

# AZ733W

## DPST MINIATURE POWER RELAY

### FEATURES

- Dielectric strength 5000 Vrms
- 1.5 mm contact gap
- Epoxy sealed version available
- 12 Amp switching — double pole contacts
- Isolation spacing greater than 8 mm
- UL, CUR file E44211
- TÜV certificate R50129285



### CONTACTS

<b>Arrangement</b>	DPST (2 Form A)
<b>Ratings (max.)</b>	(resistive load)
switched power	300 W or 3324 VA
switched current	12 A
switched voltage	250 VDC* or 400 VAC
	* Note: If switching voltage is greater than 30 VDC, special precautions must be taken. Please contact the factory.
<b>Rated Loads</b>	
UL	10 A at 250 VAC, 100k cycles [1] 12 A at 277 VAC resistive, 70°C, 80k cycles [3] 1/3 HP at 125 VAC [3] 3/4 HP at 250 VAC [3] TV-3 at 125 VAC, 25k cycles [1]
TÜV	12 A at 250 VAC resistive, 70°C, 10k cycles [2][3] 10 A at 250 VAC resistive, 70°C, 30k cycles [1][2][3] 10 A at 30 VDC, 70°C, 10k cycles [1]
<b>Contact materials</b>	AgCdO (silver cadmium oxide) [1] AgNi (silver nickel) [2] AgSnO <sub>2</sub> (silver tin oxide) [3] gold plating available
<b>Initial resistance</b>	< 50 mΩ

### COIL

<b>Nominal coil DC voltages</b>	3, 5, 6, 9, 12, 18, 24, 48, 60
<b>Power at pickup voltage</b>	450 mW (typ.)
<b>Max. continuous dissipation</b>	2.0 W at 20°C (68°F) ambient
<b>Max. temperature</b>	130°C (266°F)
<b>Temperature Rise</b>	40 K (72°F) at nominal coil voltage
<b>Dropout</b>	> 10% of nominal coil voltage

### 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

<b>Life Expectancy</b>	(minimum operations)
Mechanical	5 x 10 <sup>5</sup>
Electrical	1 x 10 <sup>5</sup> at 10 A 250 VAC resistive
<b>Operate Time</b>	10 ms (typ.) at nominal coil voltage
<b>Release Time</b>	4 ms (typ.) at nominal coil voltage, without coil suppression
<b>Dielectric Strength</b>	(at sea level for 1 min.) 5000 V <sub>RMS</sub> coil to contact 2500 V <sub>RMS</sub> between open contacts 3000 V <sub>RMS</sub> between contact sets
<b>Insulation Resistance</b>	1000 MΩ (min.) at 20°C, 500 VDC, 50% RH
<b>Isolation Spacing</b>	> 8 mm
<b>Temperature Range</b>	at nominal coil voltage
Operating	-40°C (-40°F) to 70°C (158°F)
<b>Vibration</b>	0.062" (1.5 mm) DA at 10–55 Hz
<b>Shock</b>	10 g
<b>Enclosure</b>	P.B.T. polyester
<b>Terminals</b>	Tinned copper alloy, P. C.
<b>Soldering</b>	
Max. Temperature	270°C (518°F)
Max. Time	5 seconds
<b>Cleaning</b>	
Max. Solvent Temp.	80°C (176°F)
Max. Immersion Time	30 seconds
<b>Weight</b>	18 grams
<b>Packing unit in pcs</b>	50 per plastic tray / 500 per carton box

# AZ733W

## ORDERING DATA

AZ733W-2A□-□□D□□

**Plating option**  
 nil: no plating  
 A: gold plated  
**Sealing option**  
 nil: non sealed  
 E: sealed version  
**Coil type**  
 D: DC coil  
**Nominal coil voltage**  
 see coil specifications  
**Contact material**  
 nil: silver cadmium oxide  
 B: silver nickel  
 E: silver tin oxide  
**Contact arrangement**  
 2A: 2-FORM-A (DPST)

### Example ordering data

AZ733W-2AE-9D silver tin oxide, 9 VDC nominal coil voltage, non sealed

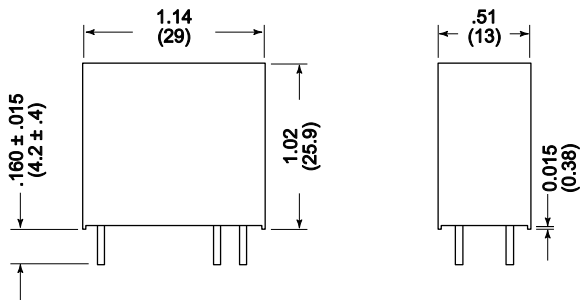
AZ733W-2AB-12DA silver nickel, 12 VDC nominal coil voltage, gold plated

## COIL SPECIFICATIONS

Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Resistance Ohm ± 10%
3	2.25	4.7	11.3
5	3.8	7.9	31
6	4.5	9.5	45
9	6.8	14.2	101
12	9.0	18.9	180
18	13.5	28.4	405
24	18.0	37.9	720
48	36.0	75.9	2880
60	45.0	94.8	4500

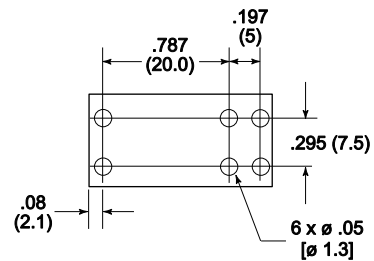
## MECHANICAL DATA

Dimensions in inches with metric equivalents in parentheses. Tolerance: ± .010"



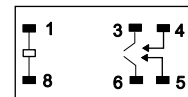
Terminal No.	Dimensions, Tol.: ± 0.005 (0.13)
1, 4, 5, 8	0.018 (0.457) x 0.038 (0.965)
3, 6	0.011 (0.279) x 0.038 (0.965)

## PC BOARD LAYOUT



Viewed towards terminals

## WIRING DIAGRAM

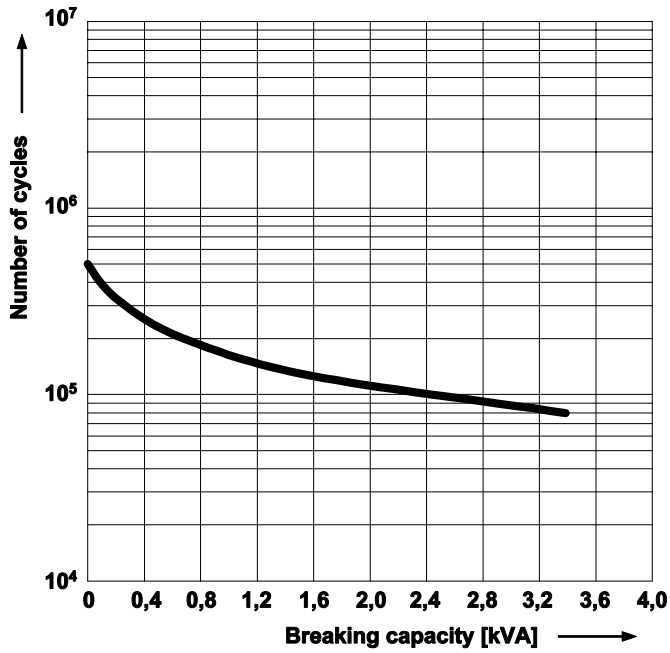


Viewed towards terminals

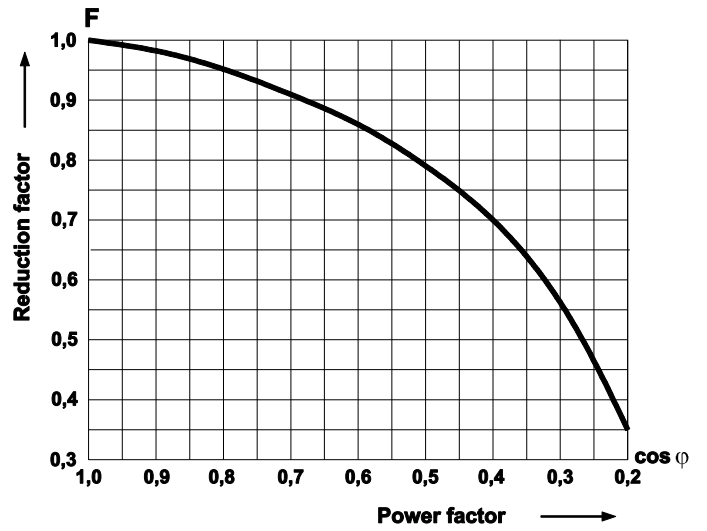
# AZ733W

## ELECTRICAL CHARACTERISTICS

Electrical life at 250 VAC, resistive load



Electrical life reduction factor at inductive AC load



$$N_{\cos \varphi} = N \times F$$

Max. AC/DC resistive load breaking capacity

