

# AZ9721

## 40 AMP AUTOMOTIVE RELAY

### FEATURES

- 40 Amp contact rating
- High momentary carry current (60A)
- SPST (1 Form A), SPDT (1 Form C)
- Quick connect terminals
- Metal or plastic mounting bracket available
- Resistor or diode parallel to coil available



### CONTACTS

<b>Arrangement</b>	SPST (1 Form A) SPDT (1 Form C)
<b>Ratings</b>	Resistive load: Max. switched power: 480 W (SPST) 480 W (N.O.) 360 W (N.C.) Max. switched current: 40 A (SPST) 40 A (N.O.) 30 A (N.C.) Max. switched voltage: 75 VDC
<b>Minimum Load</b>	5 VDC, 0.1 A
<b>Material</b>	Silver alloy
<b>Resistance</b>	< 50 milliohms initially (24 V, 1 A voltage drop method)

### COIL

<b>Power</b>	
<b>At Pickup Voltage (typical)</b>	0.76 W
<b>Max. Continuous Dissipation</b>	4.0 W at 20°C (68°F)
<b>Temperature Rise</b>	63°C (113°F) at nominal coil voltage
<b>Temperature</b>	Max. 155°C (311°F)

### NOTES

1. All values at 20°C (68°F).
2. Relay may pull in with less than "Must Operate" value.
3. Specifications subject to change without notice.

### GENERAL DATA

<b>Life Expectancy</b> Mechanical Electrical	Minimum operations 1 x 10 <sup>7</sup> 1 x 10 <sup>5</sup> at rated load
<b>Operate Time (typical)</b>	10 ms at nominal coil voltage
<b>Release Time (typical)</b>	10 ms at nominal coil voltage (with no coil suppression)
<b>Dielectric Strength (at sea level for 1 min.)</b>	750 Vrms coil to contact 750 Vrms contact to contact
<b>Insulation Resistance</b>	100 megohms min. at 500 VDC, 20°C 50% RH
<b>Dropout</b>	Greater than 10% of nominal coil voltage
<b>Ambient Temperature</b> Operating Storage	-55°C (-67°F) to 70°C (158°F) -55°C (-67°F) to 155°C (311°F)
<b>Vibration</b>	0.062" DA at 20-200 Hz
<b>Shock</b>	20 g
<b>Enclosure</b>	P.B.T. polyester
<b>Terminals</b>	Copper alloy 0.25 Quick Connect
<b>Weight</b>	40 grams

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## COIL SPECIFICATIONS

Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance $\pm 10\%$
12	7.8	17.8	80
24	17.0	36.0	320

## RELAY ORDERING DATA

**AZ9721-1C-12DC2R1**

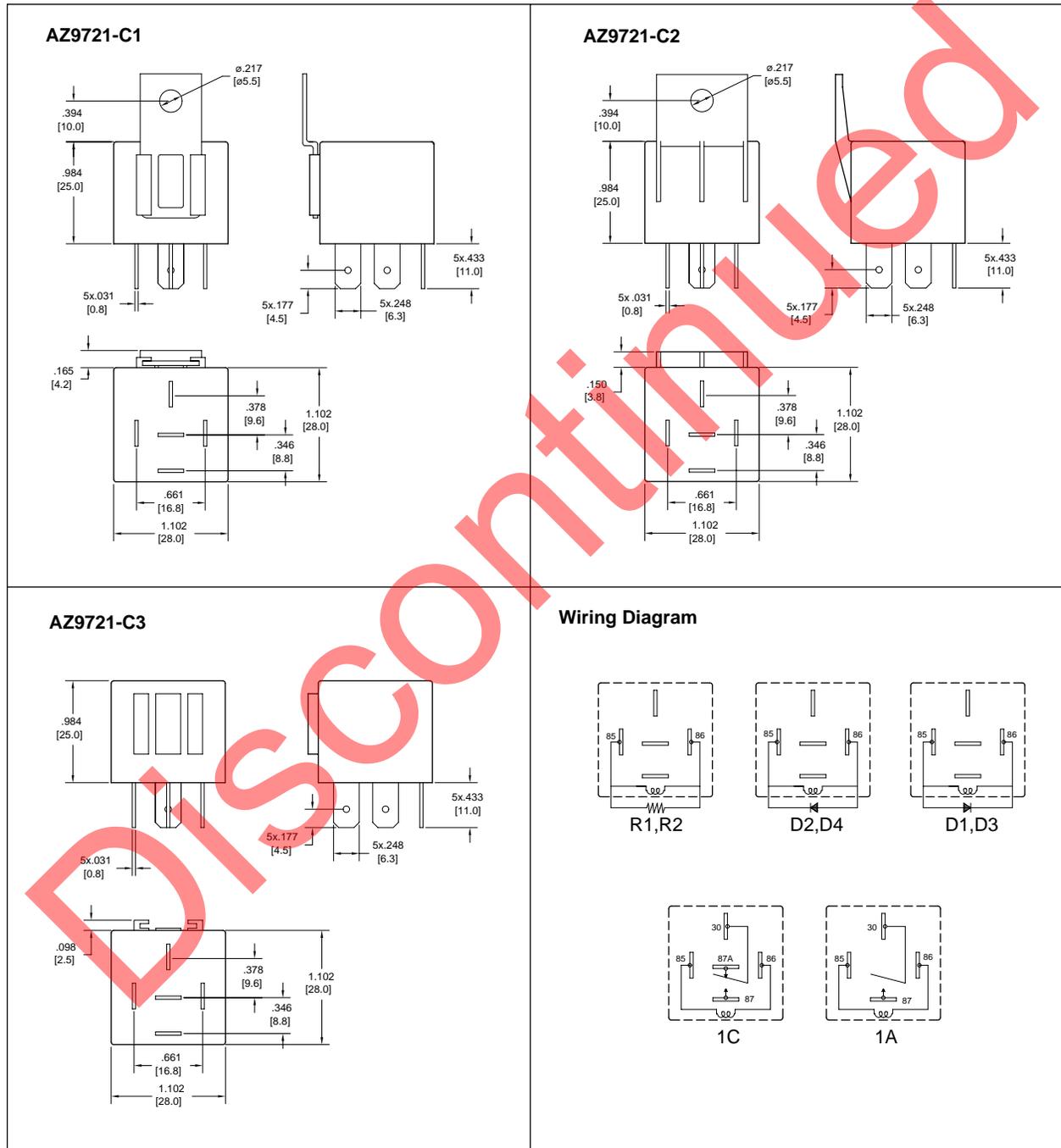
- Blank - Standard no diode, no resistor
- R1 - 680 Ohm, 1/2 w resistor in parallel with 12 V coil  
2700 Ohm 1/2 w resistor in parallel with 24 V coil
- R2 - 820 Ohm, 1/2 w resistor in parallel with 12 V coil  
3200 Ohm 1/2 w resistor in parallel with 24 V coil
- D1 - 1N4007 diode in parallel with coil, anode on #85 terminal
- D2 - 1N4007 diode in parallel with coil, cathode on #85 terminal
- D3 - 1N4004 diode in parallel with coil, anode on #85 terminal
- D4 - 1N4004 diode in parallel with coil, cathode on #85 terminal
- C1 - Plastic dust cover with steel mounting bracket
- C2 - Plastic dust cover with plastic mounting bracket
- C3 - Plastic dust cover
- 24D - 24 volt coil
- 12D - 12 volt coil
- 1A - SPNO Single pole normally open
- 1C - SPDT Single pole double throw
- Basic series designation - AZ9721

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## MECHANICAL DATA

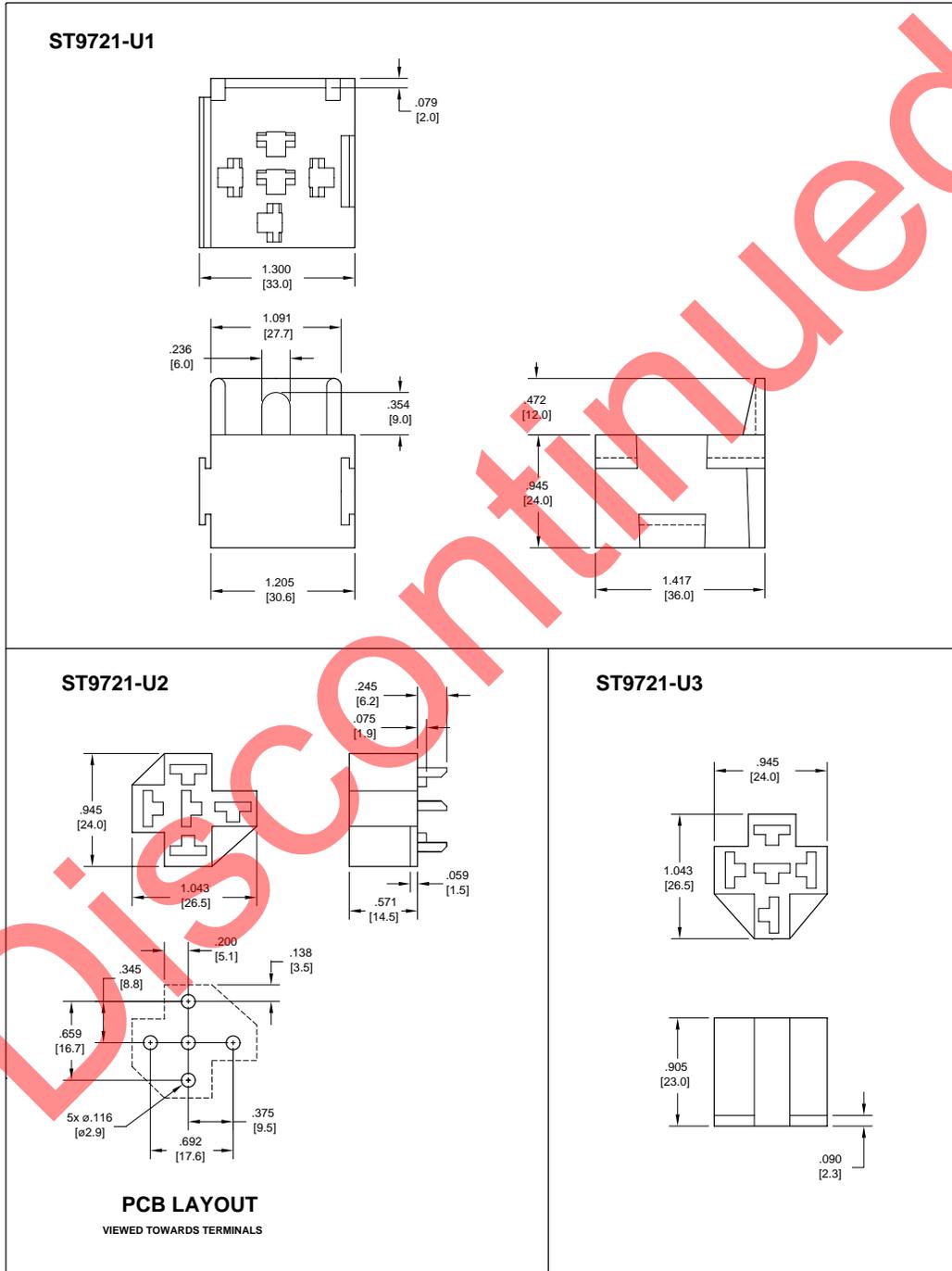


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## Sockets & Hardware for AZ9721



Note: Recommended receptical connector Amp Part numbers are 5-160558-9 or 5-1605-26-9

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This specification provides an overview of the most significant part features. Any individual applications and operating conditions are not taken into consideration. It is recommended to test the product under application conditions. Responsibility for the application remains with the customer. Proper operation and service life cannot be guaranteed if the part is operated outside the specified limits.