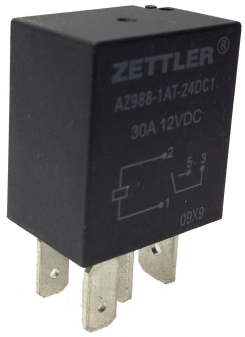
AZ988

30 AMP MICRO-ISO AUTOMOTIVE RELAY



FEATURES

- Quick Connect or PCB terminals
- Up to 30 Amp switching capability in a compact size
- Coils up to 24VDC
- Small footprint
- SPST (1 Form A), SPDT (1 Form C)
- Vibration and shock resistant
- Coil suppression available
- ISO/TS 16949, ISO9001 and ISO 14000
- Cost effective solution
- Designed for high in-rush applications

CONTACTS

Arrangement	SPST (1 Form A) SPDT (1 Form C)
Ratings	Resistive load: Max. switched power: 540W Max. switched current: 30A Max. switched voltage: 27VDC 1 Form A (N.O.) 30A / 30A (make/break) at 12VDC resistive 40A / 20A (make/break) at 12VDC motor 100A / 20A (make/break) at 12VDC lamp 1 Form C (N.O.) 20A / 20A (make/break) at 12VDC reistive 40A / 20A (make/break) at 12VDC motor 120A / 20A (make/break) at 12VDC lamp 1 Form C (N.C.) 10A / 10A (make/break) at 12VDC resistive 20A / 10A (make/break) at 12VDC motor
Material	Silver tin oxide (silver nickel available - contact factory)
Resistance	< 50 milliohms initially (24V, 1A voltage drop method)
Contact Voltage drop	100mV typical, 250mV max. at rated load

COIL

Power	
At Pickup Voltage (typical)	576mW (Standard) 418mW (Sensitive)
Max. Continuous Dissipation	3.6W at 20°C (68°F) ambient
Temperature Rise	60°C (108°F) at nominal coil voltage
Max Temperature	180°C (356°F)

GENERAL DATA

Life Expectancy **Mechanical** **Electrical**	Minimum operations 1×10^7 1×10^5 at 20A, 12VDC Res.
Operate Time (max.)	10ms at nominal coil voltage
Release Time (max.)	10ms at nominal coil voltage (with no coil suppression)
Dielectric Strength (at sea level for 1 min.)	500Vrms coil to contact 500Vrms between open contacts
Insulation Resistance	100 megohms min. at 20°C, 500VDC 50% RH
Dropout	Greater than 10% of nominal coil voltage
Ambient Temperature **Operating** **Storage**	At nominal coil voltage -40°C (-40°F) to 125°C (257°F) -40°C (-40°F) to 155°C (320°F)
Vibration	5 g 10-500 Hz
Shock	20 g
Enclosure	P.B.T. polyester
Terminals	Quick connects or PCB Note: Allow suitable slack on leads when wiring, and do not subject the terminals to excessive force.
Max Solder Temp.	270°C (518°F)
Max Solder Time	5 seconds
Max Solvent Temp	80°C (176°F)
Max Immersion Time	30 seconds
Weight (Approx.)	22 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.

RELAY ORDERING DATA

COIL SPECIFICATIONS - STANDARD			
Nominal Coil VDC	**Must Operate VDC**	**Max. Continuous VDC**	**Coil Resistance ± 10%**
12	7.2	18	90
24	14.4	36	360
COIL SPECIFICATIONS - SENSITIVE			
Nominal Coil VDC	**Must Operate VDC**	**Max. Continuous VDC**	**Coil Resistance ± 10%**
12	7.2	21	124
24	14.4	40	441

HARDWARE ORDERING DATA

DESCRIPTION	ORDER NUMBER	DESCRIPTION	ORDER NUMBER
PCB SOCKET	ST977-U1	CRIMP SOCKET	ST977-U2

RELAY ORDERING DATA

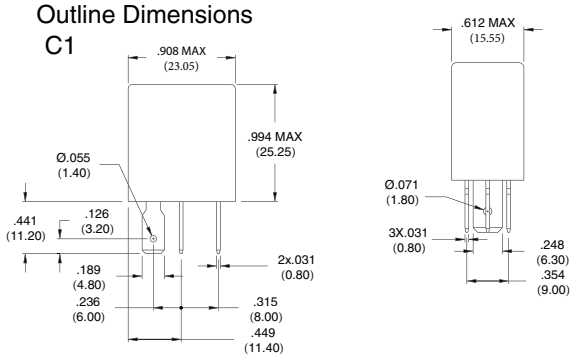
AZ988-1CT-12DSEC1R

- **R** - 680 Ohm parallel with 12 V standard coil
  2700 Ohm parallel with 24 V standard coil
  680 Ohm parallel with 12 V sensitive coil
  1800 Ohm parallel with 24 V sensitive coil
- **C1** - QC terminals, no top grip on cover
  C2 - QC terminals, with top grip on cover
  C3 - PC terminals, no top grip on cover
- **Blank** - Unsealed
  E - Sealed
- **Blank** - Standard coil
  S - Sensitive coil
- **12D** - 12 VDC coil
  24D - 24 VDC coil
- **T** - $AgSnO_2$ contact material
- **1A** -Single pole normally open
  1C -Single pole double throw
- **Basic Series Designation - AZ988**

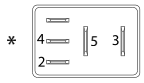
AZ988

MECHANICAL DATA

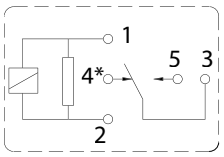
Outline Dimensions
C1



BOTTOM VIEW

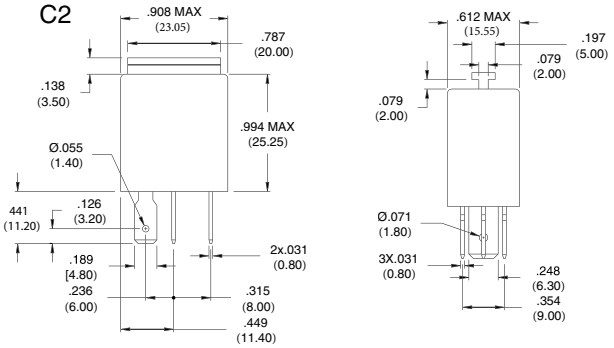


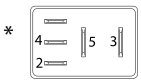
Wiring Diagram
VIEWED TOWARD TERMINALS

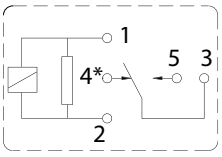


C1

Outline Dimensions
C2

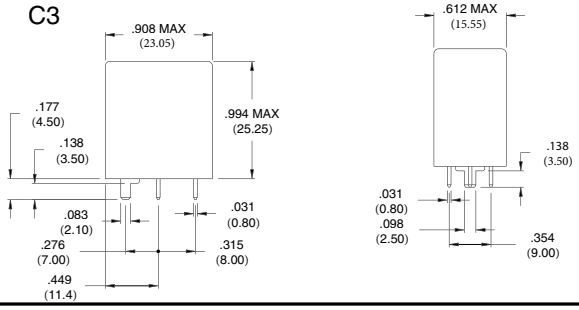


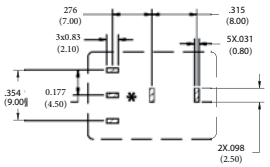


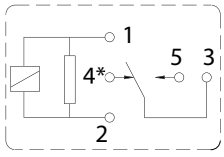


C2

Outline Dimensions
C3



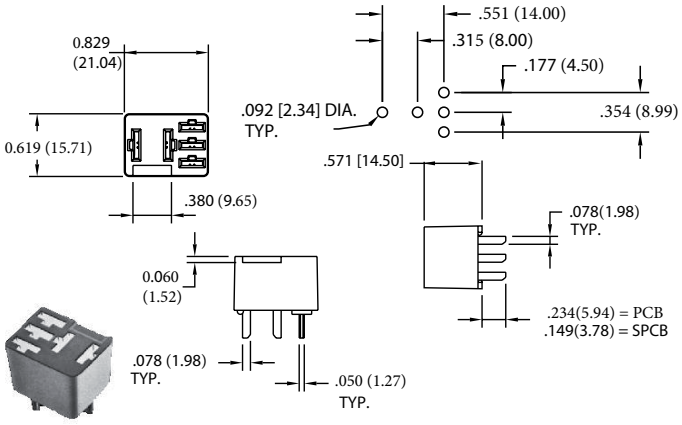




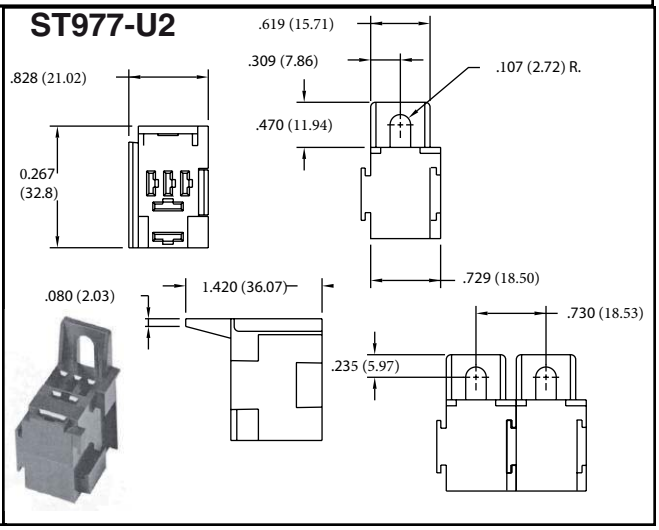
C3

ST977-U1

PC BOARD LAYOUT



ST977-U2



Dimensions in inches with metric equivalents in parentheses. Tolerance: ± .010"

* On Form A relay, terminal 4 is removed.

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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.