



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 ₂ In ₂ O ₃
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) 65% of rated voltage	Release Voltage VDC (min) 10% of rated voltage	Coil Power W	Operate Time ms	Release Time ms
Rated	Max						
12	15.6	80	7.8	1.2	1.8	7	5
24	31.2	320	15.6	2.4			

General Data*

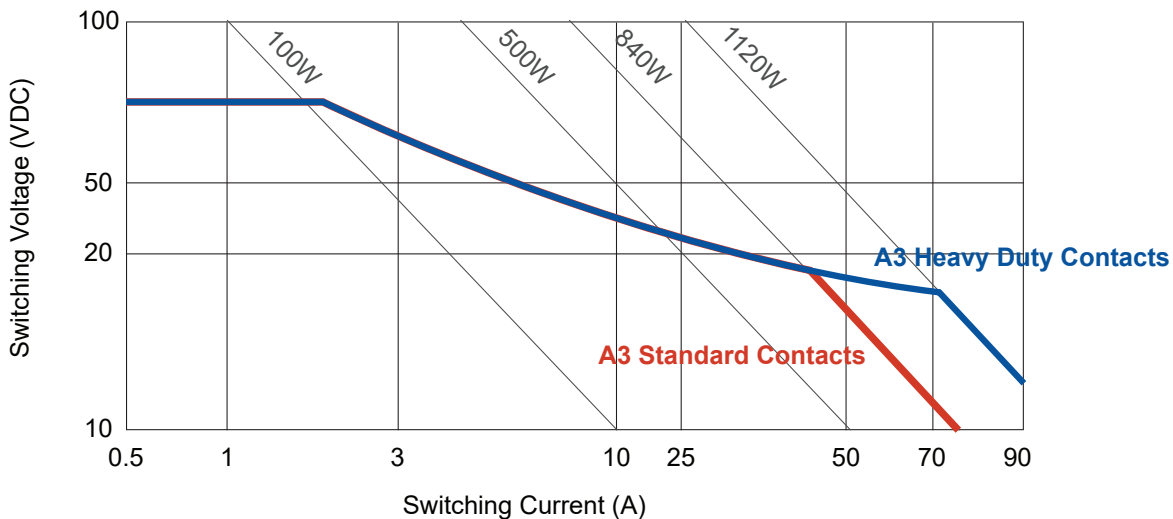
Electrical Life @ rated load	100K cycles, average
Mechanical Life	10M cycles, average
Insulation Resistance	100M Ω min. @ 500VDC initial
Dielectric Strength, Coil to Contact	500V rms min. @ sea level initial
Contact to Contact	500V rms min. @ sea level initial
Shock Resistance	147m/s ² for 11 ms
Vibration 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					

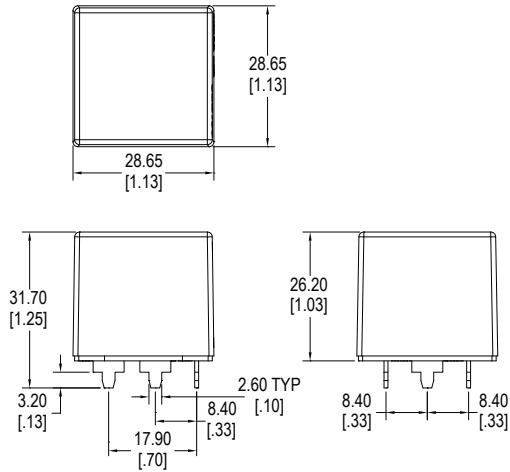
DC Load Breaking Capacity Chart



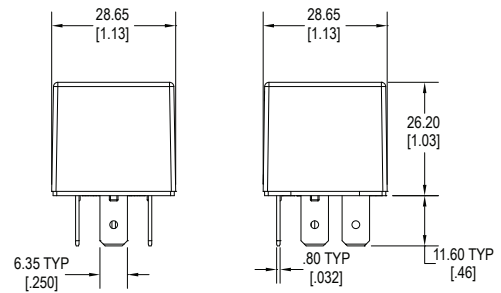
Dimensions - A3

Units = mm

Standard contacts (1) with PC Pin



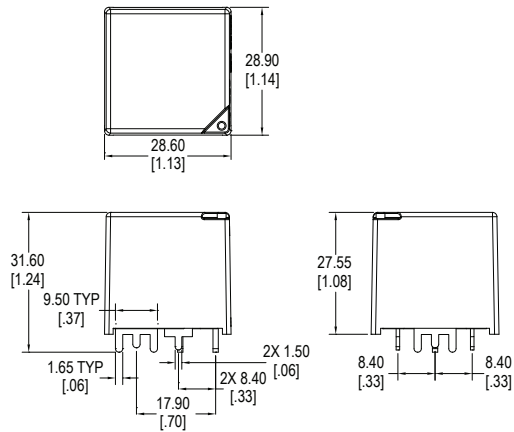
Standard contacts (1) with Quick Connect



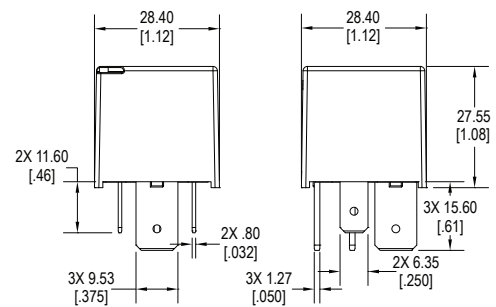
Dimensions - A3 Heavy Duty

Units = mm

Heavy Duty contacts (2) with PC Pins



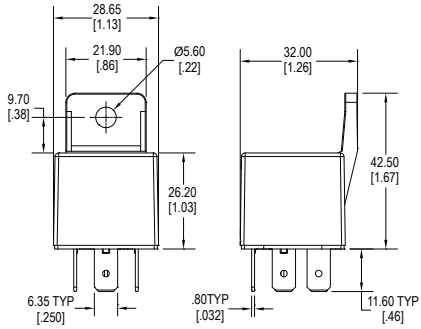
Heavy Duty contacts (2) with Quick Connects



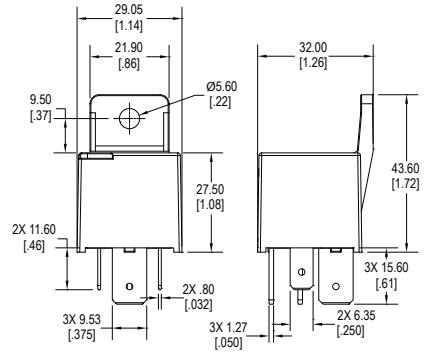
Dimensions - A3F

Units = mm

Standard contacts (1) with Quick Connect



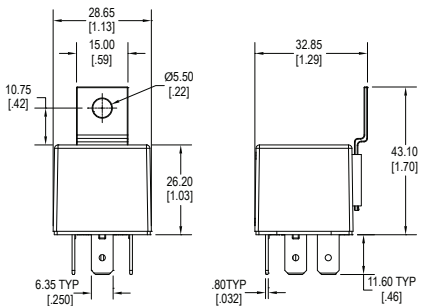
Heavy Duty contacts (2) with Quick Connects



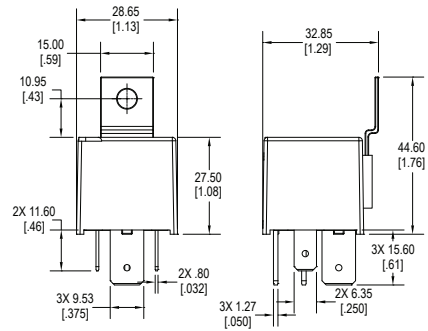
Dimensions - A3M

Units = mm

Standard contacts (1) with Quick Connect



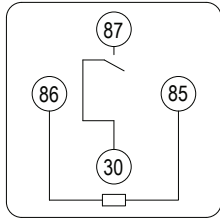
Heavy Duty contacts (2) with Quick Connects



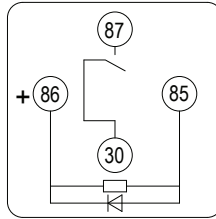
Schematics & PC Layouts

Bottom Views

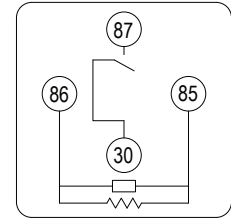
1A



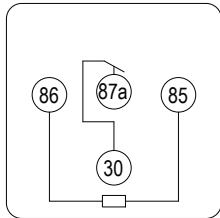
1A with Diode



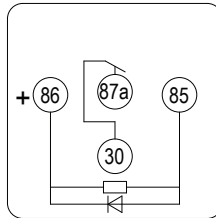
1A with Resistor



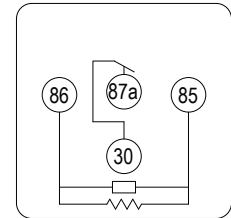
1B



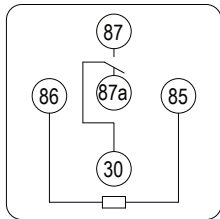
1B with Diode



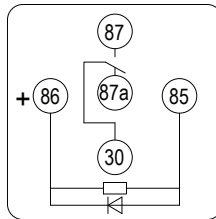
1B with Resistor



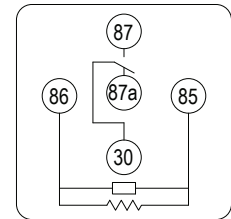
1C



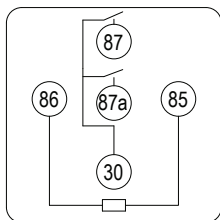
1C with Diode



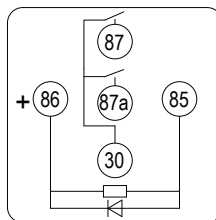
1C with Resistor



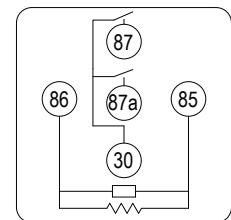
1U



1U with Diode



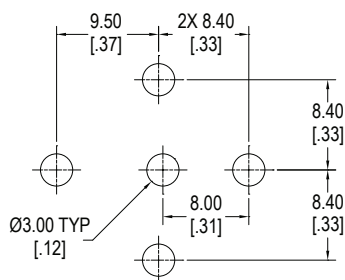
1U with Resistor



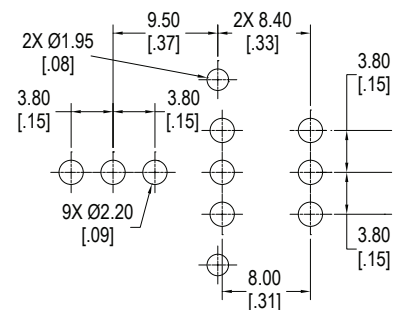
Schematics & PC Layouts

Bottom Views

Standard PC Layout

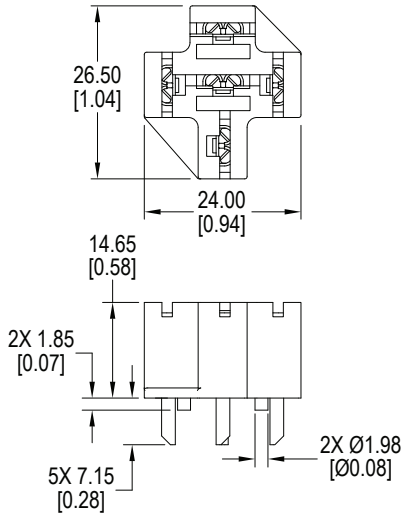


Heavy Duty PC Layout

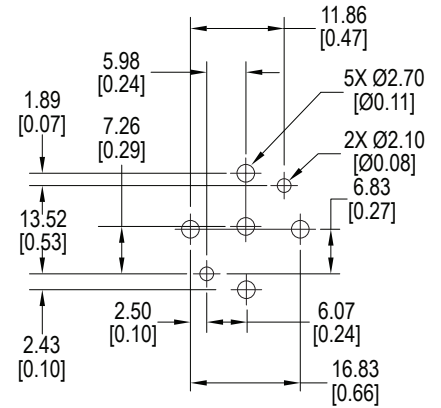


Sockets Units = mm

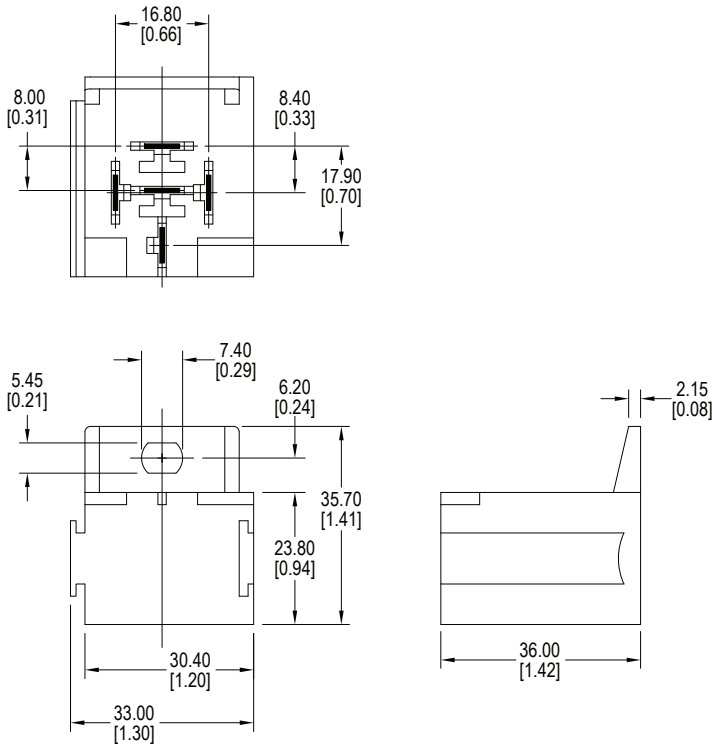
RS2105



Schematic



RS2200



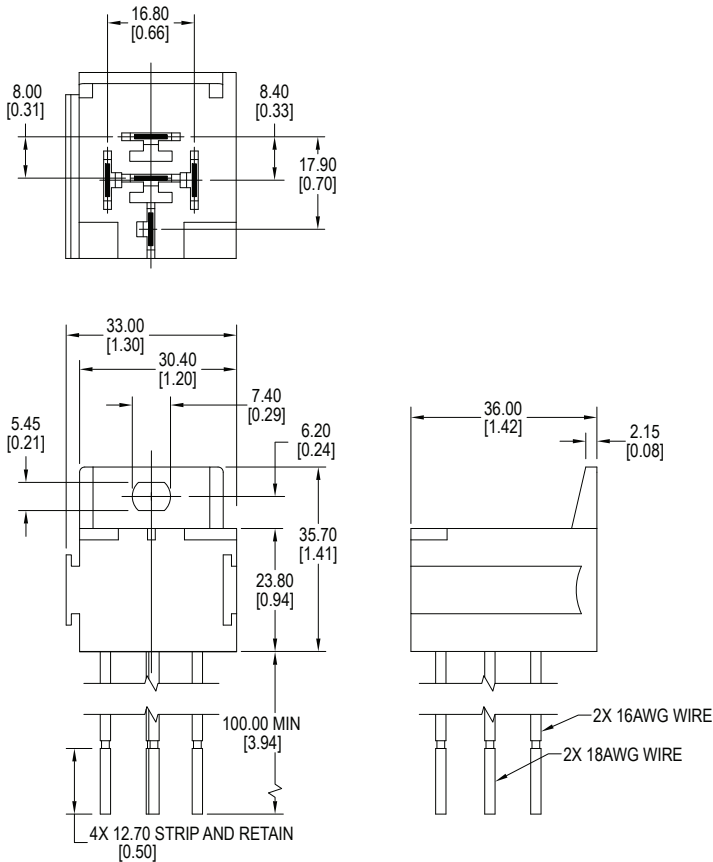
Metal Crimp Terminal Compatibility

Mfr.	Part Number	Wire AWG	Blade
TE	42100	14-18	1/4"
TE	42281	14-18	1/4"
TE	42904	12-16	1/4"
TE	60249	12-16	1/4"
TE	60253	12-14	1/4"

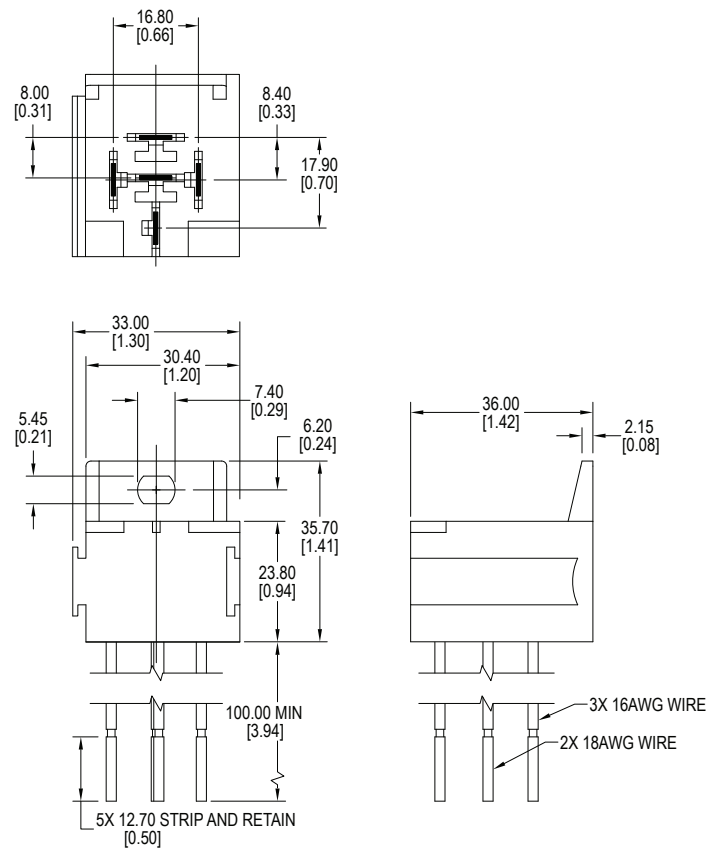
CIT Relay & Switch references these female quick connect terminals to be used with our automotive sockets. Current capability of the terminals depends on the gauge of the wire used, the quality of the crimp, the addition of solder or a weld, operating conditions, ambient temperature, and so forth. Terminals to be purchased separately from the manufacturer.

Sockets Units = mm

RS2214

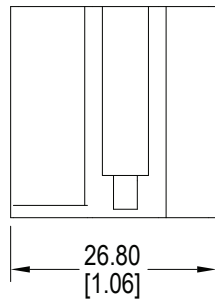
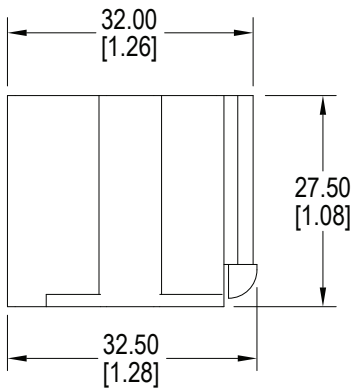
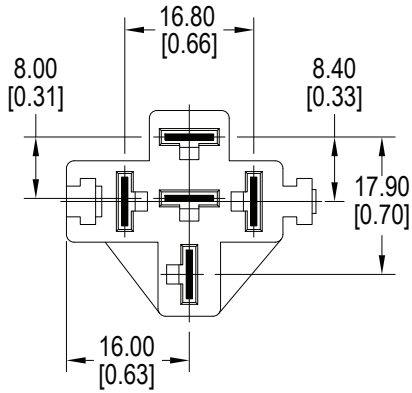


RS2215



Sockets Units = mm

RS2300



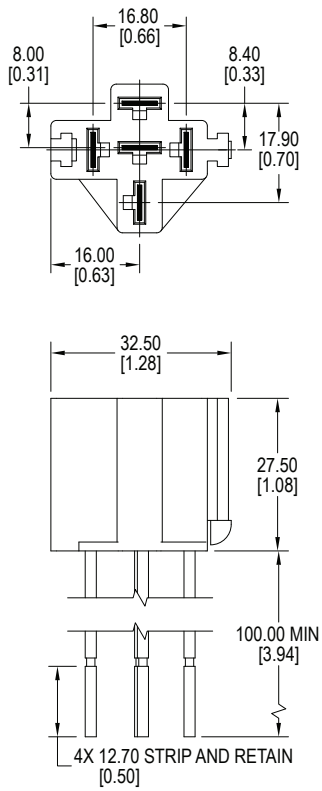
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TE	42904	12-16	1/4"
TE	60249	12-16	1/4"
TE	60253	12-14	1/4"

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Sockets Units = mm

RS2314



RS2315

