

MINIATURE PC BOARD RELAY



FEATURES

- Subminiature size
- High sensitivity, 110 mW pickup
- Coils to 48 VDC
- Hermetically sealed version available
- Epoxy sealed for automatic wave soldering
- Contacts rated at 3, 6 or 10 Amps
- Withstands 6 kV IEEE Lightning Surge (special order)
- Class B insulation (130°C) standard
- Class F insulation (155°C) version available
- UL, CUR file E44211
- VDE approved versions available

CONTACTS

| | |
|-------------------------------|--|
| Arrangement | SPDT (1 Form C) SPST (1 Form A) 10 A version only |
| Ratings Light Duty | Resistive load: Max. switched power: 100 W or 600 VA Max. switched current: 3 A Max. switched voltage: 150* VDC or 300 VAC UL Rating: 2 A at 28 VDC or 300 VAC 1/8 HP 120 VAC 1/10 HP 120/240 VAC (100,000 cyc) 1.2/0.6 A at 120/240 VAC, Pilot Duty 100,000 cyc 3.0/1.5 A at 120/240 VAC General Use 100,000 cyc |
| Medium Duty | Max. switched power: 180 W or 1800 VA Max. switched current: 6 A Max. switched voltage: 150* VDC or 300 VAC UL Rating: 6 A at 28 VDC or 300 VAC 1/8 HP 120/240 VAC (100,000 cyc) 1.5/0.8 A at 120/240 VAC, Pilot Duty 100,000 cyc 3.8/1.9 A at 120/240 VAC General Use 100,000 cyc |
| Heavy Duty | Max. switched power: 300 W or 2400 VA Max. switched current: 10 A Max. switched voltage: 150* VDC or 300 VAC UL Rating: 10 A at 30 VDC or 250 VAC 1/4 HP 120 VAC, 1/2 HP 250 VAC Note: If switching voltage is greater than 30 VDC, special precautions must be taken. Please contact the factory. |
| Material | Light duty: Silver Medium duty: Silver nickel Heavy duty: Silver cadmium oxide |
| Resistance | < 100 milliohms initially |

NOTES

1. All values at 20°C (68°F).
2. Relay may pull in with less than "Must Operate" value.
3. Other coil resistances and sensitivities available upon request.
4. Unsealed relays should not be dip cleaned.
5. Specifications subject to change without notice.

COIL

| | |
|--|--|
| Power At Pickup Voltage (typical) | Standard coil: 210 mW Sensitive coil: 140 mW Heavy duty: 228 mW (110 mW available) |
| Max. Continuous Dissipation | Class B: 2.0 W 20°C (68°F) ambient 1.6 W 40°C (104°F) ambient Class F: 2.5 W 20°C (68°F) ambient 2.1 W 40°C (104°F) ambient |
| Temperature Rise | At nominal coil voltage Standard coil: 38°C (68°F) Sensitive coil: 28°C (50°F) |
| Temperature | Max. 130°C (266°F) Class B Max. 155°C (311°F) Class F |

GENERAL DATA

| | |
|---|--|
| Life Expectancy Mechanical | Minimum operations 100 million operations |
| Electrical Light Duty Medium Duty Heavy Duty | 3 x 10 ⁵ at 3 A, 120 VAC 1.8 x 10 ⁵ at 6 A, 120 VAC 1 x 10 ⁵ at 10 A, 120 VAC |
| Operate Time (typical) | 5 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.) | 750 Vrms contact to contact 3000 Vrms contact to coil |
| Insulation Resistance | 1000 megohms min. at 20°C, 500 VDC, 50% RH |
| Dropout | Greater than 5% of nominal coil voltage |
| Ambient Temperature Operating Storage | At nominal coil voltage -55°C (-67°F) to 90°C (194°F) Class B -55°C (-67°F) to 115°C (239°F) Class F -55°C (-67°F) to 130°C (266°F) Class B -55°C (-67°F) to 155°C (311°F) Class F |
| Vibration | 0.062" DA at 10–55 Hz, 10 g at 55–110 Hz |
| Shock | 10 g |
| Enclosure | P.E.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 | 8 grams |



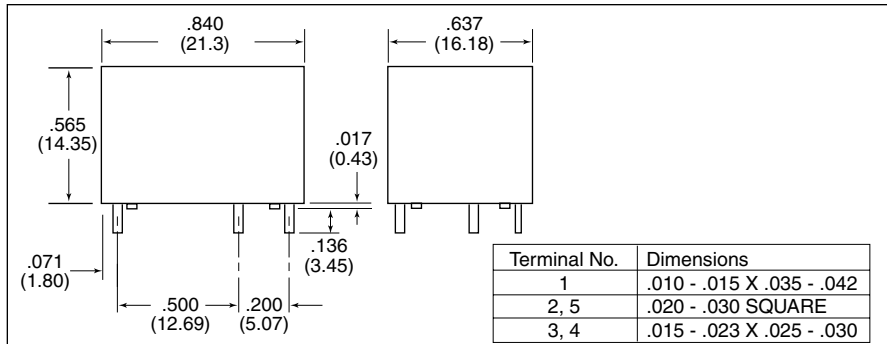
AZ8

RELAY ORDERING DATA

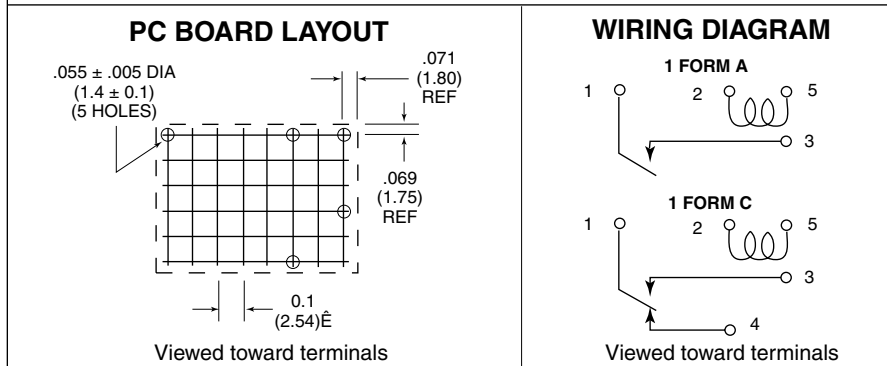
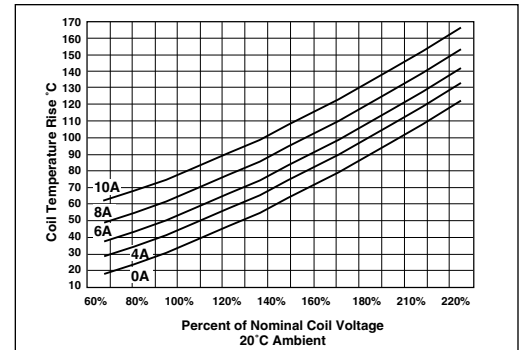
| COIL SPECIFICATIONS | | | | ORDER NUMBER* | | | |
|-----------------------------------|---------------------|-----------------------|------------------|-----------------------------|--------------|-----------------------------|---------------|
| STANDARD RELAYS: 1 Form C (SPDT) | | | | LIGHT DUTY (3 Amp contact) | | MEDIUM DUTY (6 Amp contact) | |
| Nominal Coil VDC | Max. VDC Continuous | Resistance $\pm 10\%$ | Must Operate VDC | Unsealed | Epoxy Sealed | Unsealed | Epoxy Sealed |
| 5 | 10.6 | 56 | 3.25 | AZ8-1C-5D | AZ8-1C-5DE | AZ8-1CH-5D | AZ8-1CH-5DE |
| 6 | 12.6 | 80 | 3.90 | AZ8-1C-6D | AZ8-1C-6DE | AZ8-1CH-6D | AZ8-1CH-6DE |
| 9 | 19.0 | 180 | 5.85 | AZ8-1C-9D | AZ8-1C-9DE | AZ8-1CH-9D | AZ8-1CH-9DE |
| 12 | 25.0 | 320 | 7.80 | AZ8-1C-12D | AZ8-1C-12DE | AZ8-1CH-12D | AZ8-1CH-12DE |
| 24 | 50.0 | 1,280 | 15.60 | AZ8-1C-24D | AZ8-1C-24DE | AZ8-1CH-24D | AZ8-1CH-24DE |
| 48 | 87.0 | 3,800 | 28.80 | AZ8-1C-48D | AZ8-1C-48DE | AZ8-1CH-48D | AZ8-1CH-48DE |
| SENSITIVE RELAYS: 1 Form C (SPDT) | | | | LIGHT DUTY (3 Amp contact) | | MEDIUM DUTY (6 Amp contact) | |
| Nominal Coil VDC | Max. VDC Continuous | Resistance $\pm 10\%$ | Must Operate VDC | Unsealed | Epoxy Sealed | Unsealed | Epoxy Sealed |
| 5 | 12.6 | 80 | 3.25 | AZ8-1C-5DS | AZ8-1C-5DSE | AZ8-1CH-5DS | AZ8-1CH-5DSE |
| 6 | 14.8 | 110 | 3.90 | AZ8-1C-6DS | AZ8-1C-6DSE | AZ8-1CH-6DS | AZ8-1CH-6DSE |
| 9 | 22.4 | 250 | 5.85 | AZ8-1C-9DS | AZ8-1C-9DSE | AZ8-1CH-9DS | AZ8-1CH-9DSE |
| 12 | 30.0 | 440 | 7.80 | AZ8-1C-12DS | AZ8-1C-12DSE | AZ8-1CH-12DS | AZ8-1CH-12DSE |
| 24 | 60.0 | 1,780 | 15.60 | AZ8-1C-24DS | AZ8-1C-24DSE | AZ8-1CH-24DS | AZ8-1CH-24DSE |
| STANDARD RELAYS: 1 Form C (SPDT) | | | | HEAVY DUTY (10 Amp contact) | | | |
| Nominal Coil VDC | Max. VDC Continuous | Resistance $\pm 10\%$ | Must Operate VDC | Unsealed | | Epoxy Sealed | |
| 5 | 10.6 | 56 | 4.0 | AZ8-1CT-5D | | AZ8-1CT-5DE | |
| 6 | 12.6 | 80 | 4.8 | AZ8-1CT-6D | | AZ8-1CT-6DE | |
| 9 | 19.0 | 180 | 7.2 | AZ8-1CT-9D | | AZ8-1CT-9DE | |
| 12 | 25.0 | 320 | 9.6 | AZ8-1CT-12D | | AZ8-1CT-12DE | |
| 24 | 50.0 | 1,280 | 19.2 | AZ8-1CT-24D | | AZ8-1CT-24DE | |
| 48 | 87.0 | 3,800 | 38.4 | AZ8-1CT-48D | | AZ8-1CT-48DE | |

*To indicate Class F version, add suffix "F". Other coil resistances and sensitivities available. Please contact the factory.
 Substitute "1AT" in place of "1CT" to indicate 1 Form A. For Hermetically sealed version, substitute "H" for "E".

MECHANICAL DATA

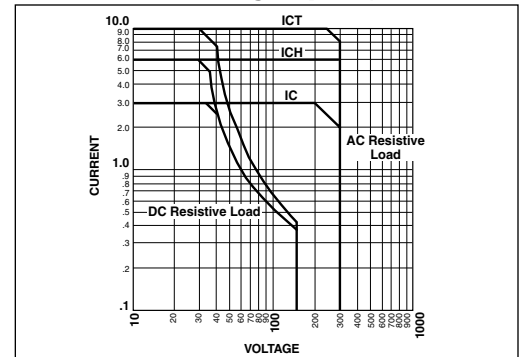


Coil Temperature Rise



Dimensions in inches with metric equivalents in parentheses. Tolerance: $\pm .010$ "

Maximum Switching Capacity



AMERICAN ZETTLER, INC.

www.azettler.com

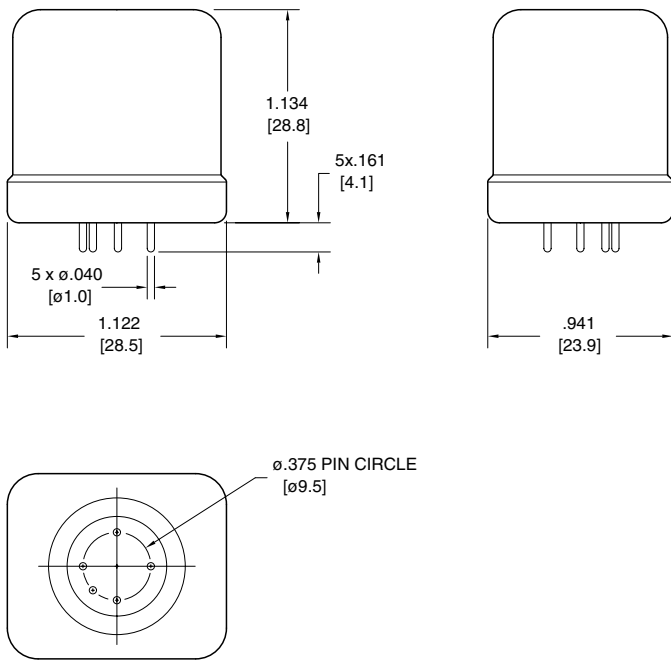
75 COLUMBIA • ALISO VIEJO, CA 92656 • PHONE: (949) 831-5000 • FAX: (949) 831-8642 • E-MAIL: SALES@AZETTLER.COM

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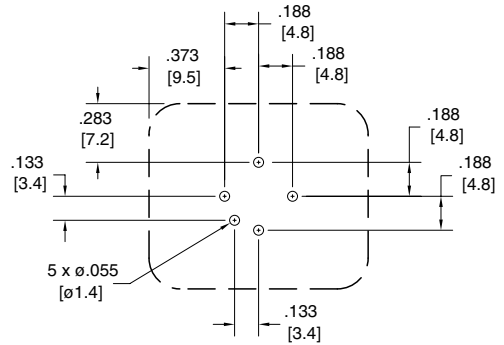
HERMETICALLY SEALED VERSION



MECHANICAL DATA

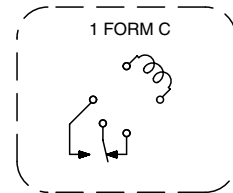
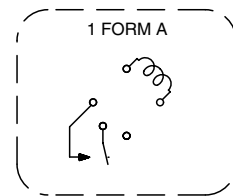


PC BOARD LAYOUT



VIEWED TOWARD TERMINALS

WIRING DIAGRAMS



VIEWED TOWARD TERMINALS

