CIT Relay & Switch

A2H

26.0 x 26.0 x 22.7 mm

Features

- Large switching capacity up to 50A
- Small size and light weight
- PCB pin and quick connect mounting available
- Low temperature rise at full load

RoHS COMPLIANT

Contact Data*

Contact Arrangement	1A = SPST N.O. 1C = SPDT
Contact Rating	1A : 50A @ 14VDC 1C : 50A @ 14VDC N.O. : 30A @ 14VDC N.C.

Contact Resistance	≤ 50 milliohms initial
Contact Material	$AgSnO_2$
Maximum Switching Power	700W
Maximum Switching Voltage	75VDC
Maximum Switching Current	50A

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	without Resistor	with Resistor					
12	15.6	90	80	7.8	1.2	1.6	≤ 10	≤ 10
24	31.2	360	320	15.6	2.4			

General Data*

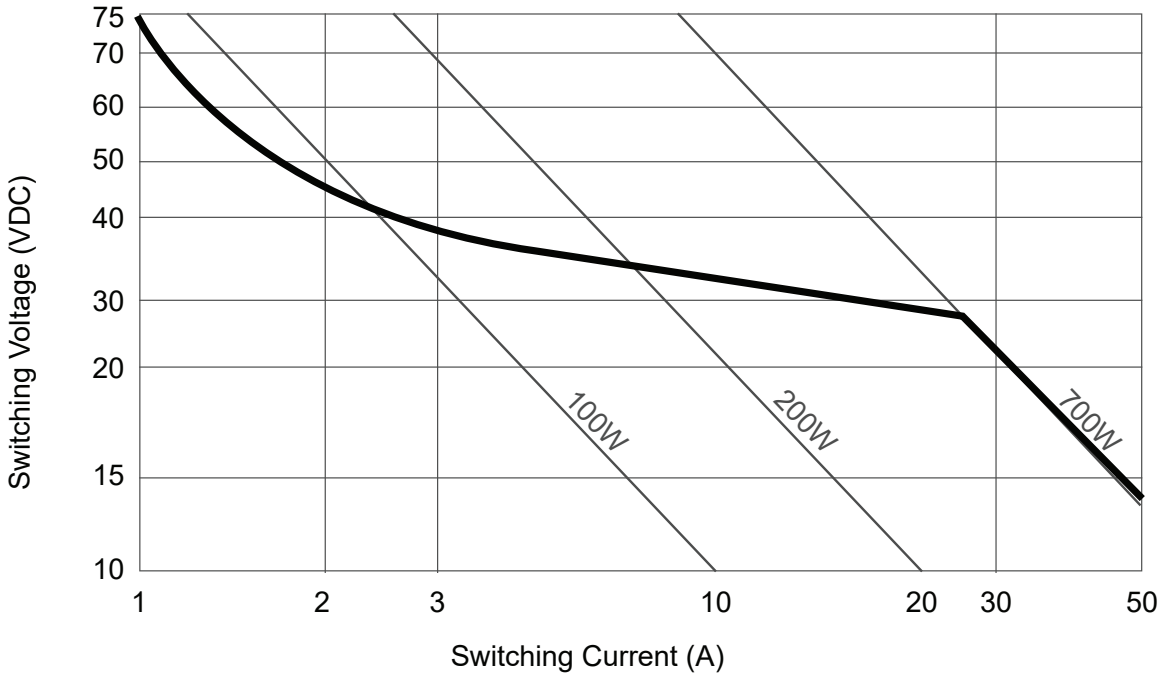
Electrical Life @ rated load	100K cycles, average
Mechanical Life	10M cycles, average
Insulation Resistance	100MΩ min. @ 500VDC initial
Dielectric Strength Coil to Contact	750V rms min. @ sea level initial
Contact to Contact	500V rms min. @ sea level initial
Shock Resistance	294m/s^2 for 11 ms
Vibration Resistance	10mm double amplitude 10~22.3Hz
Terminal (Copper Alloy) Strength	8N (quick connect), 4N (PCB pins)
Operating Temperature	-40ºC to +125ºC
Storage Temperature	-40ºC to +155ºC
Solderability	260ºC for 5 s
Weight	35g

* *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	A2H	1C	S	Q	12VDC	1.6
A2H standard A2HF with mounting flange A2HM 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						
6. Coil Power 1.6 = 1.6W						
7. Coil Suppression Blank = Standard D = Diode (1N4005) Cathode on “86” terminal R = Resistor (680Ω for 12VDC; 2700Ω for 24VDC)						

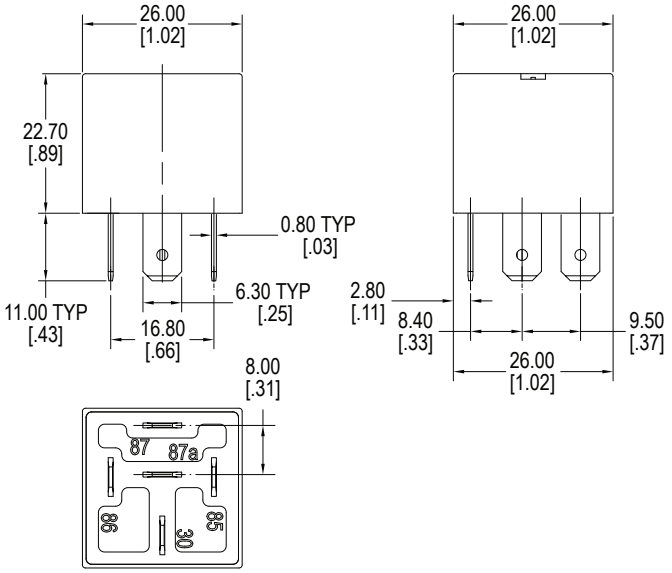
DC Load Breaking Capacity Chart



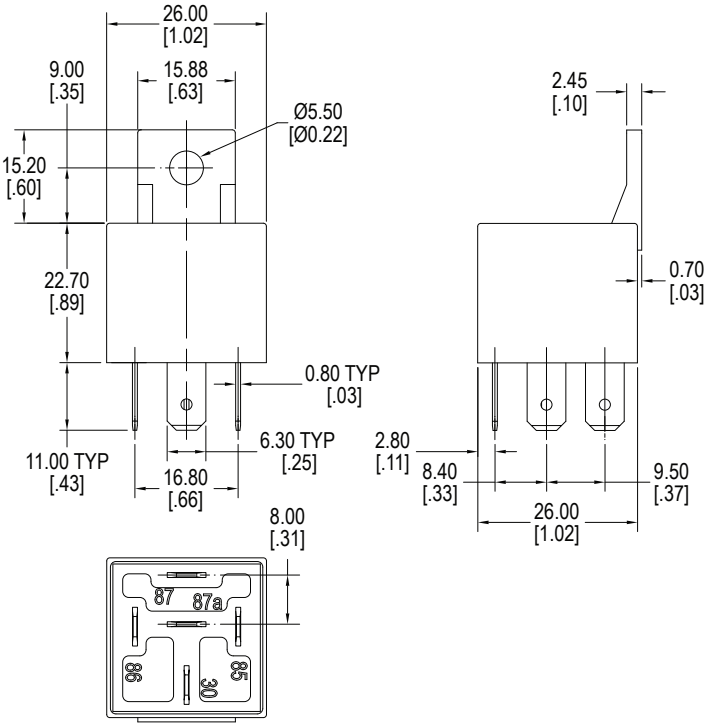
Dimensions

Units = mm [in]

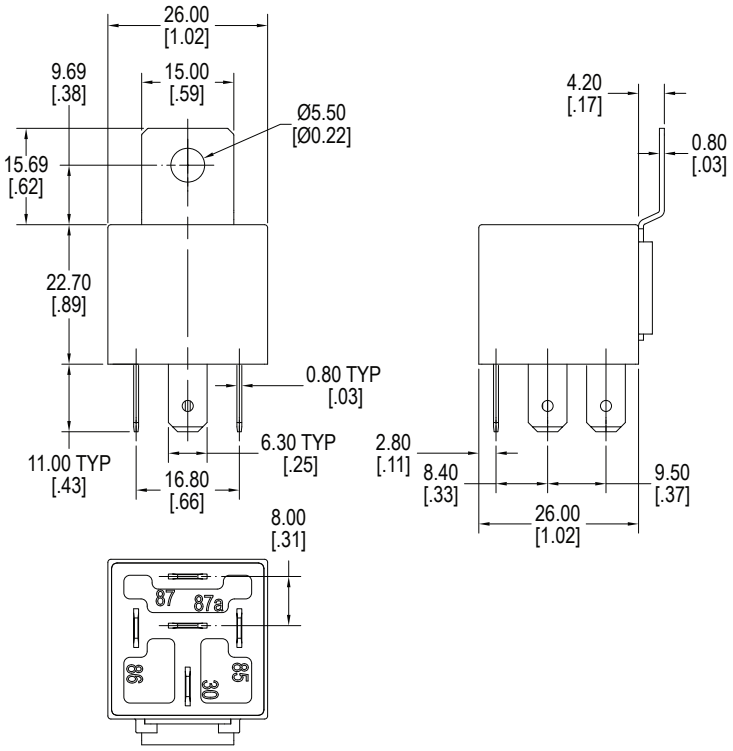
A2H Standard



A2HF Mounting Flange



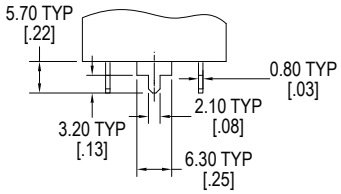
A2HM Metal Bracket



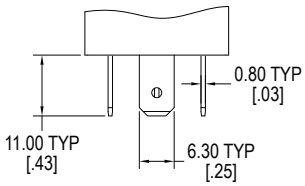
Termination Options

Units = mm [in]

PC Pins



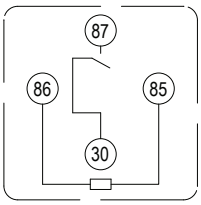
Quick Connect



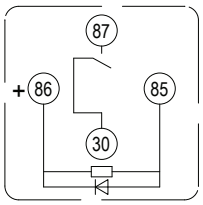
Schematics

Bottom Views

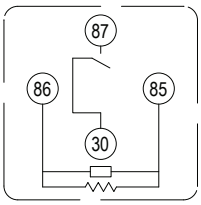
1A



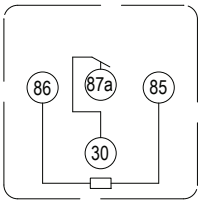
1A with Diode



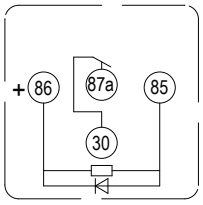
1A with Resistor



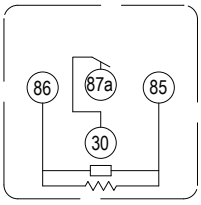
1B



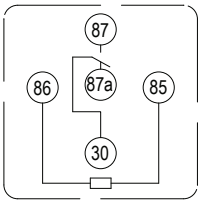
1B with Diode



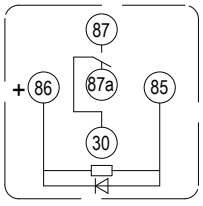
1B with Resistor



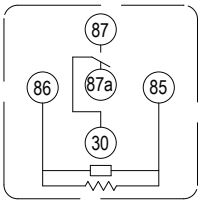
1C



1C with Diode

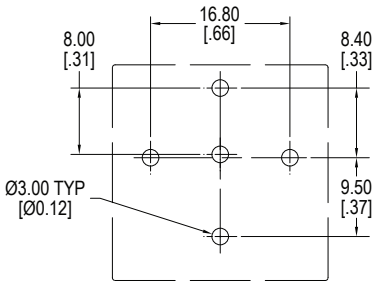


1C with Resistor



Suggested Layout

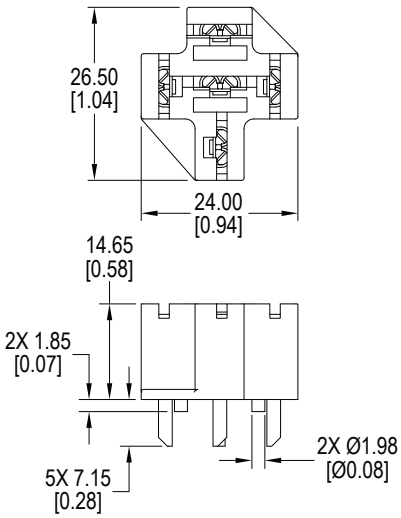
Bottom Views

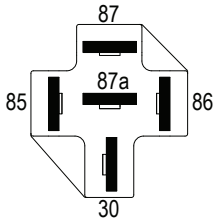


Sockets

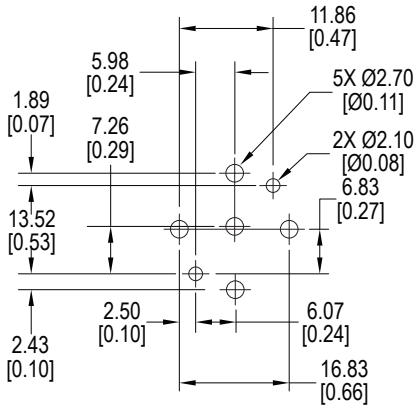
Units = mm [in]

RS2105





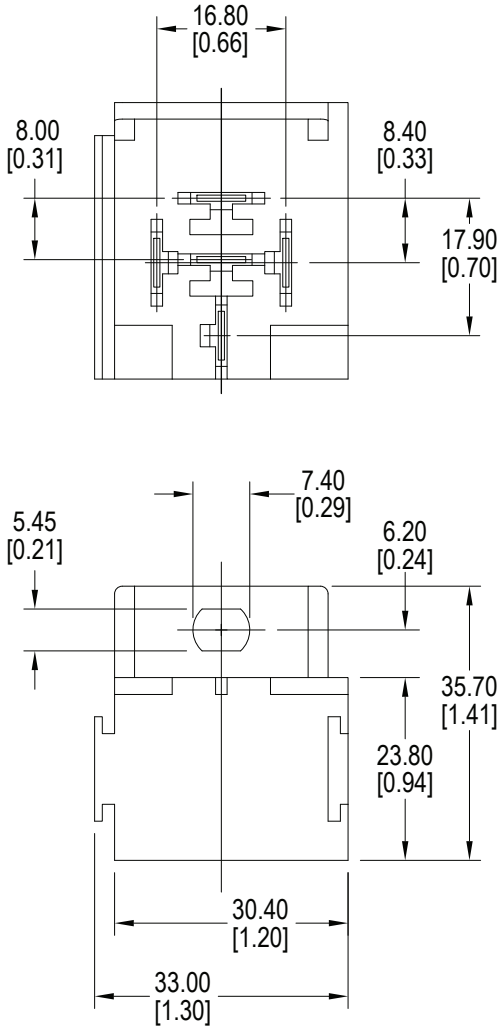
Suggested PC Layout *Top View*



Sockets

Units = mm [in]

RS2200



Metal Crimp Terminal Compatibility

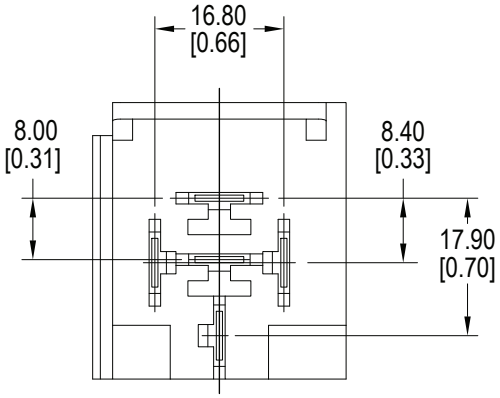
Mfr.	Part Number	Wire AWG	Blade
TE	42100-2	14-18	1/4”
TE	42881-1	14-19	1/4”
TE	42904-2	12-16	1/4”
TE	**60249-3**	**12-16**	**1/4”**
TE	**60253-2**	**12-14**	**1/4”**

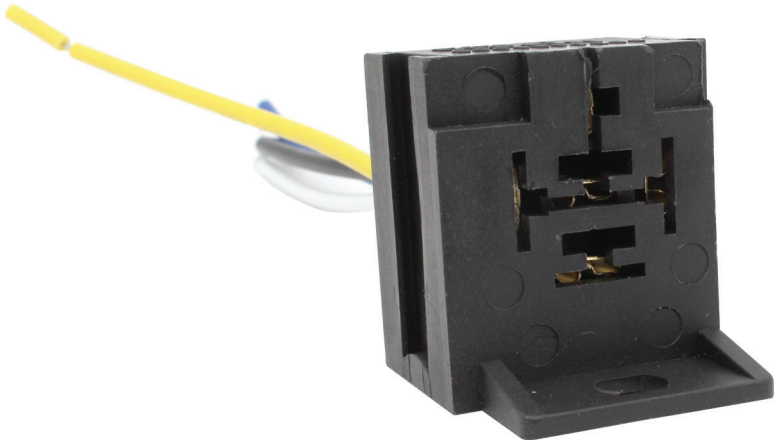
CIT Relay & Switch references these female quick connect terminals to be used with our automotive sockets. Current capability of the terminals depends on the gauge of the wire used, the quality of the crimp, the addition of solder or a weld, operating conditions, ambient temperature, and so forth. Terminals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

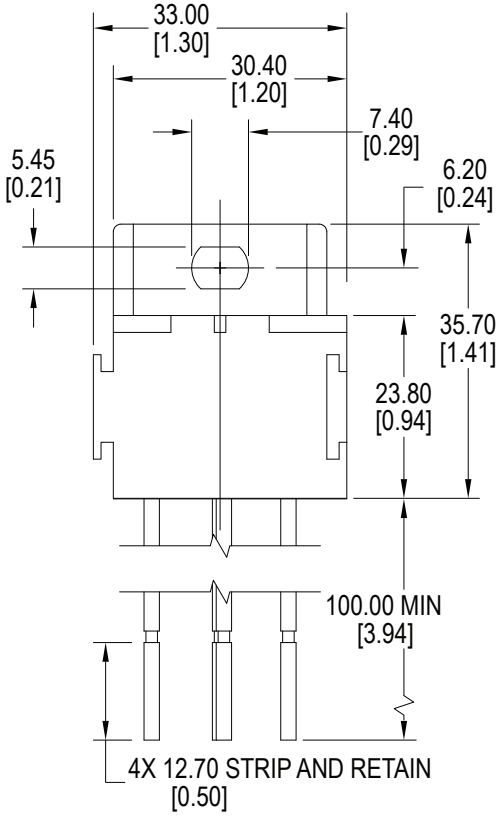
Sockets

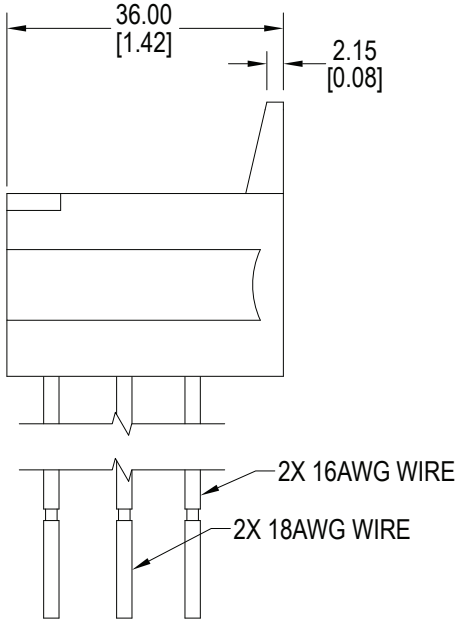
Units = mm [in]

RS2214





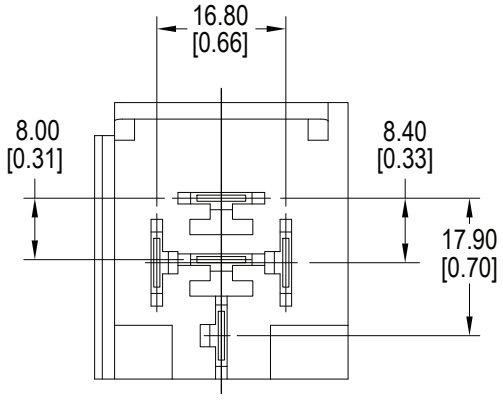


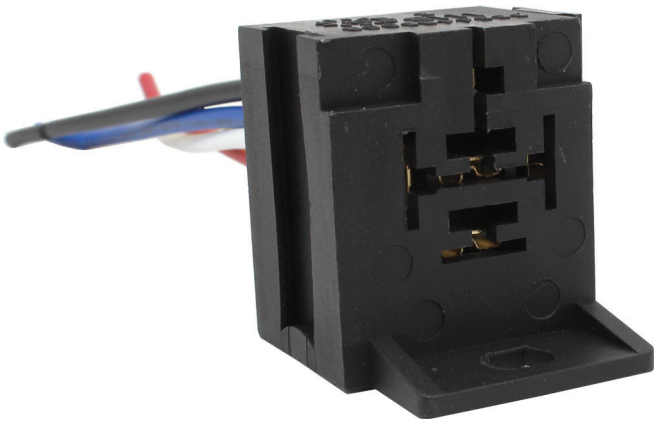


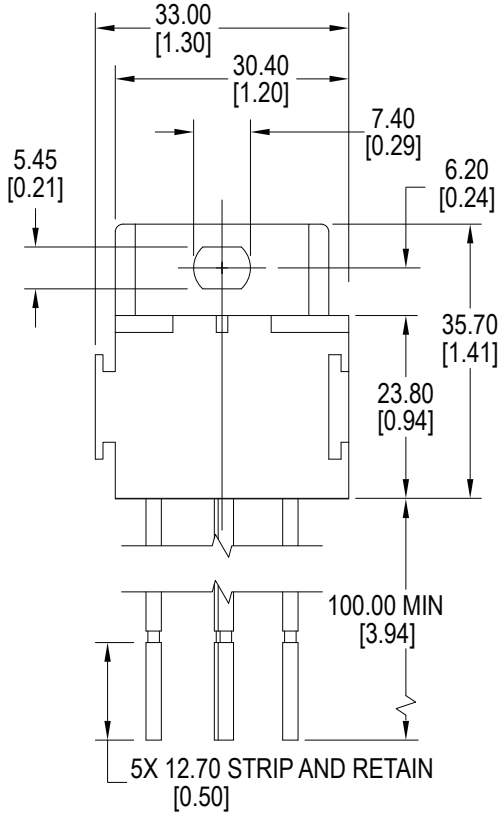
Sockets

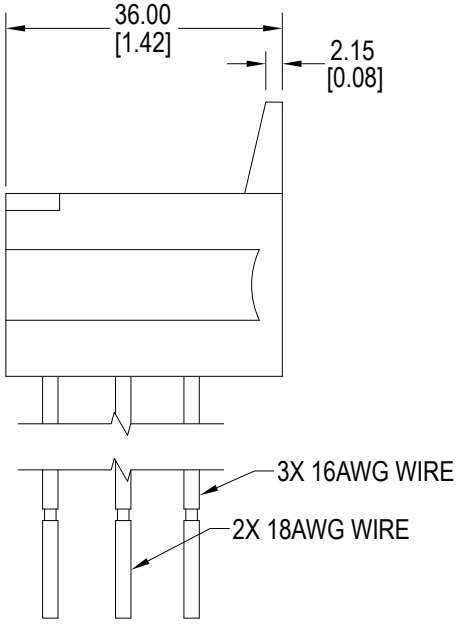
Units = mm [in]

RS2215





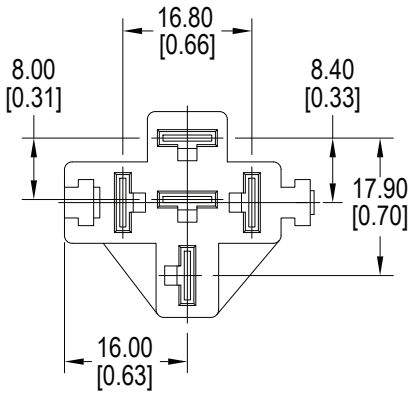


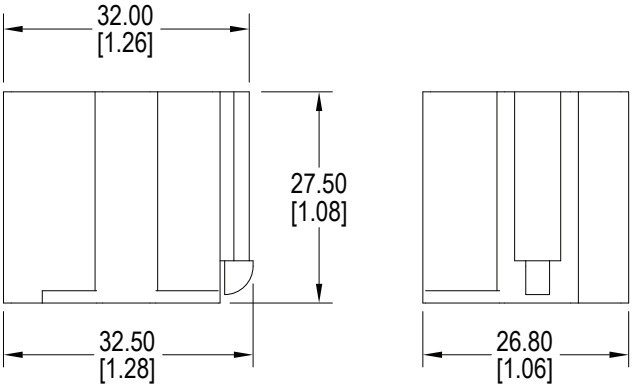


Sockets

Units = mm [in]

RS2300





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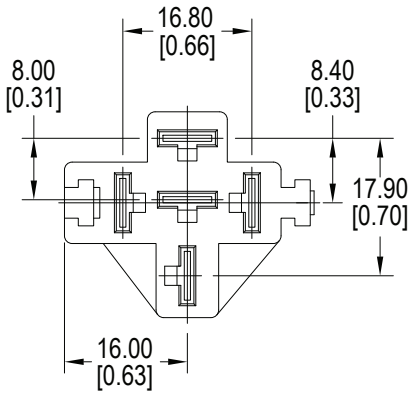
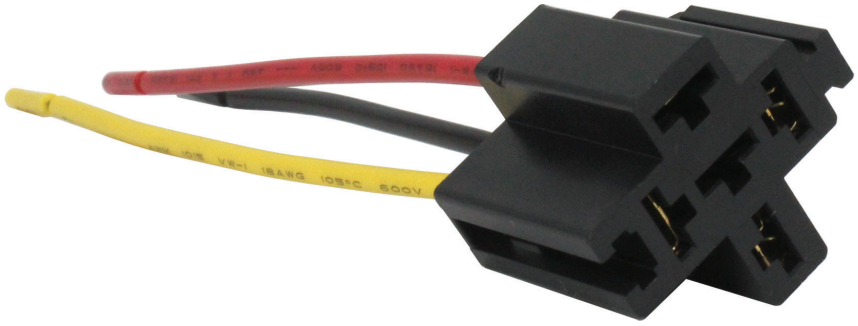
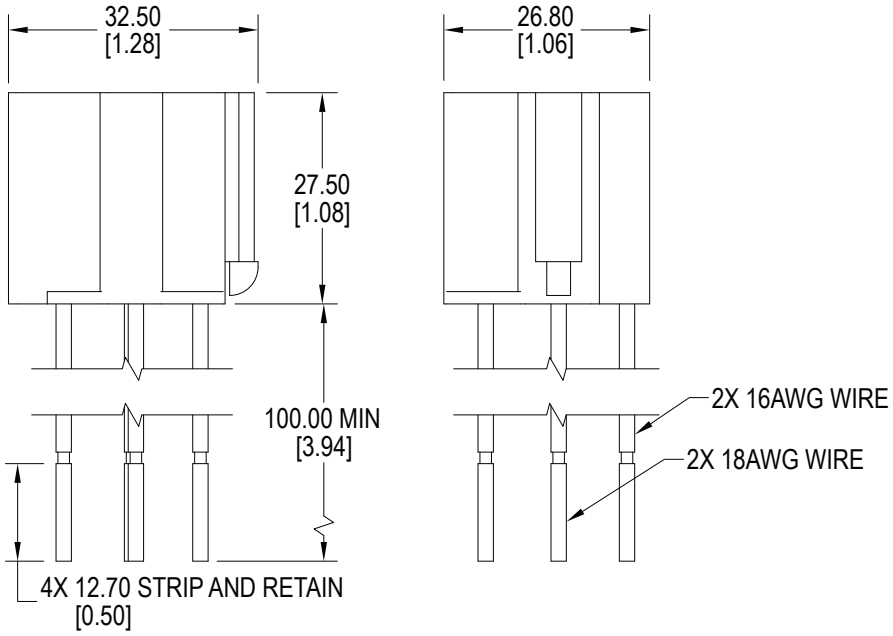
Sockets

Units = mm [in]

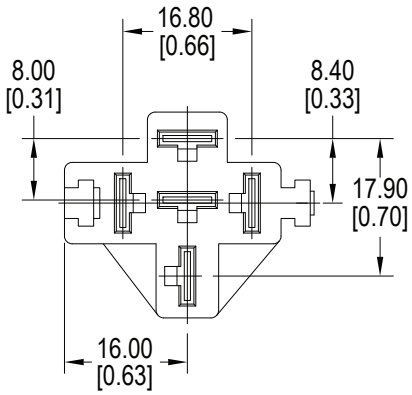
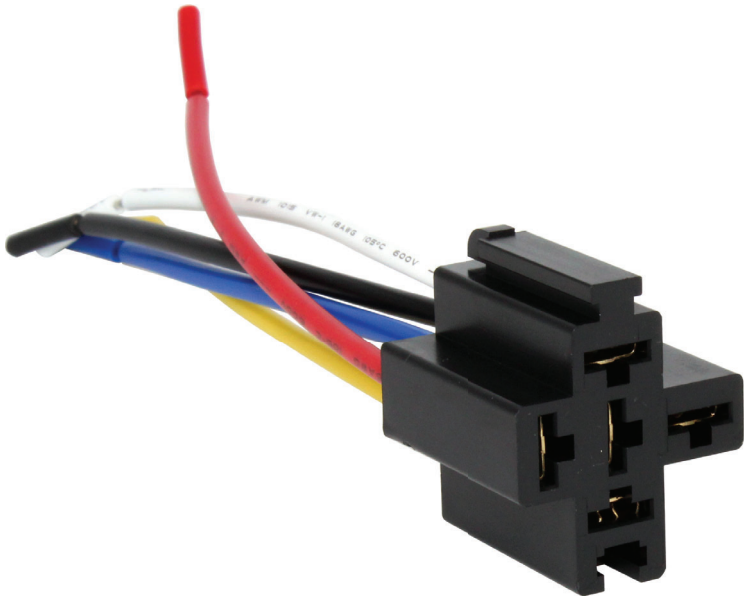
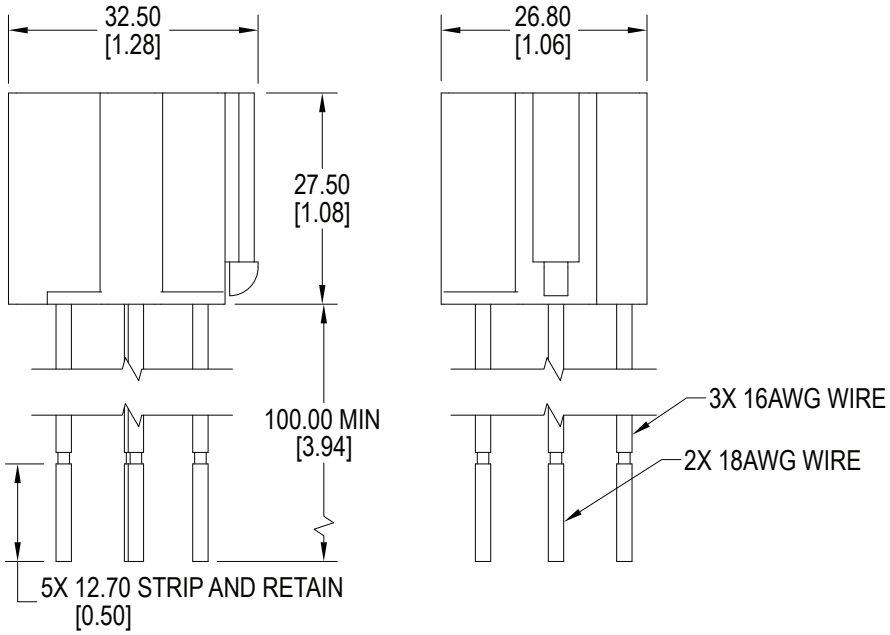
RS2314







Sockets

Units = mm [in]

RS2315