## 12 A SPDT MINIATURE POWER RELAY

## FEATURES

- Dielectric strength 5000 Vrms
- Low cost
- Epoxy sealed version available
- 12 Amp switching
- Isolation spacing greater than 10 mm
- Reinforced insulation, EN 60730-1 (VDE 0631, part 1), EN 60335-1 (VDE 0700, part 1)

- UL, CUR file E44211
- VDE 40006031


## CONTACTS

| Arrangement | $\begin{aligned} & \text { SPDT ( } 1 \text { Form C) } \\ & \text { SPST ( } 1 \text { Form A, } 1 \text { Form B) } \end{aligned}$ |
| :---: | :---: |
| Ratings | Resistive load: <br> Max. switched power: 360 W or 3324 VA <br> Max. switched current: 12 A <br> Max. switched voltage: 150 VDC* or 400 VAC <br> * Note: If switching voltage is greater than 30 VDC, special precautions must be taken. Please contact the factory. |
| Rated Load UL, CUR <br> VDE | 12 A at 277 VAC resistive, 50 k cycles (standard coils) [1] <br> 12 A at 277 VAC resistive, 100k cycles (standard coils) [2] [3] <br> 10 A at 250 VAC resistive, 100k cycles (sensitive coils) [1] <br> $1 / 2 \mathrm{HP}$ at 250 VAC ( 1 Form A) [1] <br> $1 / 3$ HP at 125 VAC (1 Form A) [1] <br> B300 Pilot Duty [2] <br> R300 Pilot Duty [2] <br> 12 A at 250 VAC resistive, [1] [2] and [3] |
| Material | Silver cadmium oxide [1] or silver tin oxide [2] or silver nickel [3]. Gold plating available |
| Resistance | < 50 milliohms initially |

## COIL

| Power |  |
| :--- | :--- |
| At Pickup Voltage | 196 mW , standard coil |
| (typical) | 141 mW , sensitive coil |
| Max. Continuous | 1.7 W at $20^{\circ} \mathrm{C}\left(68^{\circ} \mathrm{F}\right)$ ambient |
| Dissipation |  |
| Temperature Rise | $26^{\circ} \mathrm{C}\left(47^{\circ} \mathrm{F}\right)$ standard coil |
| (at nominal voltage) | $17^{\circ} \mathrm{C}\left(31^{\circ} \mathrm{F}\right)$ sensitive coil |
| Max. Temperature | $130^{\circ} \mathrm{C}\left(266^{\circ} \mathrm{F}\right)$ |

GENERAL DATA

| Life Expectancy Mechanical Electrical | Minimum operations $1 \times 10^{7}$ <br> $1 \times 10^{5}$ at 12 A 250 VAC Res. |
| :---: | :---: |
| Operate Time (typical) | 7 ms at nominal coil voltage |
| Release Time (typical) | 3 ms at nominal coil voltage (with no coil suppression) |
| Dielectric Strength (at sea level for 1 min.) | 5000 Vrms coil to contact <br> 1000 Vrms between open contacts |
| Insulation Resistance | 1000 megohms min. at $20^{\circ} \mathrm{C}$ 500 VDC $50 \%$ RH |
| Insulation (according to DIN VDE 0110, IEC 60664-1) | C250 <br> Overvoltage category: III <br> Pollution degree: 3 <br> Nominal voltage: 250 VAC |
| Dropout | Greater than 10\% of nominal coil voltage |
| Ambient Temperature Operating <br> Storage | At nominal coil voltage $-40^{\circ} \mathrm{C}\left(-40^{\circ} \mathrm{F}\right)$ to $85^{\circ} \mathrm{C}\left(185^{\circ} \mathrm{F}\right)$ standard $-40^{\circ} \mathrm{C}\left(-40^{\circ} \mathrm{F}\right)$ to $105^{\circ} \mathrm{C}\left(221^{\circ} \mathrm{F}\right)$ sensitive $-40^{\circ} \mathrm{C}\left(-40^{\circ} \mathrm{F}\right)$ to $105^{\circ} \mathrm{C}\left(221^{\circ} \mathrm{F}\right)$ |
| Vibration | 0.062" (1.5 mm) DA at $10-55 \mathrm{~Hz}$ |
| Shock | 10 g |
| Enclosure | P.B.T. polyester |
| Terminals | Tinned copper alloy, P.C. |
| Max. Solder Temp. | $270^{\circ} \mathrm{C}\left(518^{\circ} \mathrm{F}\right)$ |
| Max. Solder Time | 5 seconds |
| Max. Solvent Temp. | $80^{\circ} \mathrm{C}\left(176{ }^{\circ} \mathrm{F}\right)$ |
| Max. Immersion Time | 30 Seconds |
| Weight | 14 grams |
| Packing unit in pcs | 20 per plastic tube / 1000 per carton box |

## NOTES

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1. All values at }2\mp@subsup{0}{}{\circ}\textrm{C}(6\mp@subsup{8}{}{\circ}\textrm{F})\mathrm{ .
2. Relay may pull in with less than "Must Operate" value.
3. Specifications subject to change without notice.
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## ZETTLER electronics GmbH

## AZ761

RELAY ORDERING DATA

| COIL SPECIFICATIONS - 12 A RATING |  |  |  | ORDER NUMBER* |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Nominal Coil VDC | Must Operate VDC | Max. Continuous VDC | Coil Resistance Ohm $\pm 10 \%$ | 1 Form A | 1 Form C |
| 5 | 3.5 | 10.2 | 62 | AZ761-1A-5D | AZ761-1C-5D |
| 6 | 4.2 | 12.3 | 90 | AZ761-1A-6D | AZ761-1C-6D |
| 9 | 6.3 | 18.3 | 200 | AZ761-1A-9D | AZ761-1C-9D |
| 12 | 8.4 | 24.7 | 360 | AZ761-1A-12D | AZ761-1C-12D |
| 18 | 12.6 | 37.0 | 810 | AZ761-1A-18D | AZ761-1C-18D |
| 24 | 16.8 | 49.4 | 1,440 | AZ761-1A-24D | AZ761-1C-24D |
| 48 | 33.6 | 98.0 | 5,760 | AZ761-1A-48D | AZ761-1C-48D |
| 60 | 42.0 | 112.9 | 7,500 | AZ761-1A-60D | AZ761-1C-60D |
| 110 | 77.0 | 206.9 | 25,200 | AZ761-1A-110D | AZ761-1C-110D |
| COIL SPECIFICATIONS - SENSITIVE COIL - 10 A RATING |  |  |  | ORDER NUMBER* |  |
| Nominal Coil VDC | Must Operate VDC | Max. Continuous VDC | Coil Resistance Ohm $\pm 10 \%$ | 1 Form A | 1 Form C |
| 5 | 3.8 | 13.0 | 100 | AZ761-1A-5DS | AZ761-1C-5DS |
| 6 | 4.5 | 15.6 | 144 | AZ761-1A-6DS | AZ761-1C-6DS |
| 12 | 9.0 | 31.3 | 576 | AZ761-1A-12DS | AZ761-1C-12DS |
| 18 | 13.5 | 46.9 | 1,296 | AZ761-1A-18DS | AZ761-1C-18DS |
| 24 | 18.0 | 62.6 | 2,304 | AZ761-1A-24DS | AZ761-1C-24DS |
| 48 | 36.0 | 125.2 | 9,216 | AZ761-1A-48DS | AZ761-1C-48DS |
| 60 | 45.0 | 147.8 | 12,867 | AZ761-1A-60DS | AZ761-1C-60DS |

* " 1 A " or " 1 C " denote silver cadmium oxide contacts.

Substitute " 1 B " in place of " 1 A " for 1 Form B contact.
Add suffix " $E$ " to " $1 A$ " or " $1 B$ " or " $1 C$ " for silver tin oxide contacts.
Add suffix " $B$ " to " 1 A " or " 1 B " or " 1 C " for silver nickel contacts.
Add suffix " E " at the end of order number for sealed version.
Add suffix " $A$ " at the end of order number for gold plated contacts.
Add suffix " K " at the end of order number for 5 mm pin spacing version.

## MECHANICAL DATA



Dimensions in inches with metric equivalents in parentheses. Tolerance: $\pm .010{ }^{\prime \prime}$

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