


AZ941

MINIATURE PC BOARD RELAY

FEATURES

- Contacts rated at 3, 5, 10 or 16 Amps
- DC coils to 48 V
- Extremely low cost
- Life expectancy to 10 million operations
- Epoxy sealed
- UL, CUR file E44211; VDE 10056
- Class F available 



CONTACTS

| | |
|-------------------------|---|
| Arrangement | SPDT (1 Form C) Form A available upon request |
| Ratings | Resistive load |
| Light Duty | Max. switched power: 90 W or 750 VA Max. switched current: 3 A Max. switched voltage: 150* VDC or 300 VAC UL Rating: 3 A at 30 VDC or 250 VAC |
| Medium Duty | Max. switched power: 150 W or 1250 VA Max. switched current: 5 A Max. switched voltage: 150* VDC or 300 VAC UL Rating: 5 A at 30 VDC or 125 VAC 1/10 HP @ 125 VAC |
| Heavy Duty | Max. switched power: 300 W or 2500 VA Max. switched current: 12 A Max. switched voltage: 150* VDC or 300 VAC UL Rating: 5 A at 30 VDC 12 A at 125 VAC 1/4 HP @ 125 VAC 1/2 HP @ 250 VAC |
| Extra Heavy Duty | Max. switched power: 300 W or 4000 VA Max. switched current: 16 A Max. switched voltage: 150* VDC or 300 VAC UL Rating: 16 A at 125 VAC 10 A at 30 VDC *Note: If switching voltage is greater than 30 VDC, special precautions must be taken. Please contact the factory. |
| Material | Silver cadmium oxide |
| Resistance | < 100 milliohms initially |


GENERAL DATA

| | |
|--|---|
| Life Expectancy Mechanical Electrical | Minimum operations 1x10 ⁷ 1 x 10 ⁵ at 12 A 120 VAC Res. |
| Operate Time (typical) | 6 ms at nominal coil voltage |
| Release Time (typical) | 2 ms at nominal coil voltage (with no coil suppression) |
| Dielectric Strength (at sea level for 1 min.) | 1500 Vrms contact to coil 750 Vrms contact to contact Meets FCC part 68.302 1500 V lightning surge Meets FCC part 68.304 1000 V dielectric |
| Insulation Resistance | 100 megohms min. at 20°C, 500 VDC, 50% RH |
| Dropout | Greater than 10% of nominal coil voltage |
| Ambient Temperature Operating Storage | At nominal coil voltage -40°C (-40°F) to 70°C (158°F) -40°C (-40°F) to 105°C (221°F) |
| Vibration | 0.062" (1.5 mm) DA at 10–55Hz |
| Shock | 10 g |
| 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 | 13 grams |

COIL

| | |
|--|--|
| Power | |
| At Pickup Voltage (typical) | 230 mW |
| Max Continuous Dissipation | 1.1 W 20°C (68°F) ambient .86 W 40°C (104°F) ambient |
| Temperature Rise | 27°C (49°F) nominal coil voltage |
| Temperature | Max. 105°C (221°F) Max. 130°C (266°F) Class B Max. 155°C (311°F) Class F |

NOTES

1. All values at 20°C (68°F).
 2. Relay may pull in with less than "Must Operate" value.
 3. Unsealed relays should not be dip cleaned.
 4. Specifications subject to change without notice.
-  Only AZ941-1CT unsealed version is VDE approved at 5A, 250 VAC.

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2003-04-08

AZ941

RELAY ORDERING DATA

| STANDARD RELAYS: Light Duty Type (3 Amp Contact) | | | | | |
|--|---------------------|----------------------------|------------------|--------------|---------------|
| COIL SPECIFICATIONS | | | | ORDER NUMBER | |
| Nominal Coil VDC | Max. Continuous VDC | Coil Resistance $\pm 10\%$ | Must Operate VDC | Unsealed | Sealed |
| 5 | 8.9 | 70 | 4.0 | AZ941-1C-5D | AZ941-1C-5DE |
| 6 | 10.6 | 100 | 4.8 | AZ941-1C-6D | AZ941-1C-6DE |
| 12 | 21.2 | 400 | 9.6 | AZ941-1C-12D | AZ941-1C-12DE |
| 24 | 42.5 | 1,600 | 19.2 | AZ941-1C-24D | AZ941-1C-24DE |
| 48 | 85.0 | 6,400 | 38.4 | AZ941-1C-48D | AZ941-1C-48DE |

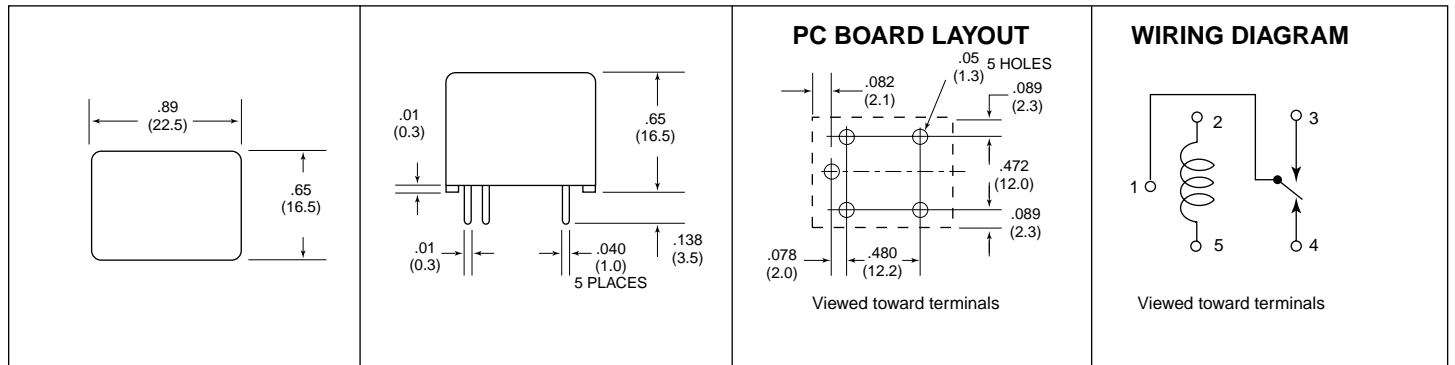
| STANDARD RELAYS: Medium Duty Type (5 Amp Contact) | | | | | |
|---|---------------------|----------------------------|------------------|---------------|----------------|
| COIL SPECIFICATIONS | | | | ORDER NUMBER | |
| Nominal Coil VDC | Max. Continuous VDC | Coil Resistance $\pm 10\%$ | Must Operate VDC | Unsealed | Sealed |
| 5 | 8.9 | 70 | 4.0 | AZ941-1CH-5D | AZ941-1CH-5DE |
| 6 | 10.6 | 100 | 4.8 | AZ941-1CH-6D | AZ941-1CH-6DE |
| 12 | 21.2 | 400 | 9.6 | AZ941-1CH-12D | AZ941-1CH-12DE |
| 24 | 42.5 | 1,600 | 19.2 | AZ941-1CH-24D | AZ941-1CH-24DE |
| 48 | 85.0 | 6,400 | 38.4 | AZ941-1CH-48D | AZ941-1CH-48DE |

| STANDARD RELAYS: Heavy Duty Type (12 Amp Contact) | | | | | |
|---|---------------------|----------------------------|------------------|---------------|----------------|
| COIL SPECIFICATIONS | | | | ORDER NUMBER | |
| Nominal Coil VDC | Max. Continuous VDC | Coil Resistance $\pm 10\%$ | Must Operate VDC | Unsealed | Sealed |
| 5 | 8.9 | 70 | 4.0 | AZ941-1CT-5D | AZ941-1CT-5DE |
| 6 | 10.6 | 100 | 4.8 | AZ941-1CT-6D | AZ941-1CT-6DE |
| 12 | 21.2 | 400 | 9.6 | AZ941-1CT-12D | AZ941-1CT-12DE |
| 24 | 42.5 | 1,600 | 19.2 | AZ941-1CT-24D | AZ941-1CT-24DE |
| 48 | 85.0 | 6,400 | 38.4 | AZ941-1CT-48D | AZ941-1CT-48DE |

| STANDARD RELAYS: Extra Heavy Duty Type (16 Amp Contact) | | | | | |
|---|---------------------|----------------------------|------------------|----------------|-----------------|
| COIL SPECIFICATIONS | | | | ORDER NUMBER* | |
| Nominal Coil VDC | Max. Continuous VDC | Coil Resistance $\pm 10\%$ | Must Operate VDC | Unsealed | Sealed |
| 5 | 8.9 | 70 | 4.0 | AZ941-1CW-5DB | AZ941-1CW-5DEB |
| 6 | 10.6 | 100 | 4.8 | AZ941-1CW-6DB | AZ941-1CW-6DEB |
| 12 | 21.2 | 400 | 9.6 | AZ941-1CW-12DB | AZ941-1CW-12DEB |
| 24 | 42.5 | 1,600 | 19.2 | AZ941-1CW-24DB | AZ941-1CW-24DEB |
| 48 | 85.0 | 6,400 | 38.4 | AZ941-1CW-48DB | AZ941-1CW-48DEB |

* Add suffix "F" in place of "B" to indicate class F.

MECHANICAL DATA



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

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