## MINIATURE

POWER RELAY

## FEATURES

- Top panel mount
- DPDT through 4PDT arrangement
- High switching capacity
- AC and DC coils
- CE marked
- UL, CUR file E43203
- TÜV pending



## CONTACTS

| Arrangement | DPDT (2 Form C) <br> 3PDT (3 Form C) <br> 4PDT (4 Form C) |
| :--- | :--- |
| Ratings <br> UL, CUR | See chart on page 2 <br> See chart on page 2 |
| Minimum Load | $5 \mathrm{VDC}, 0.1 \mathrm{~A}$ |
| Material | -2 C and 2CT contact <br> -3 C contact <br> -4 C contact |
| Silver cerium <br> Silver cerium <br> Silver cerium |  |
| Resistance | $<50$ milliohms initially <br> $(24 \mathrm{~V}, 1 \mathrm{~A}$ voltage drop method) |

COIL

| Power <br> At Pickup Voltage <br> (typical) | DC: $576 \mathrm{~mW}, 6$ to 48 VDC |
| :--- | :--- |
|  | $704 \mathrm{~mW}, 110 \mathrm{VDC}$ |
| Max. Continuous | AC: 768 VA |
| Dissipation | DC: $1.2 \mathrm{~W}(110 \mathrm{~V}: 1.5 \mathrm{~W})$ at $20^{\circ} \mathrm{C}\left(68^{\circ} \mathrm{F}\right)$ |
| AC: 1.7 VA at $20^{\circ} \mathrm{C}\left(68^{\circ} \mathrm{F}\right)$ |  |
| Temperature | $105^{\circ} \mathrm{C}\left(221^{\circ} \mathrm{F}\right)$ |

## NOTES

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## GENERAL DATA

| Life Expectancy <br> Mechanical <br> Electrical | Minimum operations <br> $2 \times 107$ operations <br> See UL/CUR ratings on page 2 |
| :--- | :--- |
| Operate Time | 25 msec max. at nominal coil voltage |
| Release Time | 25 msec at nominal coil voltage <br> (without suppression) |
| Dielectric Strength <br> (at sea level for 1 min.) | 1500 Vrms coil to contact <br> 1000 Vrms contact to contact <br> 1000 Vrms between contact sets |
| Insulation <br> Resistance | 100 megohms min. at $20^{\circ} \mathrm{C}, 500 \mathrm{VDC}$, <br> $50 \% \mathrm{RH}$ |
| Dropout <br> Storage | $\mathrm{DC}:>10 \%$ of nominal coil voltage <br> $\mathrm{AC}:>30 \%$ of nominal coil voltage |
| Ambient Temperature <br> Operating <br> Sto | $-55^{\circ} \mathrm{C}\left(-67^{\circ} \mathrm{F}\right)$ to $70^{\circ} \mathrm{C}\left(158^{\circ} \mathrm{F}\right)$ <br> $-55^{\circ} \mathrm{C}\left(-67^{\circ} \mathrm{F}\right)$ to $105^{\circ} \mathrm{C}\left(221^{\circ} \mathrm{F}\right)$ |
| Vibration | $0.062^{\prime \prime} \mathrm{DA}$ at $10-55 \mathrm{~Hz}$ |
| Shock | 20 g |
| Enclosure | Polycarbonate |
| Terminals | Plug-in |
| Max. Solder Temp. | $250^{\circ} \mathrm{C}\left(482^{\circ} \mathrm{F}\right)$ |
| Max. Solder Time | 5 seconds |
| Weight | 37 grams |

CONTACT RATINGS

| Maximum Ratings | DPDT Heavy duty, resistive load: <br> Max. Switched Power: 300 W, 2500 VA <br> Max. Switched Current: 10 A <br> Max. Switched Voltage: 30 VDC, 250 VAC <br> DPDT Standard duty, resistive load: <br> Max. Switched Power: 210 W, 1750 VA <br> Max. Switched Current: 7 A <br> Max. Switched Voltage: 30 VDC, 250 VAC <br> 3PDT, 4PDT, Standard duty, resistive load: <br> Max. Switched Power: 150 W, 1250 VA <br> Max. Switched Current: 5 A <br> Max. Switched Voltage: 30 VDC, 250 VAC | UL/CUR Ratings | DPDT Heavy duty: <br> 10 A, 250 VAC, 100k, General use <br> 10 A, 30 VDC, 100k, Resistive <br> 1/3 HP, 120/240 VAC, 100k Motor load <br> DPDT, Standard duty: <br> 7A, 250 VAC, 100k Resistive <br> 7A, 30 VDC, 100k, Resistive <br> 3A, 240 VAC/30 VDC, 100k, General use <br> 3PDT, 4PDT, Standard duty: <br> 5A, 250 VAC, 100k, Resistive <br> 5A, 30 VDC, 100k, Resistive <br> 3A, 240 VAC/30 VDC, 100k, General use |
| :---: | :---: | :---: | :---: |

## MECHANICAL DATA



RELAY ORDERING DATA
STANDARD RELAYS: DC Coil
COIL SPECIFICATIONS

| COIL SPECIFICATIONS |  |  |  |  | ORDER NUMBER* |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Nominal Coil VDC | Must Operate VDC | Max. Continuous VDC | Nominal Current $\mathrm{mA} \pm 10 \%$ | Coil Resistance |  |
| 5 | 4.0 | 5.5 | 181.0 | $27.5 \pm 10 \%$ | AZ166-2C-5D |
| 6 | 4.8 | 6.6 | 150.0 | $40.0 \pm 10 \%$ | AZ166-2C-6D |
| 12 | 9.6 | 13.2 | 75.0 | $160 \pm 10 \%$ | AZ166-2C-12D |
| 24 | 19.2 | 26.4 | 36.9 | $650 \pm 10 \%$ | AZ166-2C-24D |
| 48 | 38.4 | 52.8 | 18.5 | $2600 \pm 15 \%$ | AZ166-2C-48D |
| 110 | 88.0 | 121.0 | 10.0 | 11,000 $\pm 15 \%$ | AZ166-2C-110D |

STANDARD RELAYS: AC Coil ( $50 / 60 \mathrm{~Hz}$ )
COIL SPECIFICATIONS

| $\begin{gathered} \text { Nominal Coil } \\ \text { VAC } \end{gathered}$ | Must Operate VAC | Max. Continuous VAC | $\begin{gathered} \text { Nominal Current } \\ \mathrm{mA} \pm 10 \% \end{gathered}$ | Coil Resistance | ORDER NUMBER* |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 6 | 4.8 | 7.1 | 200.0 | $11.5 \pm 10 \%$ | AZ166-2C-6A |
| 12 | 9.6 | 14.3 | 100.0 | $46.0 \pm 10 \%$ | AZ166-2C-12A |
| 24 | 19.2 | 28.6 | 50.0 | $184 \pm 10 \%$ | AZ166-2C-24A |
| 48 | 38.4 | 57.1 | 25.0 | $735 \pm 10 \%$ | AZ166-2C-48A |
| 120 | 96.0 | 143.0 | 10.0 | 4,550 $\pm 10 \%$ | AZ166-2C-120A |
| 220 | 176.0 | 261.0 | 5.5 | 14,400 $\pm 15 \%$ | AZ166-2C-220A |
| 240 | 192.0 | 288.0 | 5.0 | 22,000 $\pm 15 \%$ | AZ166-2C-240A |

* For 3PDT or 4PDT substitute "-3C" or "-4C" for "-2C". For LED add " 1 " to the end of $\mathrm{p} / \mathrm{n}$.


## RELAY ORDERING DATA

HEAVY DUTY RELAYS: DC Coil

| COIL SPECIFICATIONS |  |  |  |  | ORDER NUMBER* |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Nominal Coil VDC | Must Operate VDC | Max. Continuous VDC | Nominal Current $\mathrm{mA} \pm 10 \%$ | Coil Resistance |  |
| 5 | 4.0 | 5.5 | 181.0 | $27.5 \pm 10 \%$ | AZ166-2CT-5D |
| 6 | 4.8 | 6.6 | 150.0 | $40.0 \pm 10 \%$ | AZ166-2CT-6D |
| 12 | 9.6 | 13.2 | 75.0 | $160 \pm 10 \%$ | AZ166-2CT-12D |
| 24 | 19.2 | 26.4 | 36.9 | $650 \pm 10 \%$ | AZ166-2CT-24D |
| 48 | 38.4 | 52.8 | 18.5 | $2600 \pm 15 \%$ | AZ166-2CT-48D |
| 110 | 88.0 | 121.0 | 10.0 | $11,000 \pm 15 \%$ | AZ166-2CT-110D |

HEAVY DUTY RELAYS: AC Coil ( $50 / 60 \mathrm{~Hz}$ )

| COIL SPECIFICATIONS |  |  |  |  | ORDER NUMBER* |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{gathered} \text { Nominal Coil } \\ \text { VAC } \end{gathered}$ | Must Operate VAC | Max. Continuous VAC | $\begin{gathered} \text { Nominal Current } \\ \mathrm{mA} \pm 10 \% \end{gathered}$ | Coil Resistance |  |
| 6 | 4.8 | 7.1 | 200.0 | $11.5 \pm 10 \%$ | AZ166-2CT-6A |
| 12 | 9.6 | 14.3 | 100.0 | $46.0 \pm 10 \%$ | AZ166-2CT-12A |
| 24 | 19.2 | 28.6 | 50.0 | $184 \pm 10 \%$ | AZ166-2CT-24A |
| 48 | 38.4 | 57.1 | 25.0 | $735 \pm 10 \%$ | AZ166-2CT-48A |
| 120 | 96.0 | 143.0 | 10.0 | $4,550 \pm 10 \%$ | AZ166-2CT-120A |
| 220 | 176.0 | 261.0 | 5.5 | 14,400 $\pm \mathbf{1 5 \%}$ | AZ166-2CT-220A |
| 240 | 192.0 | 288.0 | 5.0 | 22,000 $\pm 15 \%$ | AZ166-2CT-240A |

[^1]
[^0]:    1. All values at $20^{\circ} \mathrm{C}\left(68^{\circ} \mathrm{F}\right)$.
    2. Relay may pull in with less than "Must Operate" value.
    3. Specifications subject to change without notice.
[^1]:    * For LED add " 1 " to the end of $p / n$.

