# 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					
Material	Silver nickel or silver tin oxide					
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	3.4 W 20°C (68°F) ambient - AZ975 3.1 W 20°C (68°F) ambient - AZ976
Temperature Rise	50°C (90°F) nominal coil VDC
Max. Temperature	155°C (311°F)

#### NOTES

- 1. All values at 20°C (68°F).
- 2. Maximum make current refers to in-rush current of lamp load.
- 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 arcsuppression 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 GmbH

Junkersstrasse 3, D-82178 Puchheim, Germany



#### GENERAL DATA

Minimum operations 1 x 10 <sup>7</sup> operations 1 x 10 <sup>5</sup> operations at 12 A 14 VDC Res.		
3 ms at nominal coil voltage		
1.5 ms at nominal coil voltage (with no coil suppression)		
500 Vrms coil to contact 500 Vrms between open contacts		
100 megohms min. at 20°C, 500 VDC, 50% RH		
> 6% (for B&V), > 11% (for ACUW) of nominal coil voltage		
At nominal coil voltage -40°C (-40°F) to 85°C (185°F) -40°C (-40°F) to 105°C (221°F)		
0.062" (1.5 mm) DA at 10–55Hz		
10 g, 11 ms, functional		
Tinned copper alloy, P.C.		
270°C (518°F)		
5 seconds		
80°C (176°F)		
30 seconds		
AZ975 = 8g, AZ976 = 12g, approx.		

# AZ975/AZ976\_

#### RELAY ORDERING DATA - AZ 975 - Open Style

COIL SPECIFICATIONS - DC Coil				ORDER NUMBER*			
Nominal Coil	Must Operate VDC		Max. Continuous	Coil Resistance	Form A	Form B	Form C
VDC	A.B.C.U.V.	W.	VDC	±10%	[SPST NO]	[SPST NC]	[SPDT]
6	3.75	4.5	9.75	28	AZ975–1A–6D	AZ975–1B–6D	AZ975–1C–6D
12	7.5	9.0	21.0	130	AZ975–1A–12D	AZ975–1B–12D	AZ975–1C–12D
24	15.0	18.0	42.0	520	AZ975–1A–24D	AZ975–1B–24D	AZ975–1C–24D

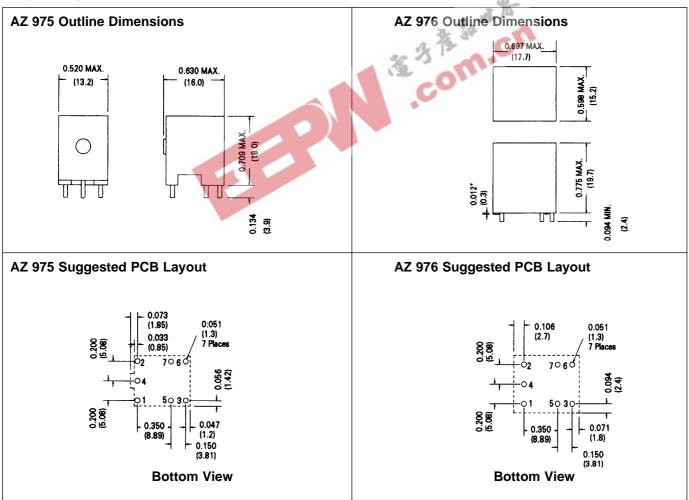
\* Use "U", "V" or "W" in place of "A" for Form U, Form V or Form W relays.

RELAY ORDERING DATA - AZ 976 - With Dust Cover

COIL SPECIFICATIONS - DC Coil				ORDER NUMBER*			
Nominal Coil	Must Operate VDC		Max. Continuous	Coil Resistance	Form A	Form B	Form C
VDC	A.B.C.U.V.	W.	VDC	±10%	[SPST NO]	[SPST NC]	[SPDT]
6	3.75	4.5	9.2	28	AZ976–1A–6D	AZ976–1B–6D	AZ976–1C–6D
12	7.5	9.0	20.0	130	AZ976–1A–12D	AZ976–1B–12D	AZ976–1C–12D
24	15.0	18.0	40.0	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. Add suffix "T" for silver tin oxide.

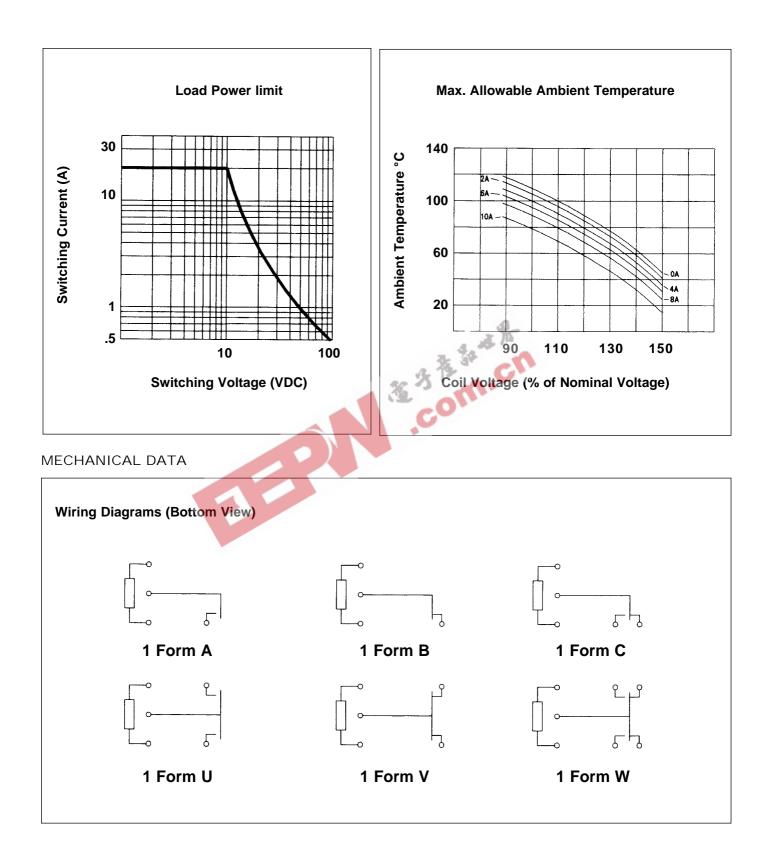
#### MECHANICAL DATA



Dimensions in inches with metric equivalents in parentheses. Tolerance:  $\pm \ 0.010"$ 

### ZETTLER electronics GmbH

## AZ975/AZ976\_



### ZETTLER electronics GmbH

Junkersstrasse 3, D-82178 Puchheim, Germany

Tel. +49 89 800 97 0 Fax +49 89 800 97 200 office@ZETTLERelectronics.com www.ZETTLERelectronics.com