CIT® Relay & Switch

A2K

26.5 x 32.0 x 33.5 mm

RoHS COMPLIANT

Features

- ISO Sized Automotive Relay
- Internal Blowout Magnets
- Capable of Switching up to 110VDC
- 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	60A @ 14VDC, resistive 25A @ 36VDC, resistive 20A @ 48VDC, resistive 15A @ 72VDC, resistive 10A @ 90VDC, resistive 7A @ 110VDC, resistive

Contact Resistance	< 50 milliohms initial
Contact Material	$AgSnO_2$
Maximum Switching Voltage	110VDC
Maximum Switching Current	Make : 120A@14VDC for 3 seconds Break : 60A

Coil Data*

Coil Voltage VDC		Coil Resistance Ω +/- 10%	Pick Up Voltage VDC (max) 70% of rated voltage	Release Voltage VDC (min) 10% of rated voltage	Coil Power W	Operate Time ms	Release Time ms
Rated	Max	1.6W					
12	15.6	90	7.8	1.2	1.6W	15	15
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		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	Functional	42m/s^2 (4.4G)
	Destructive	288m/s^2 (30G)
Vibration Resistance		0.5mm 10~500Hz double amplitude (10G)
Operating Temperature		-40ºC to +125ºC (above 85°C, consult factory)
Storage Temperature		-40ºC to +155ºC
Solderability		260ºC for 5 s
Weight		65g

* *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.*

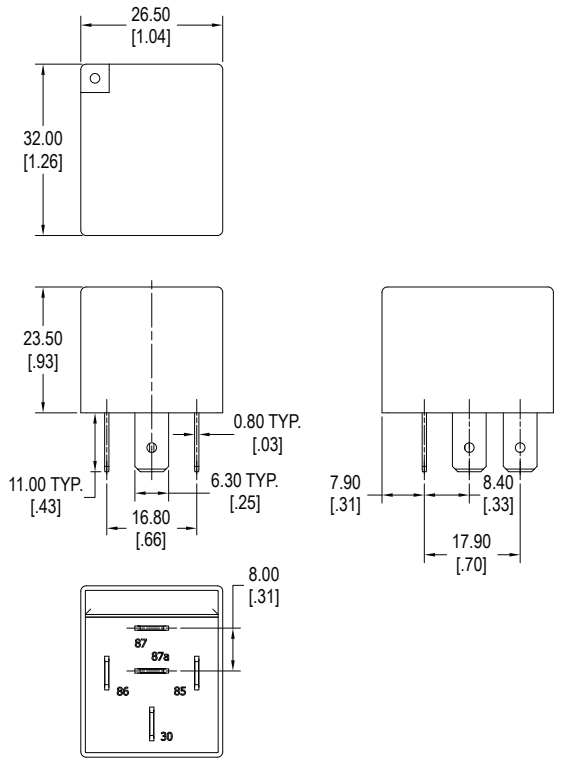
Ordering Information

1. Series	A2K	1A	S	Q	12VDC	1.6	R
A2K standard A2KM with metal bracket A2KS with metal bracket and shroud							
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							

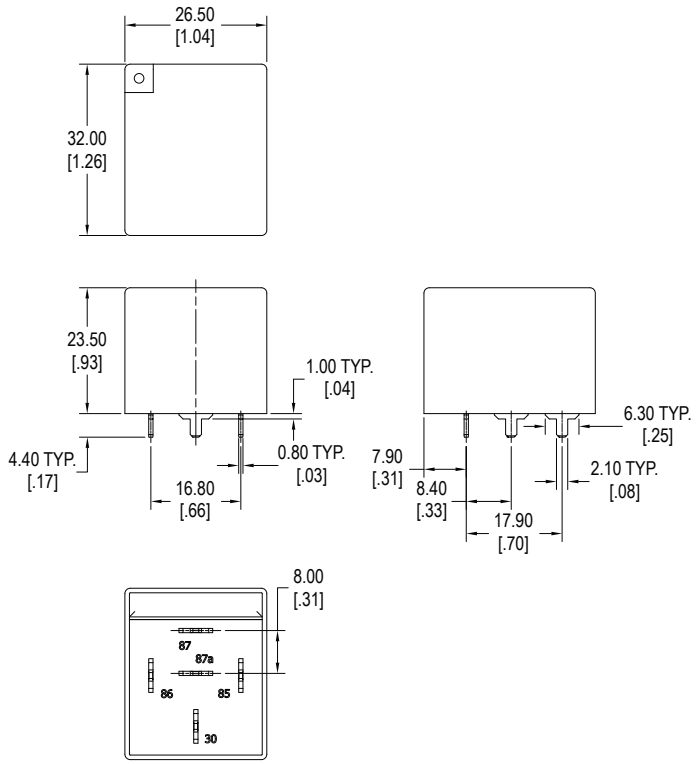
Dimensions

Units = mm

1C Standard, Quick Connect



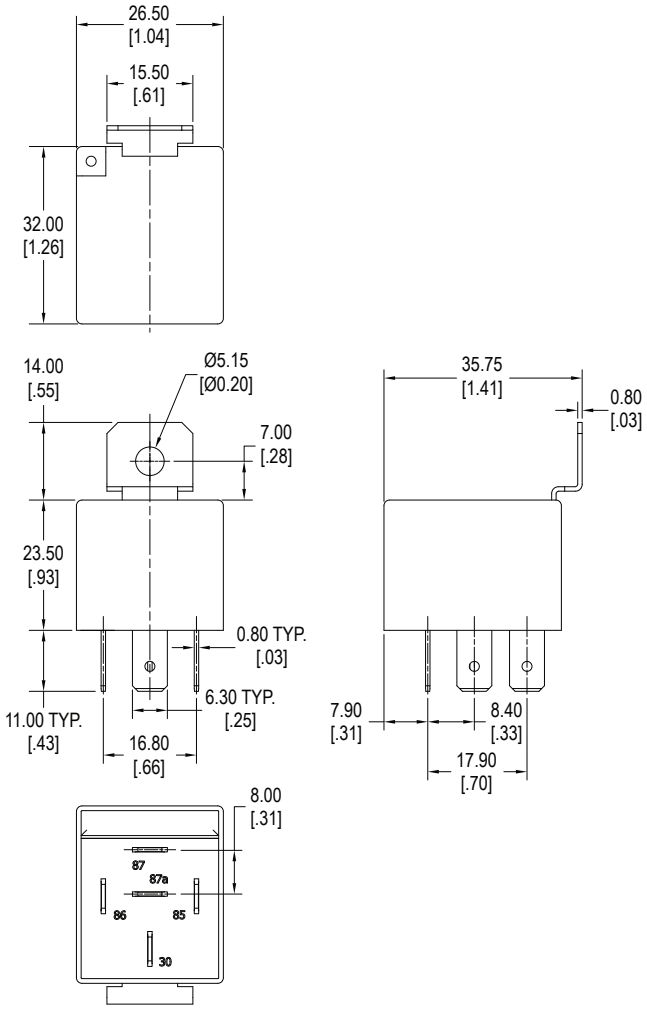
1C Standard, PC Terminals



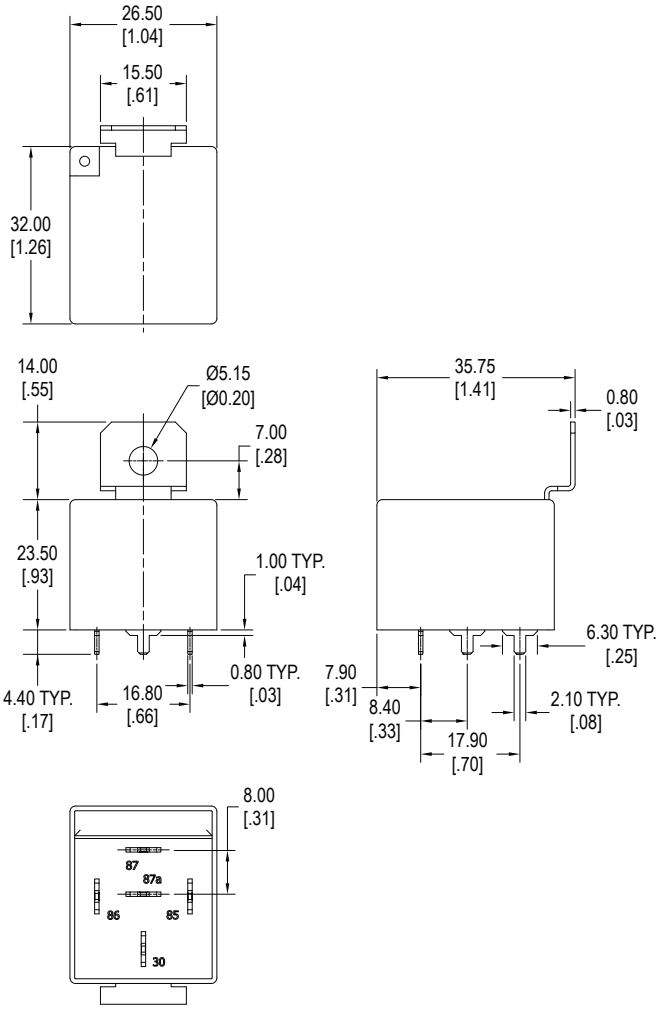
Dimensions

Units = mm

1C Metal Bracket, Quick Connect



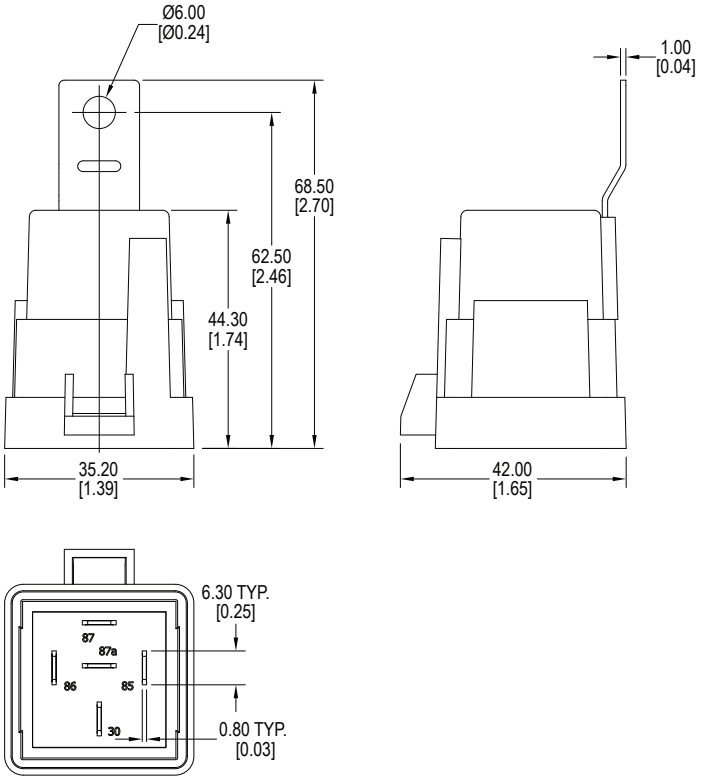
1C Metal Bracket, PC Terminals



Dimensions

Units = mm

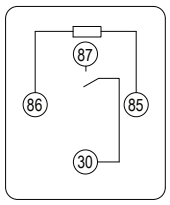
Metal Bracket, Quick Connect, Sealed



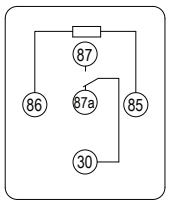
Schematics & PC Layout

Bottom Views

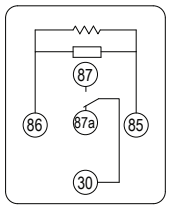
1A



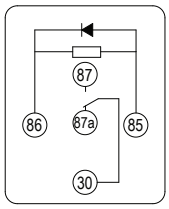
1C

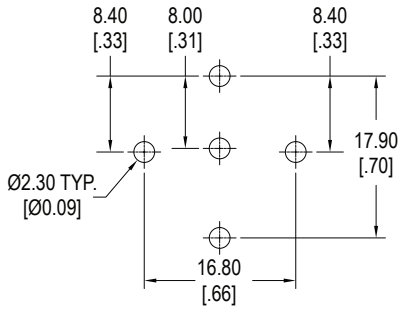


1C with Resistor



1C with Diode

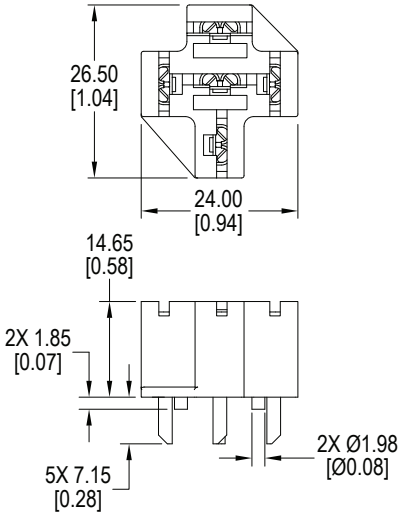


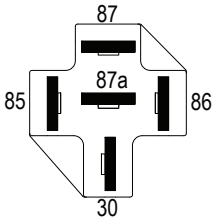


Sockets

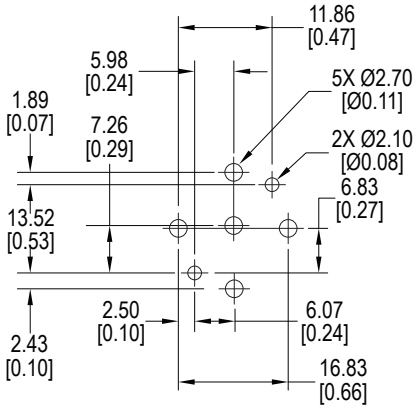
Units = mm

RS2105

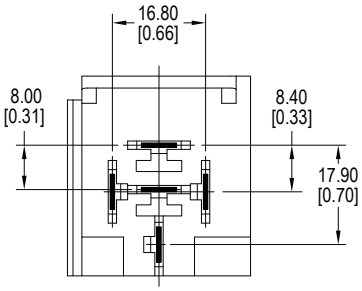


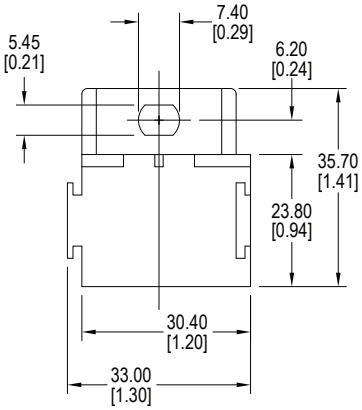


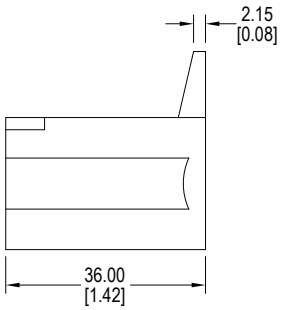
Schematic



RS2200







Metal Crimp Terminal Compatibility

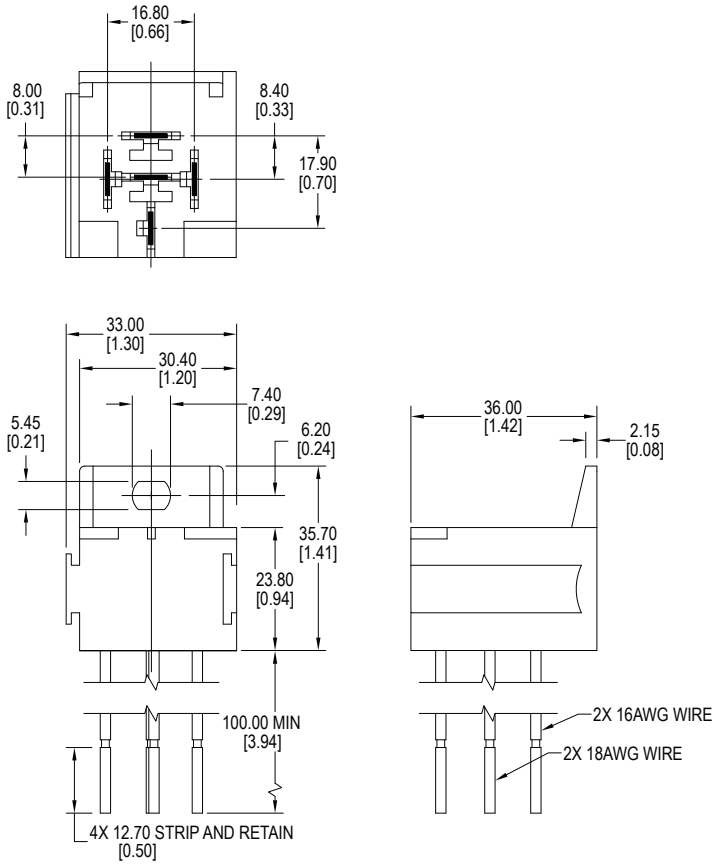
Mfr.	Part Number	Wire AWG	Blade
TE	42100	14-18	1/4”
TE	42281	14-18	1/4”
TE	42904	12-16	1/4”
TE	60249	12-16	1/4”
TE	60253	12-14	1/4”

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.

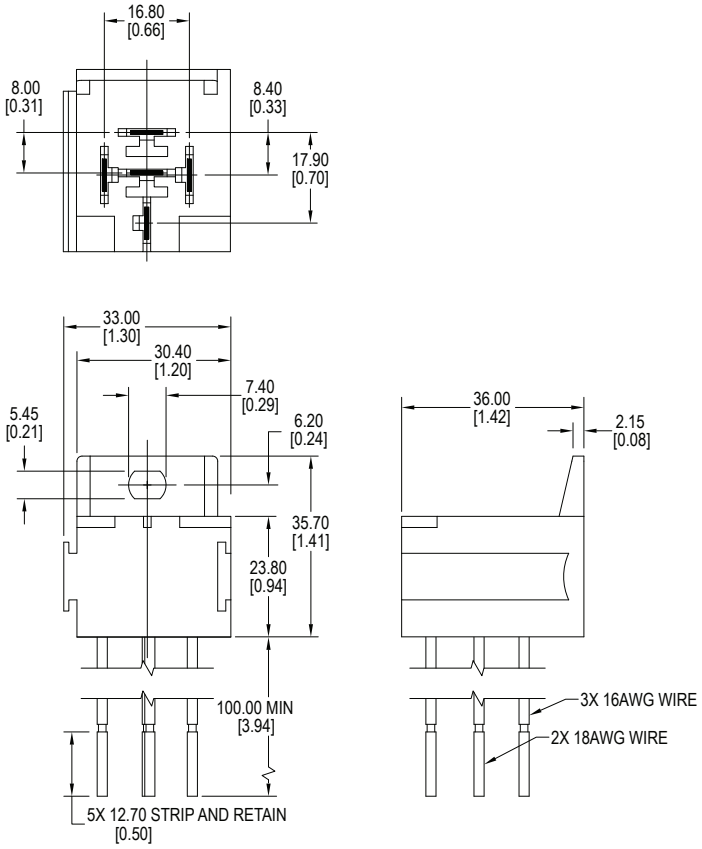
Sockets

Units = mm

RS2214



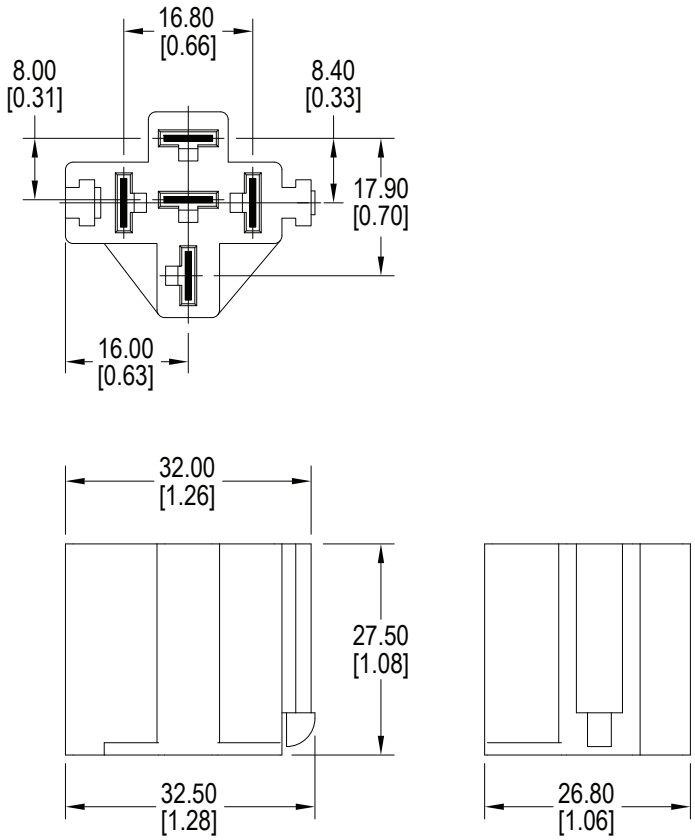
RS2215



Sockets

Units = mm

RS2300



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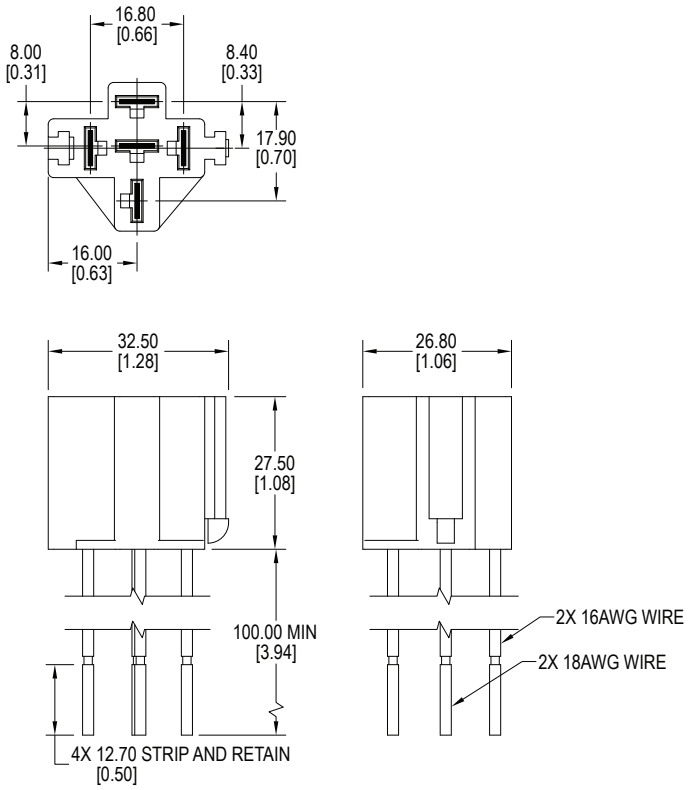
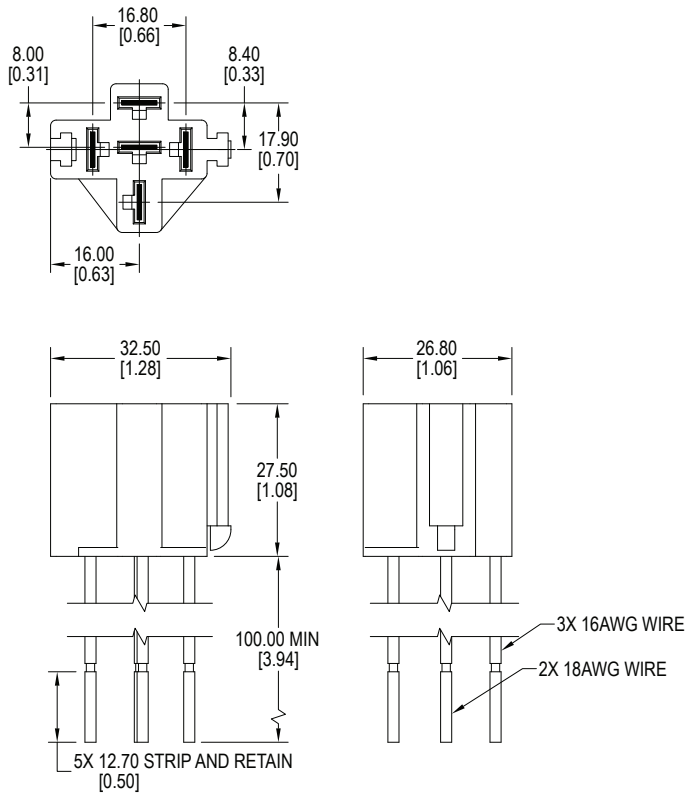
Sockets

Units = mm

RS2314



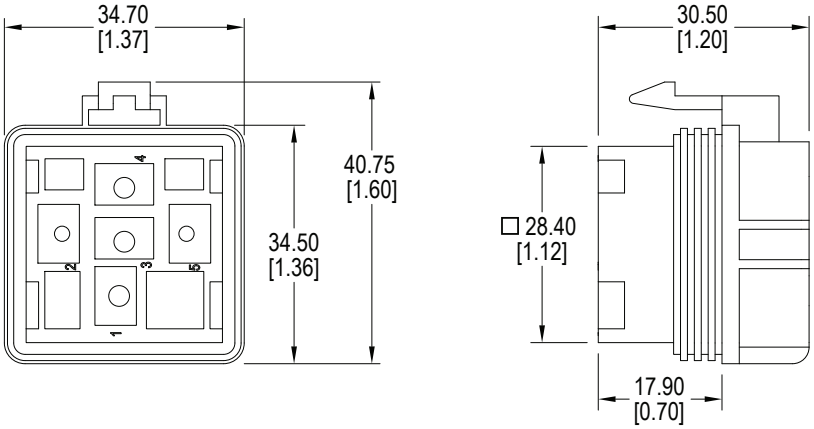
RS2315



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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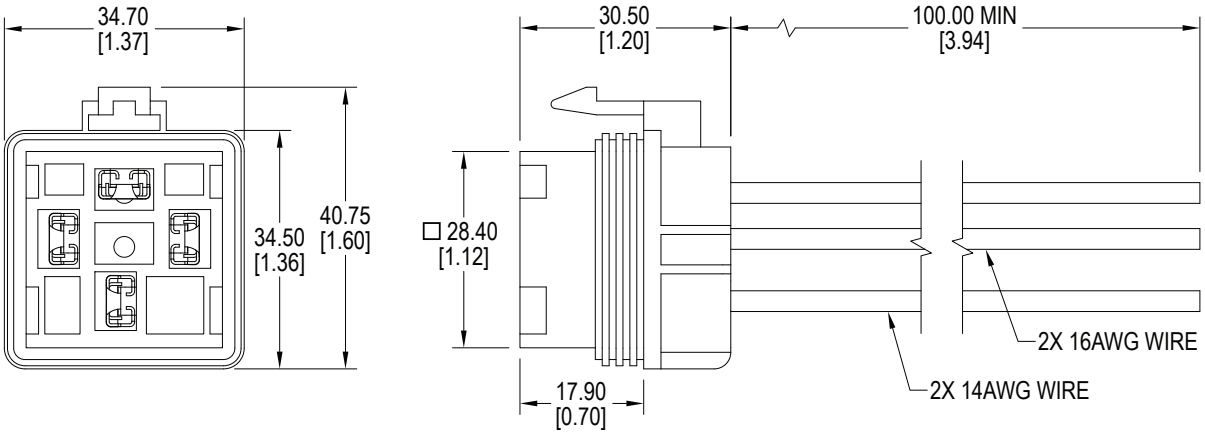
RS2414



RS2415