

AZ9421A

20 AMP MINIATURE AUTOMOTIVE RELAY

FEATURES

- High switching capacity — 20 Amps
- DC coils to 24 VDC
- Epoxy sealed versions available
- Class F insulation for high temperature operation
- QS9000, ISO9001, ISO14001
- Extremely cost effective



CONTACTS

Arrangement	SPST (1 Form A) SPDT (1 Form C)
Ratings Medium Duty	Resistive load Max. switched power: 420 W or 2500 VA Max. switched current: 20 A Max. switched voltage: 30 VDC or 250 VAC
Material	Silver tin oxide
Resistance	<100 milliohms initially (24 V, 1 A voltage drop method)

COIL

Power At Pickup Voltage (typical) Max Continuous Dissipation	450 mW 1.3 W at 20°C (68°F) ambient
Temperature Rise	40°C (72°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. Unsealed relays should not be dip cleaned.
4. Specifications subject to change without notice.

GENERAL DATA

Life Expectancy Mechanical Electrical	Minimum operations 1x10 ⁷ 1 x 10 ⁵ at 20 A 14 VDC Res.
Operate Time (typical)	10 ms at nominal coil voltage
Release Time (typical)	5 ms at nominal coil voltage (with no coil suppression)
Dielectric Strength (at sea level for 1 min.)	2500 Vrms contact to coil 1000 Vrms across contacts
Insulation Resistance	100 megohms min. at 20°C, 500 VDC, 50% RH
Dropout	Greater than 10% of nominal coil voltage
Ambient Temperature Operating Storage	At nominal coil voltage -40°C(-40°F) to 85°C(185°F) -55°C(-67°F) to 155°C(311°F)
Vibration	0.039" DA at 10–55Hz
Shock	10 g operational, 100 g damage
Enclosure	P.B.T. polyester
Terminals	Tinned copper alloy, P.C.
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	10 g

AMERICAN ZETTLER, INC.

12/12/12

AZ9421A

RELAY ORDERING DATA

STANDARD RELAYS				ORDER NUMBER*	
COIL SPECIFICATIONS				Unsealed	Sealed
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance $\pm 10\%$		
6	4.5	7.8	45	AZ9421A-1CT-6D	AZ9421A-1CT-6DE
12	9.0	15.6	180	AZ9421A-1CT-12D	AZ9421A-1CT-12DE
24	18.0	31.2	720	AZ9421A-1CT-24D	AZ9421A-1CT-24DE

*Substitute "1AT" in place of "1CT" to indicate 1 Form A contact.

MECHANICAL DATA

Outline Dimensions

Top View Dimensions: .768MAX [19.5] (width), .673MAX [17.1] (height), .083 [2.1] (lead length), .480 [12.2] (lead spacing), .079 [2.0] (lead width).

Side View Dimensions: .630MAX [16.0] (width), .138 [3.5] (coil height), 2- \emptyset .028 [0.7] (coil diameter), 3-.039X.016 [1.0X0.4] (coil lead length), .472 [12.0] (coil lead spacing).

Bottom View Dimensions: .480 [12.2] (width), .236 [6.0] (lead spacing), 5- \emptyset .051 [01.3] (mounting holes).

BOTTOM VIEW

PC Board Layout

PC Board Layout Dimensions: .079 [2.0] (hole offset), .480 [12.2] (hole spacing), .472 [12.0] (hole offset), .236 [6.0] (hole spacing), 5- \emptyset .051 [01.3] (hole diameter).

Wiring Diagram

1A

1C

Dimensions in inches with metric equivalents in parentheses. Tolerance: ± 0.010 "

AMERICAN ZETTLER, INC.

12/12/12

PHONE: (949) 831-5000

www.azettler.com

E-MAIL: SALES@AZETTLER.COM

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 actual operating 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.