

## MINIATURE POWER RELAY

### FEATURES

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



### CONTACTS

|                     |                                                                                                                                  |
|---------------------|----------------------------------------------------------------------------------------------------------------------------------|
| <b>Arrangement</b>  | SPDT (1 Form C)<br>DPDT (2 Form C)<br>3PDT (3 Form C)<br>4PDT (4 Form C)                                                         |
| <b>Ratings</b>      | See chart on page 2                                                                                                              |
| <b>UL, CUR</b>      | See chart on page 2                                                                                                              |
| <b>Minimum Load</b> | 5 VDC, 0.1 A                                                                                                                     |
| <b>Material</b>     | -1CT contact Silver cadmium oxide<br>-2C and 2CT contact Silver cerium<br>-3C contact Silver cerium<br>-4C contact Silver cerium |
| <b>Resistance</b>   | < 50 milliohms initially<br>(24 V, 1 A voltage drop method)                                                                      |

### COIL

|                                    |                                                                       |
|------------------------------------|-----------------------------------------------------------------------|
| <b>Power</b>                       |                                                                       |
| <b>At Pickup Voltage (typical)</b> | DC: 576 mW, 6 to 48 VDC<br>704 mW, 110 VDC<br>AC: .768 VA             |
| <b>Max. Continuous Dissipation</b> | DC: 1.2 W (110 V : 1.5 W) at 20°C (68°F)<br>AC: 1.7 VA at 20°C (68°F) |
| <b>Temperature</b>                 | 105°C (221°F)                                                         |

### NOTES

1. All values at 20°C (68°F).
2. Relay may pull in with less than "Must Operate" value.
3. Specifications subject to change without notice.

### GENERAL DATA

|                                                                  |                                                                                             |
|------------------------------------------------------------------|---------------------------------------------------------------------------------------------|
| <b>Life Expectancy</b><br><b>Mechanical</b><br><b>Electrical</b> | Minimum operations<br>2 x 10 <sup>7</sup> operations<br>See UL/CUR ratings on page 2        |
| <b>Operate Time</b>                                              | 25 msec max. at nominal coil voltage                                                        |
| <b>Release Time</b>                                              | 25 msec at nominal coil voltage<br>(without suppression)                                    |
| <b>Dielectric Strength</b><br>(at sea level for 1 min.)          | 1500 Vrms coil to contact<br>1000 Vrms contact to contact<br>1000 Vrms between contact sets |
| <b>Insulation Resistance</b>                                     | 100 megohms min. at 20°C, 500 VDC,<br>50% RH                                                |
| <b>Dropout</b>                                                   | DC: > 10% of nominal coil voltage<br>AC: > 30% of nominal coil voltage                      |
| <b>Ambient Temperature</b><br><b>Operating</b><br><b>Storage</b> | -55°C (-67°F) to 70°C (158°F)<br>-55°C (-67°F) to 105°C (221°F)                             |
| <b>Vibration</b>                                                 | 0.062" DA at 10–55 Hz                                                                       |
| <b>Shock</b>                                                     | 20g                                                                                         |
| <b>Enclosure</b>                                                 | Polycarbonate                                                                               |
| <b>Terminals</b>                                                 | Plug-in                                                                                     |
| <b>Max. Solder Temp.</b>                                         | 250°C (482°F)                                                                               |
| <b>Max. Solder Time</b>                                          | 5 seconds                                                                                   |
| <b>Weight</b>                                                    | 37 grams                                                                                    |

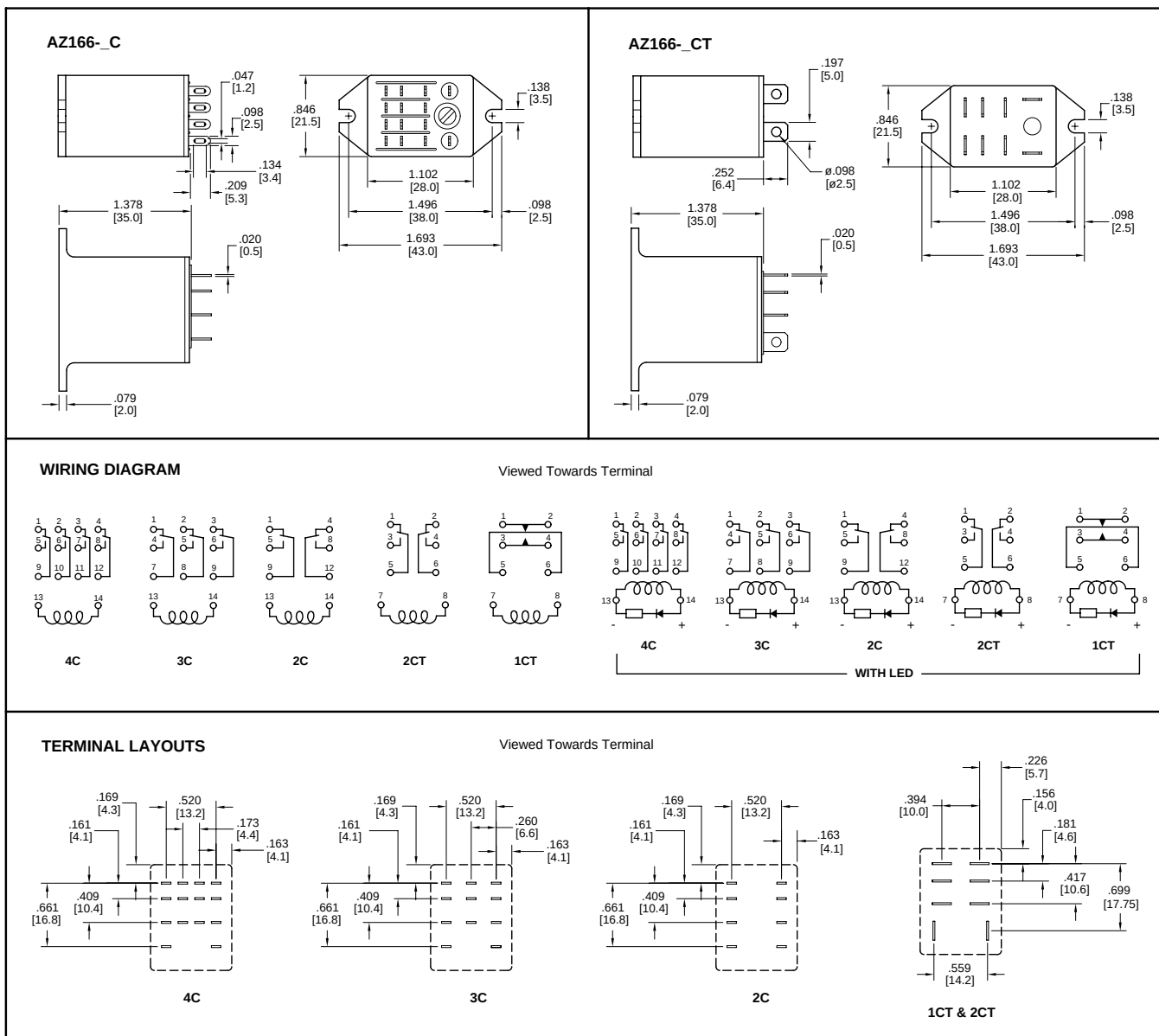


# AZ166

## CONTACT RATINGS

|                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Maximum Ratings</b> | <p><b>SPDT Heavy duty, resistive load:</b><br/> Max. Switched Power: 450 W, 3750 VA<br/> Max. Switched Current: 15 A<br/> Max. Switched Voltage: 30 VDC, 250 VAC</p> <p><b>DPDT Heavy duty, resistive load:</b><br/> Max. Switched Power: 300 W, 2500 VA<br/> Max. Switched Current: 10 A<br/> Max. Switched Voltage: 30 VDC, 250 VAC</p> <p><b>DPDT Standard duty, resistive load:</b><br/> Max. Switched Power: 210 W, 1750 VA<br/> Max. Switched Current: 7 A<br/> Max. Switched Voltage: 30 VDC, 250 VAC</p> <p><b>3PDT, 4PDT, Standard duty, resistive load:</b><br/> Max. Switched Power: 150 W, 1250 VA<br/> Max. Switched Current: 5 A<br/> Max. Switched Voltage: 30 VDC, 250 VAC</p> | <b>UL/CUR Ratings</b> | <p><b>SPDT Heavy duty:</b><br/> 15 A, 250 VAC 100k, Resistive<br/> 15 A, 30 VDC, 100k N.O., 30k N.C., Resistive</p> <p><b>DPDT Heavy duty:</b><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</p> <p><b>DPDT, Standard duty:</b><br/> 7A, 250 VAC, 100k Resistive<br/> 7A, 30 VDC, 100k, Resistive<br/> 3A, 240 VAC/30 VDC, 100k, General use</p> <p><b>3PDT, 4PDT, Standard duty:</b><br/> 5A, 250 VAC, 100k, Resistive<br/> 5A, 30 VDC, 100k, Resistive<br/> 3A, 240 VAC/30 VDC, 100k, General use</p> |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## MECHANICAL DATA



**AMERICAN ZETTLER, INC.**

[www.azettler.com](http://www.azettler.com)

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

8/11/03W

## RELAY ORDERING DATA

| STANDARD RELAYS: DC Coil |                  |                     |                               |                   |               |
|--------------------------|------------------|---------------------|-------------------------------|-------------------|---------------|
| COIL SPECIFICATIONS      |                  |                     |                               |                   | ORDER NUMBER* |
| Nominal Coil VDC         | Must Operate VDC | Max. Continuous VDC | Nominal Current 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 Hz) |                  |                     |                               |                   |               |
|-------------------------------------|------------------|---------------------|-------------------------------|-------------------|---------------|
| COIL SPECIFICATIONS                 |                  |                     |                               |                   | ORDER NUMBER* |
| Nominal Coil VAC                    | Must Operate VAC | Max. Continuous VAC | Nominal Current mA $\pm 10\%$ | Coil Resistance   |               |
| 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 p/n.

## RELAY ORDERING DATA

| HEAVY DUTY RELAYS: DC Coil |                  |                     |                               |                   |                |
|----------------------------|------------------|---------------------|-------------------------------|-------------------|----------------|
| COIL SPECIFICATIONS        |                  |                     |                               |                   | ORDER NUMBER*  |
| Nominal Coil VDC           | Must Operate VDC | Max. Continuous VDC | Nominal Current mA $\pm 10\%$ | Coil Resistance   |                |
| 5                          | 4.0              | 5.5                 | 181.0                         | 27.5 $\pm 10\%$   | AZ166-1CT-5D   |
| 6                          | 4.8              | 6.6                 | 150.0                         | 40.0 $\pm 10\%$   | AZ166-1CT-6D   |
| 12                         | 9.6              | 13.2                | 75.0                          | 160 $\pm 10\%$    | AZ166-1CT-12D  |
| 24                         | 19.2             | 26.4                | 36.9                          | 650 $\pm 10\%$    | AZ166-1CT-24D  |
| 48                         | 38.4             | 52.8                | 18.5                          | 2600 $\pm 15\%$   | AZ166-1CT-48D  |
| 110                        | 88.0             | 121.0               | 10.0                          | 11,000 $\pm 15\%$ | AZ166-1CT-110D |

| HEAVY DUTY RELAYS: AC Coil (50/60 Hz) |                  |                     |                               |                   |                |
|---------------------------------------|------------------|---------------------|-------------------------------|-------------------|----------------|
| COIL SPECIFICATIONS                   |                  |                     |                               |                   | ORDER NUMBER*  |
| Nominal Coil VAC                      | Must Operate VAC | Max. Continuous VAC | Nominal Current mA $\pm 10\%$ | Coil Resistance   |                |
| 6                                     | 4.8              | 7.1                 | 200.0                         | 11.5 $\pm 10\%$   | AZ166-1CT-6A   |
| 12                                    | 9.6              | 14.3                | 100.0                         | 46.0 $\pm 10\%$   | AZ166-1CT-12A  |
| 24                                    | 19.2             | 28.6                | 50.0                          | 184 $\pm 10\%$    | AZ166-1CT-24A  |
| 48                                    | 38.4             | 57.1                | 25.0                          | 735 $\pm 10\%$    | AZ166-1CT-48A  |
| 120                                   | 96.0             | 143.0               | 10.0                          | 4,550 $\pm 10\%$  | AZ166-1CT-120A |
| 220                                   | 176.0            | 261.0               | 5.5                           | 14,400 $\pm 15\%$ | AZ166-1CT-220A |
| 240                                   | 192.0            | 288.0               | 5.0                           | 22,000 $\pm 15\%$ | AZ166-1CT-240A |

\* For DPDT substitute "-2CT" for "-1CT". For LED add "1" to the end of p/n.



**AMERICAN ZETTLER, INC.**

[www.azettler.com](http://www.azettler.com)

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

8/11/03W

## Данный компонент на территории Российской Федерации

**Вы можете приобрести в компании MosChip.**

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

<http://moschip.ru/get-element>

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

### Офис по работе с юридическими лицами:

105318, г.Москва, ул.Щербаковская д.3, офис 1107, 1118, ДЦ «Щербаковский»

Телефон: +7 495 668-12-70 (многоканальный)

Факс: +7 495 668-12-70 (доб.304)

E-mail: [info@moschip.ru](mailto:info@moschip.ru)

Skype отдела продаж:

moschip.ru

moschip.ru\_4

moschip.ru\_6

moschip.ru\_9