AZ986

40 AMP 280-ISO AUTOMOTIVE RELAY

FEATURES

- 40 Amp contact rating
- High operating temperature (125°C)
- SPST (1 Form A), SPDT (1 Form C)
- Available with shrouded weatherproof cover
- Coil suppression available
- ISO/TS 16949, ISO9001, ISO 14000

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.) *See Contact Data Table for additional ratings. Max. switched voltage: 75 VDC *Note: If switching voltage is greater than 30 VDC, special precautions must be taken. Please contact the factory.
Material	Silver tin oxide
Resistance	< 100 milliohms initially (6 V, 1 A voltage drop method)

COIL

Power	
At Pickup Voltage (typical)	0.58 W
Max. Continuous Dissipation	3.7 W at 20°C (68°F)
Temperature Rise	52°C (94°F) at nominal coil voltage
Temperature	Max. 180°C (356°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.)	6 ms at nominal coil voltage
Release Time (max.)	3 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 125°C (257°F) -55°C (-67°F) to 155°C (311°F)
Vibration	1.27mm DA 10-40 Hz 5 g 40-70 Hz 0.5mm DA 70-100 Hz 10 g 100-500 Hz
Shock	196 m/s^2
Enclosure	P.B.T. polyester
Terminals	Tinned copper alloy 0.110 Quick Connect Note: Allow suitable slack on leads when wiring, and do not subject the terminals to excessive force.
Weight	28 grams (37 grams shrouded version)

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RELAY ORDERING DATA

COIL SPECIFICATIONS			
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance ± 10%
12	7.2	21.0	90
24	14.4	42.0	360

RELAY ORDERING DATA

AZ986-1C-12DC2R1

- Blank - Standard no diode, no resistor
- R1 - 180 Ohm, ½ w resistor in parallel with 6 V coil
  680 Ohm, ½ w resistor in parallel with 12 V coil
  2700 Ohm ½ w resistor in parallel with 24 V coil
- R2 - 220 Ohm, ½ w resistor in parallel with 6 V coil
  820 Ohm, ½ w resistor in parallel with 12 V coil
  3200 Ohm ½ w resistor in parallel with 24 V coil
- D1 - 1A7 diode in parallel with coil, anode on #86 terminal
- D2 - 1A7 diode in parallel with coil, cathode on #86 terminal
- D3 - 1A4 diode in parallel with coil, anode on #86 terminal
- D4 - 1A4 diode in parallel with coil, cathode on #86 terminal
- C1 - Plastic dust cover unsealed
- C2 - Plastic dust cover sealed
- C3 - Plastic dust cover, shrouded, steel mounting bracket, unsealed
- C4 - Plastic dust cover, shrouded, steel mounting bracket, sealed
- 24D - 24 volt coil
- 12D - 12 volt coil
- 1A - SPNO Single pole normally open
- 1C - SPDT Single pole double throw
- Basic series designation - AZ986

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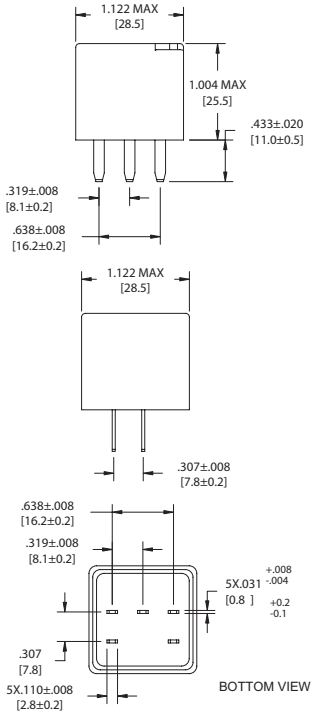
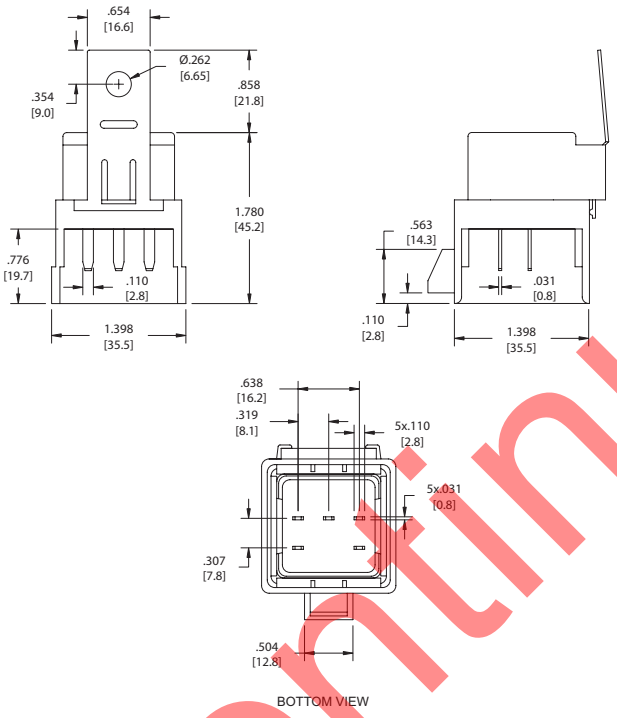
MECHANICAL DATA

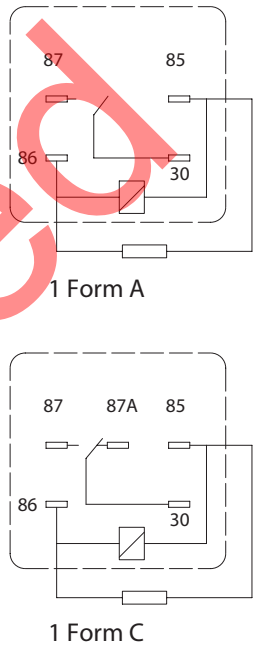
Outline Dimensions
Versions C1 & C2



Outline Dimensions
Versions C3 & C4



Wiring Diagram



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

CONTACT DATA [2)]

Load voltage	Load type		Load current A: 1C NO	1C NC	1A NO	On/Off ratio: On s	Off s	Electrical endurance OPS	Contact material	Load wiring diagram [1)]	Ambient temp.
13.5VDC	Resistive	Make	35	20	35	2	2	1×10^5	$AgSnO_2$	See diagram 1	23°C
		Break	35	20	35						
	Lamp	Make	150	--	150	2	2	1×10^5	$AgSnO_2$	See diagram 2	
		Break	30	--	30						
	Inductive	Make	80	--	80	2	2	1×10^5	$AgSnO_2$	See diagram 3	
		Break	33	--	33						

1.) The load wiring diagrams are listed below (Ratings of NO, NC are tested based on different samples seperately):

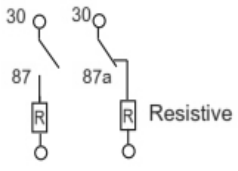


diagram 1

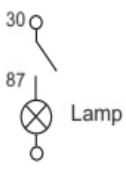


diagram 2

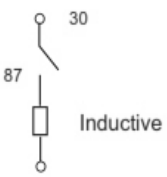


diagram 3

2.) Loads mentioned in this chart are for relay with no parallel diode or Zener diode.