

Features

- Maxi ISO Sized Automotive Relay
- Internal Blowout Magnets
- Capable of Switching up to 145VDC
- Suitable for DC Motor and Lamp Control
- PCB Pin and Quick Connect Mounting Options

Contact Data*

Contact Arrangement	1A = SPST N.O. 1C = SPDT
Contact Rating	80A @ 14VDC, resistive 60A @ 36VDC, resistive 50A @ 48VDC, resistive 30A @ 72VDC, resistive 15A @ 90VDC, resistive 5A @ 145VDC, resistive

Contact Resistance	< 50 milliohms initial
Contact Material	AgSnO ₂
Maximum Switching Voltage	145VDC
Maximum Switching Current	Make : 150A@14VDC for 3 seconds Break : 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	1.6W	70% of rated voltage	10% of rated voltage	1.6W	15	15
12	15.6	90	7.8	1.2			
24	31.2	360	15.6	2.4			
48	62.4	1440	33.6	4.8			

General Data*

Electrical Life @ rated load	100K cycles, average	
Mechanical Life	500K cycles, average	
Insulation Resistance	1000M 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	Functional	42m/s² (4.4G)
	Destructive	288m/s² (30G)
Vibration Resistance	0.5mm 10~500Hz double amplitude (10G)	
Operating Temperature	-40°C to +125°C (above 85°C, consult factory)	
Storage Temperature	-40°C to +155°C	
Solderability	260°C for 5 s	
Weight	80g	

* 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.

Dimensions are shown for reference purposes only.
Specifications and availability subject to change without notice.
A3K Rev H 09/2026

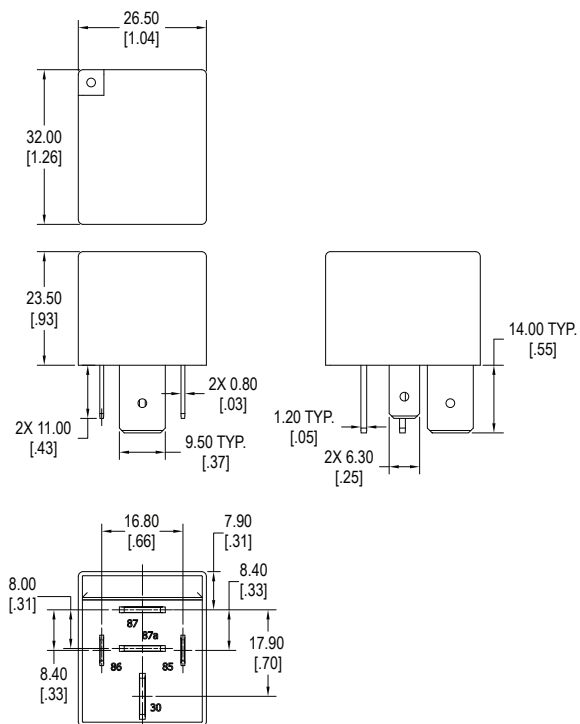
Ordering Information

1. Series	A3K	1A	S	Q	12VDC	1.6	R
A3K standard A3KM with metal bracket A3KS shrouded with metal bracket							
2. Contact Arrangement							
1A = SPST N.O. 1C = SPDT							
3. Sealing Option							
S = Sealed C = Dust Cover							
4. Termination							
P = PCB Pins Q = Quick Connect							
5. Coil Voltage							
12VDC 24VDC 48VDC							
6. Coil Power							
1.6 = 1.6W							
7. Coil Suppression							
Blank = Standard D = Diode (1N4007) Cathode on "86" terminal R = Resistor (680Ω for 12VDC;2700Ω for 24VDC) ** Consult factory if other values are needed							

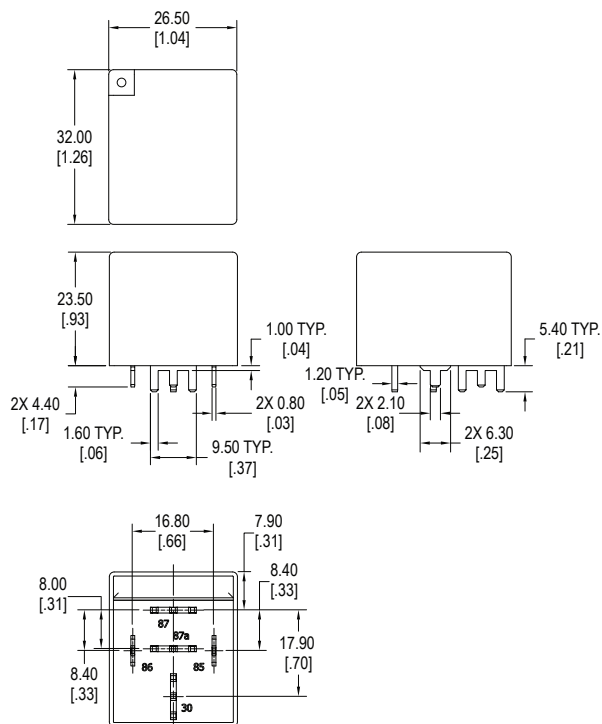
Dimensions

Units = mm [in]

1C Standard, Quick Connect



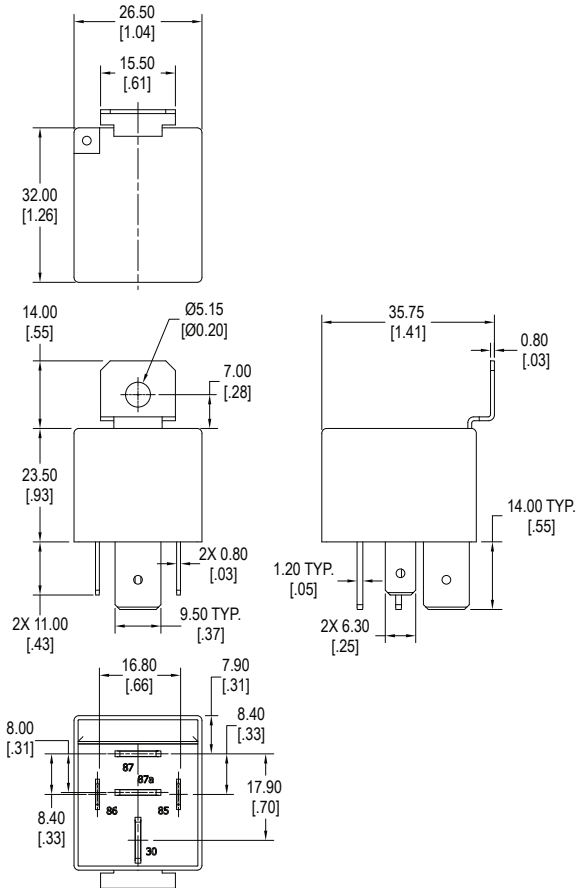
1C Standard, PC Terminals



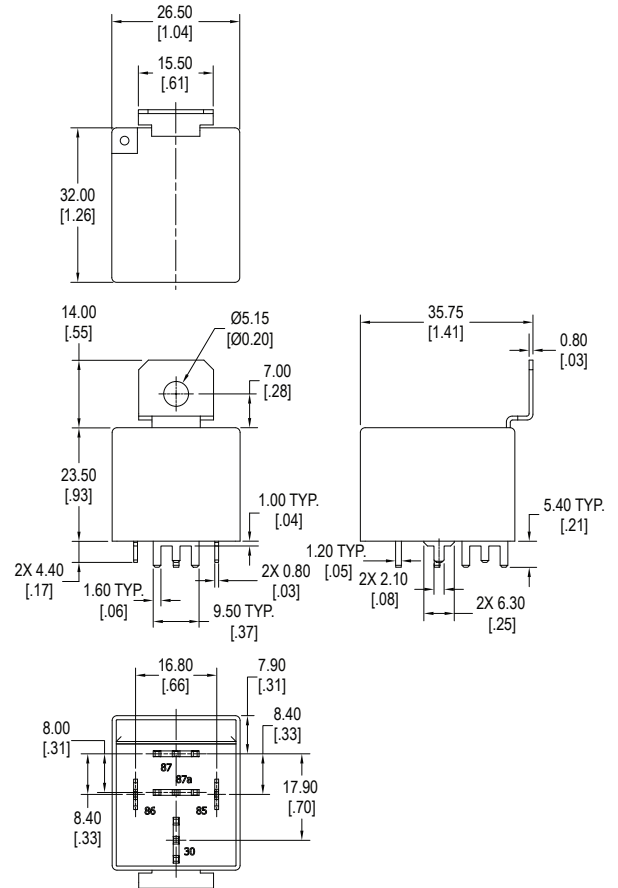
Dimensions

Units = mm [in]

1C Metal Bracket, Quick Connect



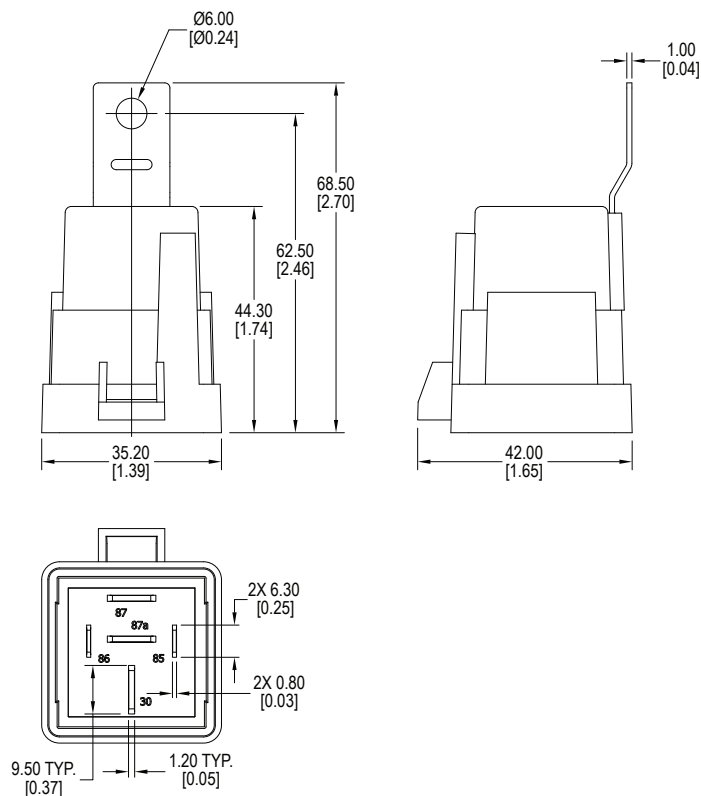
1C Metal Bracket, PC Terminals



Dimensions

Units = mm [in]

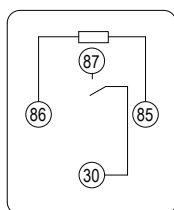
Metal Bracket, Quick Connect, Sealed



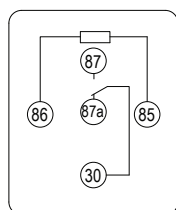
Schematics & PC Layout

Bottom Views

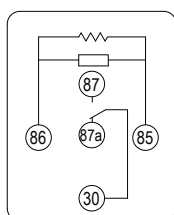
1A



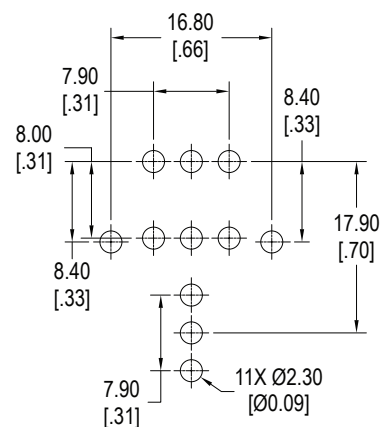
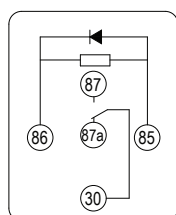
1C



1C with Resistor



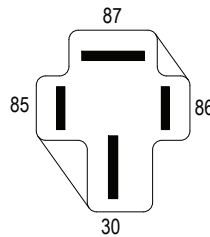
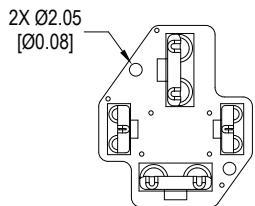
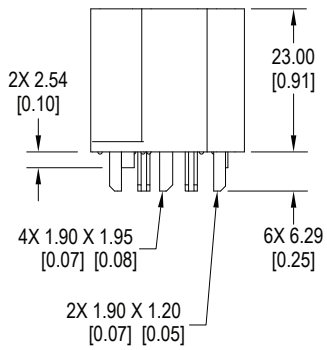
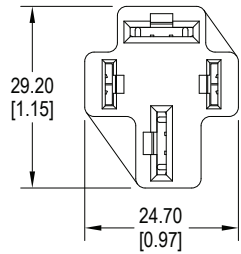
1C with Diode



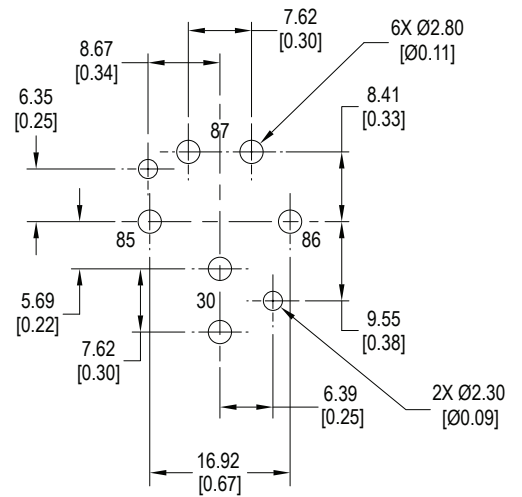
Sockets

Units = mm [in]

RS3104



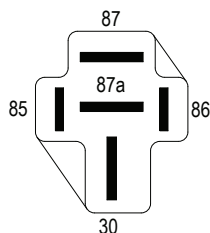
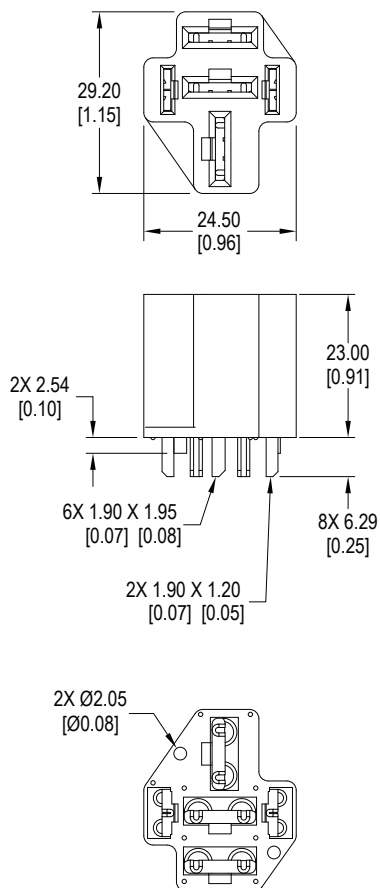
Suggested PC Layout *Top View*



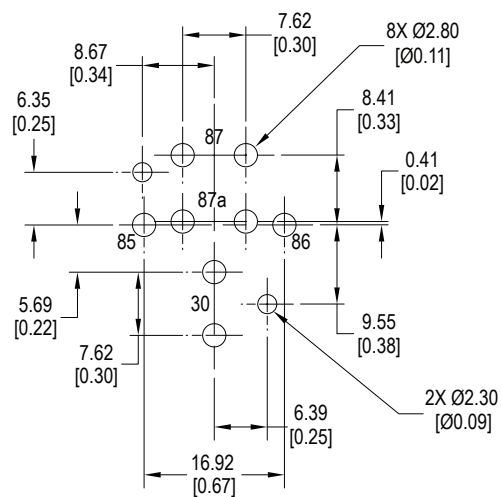
Sockets

Units = mm [in]

RS3105



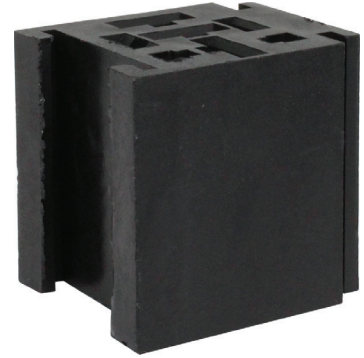
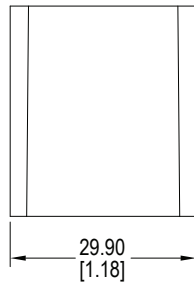
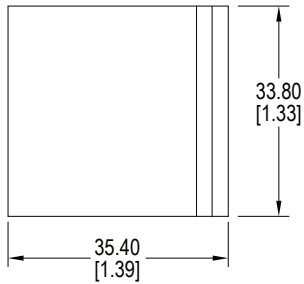
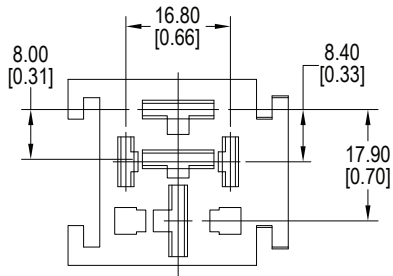
Suggested PC Layout *Top View*



Sockets

Units = mm [in]

RS3300



Metal Crimp Terminal Compatibility

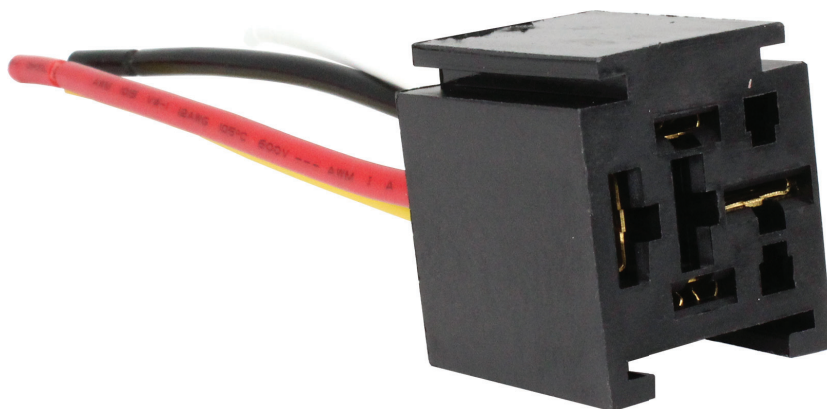
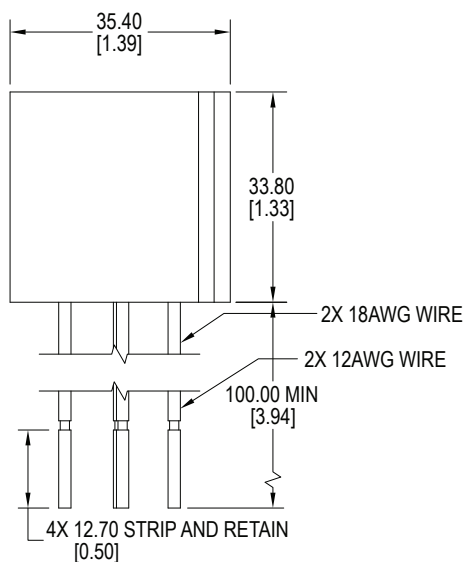
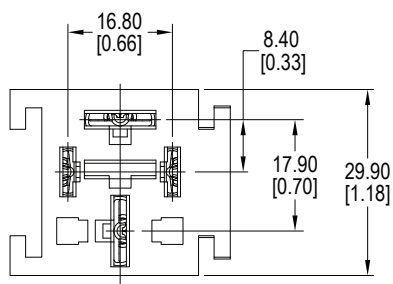
Mfr.	Part Number	Wire AWG	Blade
TE	42100-2	14-18	1/4"
TE	42881-1	14-19	1/4"
TE	42904-2	12-16	1/4"
TE	60249-3	12-16	1/4"
TE	60253-2	12-14	1/4"
TE	280756-2	10-12	3/8"
TE	280755-2	7-10	3/8"

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 [in]

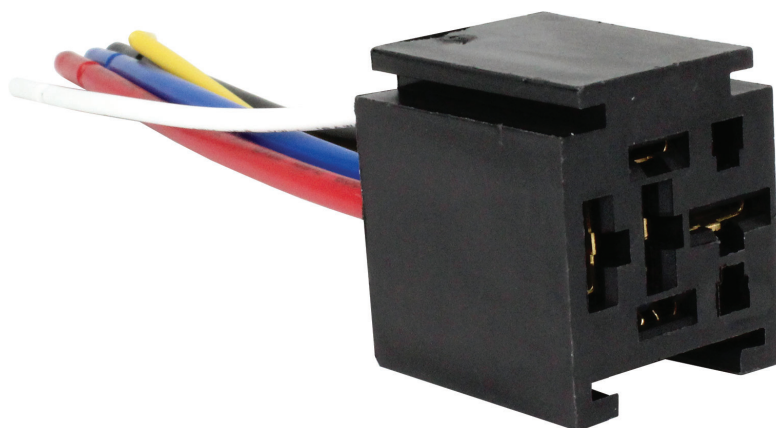
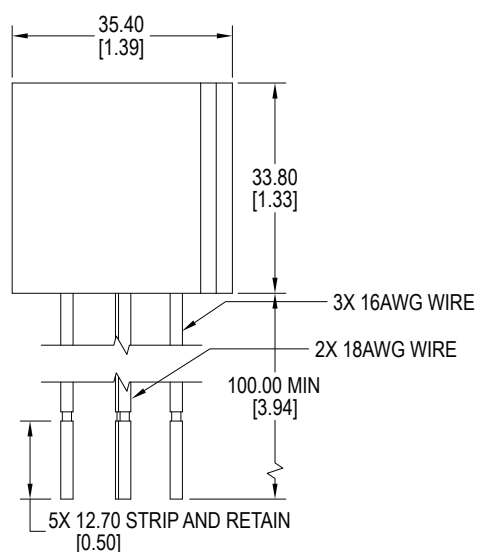
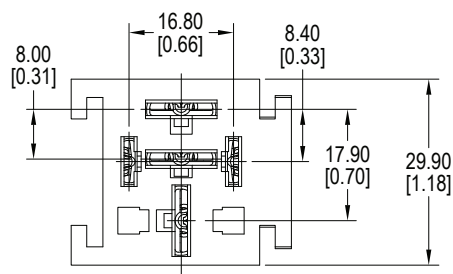
RS3314



Sockets

Units = mm [in]

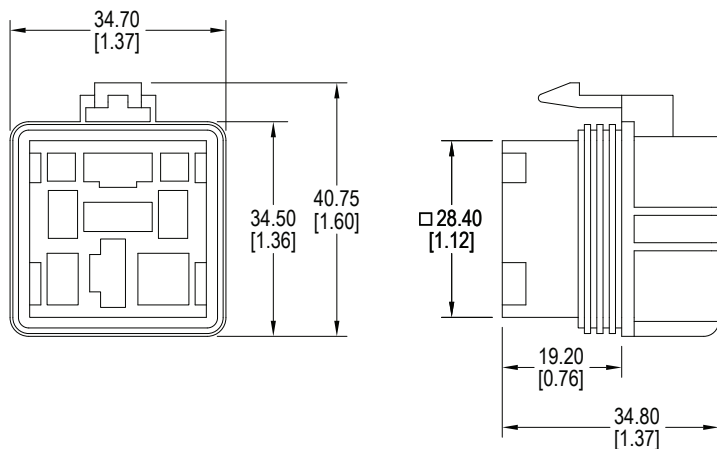
RS3315



Sockets

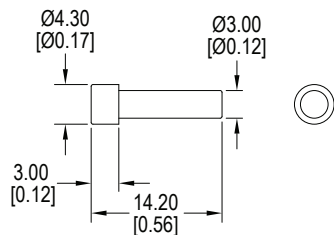
Units = mm [in]

RS3400



RS Plug

RS Plug is available for customers to plug any unused wire cavity in the socket seal.



Metal Crimp Terminal Compatibility

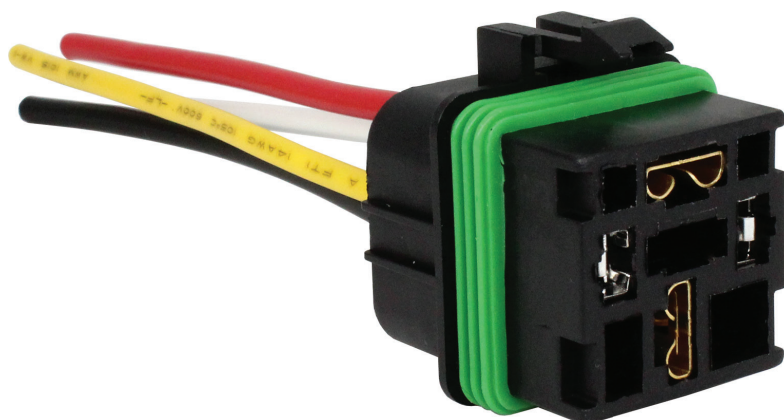
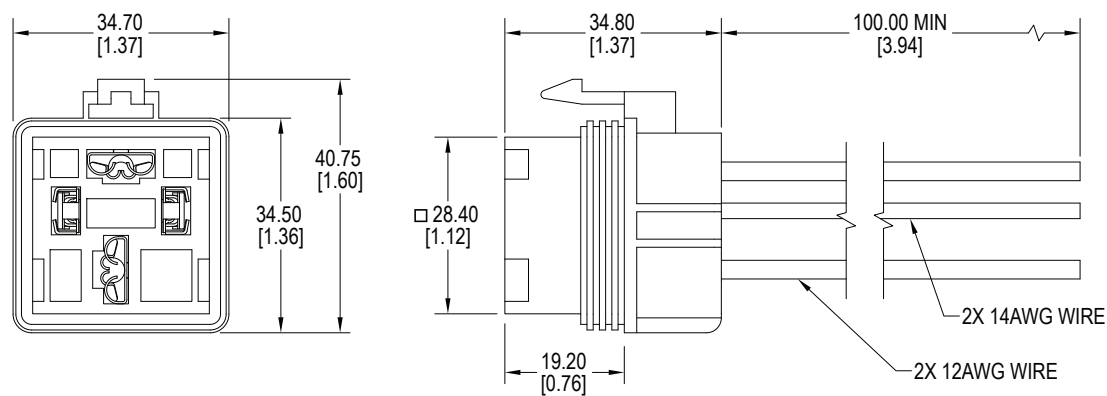
Mfr.	Part Number	Wire AWG	Blade
Aptiv	12066614	14-17	1/4"
Aptiv	12020156	18-20	1/4"
Aptiv	12176854	10-12	1/4"
Aptiv	12033997	12	1/4"
CIT	RST3752	10-12	3/8"

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Sockets

Units = mm [in]

RS3414



Sockets

Units = mm [in]

RS3415

