# AZ977 \_\_\_\_

### 20 AMP MICRO-ISO AUTOMOTIVE RELAY

### FEATURES

- Up to 20 Amp switching capability in a compact size
- Coils to 24 VDC
- Small footprint
- 1 Form A and C contacts available
- Vibration and shock resistant
- ISO/TS 16949, ISO14001
- Tested in accordance with SAE J2544
- Cost effective
- · Designed for high in-rush applications



### CONTACTS

Arrangement	SPST (1 Form A) SPDT (1 Form C)				
Ratings	Resistive load:				
	Max. switched power: 280 W Max. switched current: 20 A Max. switched voltage: 150 VDC*				
	Rated load: 20 A at 14 VDC				
	* If switching voltage is greater than 30 VDC, special precautions must be taken. Please contact the factory.				
Material	Silver tin oxide				
Resistance	< 50 milliohms initially (6 V, 1 A voltage drop method)				

### COIL

Power				
At Pickup Voltage (typical)	534 mW (Standard) 421 mW (Sensitive)			
Max. Continuous Dissipation	2.6 W at 20°C (68°F) ambient			
Temperature Rise	60°C (108°F) at nominal coil voltage			
Max Temperature	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.

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### **GENERAL DATA**

Life Expectancy Mechanical Electrical	Minimum operations 1 x 10 <sup>6</sup> 1 x 10 <sup>5</sup> at 20 A 14 VDC Res.			
Operate Time (max.)	10 ms max. at nominal coil voltage			
Release Time (max.)	7 ms max. at nominal coil voltage (with no coil suppression)			
Dielectric Strength (at sea level for 1 min.)	1000 VDC coil to contact 500 VDC between open contacts			
Insulation Resistance	100 megohms min. at 20°C, 500 VDC 50% RH			
Dropout	Greater than 8.3% of nominal coil voltage			
Ambient Temperature Operating Storage	At nominal coil voltage -40°C (-40°F) to 115°C (239°F) -40°C (-40°F) to 155°C (311°F)			
Vibration	0.062" DA at 10-55 Hz			
Shock	10 g			
Enclosure	P.B.T. polyester			
Terminals	Quick connects Note: Allow suitable slack on leads when wiring, and do not subject the terminals to excessive force.			
Weight	18.5 grams			

## AMERICAN ZETTLER, INC.

www.azettler.com



### **RELAY ORDERING DATA**

STANDARD RELAY	'S				
COIL SPECIFICATIONS				ORDER NUMBER*	
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance ± 10%	Form A (SPST)	Form C (SPDT)
6	3.6	7.8	25	AZ977-1A-6D	AZ977-1C-6D
12	7.2	15.6	97	AZ977–1A–12D	AZ977-1C-12D
24	14.4	31.2	384	AZ977–1A–24D	AZ977–1C–24D
SENSITIVE RELAYS	-			ORDER NUME	3FB*
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance ± 10%	Form A (SPST)	Form C (SPDT)
6	3.6	7.8	32	AZ977-1A-6DS	AZ977-1C-6DS
12	7.2	15.6	123	AZ977–1A–12DS	AZ977–1C–12DS

483

AZ977-1A-24DS

AZ977-1C-24DS

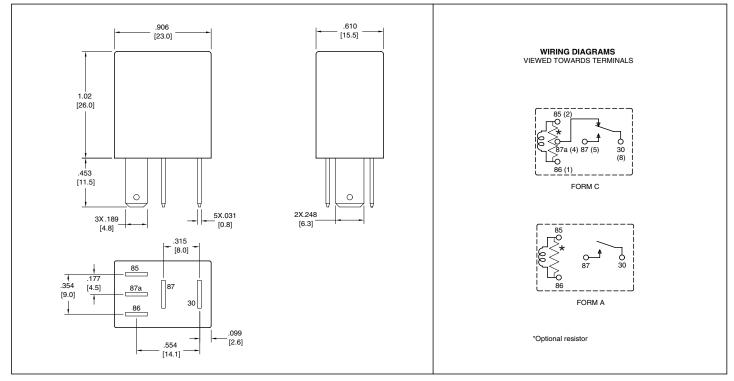
\*Add suffix "R" for resistor in parallel with coil. Resistor values: 6V: 180 W, 12V:680 W, 24V:2700 W

31.2

14.4

#### **MECHANICAL DATA**

24



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

