CIT Relay & Switch A1

22.8 x 15.3 x 25.8 mm

RoHS COMPLIANT

Features

- Switching capacity up to 30A
- Small size and light weight
- PCB pin and quick connect mounting available
- Suitable for automobile and lamp accessories

Contact Data*

Contact Arrangement		1A = SPST N.O. 1C = SPDT
Contact Rating	NO	30A @ 14VDC 15A @ 28VDC 1.5A @ 48VDC
	NC	20A @ 14VDC 10A @ 28VDC 1A @ 48VDC

Contact Resistance	< 50 milliohms initial
Contact Material	$AgSnO_2$
Maximum Switching Power	420W
Maximum Switching Voltage	75VDC
Maximum Switching Current	30A

NOTE: See DC Load Breaking Capacity chart on page 3

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	1.2W	1.5W	70% of rated voltage	10% of rated voltage			
6	7.8	30	24	4.2	.6	1.2 1.5	10	7
12	15.6	120	96	8.4	1.2			
24	31.2	480	384	18.0	2.4			
48	62.4	1920	1536	33.6	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	2500V rms min. @ sea level initial
Contact to Contact	1500V rms min. @ sea level initial
Shock Resistance	100m/s^2 for 11 ms
Vibration Resistance	1.27mm double amplitude 10~40Hz
Terminal (Copper Alloy) Strength	8N (Quick Connect), 4N (PCB pins)
Operating Temperature	-40ºC to +85ºC
Storage Temperature	-40ºC to +155ºC
Solderability	260ºC for 5 s
Weight	18.5g

* *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.*

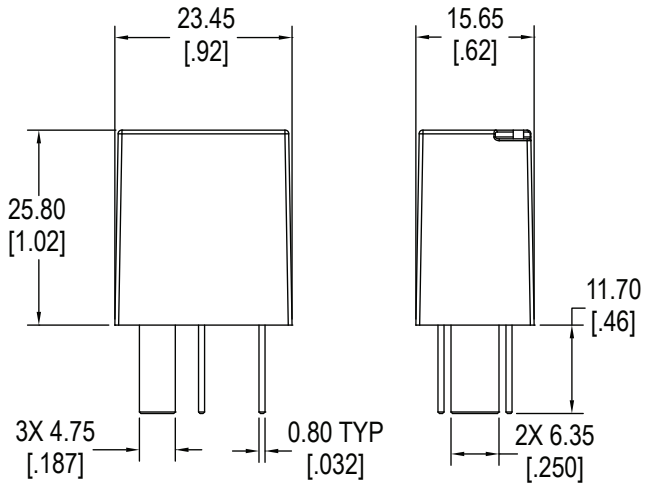
Ordering Information

1. Series A1	A1	1A	S	Q	12VDC	1.2
2. Contact Arrangement 1A = SPST N.O. 1C = SPDT						
3. Sealing Option S = Sealed						
4. Termination P = PCB Pins Q = Quick Connect						
5. Coil Voltage 6VDC 12VDC 24VDC 48VDC						
6. Coil Power 1.2 = 1.2W 1.5 = 1.5W						
7. Coil Suppression Blank = Standard D = Diode (1N4005) R = Resistor (680Ω for 12VDC, 2700Ω for 24VDC) ** Consult factory if other values are needed						

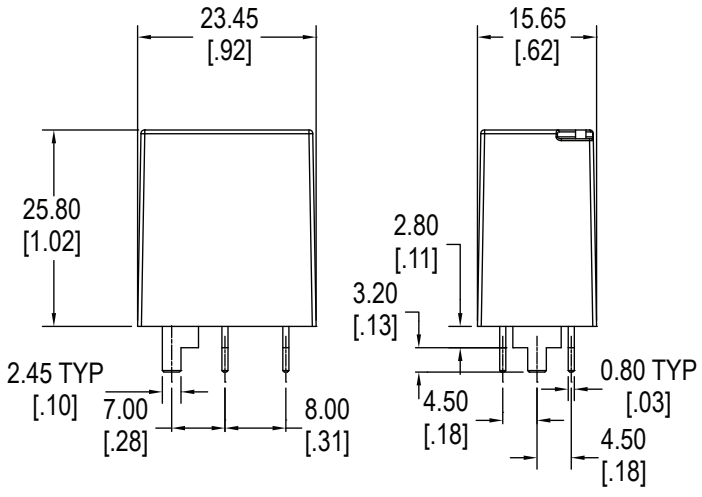
Dimensions

Units = mm

Quick Connect



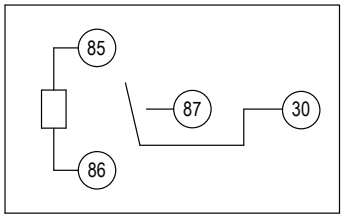
PC Pin



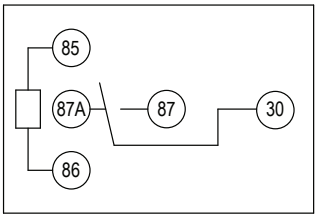
Schematics & PC Layout

Bottom Views

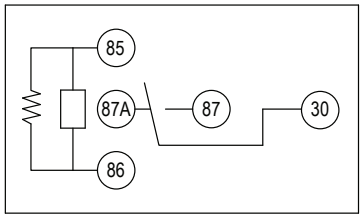
1A



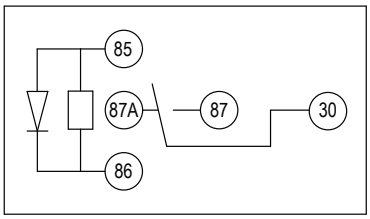
1C



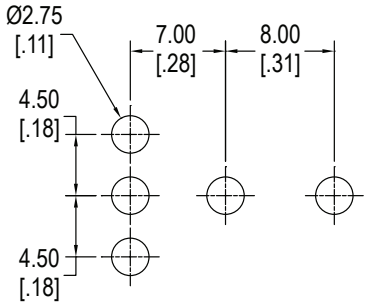
1C with Resistor



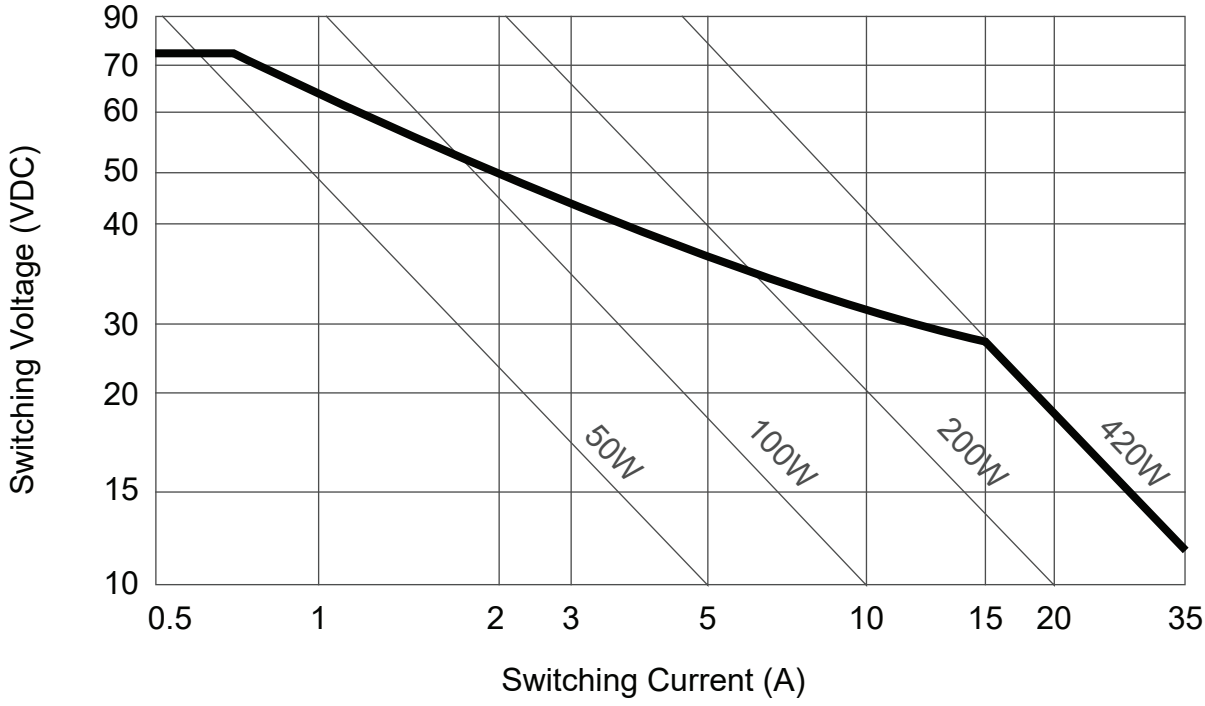
1C with Diode



PC Layout

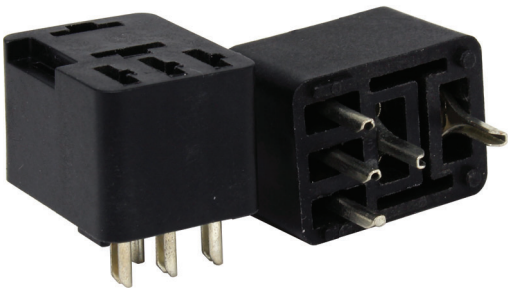


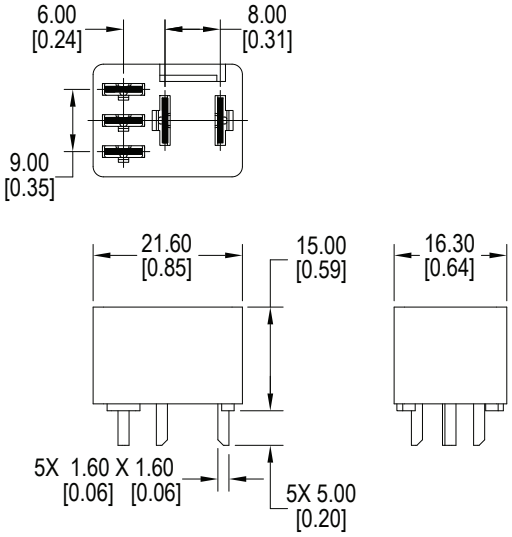
DC Load Breaking Capacity Chart



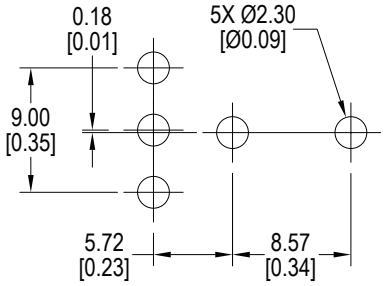
Sockets

RS1105

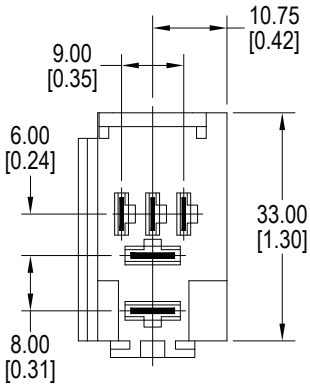




Schematic



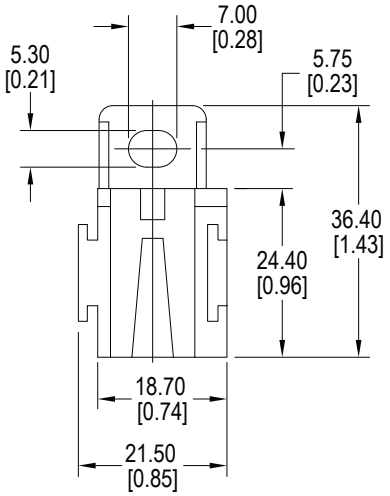
RS1200

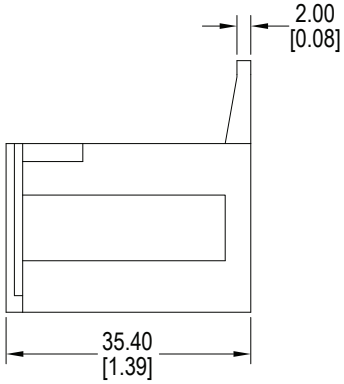


Metal Crimp Terminal Compatibility

Mfr.	Part Number	Wire AWG	Size
TE	42100	14-18	.250” (contact)
TE	42281	14-18	.250” (contact)
TE	42904	12-16	.250” (contact)
TE	60249	12-16	.250” (contact)
TE	60253	12-14	.250” (contact)
TE	281197	13-17	.187” (coil)
TE	282180	15-20	.187” (coil)

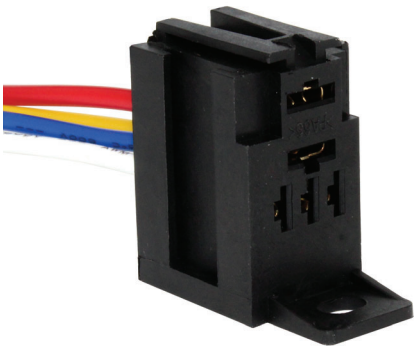
CIT Relay & Switch references these female quick connect terminals to be used with our automotive sockets. Current capability of the terminals depends on the gauge of the wire used, the quality of the crimp, the addition of solder or a weld, operating conditions, ambient temperature, and so forth. Terminals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

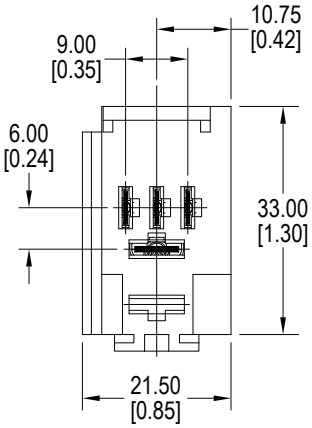


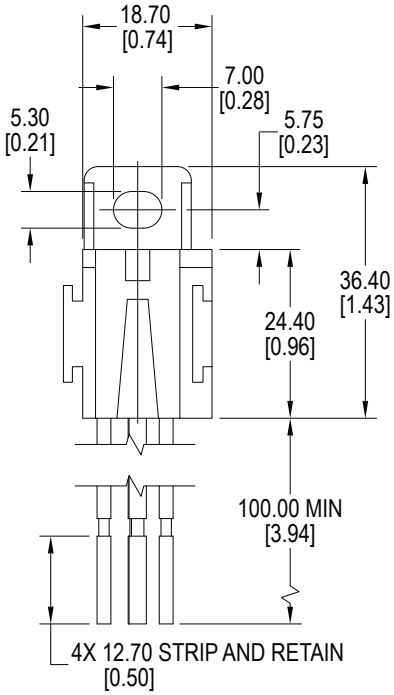


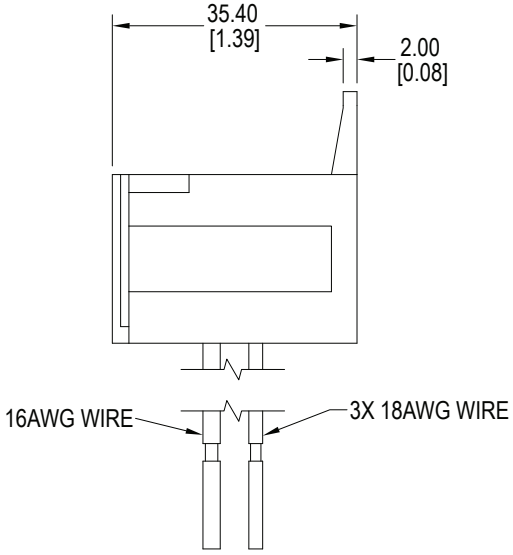
Sockets

RS1214









Sockets

RS1215