

AZ9731

40 AMP MINI-ISO AUTOMOTIVE RELAY

FEATURES

- Quick connect terminals
- 40 Amp contact rating
- High operating temperature (125°C)
- Epoxy sealed versions available
- Plastic or steel mounting bracket available
- Resistor or diode parallel to coil available
- ISO/TS 16949, ISO14001



CONTACTS

Arrangement	SPST (1 Form A) SPDT (1 Form C) SPST NO DM (1 Form U) SPST (1 Form A2)
Ratings	Resistive load: Max. switched power: 630 W (SPST) 630 W (N.O.) 473 W (N.C.) Max. switched current: 40 A (SPST) 40 A (N.O.) 30 A (N.C.) Max. switched voltage: 75 VDC
Material	Silver tin oxide
Resistance	< 100 milliohms initially (6 V, 1 A voltage drop method)

COIL

Power	
At Pickup Voltage (typical)	0.68 W
Max. Continuous Dissipation	4.8 W at 20°C (68°F)
Temperature Rise	75°C (135°F) at nominal coil voltage (40A)
Temperature	Max. 125°C (257°F)

GENERAL DATA

Life Expectancy Mechanical Electrical	Minimum operations 1 x 10 ⁷ 1 x 10 ⁵ at 40 A 14 VDC Res.
Operate Time (max.)	7 ms at nominal coil voltage
Release Time (max.)	5 ms at nominal coil voltage
Dielectric Strength (at sea level for 1 min.)	500 Vrms coil to contact 500 Vrms contact to contact
Insulation Resistance	100 megohms min. at 500 VDC, 20°C 50% RH
Dropout	Greater than 15% of nominal coil voltage
Ambient Temperature Operating Storage	-40°C (-40°F) to 125°C (257°F) -55°C (-67°F) to 155°C (311°F)
Vibration	0.062" DA at 10-40 Hz
Shock	15 g
Enclosure	P.B.T. polyester
Terminals	Tinned copper alloy 0.25 Quick Connect Note: Allow suitable slack on leads when wiring, and do not subject the terminals to excessive force.
Weight	31 grams

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.

AMERICAN ZETTLER, INC. www.azettler.com

75 COLUMBIA • ALISO VIEJO, CA 92656 • PHONE: (949) 831-5000 • FAX: (949) 831-8642 • E-MAIL: SALES@AZETTLER.COM

7/20/2015

AZ9731

RELAY ORDERING DATA

COIL SPECIFICATIONS			
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance $\pm 10\%$
6	3.9	7.8	22.5
12	7.8	15.6	90
24	15.6	31.2	360

RELAY ORDERING DATA

AZ9731-1C-12DC2 R1

Blank - Standard no diode, no resistor

R1 - 180 Ohm $\frac{1}{2}$ with resistor in parallel with 6V coil
680 Ohm $\frac{1}{2}$ with resistor in parallel with 12V coil
2700 Ohm $\frac{1}{2}$ with resistor in parallel with 24V coil

D1 - 1N4005 diode in parallel with coil, anode on terminal #86 (see Fig 1)

D2 - 1N4005 diode in parallel with coil, cathode on terminal #86 (see Fig 2)

C1 - Plastic dust cover with steel mounting bracket

C1E - Plastic dust cover with steel mounting bracket, sealed

C2 - Plastic dust cover with plastic mounting bracket

C2E - Plastic dust cover with plastic mounting bracket, sealed

C3 - Plastic dust cover

C3E - Plastic dust cover, sealed

C4 - Plastic dust cover, shrouded, with metal mounting bracket, sealed

24D - 24 volt coil

12D - 12 volt coil

6D - 6 volt coil

1A - SPNO Single pole normally open

1C - SPDT Single pole double throw

1U - SPST NO DM Single pole N.O. double make

1A2 - SPNO Single pole normally open (2x)

Basic series designation - AZ9731

AMERICAN ZETTLER, INC.

www.azettler.com

75 COLUMBIA • ALISO VIEJO, CA 92656 • PHONE: (949) 831-5000 • FAX: (949) 831-8642 • E-MAIL: SALES@AZETTLER.COM

7/20/2015

Fig 1

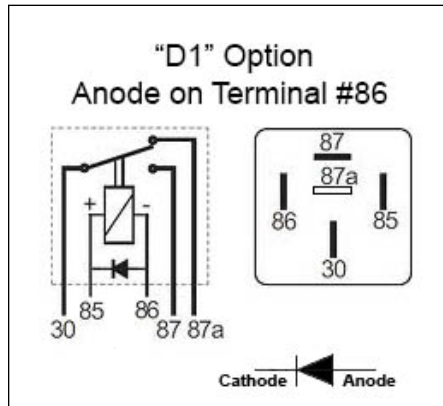
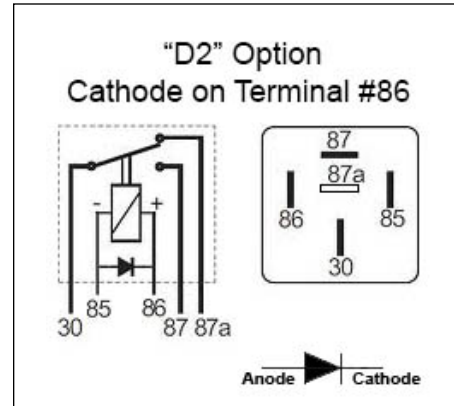


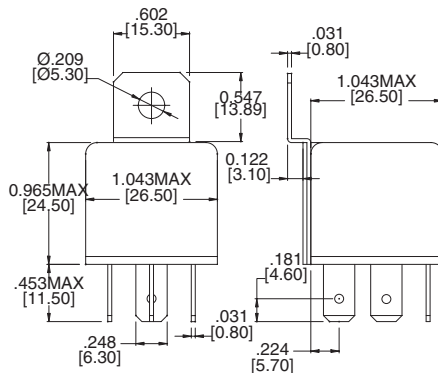
Fig 2



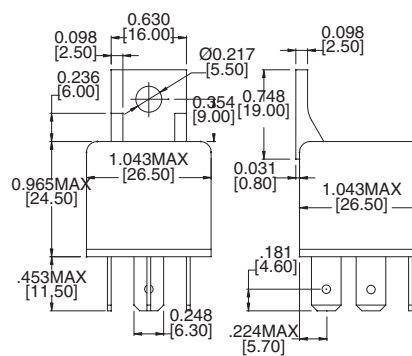
MECHANICAL DATA

Outline Dimensions

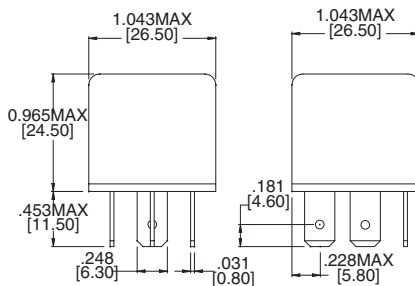
Version C1



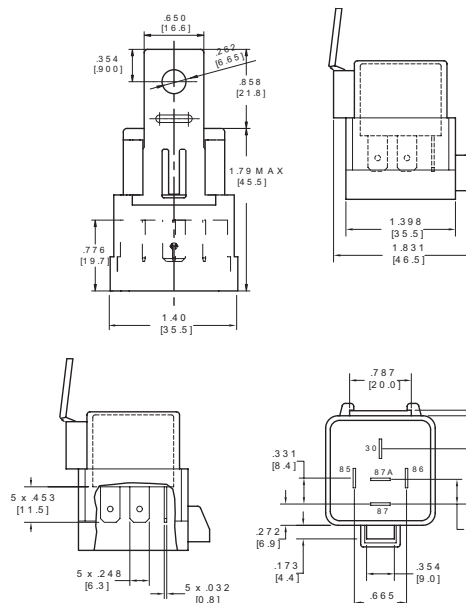
Version C2



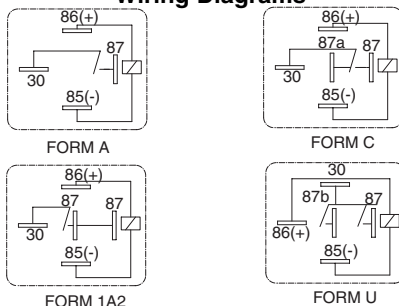
Version C3



Version C4

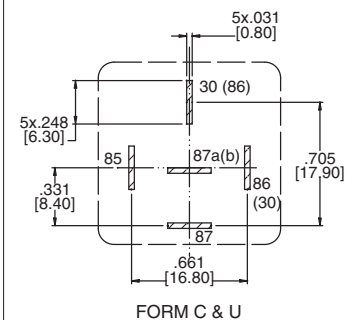
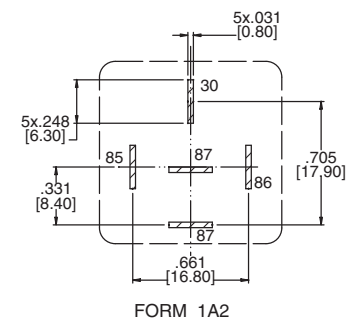
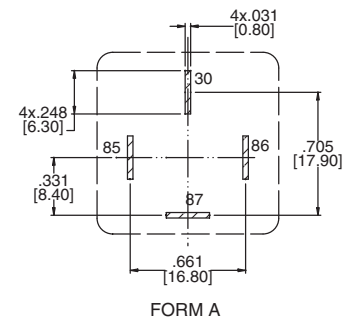


Wiring Diagrams



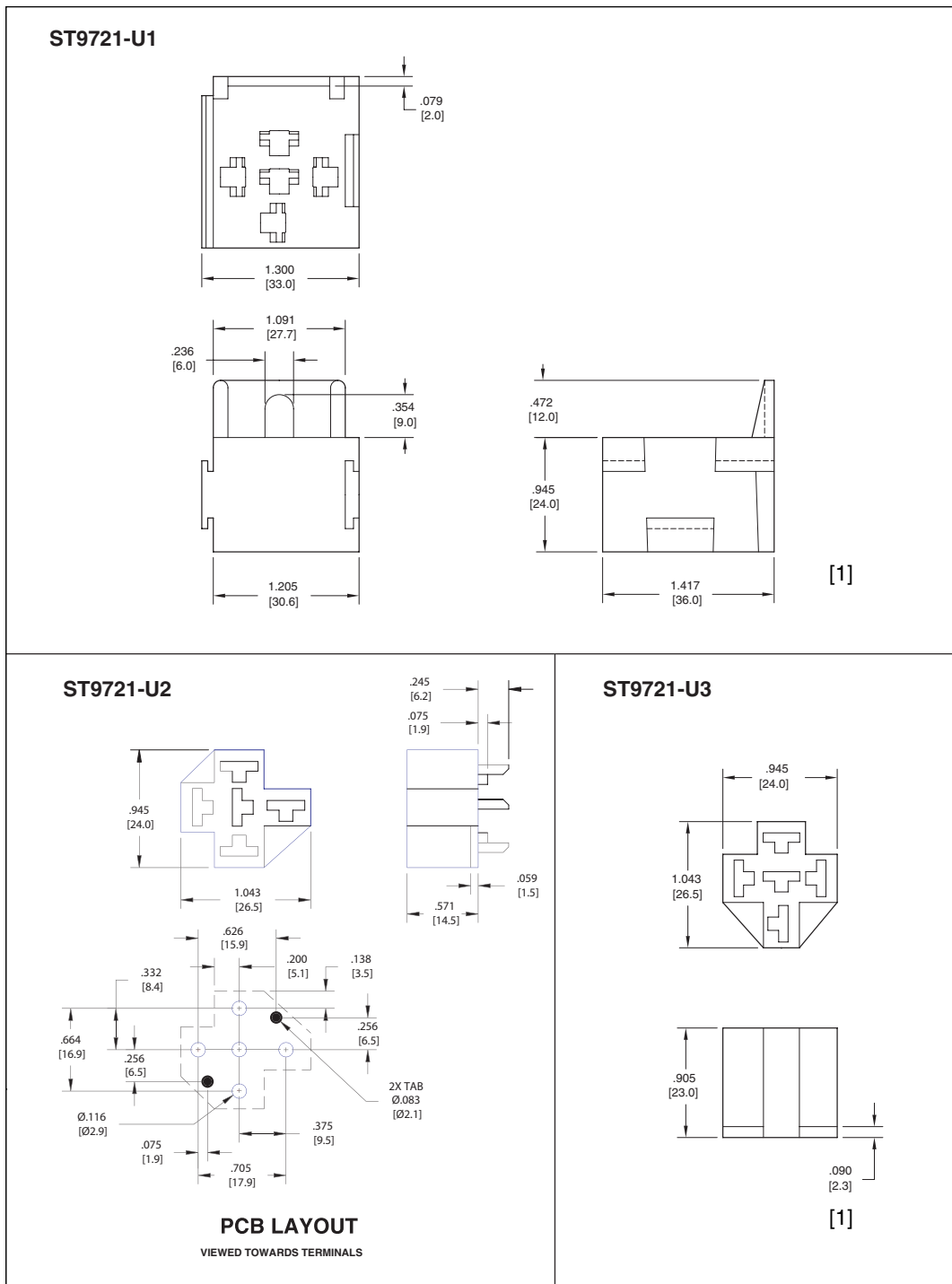
Viewed Toward Terminals

Mounting Layout



Dimensions in inches with metric equivalents in parentheses. Tolerance: $\pm .010''$

Sockets & Hardware for AZ9731



[1] Recommended receptical connector Amp Part numbers are 5-160558-9 or 5-1605-26-9