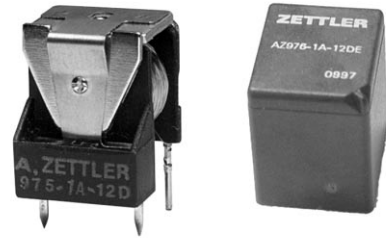


AZ975/AZ976

20 AMP SUB-MINIATURE POWER RELAY FOR AUTOMOTIVE USE

FEATURES

- Low cost
- Up to 20 Amp switching capability in a compact size
- Open, covered or sealed
- Coils to 24 VDC
- Small footprint
- Six different contact arrangements available
- Vibration and shock resistant
- Designed for high in-rush applications



CONTACTS

Arrangement	SPSTNO (1 Form A) SPST NO DM (1 Form U) SPSTNC (1 Form B) SPST NC DB (1 Form V) SPDT (B-M) (1 Form C) SPDT NC-NO DM (1 Form W)
Ratings	Max. switched power: 200 W (See power curve) 500 VA Max. switched voltage: 100 VDC Max. switched current (make/break), continuous: 1 Form A: 60A/20A, 15A 1 Form B: 12A/10A, 10A 1 Form C (NO): 60A/20A, 15A 1 Form C (NC): 12A/10A, 10A 1 Form U: 2X40A/2X20A, 2X10A 1 Form V: 2X8A/2X7A, 2X7A 1 Form W (NO): 2X30A/2X15A, 2X7A 1 Form W (NC): 2X5A/2X5A, 2X5A
Minimum Load	12 VDC, 0.5 A
Material	AgNi
Resistance	< 100 milliohms at 1A, 5 VDC

COIL

Power	
At Pickup Voltage (typical)	514 mW (12 and 24 VDC Coil) 573 mW (6 VDC Coil)
Max. Continuous Dissipation	2.5 W 20°C (68°F) ambient
Temperature Rise	60°C (108°F) nominal coil VDC
Max. Temperature	155°C (311°F)

GENERAL DATA

Life Expectancy Mechanical Electrical	Minimum operations 1 x 10 ⁷ operations 1 x 10 ⁵ operations at rated load
Operate Time (typical)	3 ms at nominal coil voltage
Release Time (typical)	1.5 ms 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	100 megohms min. at 20°C, 500 VDC, 50% RH
Dropout	> 6% (for B&V), > 11% (for ACUW) of nominal coil voltage
Ambient Temperature Operating Storage	At nominal coil voltage -40°C (-40°F) to 85°C (185°F) -40°C (-40°F) to 155°C (311°F)
Vibration	0.062" DA at 10–55Hz
Shock	10 g, 11 ms, functional
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	AZ975 = 8g, AZ976 = 12g, approx.

NOTES

1. All values at 20°C (68°F).
2. Maximum make current refers to in-rush current of lamp load.
3. Electrical life obtained at resistive or inductive load of 10A, 15 VDC for A, B, C, U, V contacts, 7A, 15 VDC for W contacts with suitable arc-suppression circuit attached with operating frequency of 1 ops/sec.
4. Relay may pull in with less than "Must Operate" value.
5. Specifications subject to change without notice.

ZETTLER electronics

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AZ975/AZ976

RELAY ORDERING DATA — AZ 975 - Open Style

COIL SPECIFICATIONS - DC Coil				ORDER NUMBER			
Nominal Coil VDC	Must Operate VDC		Max. Continuous VDC	Coil Resistance $\pm 10\%$	Form A	Form B	Form C
	A.B.C.U.V.	W.			[SPST NO]	[SPST NC]	[SPDT]
6	3.75	4.5	8.4	28	AZ975-1A-6D	AZ975-1B-6D	AZ975-1C-6D
12	7.5	9.0	18.0	130	AZ975-1A-12D	AZ975-1B-12D	AZ975-1C-12D
24	15.0	18.0	36.0	520	AZ975-1A-24D	AZ975-1B-24D	AZ975-1C-24D

RELAY ORDERING DATA — AZ 976 - With Dust Cover

COIL SPECIFICATIONS - DC Coil				ORDER NUMBER			
Nominal Coil VDC	Must Operate VDC		Max. Continuous VDC	Coil Resistance $\pm 10\%$	Form A	Form B	Form C
	A.B.C.U.V.	W.			[SPST NO]	[SPST NC]	[SPDT]
6	3.75	4.5	8.4	28	AZ976-1A-6D	AZ976-1B-6D	AZ976-1C-6D
12	7.5	9.0	18.0	130	AZ976-1A-12D	AZ976-1B-12D	AZ976-1C-12D
24	15.0	18.0	36.0	520	AZ976-1A-24D	AZ976-1B-24D	AZ976-1C-24D

Add suffix "E" for epoxy sealed version. Use U, V or W in place of A for Form U, Form V or Form W relays.

MECHANICAL DATA

<p>AZ 975 Outline Dimensions</p>	<p>AZ 976 Outline Dimensions</p>
<p>AZ 975 Suggested PCB Layout</p> <p>Bottom View</p>	<p>AZ 976 Suggested PCB Layout</p> <p>Bottom View</p>

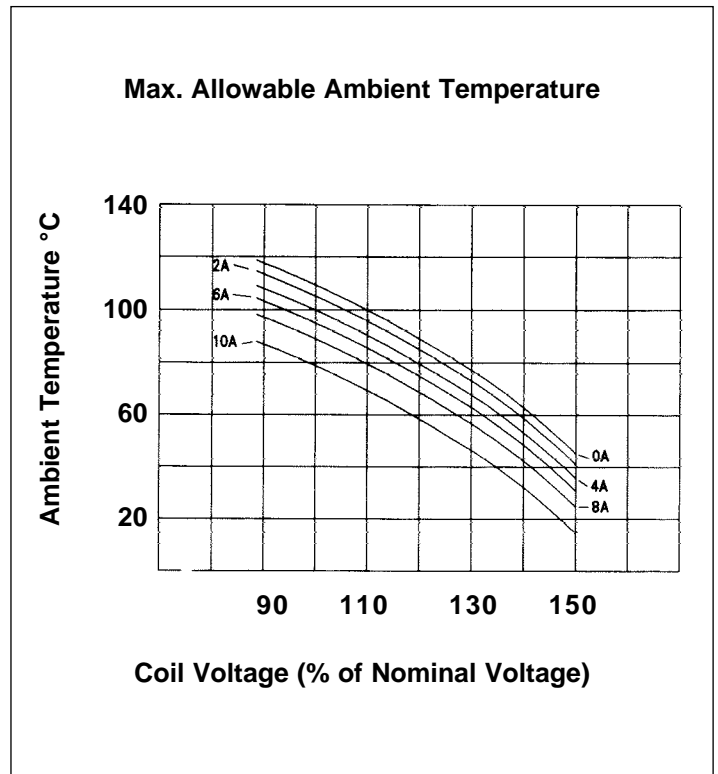
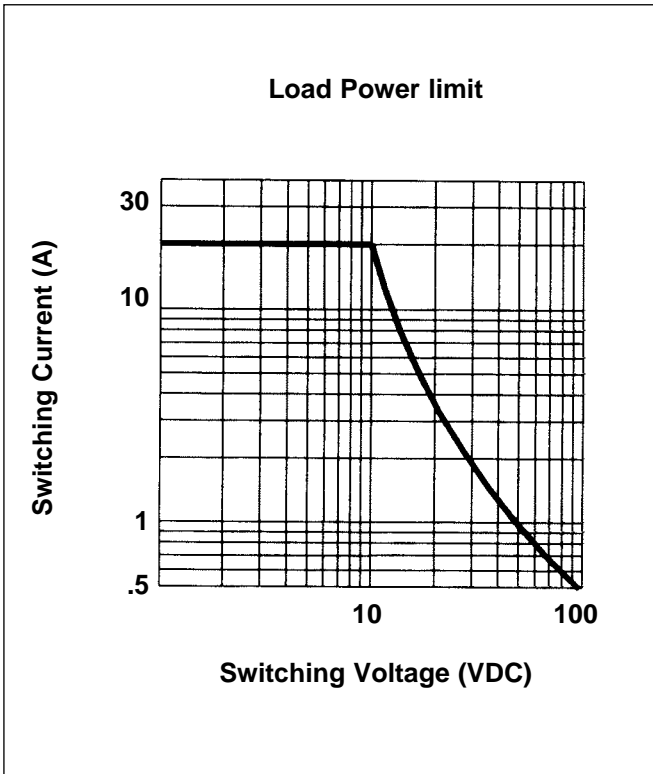
Dimensions in inches with metric equivalents in parentheses. Tolerance: ± 0.010 "

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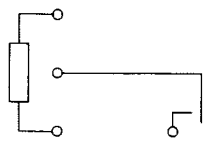
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AZ975/AZ976

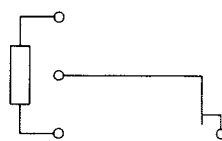


MECHANICAL DATA

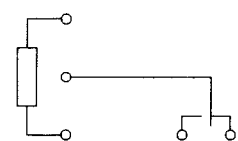
Wiring Diagrams (Bottom View)



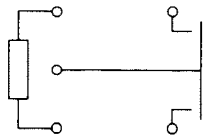
1 Form A



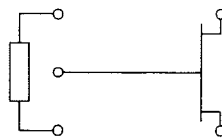
1 Form B



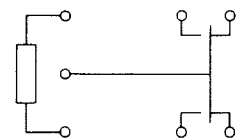
1Form C



1 Form U



1 Form V



1Form W

ZETTLER electronics

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