



## 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
- Manufactured in compliance with QS-9000 and ISO-9002



## Contact Data\*

Contact Arrangement	1A = SPST N.O. 1B = SPST N.C. 1C = SPDT	Contact Resistance	< 30 milliohms initial
Contact Rating	NO 40A @ 14VDC, resistive 20A @ 28VDC, resistive 2A @ 48VDC, resistive NC 30A @ 14VDC, resistive 15A @ 28VDC, resistive 1A @ 48VDC, resistive	Contact Material	AgSnO <sub>2</sub>
		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 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\*

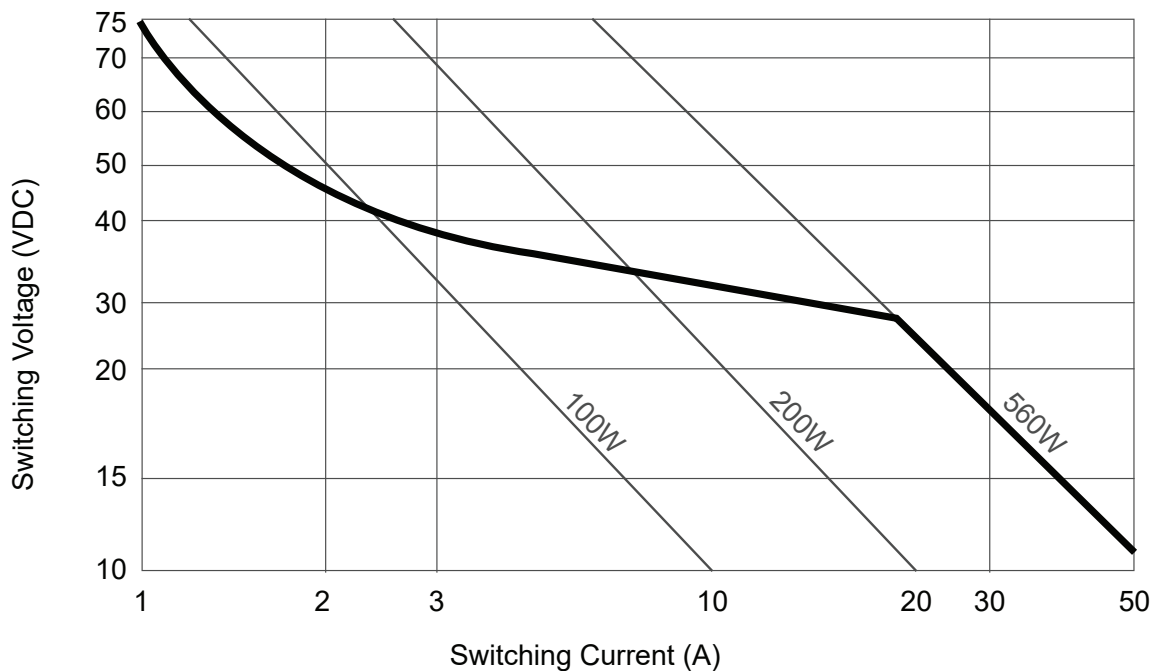
Electrical Life @ rated load	100K cycles, average	
Mechanical Life	10M cycles, average	
Insulation Resistance	100M Ω min. @ 500VDC initial	
Dielectric Strength	Coil to Contact	750V rms min. @ sea level initial
	Contact to Contact	500V rms min. @ sea level initial
Shock Resistance	147m/s <sup>2</sup> 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 A2F with mounting flange A2M with metal bracket A2S with metal bracket and shroud						
2. Contact Arrangement						
1A = SPST N.O. 1B = SPST N.C. 1C = SPDT						
3. Sealing Option						
S = Sealed C = Dust Cover *not available with A2S						
4. Termination						
P = PCB Pins *not available with A2S Q = Quick Connect						
5. Coil Voltage						
6VDC                    24VDC 12VDC                  48VDC						
6. Coil Power						
1.6 = 1.6W 1.9 = 1.9W						
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						

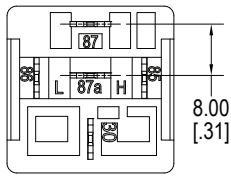
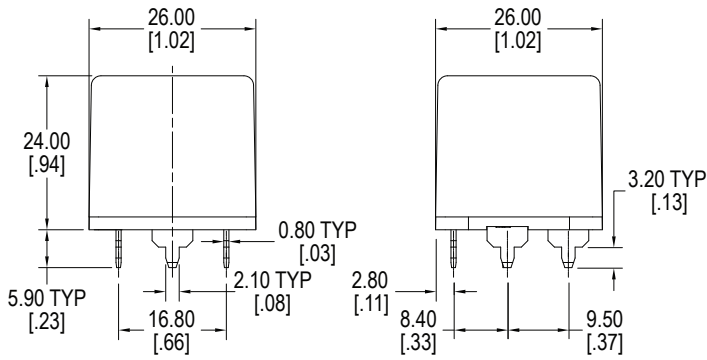
## DC Load Breaking Capacity Chart



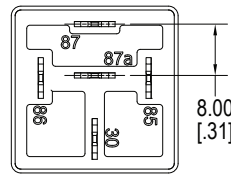
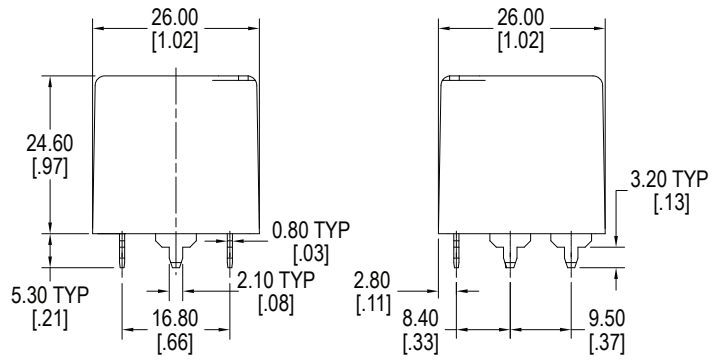
## Dimensions

Units = mm

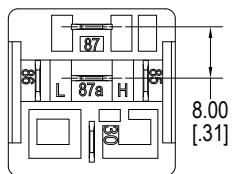
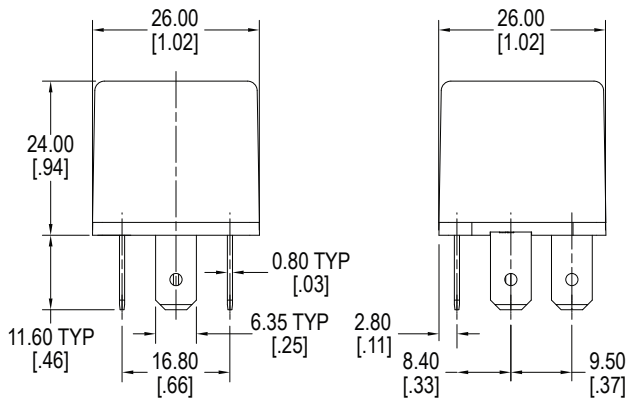
A2 with PC Pins, Dust Cover



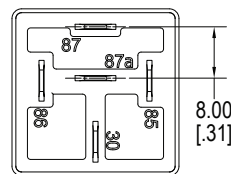
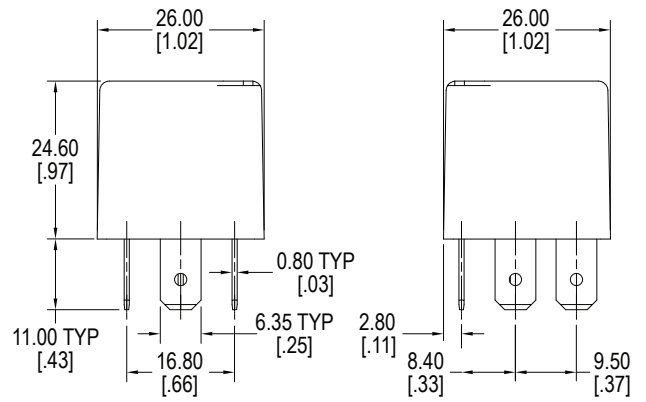
A2 with PC Pins, Sealed



A2 with Quick Connect, Dust Cover



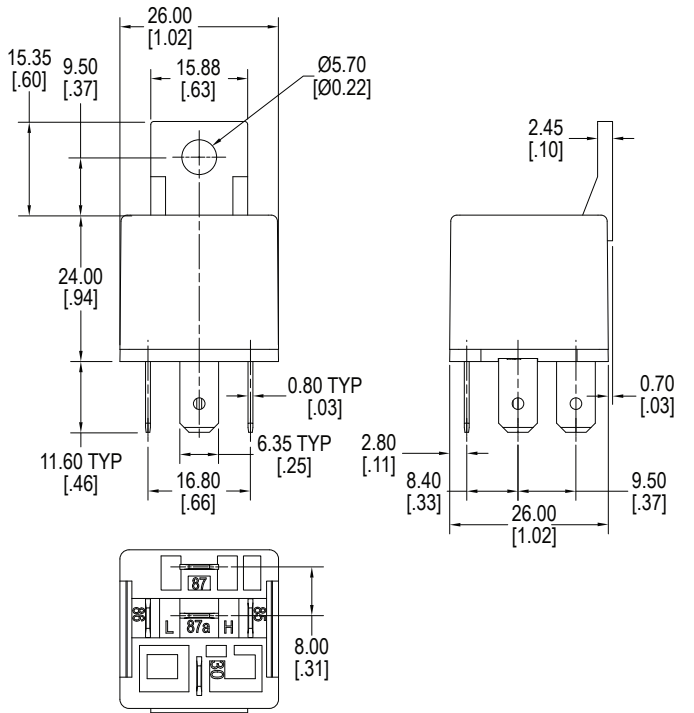
A2 with Quick Connect, Sealed



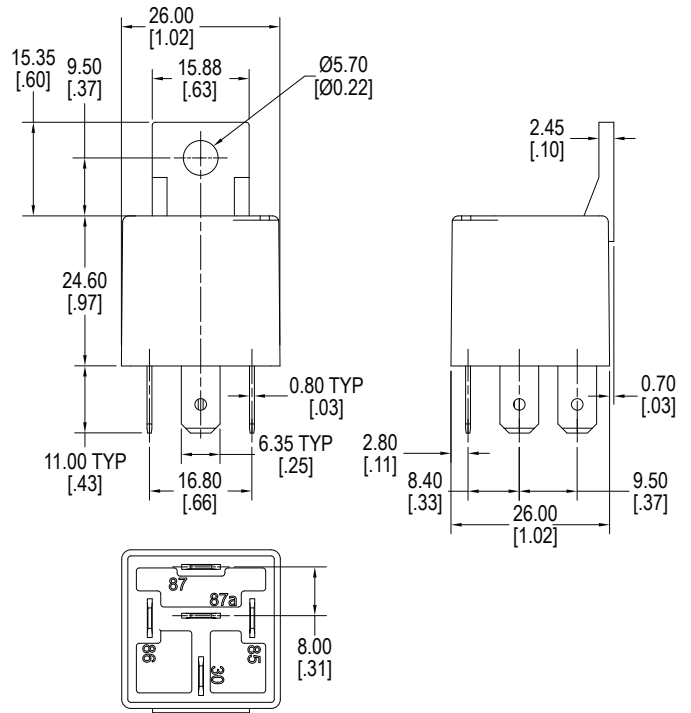
## Dimensions

Units = mm

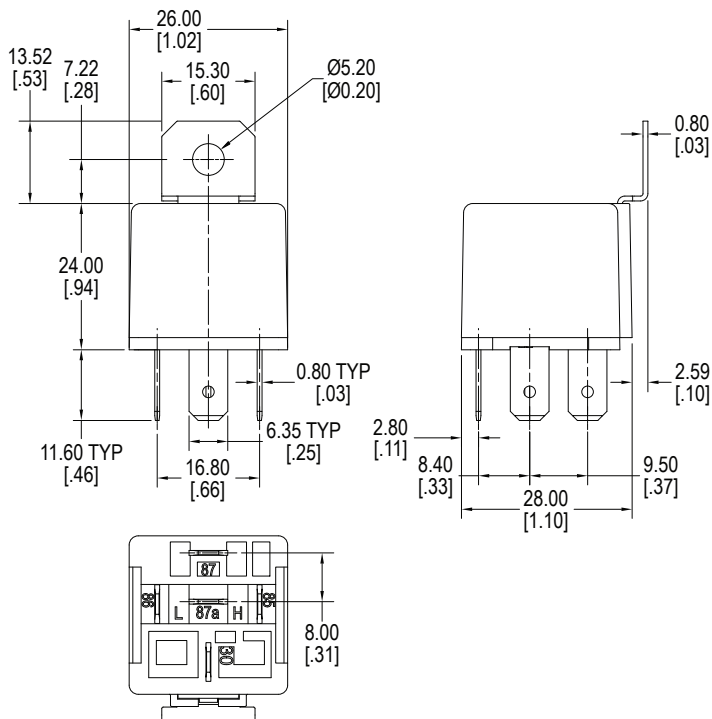
A2F with Quick Connect, Dust Cover



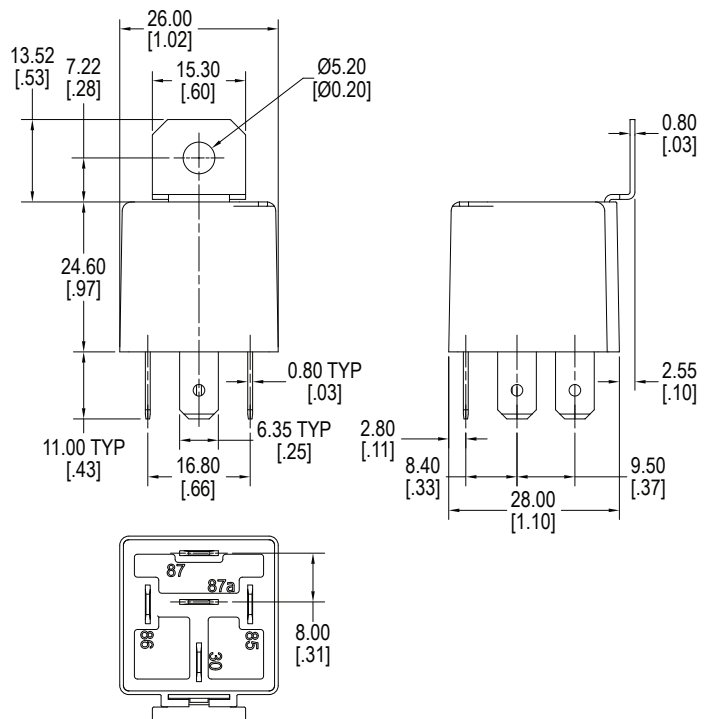
A2F with Quick Connect, Sealed



A2M with Quick Connect, Dust Cover



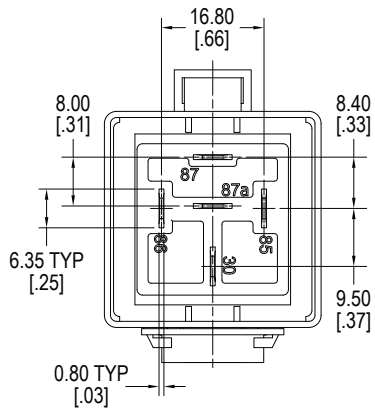
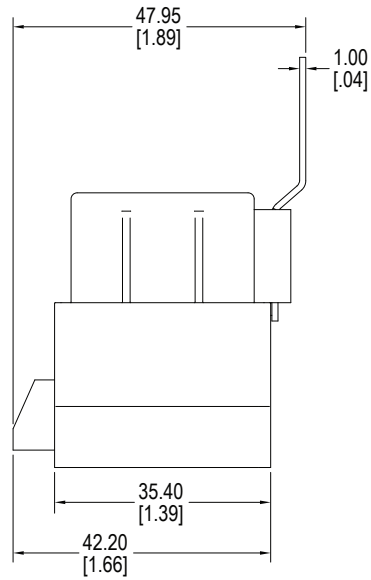
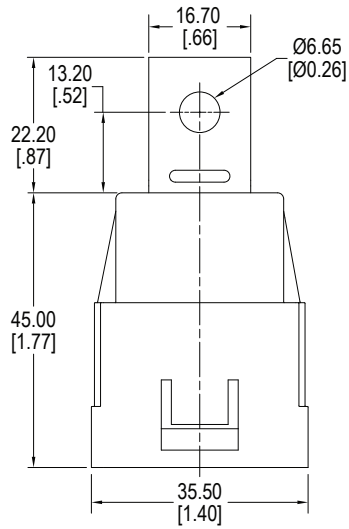
A2M with Quick Connect, Sealed



## Dimensions

Units = mm

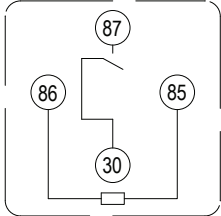
A2S, Quick Connect, Sealed



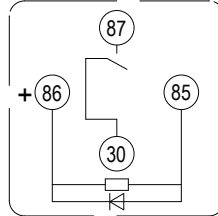
## Schematics

### Bottom Views

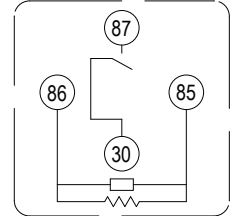
1A



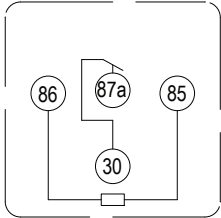
1A with Diode



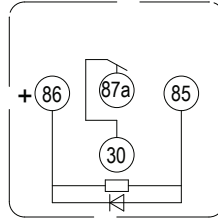
1A with Resistor



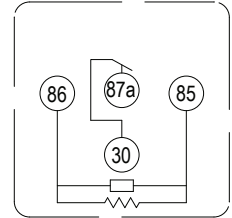
1B



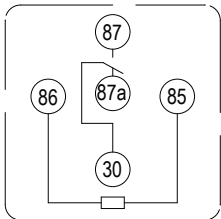
1B with Diode



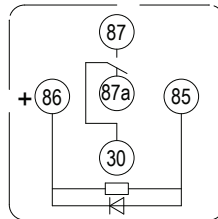
1B with Resistor



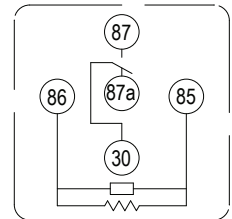
1C



1C with Diode

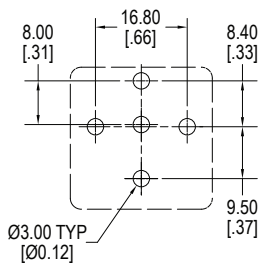


1C with Resistor



## PC Layout

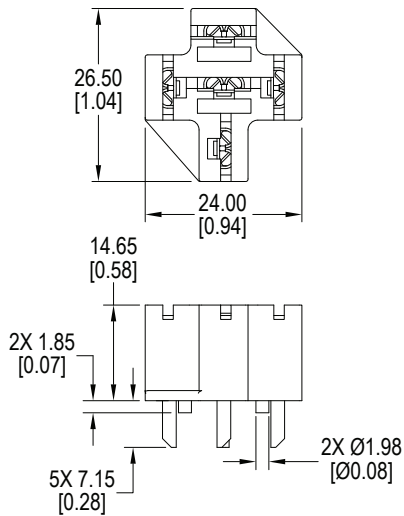
### Bottom View



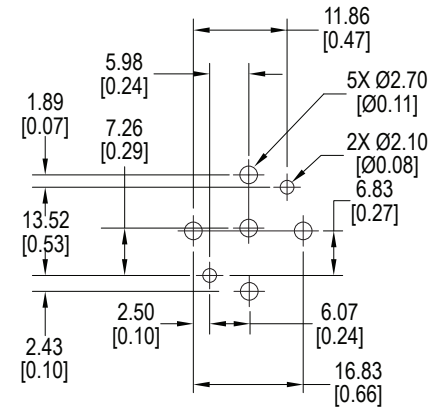
## Sockets

Units = mm

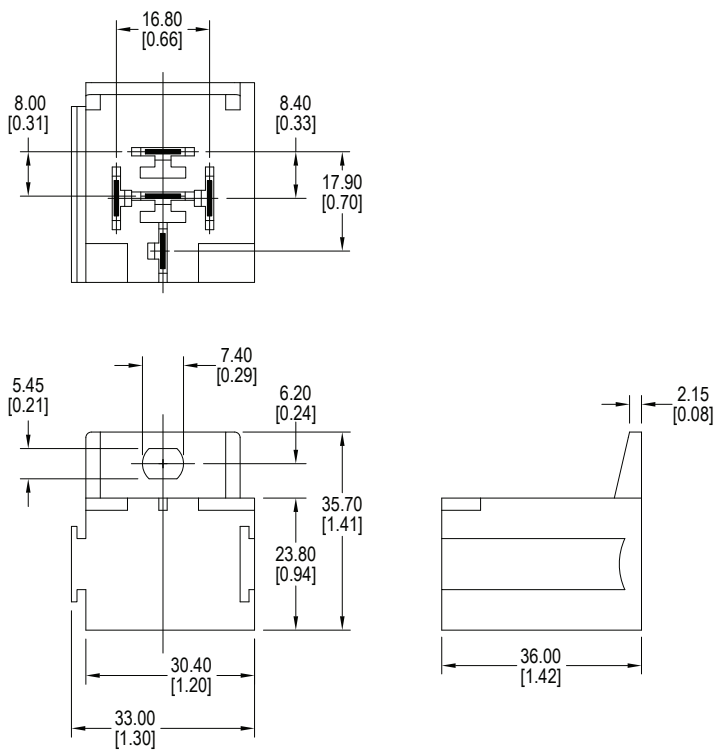
RS2105



Schematic



RS2200



### Metal Crimp Terminal Compatibility

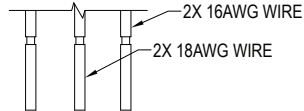
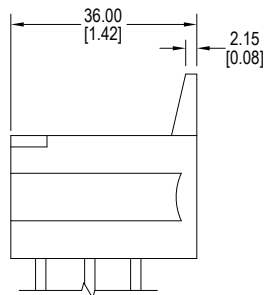
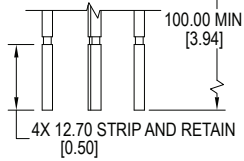
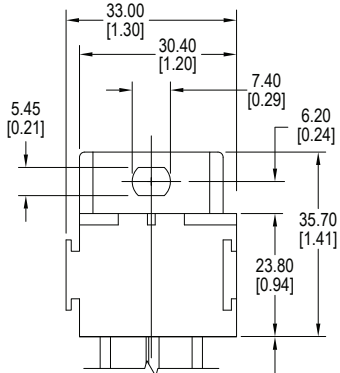
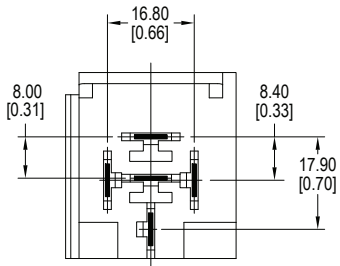
Mfr.	Part Number	Wire AWG	Blade
TE	42100	14-18	1/4"
TE	42281	14-18	1/4"
TE	42904	12-16	1/4"
TE	60249	12-16	1/4"
TE	60253	12-14	1/4"

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.

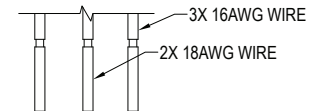
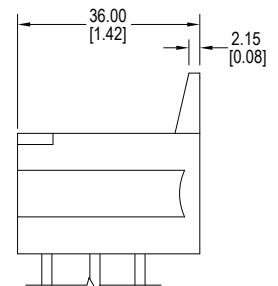
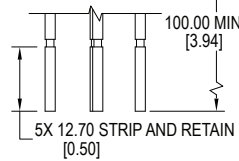
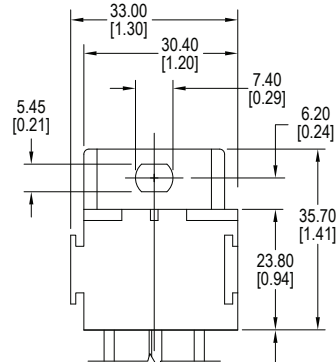
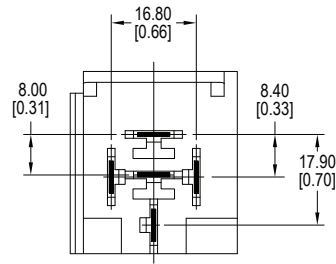
## Sockets

Units = mm

RS2214



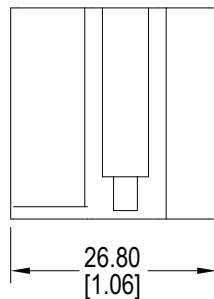
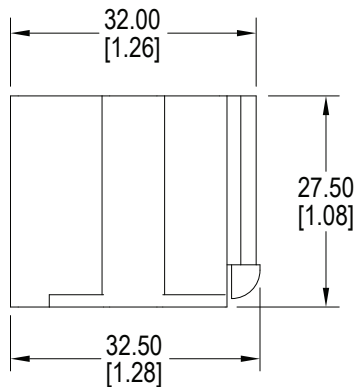
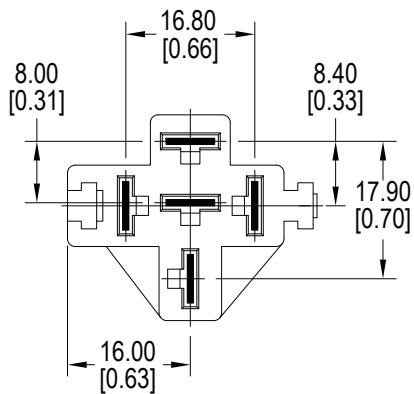
RS2215



## Sockets

Units = mm

RS2300



### Metal Crimp Terminal Compatibility

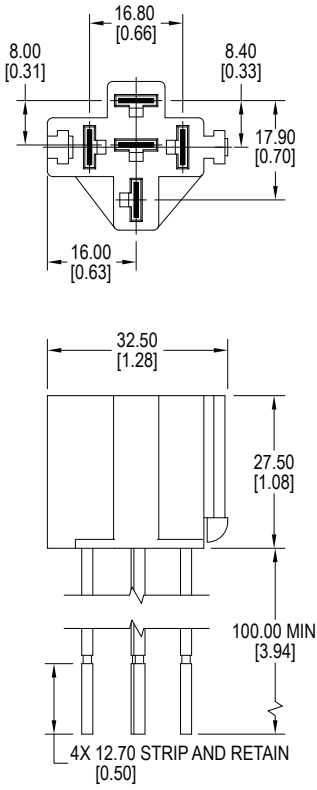
Mfr.	Part Number	Wire AWG	Blade
TE	42100	14-18	1/4"
TE	42281	14-18	1/4"
TE	42904	12-16	1/4"
TE	60249	12-16	1/4"
TE	60253	12-14	1/4"

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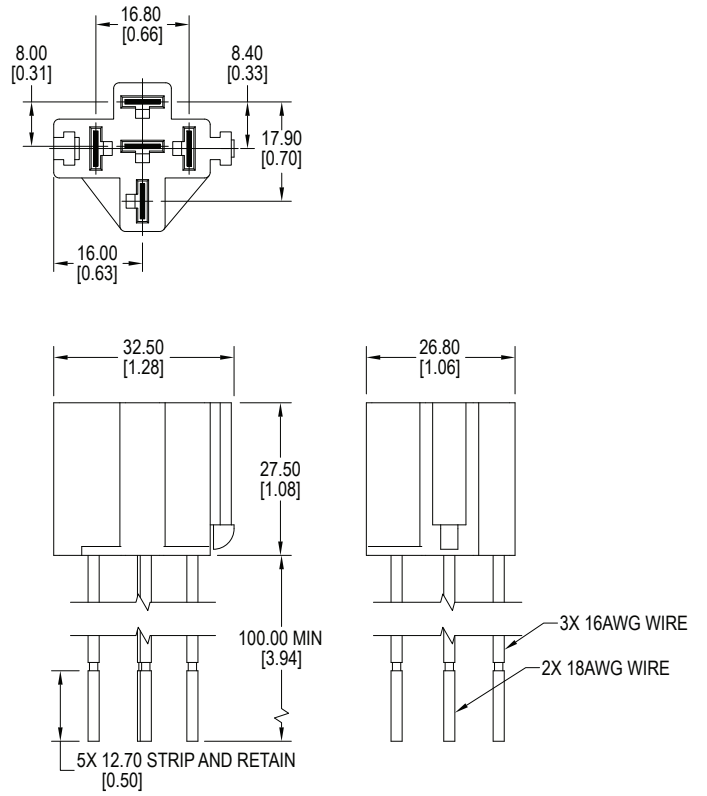
**Sockets**

Units = mm

RS2314



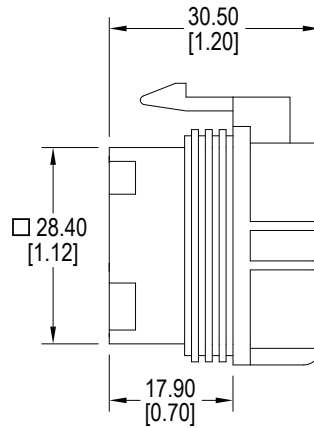
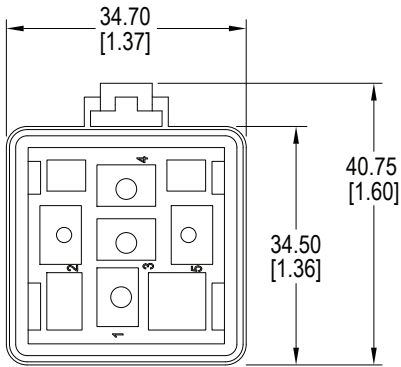
RS2315



## Sockets

Units = mm

### RS2400

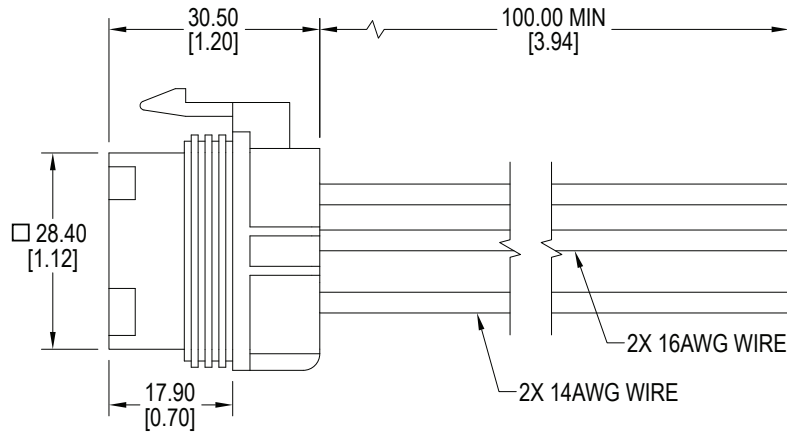
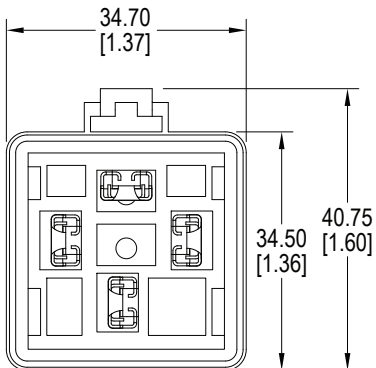


#### Metal Crimp Terminal Compatibility

Mfr.	Part Number	Wire AWG	Blade
Aptiv	12066614	14-17	1/4"
Aptiv	12020156	18-20	1/4"
Aptiv	12176854	10-12	1/4"
Aptiv	12033997	12	1/4"

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### RS2414



### RS2415

