



## Features

- Large switching capacity up to 40A
- Small size and light weight
- PCB pin and quick connect mounting available
- Suitable for automobile and lamp accessories
- QS-9000, ISO-9002 Certified Manufacturing



## Contact Data\*

|                     |  |                           |                        |
|---------------------|--|---------------------------|------------------------|
| Contact Arrangement | 1A = SPST N.O.<br>1B = SPST N.C.<br>1C = SPDT  | Contact Resistance        | < 30 milliohms initial |
| Contact Rating      | NO<br>NC   | Contact Material          | AgSnO <sub>2</sub>     |
|                     | 40A @ 14VDC, resistive<br>20A @ 28VDC, resistive<br>2A @ 48VDC, resistive<br>30A @ 14VDC, resistive<br>15A @ 28VDC, resistive<br>1A @ 48VDC, resistive | Maximum Switching Power   | 630W                   |
|                     |  | Maximum Switching Voltage | 75VDC                  |
|                     |  | Maximum Switching Current | 40A                    |

## Coil Data\*

| Coil Voltage VDC |      | Coil Resistance Ω +/- 10% |        | Pick Up Voltage VDC (max) | Release Voltage VDC (min) | Coil Power W | Operate Time ms | Release Time ms |
|------------------|------|---------------------------|--------|---------------------------|---------------------------|--------------|-----------------|-----------------|
| Rated            | Max  | 1.6W                      | 1.9W   | 65% of rated voltage      | 10% of rated voltage      |              |                 |                 |
| 6                | 7.8  | 22.5                      | 19.0   | 3.9                       | .6                        | 1.6<br>1.9   | 7               | 5               |
| 12               | 15.6 | 90.0                      | 75.8   | 7.8                       | 1.2                       |              |                 |                 |
| 24               | 31.2 | 360.0                     | 303.2  | 15.6                      | 2.4                       |              |                 |                 |
| 48               | 62.4 | 1440.0                    | 1212.0 | 31.2                      | 4.8                       |              |                 |                 |

## General Data\*

|                                  |   |
|----------------------------------|---|
| Electrical Life @ rated load     | 100K cycles, average  |
| Mechanical Life                  | 10M cycles, average   |
| Insulation Resistance            | 100M Ω min. @ 500VDC initial  |
| Dielectric Strength              | Coil to Contact 750V rms min. @ sea level initial<br>Contact to Contact 500V rms min. @ sea level initial |
| Shock Resistance                 | 147m/s <sup>2</sup> for 11 ms   |
| Vibration Resistance             | 1.5mm double amplitude 10~40Hz  |
| Terminal (Copper Alloy) Strength | 8N (quick connect), 4N (PCB pins)   |
| Operating Temperature            | -40°C to +125°C   |
| Storage Temperature              | -40°C to +155°C   |
| Solderability                    | 260°C for 5 s   |
| Weight                           | 31g   |

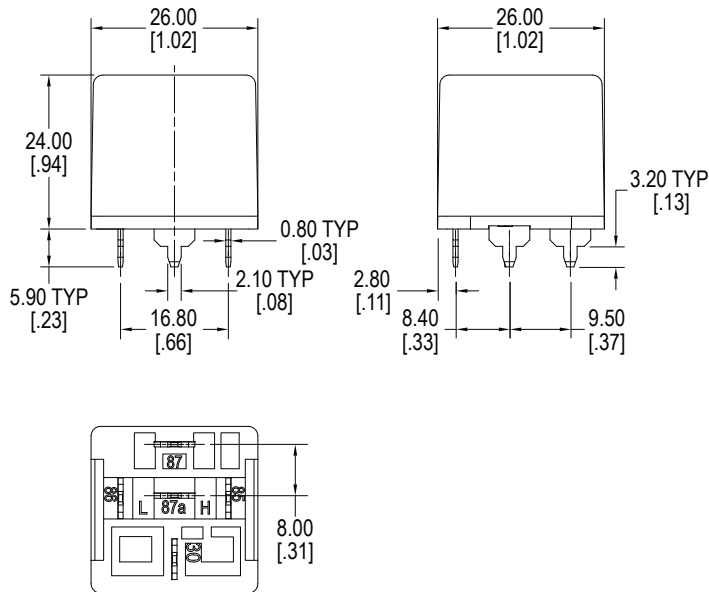
\* Values can change due to the switching frequency, desired reliability levels, environmental conditions and in-rush load levels. It is recommended to test actual load conditions for the application. It is the user's responsibility to determine the performance suitability for their specific application.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

## Ordering Information

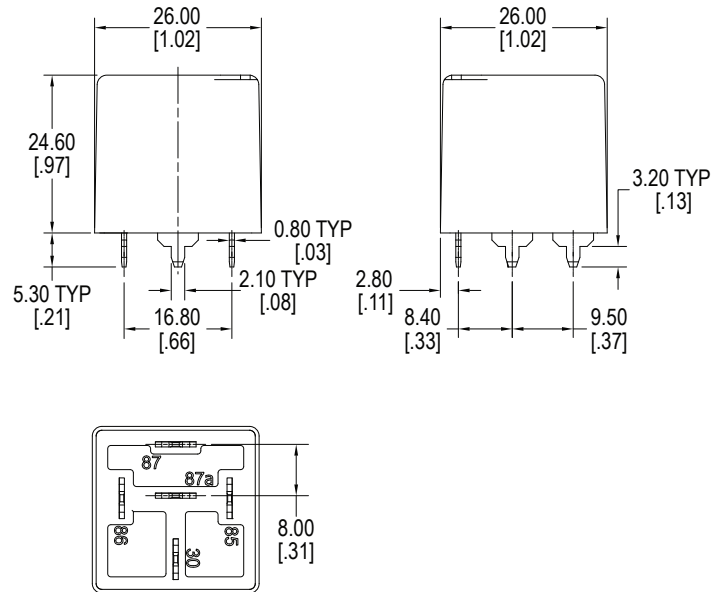
|  |    |    |   |   |       |     |
|--|----|----|---|---|-------|-----|
| 1. Series  | A2 | 1C | S | Q | 12VDC | 1.6 |
| A2 standard<br>A2F with mounting flange<br>A2M with metal bracket<br>A2S with metal bracket and shroud   |    |    |   |   |       |     |
| 2. Contact Arrangement<br>1A = SPST N.O.<br>1B = SPST N.C.<br>1C = SPDT  |    |    |   |   |       |     |
| 3. Sealing Option<br>S = Sealed<br>C = Dust Cover *not available with A2S  |    |    |   |   |       |     |
| 4. Termination<br>P = PCB Pins *not available with A2S<br>Q = Quick Connect  |    |    |   |   |       |     |
| 5. Coil Voltage<br>6VDC<br>12VDC<br>24VDC<br>48VDC   |    |    |   |   |       |     |
| 6. Coil Power<br>1.6 = 1.6W<br>1.9 = 1.9W  |    |    |   |   |       |     |
| 7. Coil Suppression<br>Blank = Standard<br>D = Diode (1N4005) Cathode on "86" terminal<br>R = Resistor (180Ω for 6VDC; 680Ω for 12VDC; 2700Ω for 24VDC)<br>** Consult factory if other values are needed |    |    |   |   |       |     |

## Dimensions

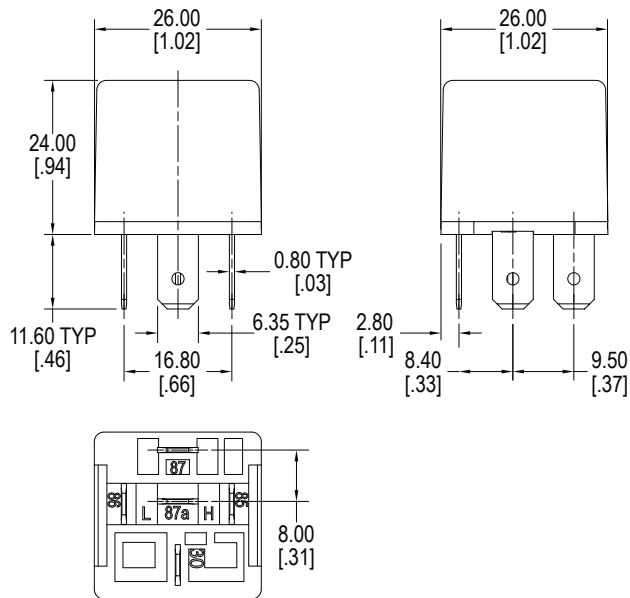
Units = mm



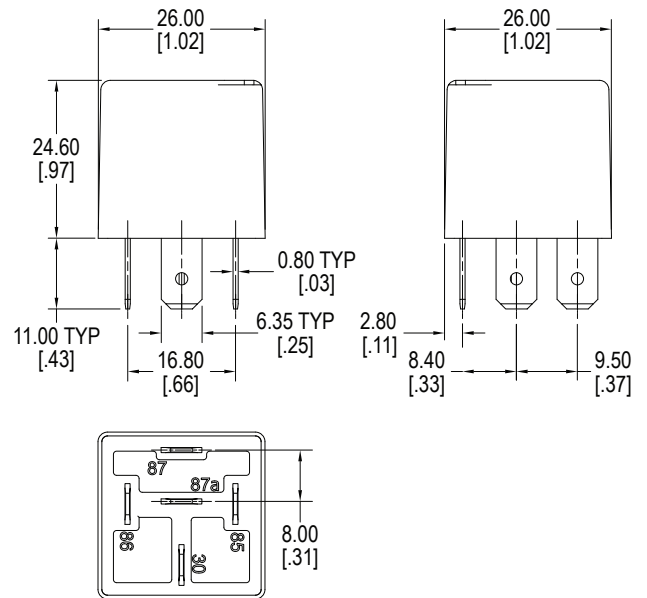
**A2 with PC Pins, Dust Cover**



**A2 with PC Pins, Sealed**



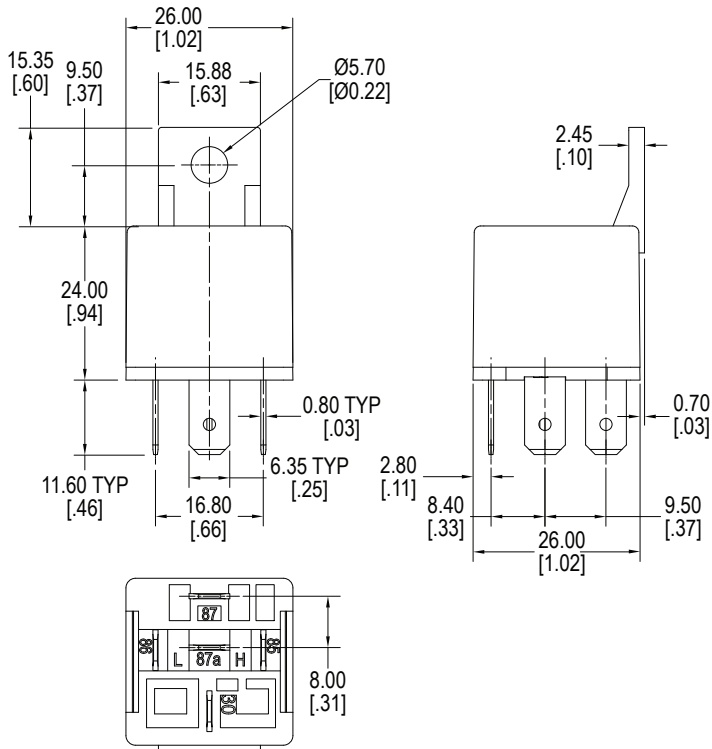
**A2 with Quick Connect, Dust Cover**



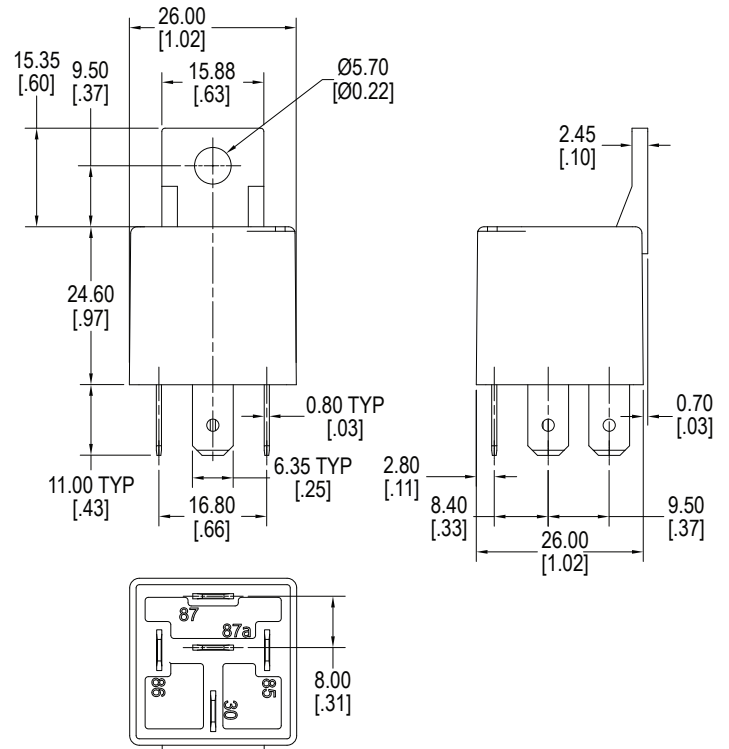
**A2 with Quick Connect, Sealed**

## Dimensions

Units = mm



**A2F with Quick Connect, Dust Cover**

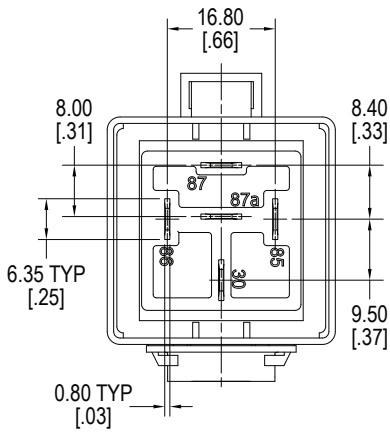
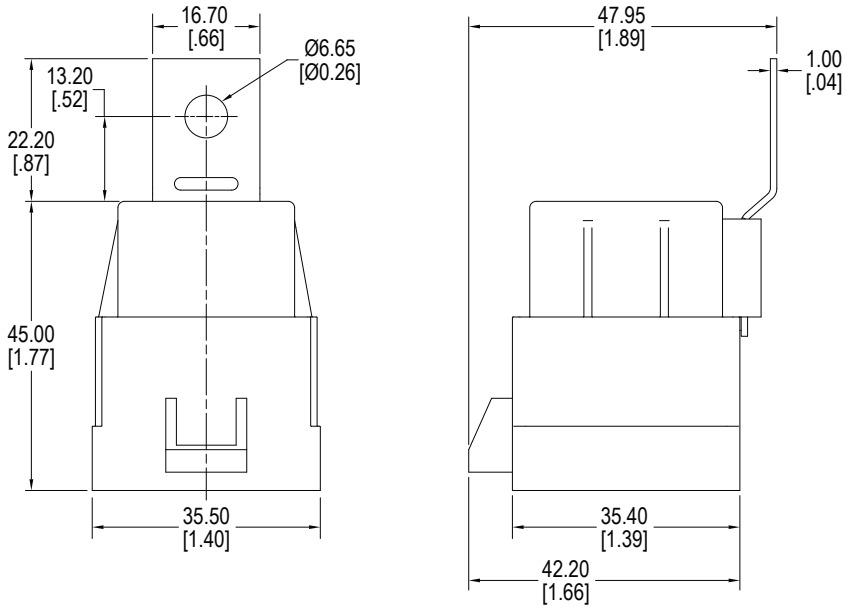


**A2F with Quick Connect, Sealed**



## Dimensions

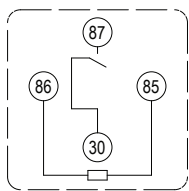
Units = mm



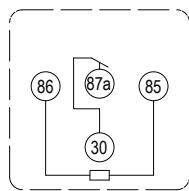
**A2S, Quick Connect, Sealed**

## Schematics & PC Layouts

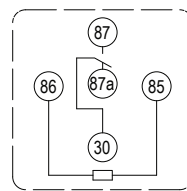
Bottom Views



**1A**



**1B**



**1C**

