## Features

- $\quad$ Switching capacity up to 20A
- Small size and light weight
- $\quad \mathrm{PCB}$ pin and quick connect mounting available
- Suitable for automobile and lamp accessories
- QS-9000, ISO-9002 Certified Manufacturing


## Contact Data

| Contact Arrangement | $1 \mathrm{~A}=$ SPST N.O. <br> $1 \mathrm{~B}=$ SPST N.C. |
| :--- | :--- |
| Contact Rating | $1 \mathrm{~A}: 20 \mathrm{~A} @ 14 \mathrm{VDC}$ |
|  | $1 \mathrm{~B}: 15 \mathrm{~A} @ 14 \mathrm{VDC}$ |


| Contact Resistance | $<50$ milliohms initial |
| :--- | :--- |
| Contact Material | AgSnO |
| Maximum Switching Power | 280 W |
| Maximum Switching Voltage | 75 VDC |
| Maximum Switching Current | 30 A |

## Coil Data

| Coil Voltage <br> VDC |  | Coil Resistance <br> $\Omega+/-10 \%$ | Pick Up Voltage <br> VDC (max) <br> $70 \%$ of rated <br> voltage | Release Voltage <br> VDC (min) <br> $10 \%$ of rated <br> voltage | Coil Power <br> W | Operate Time <br> ms | Release Time <br> ms |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Rated | Max |  | 8.40 | 1.2 | 1.16 | 10 | 7 |
| 12 | 15.6 | 124 | 16.80 | 2.4 |  |  |  |
| 24 | 31.2 | 489 |  |  |  |  |  |

## General Data

| Electrical Life @ rated load | 100 K cycles, typical |
| :--- | :--- |
| Mechanical Life | 10 M cycles, typical |
| Insulation Resistance | $100 \mathrm{M} \Omega$ min. @ 500 VDC |
| Dielectric Strength, Coil to Contact |  |
| Contact to Contact | 1500 V rms min. @ sea level <br> $1000 \mathrm{~V} \mathrm{rms} \mathrm{min} @ sea level$. |
| Shock Resistance | $100 \mathrm{~m} / \mathrm{s}^{2}$ for 11 ms |
| Vibration Resistance | 1.27 mm double amplitude $10 \sim 40 \mathrm{~Hz}$ |
| Terminal (Copper Alloy) Strength | 10 N (quick connect), 4 N (PCB pins) |
| Operating Temperature | $-40^{\circ} \mathrm{C}$ to $+85^{\circ} \mathrm{C}$ |
| Storage Temperature | $-40^{\circ} \mathrm{C}$ to $+155^{\circ} \mathrm{C}$ |
| Solderability | $260^{\circ} \mathrm{C}$ for 5 s |
| Weight | 14 g |

## Caution

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

## Ordering Information

| 1. Series | A1M | 1A | C | Q | 12VDC |
| :---: | :---: | :---: | :---: | :---: | :---: |
| A1M |  |  |  |  |  |
| 2. Contact Arrangement $\begin{aligned} & 1 A=\text { SPST N.O. } \\ & 1 B=\text { SPST N.C. } \end{aligned}$ |  |  |  |  |  |
| 3. Sealing Option C = Dust Cover |  |  |  |  |  |
| 4. Termination Q = Quick Connect |  |  |  |  |  |
| 5. Coil Voltage $\begin{aligned} & \text { 12VDC } \\ & 24 \mathrm{VDC} \end{aligned}$ |  |  |  |  |  |
| 6. Coil Suppression <br> Blank = Standard <br> D = Diode (1N4005) <br> R = Resistor (680 ohms) <br> ** Consult factory if other values are needed |  |  |  |  |  |

## Dimensions

Units $=\mathrm{mm}$


## Schematics \& PC Layouts

## Bottom Views



1A


1B

