



**THE DATASHEET OF
AZ9871-1C-12DET**



AZ9871

30 AMP MICRO AUTOMOTIVE RELAY

FEATURES

- Up to 30 Amp switching capability in a compact size
- Form A and C contacts available (single or twin relay)
- Vibration and shock resistant
- Epoxy sealed version available
- Designed for high in-rush applications
- Cost effective
- Single and Dual (Twin) relay versions
- ISO/TS 16949, ISO14001



CONTACTS

Arrangement	SPST (1 Form A) DPST (2 Form A) SPDT (1 Form C) DPDT (2 Form C)
Ratings	Resistive load: Max. switched power: 420 W Max. switched current: 30 A / 25A N.O. / N.C. Max. switched voltage: 24 VDC Rated load: 30 A at 14 VDC (Form A) 30/20 A at 14 VDC (Form C)
Material	Silver tin oxide (silver nickel available - contact factory)
Resistance	< 50 milliohms initially (3 milliohms at 10A)

COIL

Power At Pickup Voltage (typical)	187 mW
Max. Continuous Dissipation	2.6 W at 20°C (68°F) ambient
Temperature Rise	34°C (61°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.

GENERAL DATA

Life Expectancy Mechanical Electrical	Minimum operations 1 x 10 ⁷ 1 x 10 ⁵ at 20 A 14 VDC Res.
Operate Time	3 ms typical at nominal coil voltage
Release Time)	1.5 ms typical at nominal coil voltage (with no coil suppression)
Dielectric Strength (at sea level for 1 min.)	500 Vrms coil to contact 500 Vrms between open contacts
Insulation Resistance	1000 megohms min. at 20°C, 500 VDC 50% RH
Dropout	Greater than 12.5% of nominal coil voltage
Ambient Temperature Operating Storage	At nominal coil voltage -40°C (-40°F) to 105°C (221°F) -40°C (-40°F) to 155°C (311°F)
Vibration	6 g at 10-500 Hz
Shock	30 g, 6 ms
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	4 grams (single) 8 grams (twin)

AMERICAN ZETTLER, INC.

11/18/13

AZ9871

RELAY ORDERING DATA

STANDARD RELAYS - 1 FORM A, 1 FORM C (SINGLE)				ORDER NUMBER*	
COIL SPECIFICATIONS					
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance $\pm 10\%$	1 Form A (SPST)	1 Form C (SPDT)
10	5.7	12.0	181	AZ9871-1A-10DT	AZ9871-1C-10DT
12	6.9	14.4	254	AZ9871-1A-12DT	AZ9871-1C-12DT
24	13.8	28.8	1010	AZ9871-1A-24DT	AZ9871-1C-24DT

STANDARD RELAYS - 2 FORM A, 2 FORM C (TWIN)				ORDER NUMBER*	
COIL SPECIFICATIONS					
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance $\pm 10\%$	2 Form A (DPST)	2 Form C (DPDT)
10	5.7	12.0	181	AZ9871-2A-10DT	AZ9871-2C-10DT
12	6.9	14.4	254	AZ9871-2A-12DT	AZ9871-2C-12DT
24	13.8	28.8	1010	AZ9871-2A-24DT	AZ9871-2C-24DT

*Change "D" to "DE" for sealed version. Add suffix "A" for gold plated contacts.

MECHANICAL DATA

Outline Dimensions

SINGLE
Form 1A,1C

BOTTOM VIEW

TWIN
Form 2A, 2C

BOTTOM VIEW

PC Board Layout

FORM 1A,1C SINGLE

FORM 2A,2C TWIN

View Toward Terminals

Wiring Diagram

SINGLE

FORM 1A FORM 1C

TWIN

FORM 2A FORM 2C

Dimensions in inches with millimeters in brackets below. Tolerance: $\pm .010$ "

Looking for pricing, stock, or lifecycle information?

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-  Cost Control Management
-  Shortage Management
-  Alternative Solution
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