

AZ973

40 AMP MINI-ISO AUTOMOTIVE RELAY

FEATURES

- Quick connect terminals
- 40 Amp contact rating
- High momentary carry current (60A)
- High operating temperature (110°C)
- SPST (1 Form A), SPDT (1 Form C)
- Epoxy sealed versions available
- Metal or plastic mounting bracket available
- Resistor or diode parallel to coil available
- ISO/TS 16949, ISO14000
- Tested in accordance with SAE J2544



CONTACTS

Arrangement	SPST (1 Form A) SPDT (1 Form C)
Ratings	Resistive load: Max. switched power: 560 W (SPST) 560 W (N.O.) 420 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	5.1 W at 20°C (68°F)
Temperature Rise	52°C (94°F) at nominal coil voltage
Temperature	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

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 10% of nominal coil voltage
Ambient Temperature Operating Storage	-55°C (-67°F) to 110°C (230°F) -55°C (-67°F) to 155°C (311°F)
Vibration	0.062" DA at 10-40 Hz
Shock	100 m/s ²
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



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

11/14/05W

AZ973

RELAY ORDERING DATA

COIL SPECIFICATIONS			
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance $\pm 10\%$
6	3.9	10.6	22
12	7.8	21.0	85
24	15.6	42.2	350

RELAY ORDERING DATA

AZ973-1C-12DC2R1

- Blank - Standard no diode, no resistor
- R1 - 680 Ohm, $\frac{1}{2}$ w resistor in parallel with 12 V coil
2700 Ohm $\frac{1}{2}$ w resistor in parallel with 24 V coil
- R2 - 820 Ohm, $\frac{1}{2}$ w resistor in parallel with 12 V coil
3200 Ohm $\frac{1}{2}$ w resistor in parallel with 24 V coil
- D1 - 1N4007 diode in parallel with coil, anode on #86 terminal
- D2 - 1N4007 diode in parallel with coil, cathode on #86 terminal
- D3 - 1N4004 diode in parallel with coil, anode on #86 terminal
- D4 - 1N4004 diode in parallel with coil, cathode on #86 terminal
- 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, sealed, with metal mounting bracket
- 24D - 24 volt coil
- 12D - 12 volt coil
- 6D - 6 volt coil
- 1A - SPNO Single pole normally open
- 1C - SPDT Single pole double throw
- Basic series designation - AZ973



AMERICAN ZETTLER, INC.

www.azettler.com

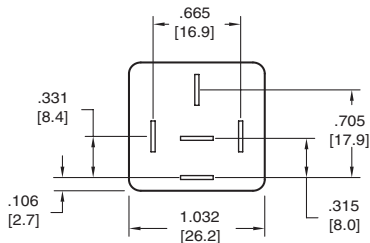
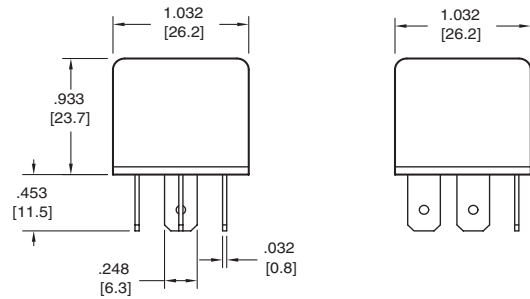
75 COLUMBIA • ALISO VIEJO, CA 92656 • PHONE: (949) 831-5000 • FAX: (949) 831-8642 • E-MAIL: SALES@AZETTLER.COM

11/14/05W

AZ973

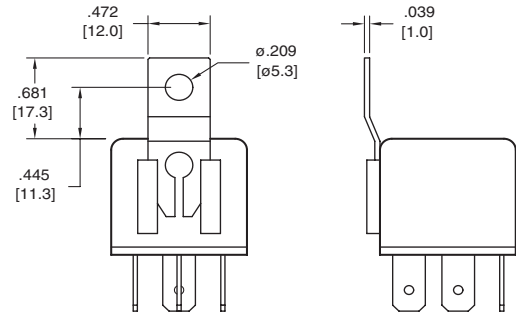
MECHANICAL DATA

Version C3

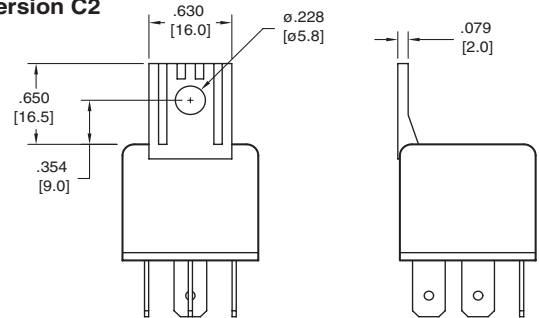


Note:
Dimensions shown for Version C3
are typical for all other versions

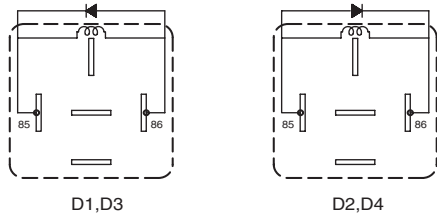
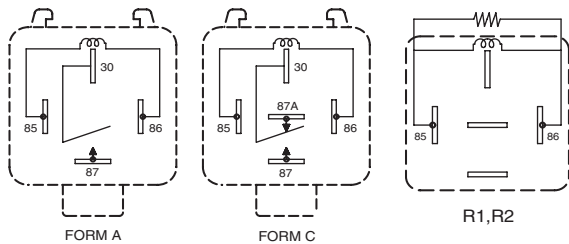
Version C1



Version C2

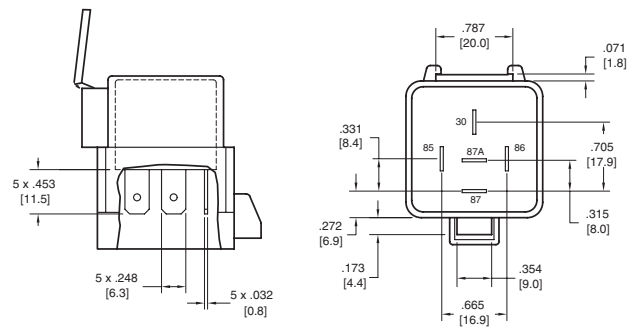
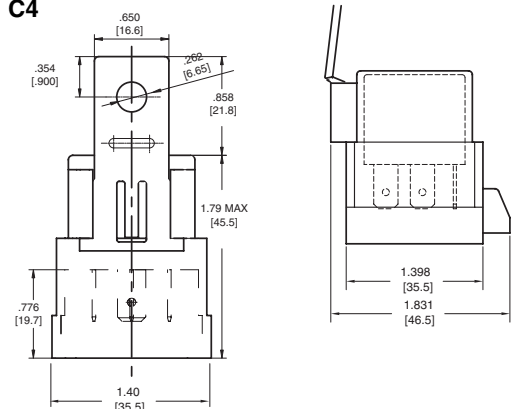


WIRING DIAGRAMS



Viewed Toward Terminals

Version C4



Connector for use with Version C4- Connectors to mate with AZ973 relay with the version C4 cover are available from Delphi Connection Systems (www.delphiconnect.com). (Typical Delphi part number is 12065685)

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



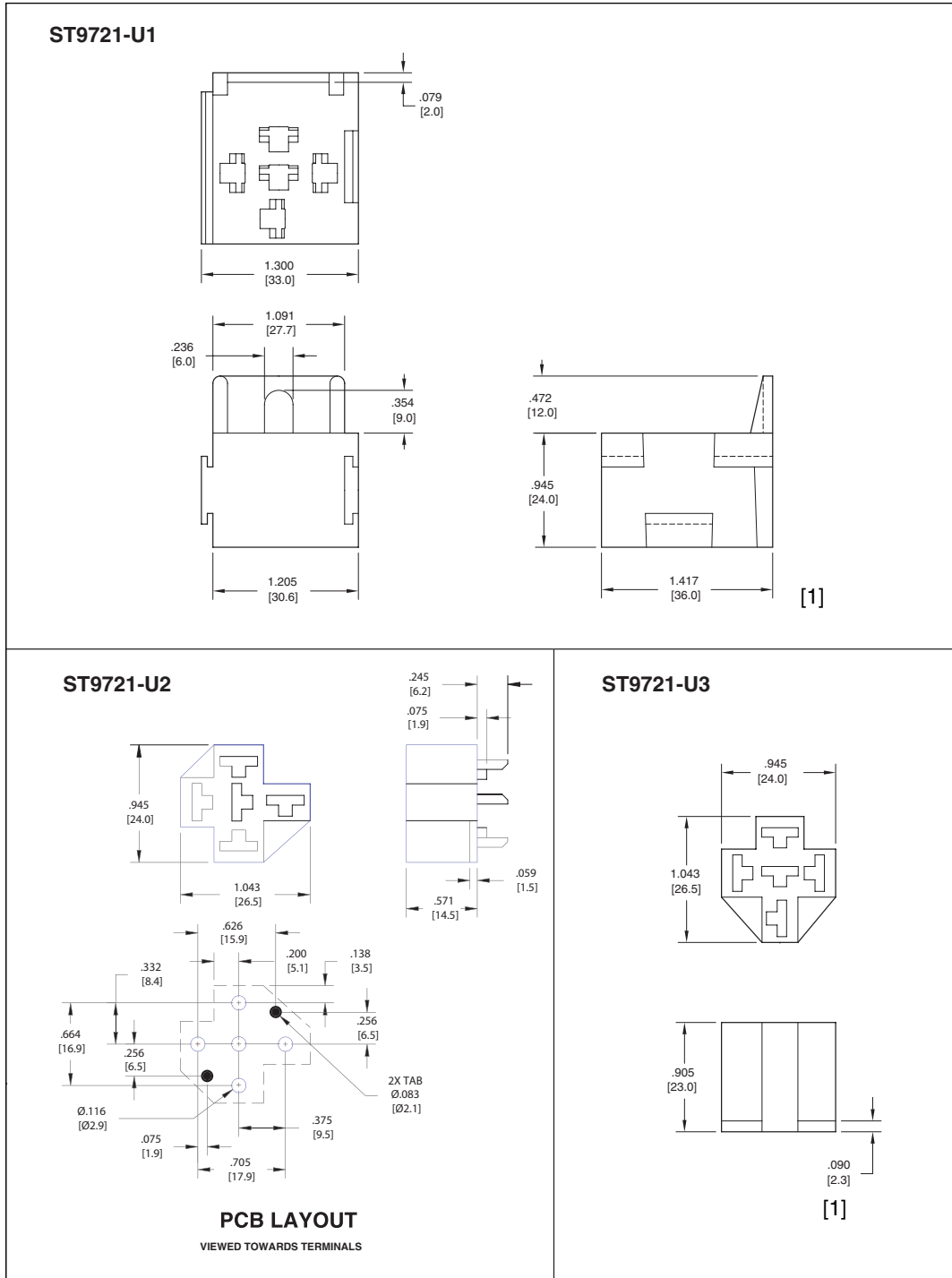
AMERICAN ZETTLER, INC.

www.azettler.com

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

11/14/05W

Sockets & Hardware for AZ973



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

