

## Features

- Large switching capacity up to 80A
- PCB pin and quick connect mounting available
- Suitable for automobile and lamp accessories
- Manufactured in compliance with QS-9000 and ISO-9002



## Contact Data\*

Contact Arrangement	1A = SPST N.O. 1B = SPST N.C. 1C = SPDT 1U = SPST N.O. (2 terminals)	
Contact Rating	Standard	Heavy Duty
1A	60A @ 14VDC	80A @ 14VDC
1B	40A @ 14VDC	70A @ 14VDC
1C	60A @ 14VDC N.O. 40A @ 14VDC N.C.	80A @ 14VDC N.O. 70A @ 14VDC N.C.
1U	2x25A @ 14VDC	2x25@ 14VDC

Contact Resistance	< 30 milliohms initial
Contact Material	AgSnO <sub>2</sub> In <sub>2</sub> O <sub>3</sub>
Max Switching Power	1120W
Max Switching Voltage	75VDC
Max Switching Current	80A

## 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	1.8W	65% of rated voltage	10% of rated voltage	1.8	7	5
12	15.6	80	7.8	1.2			
24	31.2	320	15.6	2.4			

## 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 Contact to Contact	500V rms min. @ sea level initial 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	46g

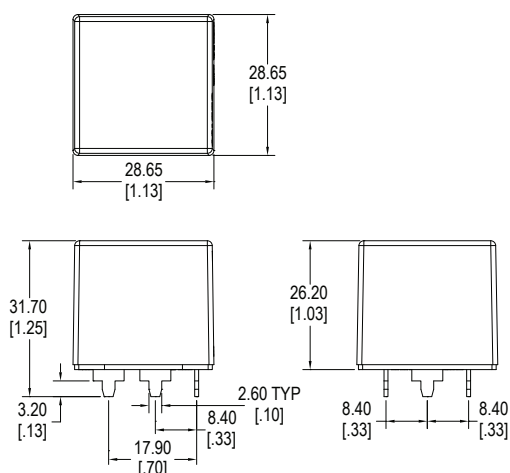
\* Values can change due to the switching frequency, desired reliability levels, environmental conditions and in-rush load levels. It is recommended to test actual load conditions for the application. It is the user's responsibility to determine the performance suitability for their specific application.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

## Ordering Information

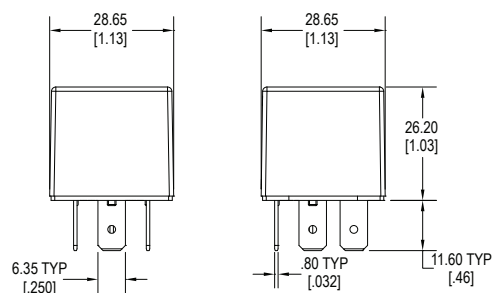
1. Series	A3F	1C	S	Q	24VDC	2
A3 standard A3F with mounting flange A3M with metal bracket						
2. Contact Arrangement 1A = SPST N.O. 1B = SPST N.C. 1C = SPDT 1U = SPST N.O. *only available with standard contacts						
3. Sealing Option S = Sealed *Sealing only available with heavy duty contacts C = Dust Cover						
4. Termination P = PCB Pins Q = Quick Connect						
5. Coil Voltage 12VDC 24VDC						
6. Contacts 1 = Standard *Sockets for these models can be found on the CIT Relay Socket catalog page 2 = Heavy Duty *We recommend the PR series socket from Custom Connector Corporation						
7. Coil Suppression Blank = Standard D = Diode (1N4005) Cathode on "86" terminal R = Resistor (180Ω for 6VDC; 680Ω for 12VDC; 2700Ω for 24VDC) ** Consult factory if other values are needed						

## Dimensions - A3

Units = mm



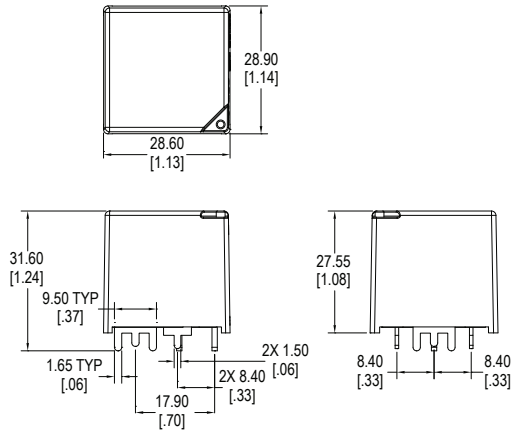
**Standard contacts (1) with PC Pin**



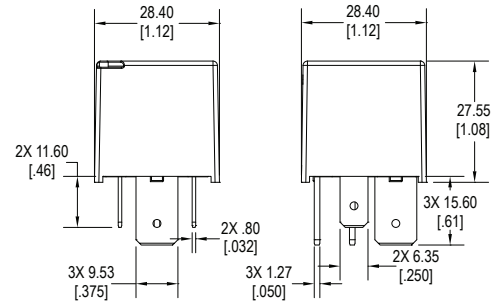
**Standard contacts (1) with Quick Connect**

## Dimensions - A3 Heavy Duty

Units = mm



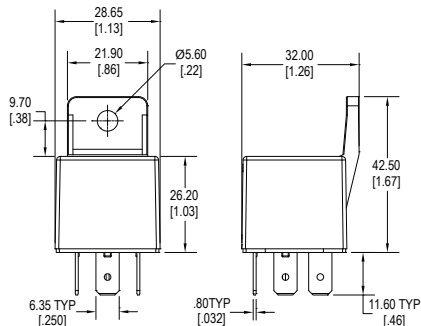
Heavy Duty contacts (2) with PC Pins



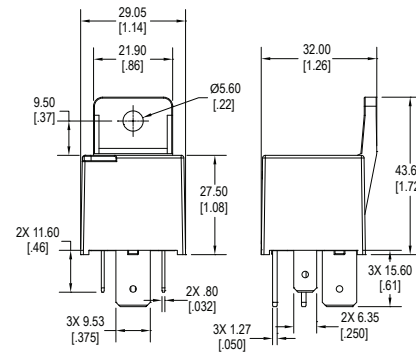
Heavy Duty contacts (2) with Quick Connects

## Dimensions - A3F

Units = mm



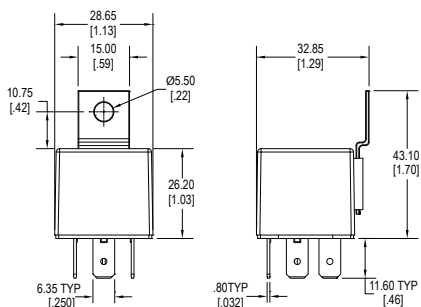
Standard contacts (1) with Quick Connect



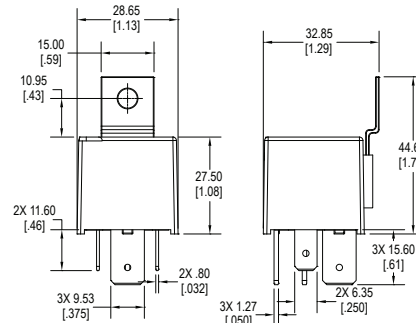
Heavy Duty contacts (2) with Quick Connects

## Dimensions - A3M

Units = mm



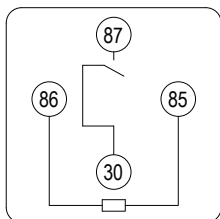
Standard contacts (1) with Quick Connect



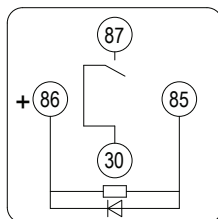
Heavy Duty contacts (2) with Quick Connects

## Schematics & PC Layouts

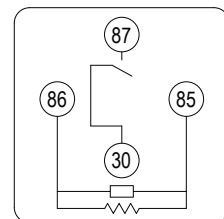
### Bottom Views



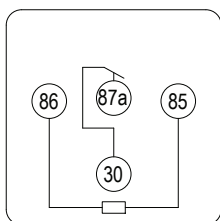
**1A**



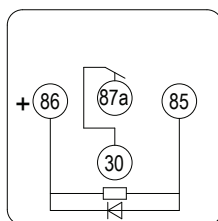
**1A with Diode**



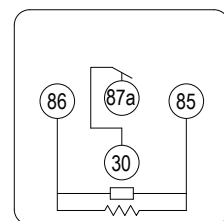
**1A with Resistor**



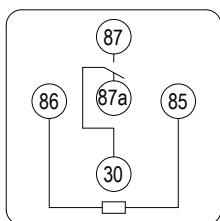
**1B**



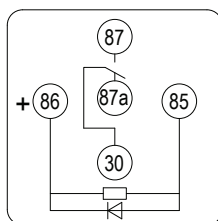
**1B with Diode**



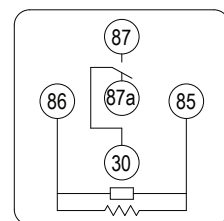
**1B with Resistor**



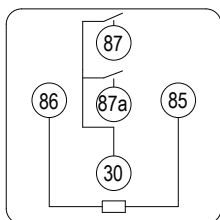
**1C**



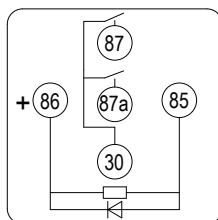
**1C with Diode**



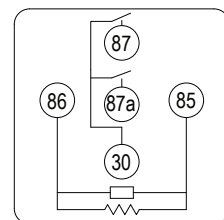
**1C with Resistor**



**1U**



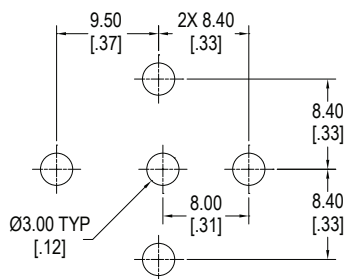
**1U with Diode**



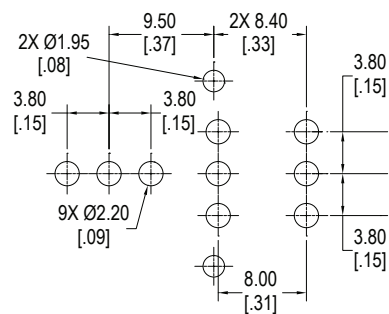
**1U with Resistor**

## Schematics & PC Layouts

### Bottom Views



**Standard PC Layout**



**Heavy Duty PC Layout**