

AZ830 4POLE

4 POLE POLARIZED MINIATURE DIP RELAY

FEATURES

- Single side stable and two coil bistable versions
- High sensitivity, 90 mW pickup
- Low profile DIP package
- DC coils to 48 VDC
- Life expectancy to 100 million operations
- Meets FCC Part 68.302 1500 V lightning surge
- Meets FCC Part 68.304 1000 V dielectric
- Epoxy sealed for automatic wave soldering and cleaning
- UL file E43203; CSA file 73363



CONTACTS

| | |
|--------------------------|--|
| Arrangement | 4PDT (4 Form C) Bifurcated crossbar contacts |
| Ratings | Resistive load: Max. switched power: 60 W or 60 VA Max. switched current: 2 A Max. switched voltage: 220 VDC or 250 VAC |
| Rated Load UL | 1 A at 30 VDC 0.5 A at 120 VAC |
| Material | Silver palladium, gold clad |
| Resistance | < 50 milliohms initially |

COIL (Polarized)

| | |
|--|--|
| Power At Pickup Voltage (typical) | Standard coil: 200 mW, single side stable 180 mW, bistable (latching) two coil Sensitive coil: 100 mW, single side stable 90 mW, bistable (latching) two coil |
| Max. Continuous Dissipation | 1.27 W at 20°C (68°F) ambient 0.99 W at 40°C (104°F) ambient |
| Temperature Rise | Standard: 34°C (61°F) at nominal coil voltage Sensitive: 17°C (31°F) at nominal coil voltage |
| Temperature | Max. 110°C (230°F) |

NOTES

1. All values at 20°C (68°F).
2. Relay may pull in with less than "Must Operate" value.
3. Relay has fixed coil polarity.
4. Relay adjustment may be affected if undue pressure is exerted on relay case.
5. For complete isolation between the relay's magnetic fields, it is recommended that a .197" (5.0 mm) space be provided between adjacent relays.
6. Specifications subject to change without notice.

GENERAL DATA

| | |
|--|---|
| Life Expectancy Mechanical Electrical | Minimum operations 1 x 10 ⁸ 5 x 10 ⁵ at 2 A, 30 VDC 2 x 10 ⁵ at 0.5 A, 120 VAC |
| Operate Time (typical) | 3 ms at nominal coil voltage |
| Release Time (typical) | 2 ms at nominal coil voltage (with no coil suppression) |
| Capacitance | Contact to contact: 1.0 pF Contact set to contact: 1.7 pF Contact to coil: 2.0 pF |
| Bounce (typical) | At 10 mA contact current 0.3 ms at operate 0.3 ms at release |
| Dielectric Strength (at sea level) | 1500 Vrms contact to coil 1500 Vrms between contact sets 1000 Vrms across contacts 250 Vrms coil to coil (dual coil) 1500 Vrms surge contact to coil 1500 Vrms surge contact set to contact set Meets FCC Part 68.302 lightning surge Meets FCC Part 68.304 V dielectric |
| Insulation Resistance | 1000 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 Standard: -40°C (-40°F) to 70°C (158°F) Sensitive: -40°C (-40°F) to 80°C (176°F) Both: -40°C (-40°F) to 110°C (230°F) |
| Vibration | 0.062" DA at 10–55 Hz |
| Shock | 30 g |
| Enclosure | P.B.T. polyester |
| Terminals | Tinned copper alloy, P.C. |
| Max. Solder Temp. | 260°C (500°F) |
| Max. Solder Time | 5 seconds |
| Max. Solvent Temp. | 80°C (176°F) |
| Max. Immersion Time | 30 seconds |
| Weight | 6.5 grams |



AMERICAN ZETTLER, INC.

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2/26/03W

AZ830 4POLE

RELAY ORDERING DATA

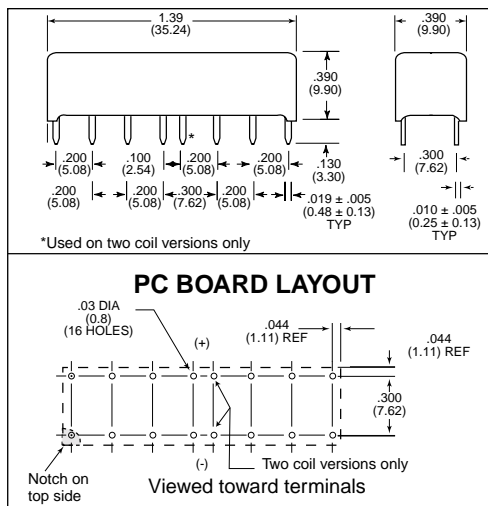
| STANDARD RELAYS: Single Side Stable | | | | | |
|-------------------------------------|---------------------|----------------------------|------------------|----------------|--------------|
| COIL SPECIFICATIONS | | | | | ORDER NUMBER |
| Nominal Coil VDC | Max. Continuous VDC | Coil Resistance $\pm 10\%$ | Must Operate VDC | | |
| 5 | 9 | 62.5 | 3.5 | AZ830-4C-5DEA | |
| 6 | 10 | 90 | 4.2 | AZ830-4C-6DEA | |
| 9 | 16 | 203 | 6.3 | AZ830-4C-9DEA | |
| 12 | 21 | 360 | 8.4 | AZ830-4C-12DEA | |
| 24 | 43 | 1440 | 16.8 | AZ830-4C-24DEA | |
| 48 | 86 | 5760 | 33.6 | AZ830-4C-48DEA | |

| SENSITIVE RELAYS: Single Side Stable | | | | | |
|--------------------------------------|---------------------|----------------------------|------------------|-----------------|--|
| Nominal Coil VDC | Max. Continuous VDC | Coil Resistance $\pm 10\%$ | Must Operate VDC | ORDER NUMBER | |
| 5 | 12 | 125 | 3.5 | AZ830-4C-5DSEA | |
| 6 | 15 | 180 | 4.2 | AZ830-4C-6DSEA | |
| 9 | 23 | 405 | 6.3 | AZ830-4C-9DSEA | |
| 12 | 30 | 720 | 8.4 | AZ830-4C-12DSEA | |
| 24 | 60 | 2880 | 16.8 | AZ830-4C-24DSEA | |
| 48 | 120 | 11520 | 33.6 | AZ830-4C-48DSEA | |

| STANDARD RELAYS: Bistable (Latching) Two Coil | | | | | |
|---|---------------------|----------------------------|---------|------------------|------------------|
| Nominal Coil VDC | Max. Continuous VDC | Coil Resistance $\pm 10\%$ | | Must Operate VDC | ORDER NUMBER |
| | | Coil I | Coil II | | |
| 5 | 9 | 69 | 69 | 3.5 | AZ830P2-4C-5DEA |
| 6 | 10 | 100 | 100 | 4.2 | AZ830P2-4C-6DEA |
| 12 | 21 | 400 | 400 | 8.4 | AZ830P2-4C-12DEA |
| 24 | 43 | 1,600 | 1,600 | 16.8 | AZ830P2-4C-24DEA |
| 48 | 86 | 6,400 | 6,400 | 33.6 | AZ830P2-4C-48DEA |

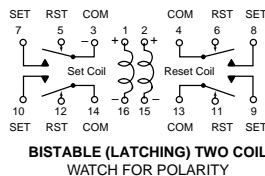
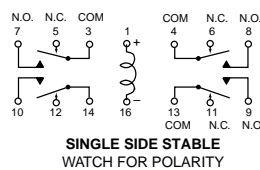
| SENSITIVE RELAYS: BISTABLE (Latching) Two Coil | | | | | |
|--|---------------------|------------------------------|-------------------------------|------------------|-------------------|
| Nominal Coil VDC | Max. Continuous VDC | Coil I Resistance $\pm 10\%$ | Coil II Resistance $\pm 10\%$ | Must Operate VDC | ORDER NUMBER |
| 5 | 10 | 139 | 139 | 3.5 | AZ830P2-4C-5DSEA |
| 6 | 13 | 200 | 200 | 4.2 | AZ830P2-4C-6DSEA |
| 12 | 26 | 800 | 800 | 8.4 | AZ830P2-4C-12DSEA |
| 24 | 52 | 3,200 | 3,200 | 16.8 | AZ830P2-4C-24DSEA |
| 48 | 104 | 12,800 | 12,800 | 33.6 | AZ830P2-4C-48DSEA |

MECHANICAL DATA



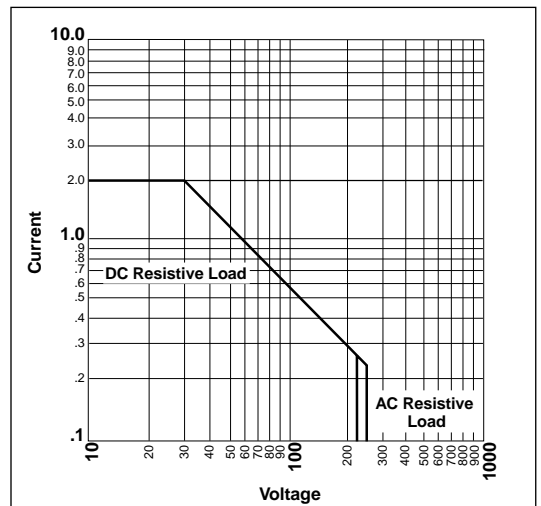
Dimensions in inches with metric equivalents in parentheses. Tolerance: $\pm .010$ "

WIRING DIAGRAM



Diagrams show the "reset" position before energized with polarity as shown
Viewed toward terminals

MAXIMUM SWITCHING CAPACITY



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