contact Rating | 20A @ 250VAC General Purpose |

| Contact Resistance | < 50 milliohms initial |
|---|---|
| Contact Material | $AgSnO_2$ |
| Maximum Switching Power | 5000VA |
| Maximum Switching Voltage | 300VAC |
| Maximum Switching Current | 20A |

## Coil Data

| Coil Voltage VDC | | Coil Resistance Ω +/- 10% | Pick Up Voltage VDC (max) 75% of rated voltage | Release Voltage VDC (min) 10% of rated voltage | Coil Power W | Operate Time ms | Release Time ms |
|---|---|---|---|---|---|---|---|
| Rated | Max | .9W | | | | | |
| 5 | 6.5 | 28 | 3.75 | .50 | .90 | 20 | 10 |
| 6 | 7.8 | 40 | 4.50 | .60 | | | |
| 9 | 11.7 | 90 | 6.75 | .90 | | | |
| 12 | 15.6 | 160 | 9.00 | 1.2 | | | |
| 24 | 31.2 | 640 | 18.00 | 2.4 | | | |
| 48 | 62.4 | 4267 | 36.00 | 3.6 | | | |

## General Data

| Electrical Life @ rated load | 100K cycles, typical |
|---|---|
| Mechanical Life | 10M cycles, typical |
| Insulation Resistance | 100M Ω min. @ 500VDC |
| Dielectric Strength, Coil to Contact | 4500V rms min. @ sea level |
| Contact to Contact | 1500V rms min. @ sea level |
| Shock Resistance | 200m/s² for 11 ms |
| Vibration Resistance | 1.50mm double amplitude 10~40Hz |
| Terminal (Copper Alloy) Strength | 10N |
| Operating Temperature | -30ºC to +55ºC |
| Storage Temperature | -40ºC to +85ºC |
| Solderability | 260ºC for 5 s |
| Weight | 23g |

**Caution**
1. The use of any coil voltage less than the rated coil voltage may compromise the operation of the relay.

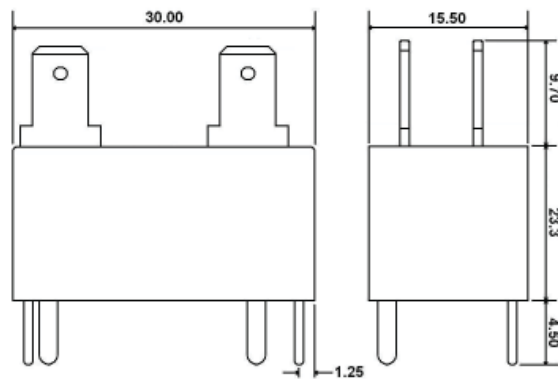*Dimensions shown in mm. Dimensions are shown for reference purposes only.*

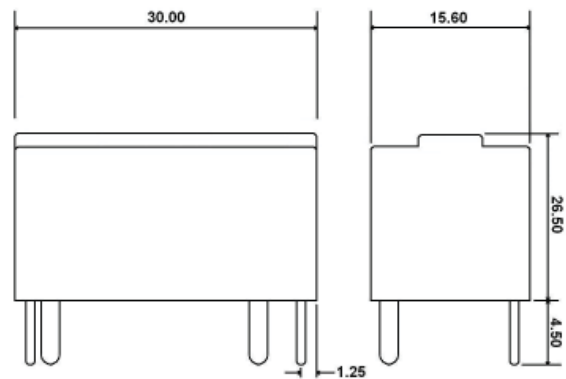*Specifications and availability subject to change without notice.*

## Ordering Information

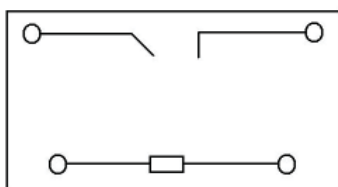| 1. Series | | J120 | 1A | S | 12VDC |
|---|---|---|---|---|---|
| J120 | | | | | |
| 2. Contact Arrangement<br>1A = SPST N.O. | | | | | |
| 3. Sealing Option<br>S = Sealed (only available with PC pins)<br>C = Dust Cover (only available Quick Connect & PC pin version) | | | | | |
| 4. Coil Voltage<br>5VDC<br>6VDC<br>9VDC<br>12VDC<br>24VDC<br>48VDC | | | | | |
| 5. Terminal Options<br>Blank = PC pins and Quick Connect Terminals<br>P = PC pins only | | | | | |

## Dimensions

### Units = mm



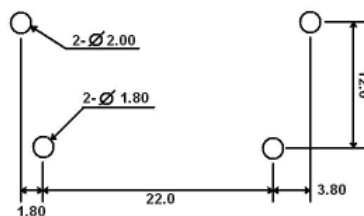**Quick Connect Terminals
and PC Pins**



**PC Pins Only**

## Schematics & PC Layouts

### Bottom Views



*1A*



**\*\* The contacts are connected to the
quick connect terminals on top of the
relay as well as the PC terminals**