

R15

Industrial Electromagnetic Relays



- Contacts AgNi
- For plug-in sockets, 35 mm rail mount or on panel mounting.
- Cadmium-free contacts-R15 DPDT, R15 3PDT, R15 4PDT relays
- WT (mechanical indicator and lockable front test button) - standard features of R15 DPDT, R15 3PDT relays in cover, for plug-in sockets.
- Relays may be provided with the test buttons (no latching) and plugs (see page 115).
- AUCOTEAM, GmbH Berlin - railway standards.



Contact Data

| Number and type of contacts | | DPDT | 3PDT | 4PDT |
|-----------------------------------|------|---|---|---|
| Contact material | | AgNi | AgNi | AgCdO |
| Rated / max. switching voltage AC | | 250 V / 440 V | 250 V / 440 V | 250 V / 440 V |
| Min. switching voltage | | 10 V | 10 V | 10 V |
| Rated load (capacity) | AC1 | 10 A / 250 V AC; 10 A / 277 V AC UL 508 | 10 A / 250 V AC; 10 A / 277 V AC UL 508 | 10 A / 250 V AC; 10 A / 277 V AC UL 508 |
| | AC15 | 3 A / 120 V; 1.5 A / 240 V (B300) | 3 A / 120 V; 1.5 A / 240 V (B300) | 3 A / 120 V; 1.5 A / 240 V (B300) |
| | AC3 | 370 W (single-phase motor. 1/2 HP / 240 V AC UL 508) | 370 W (single-phase motor. 1/2 HP / 240 V AC UL 508) | 370 W (single-phase motor. 1/2 HP / 240 V AC UL 508) |
| | DC1 | 10 A / 24 V DC (see Fig. 3) | 10 A / 24 V DC (see Fig. 3) | 10 A / 24 V DC (see Fig. 3) |
| | DC13 | 0.22 A / 120 V; 0.1 A / 250 V (R300) | 0.22 A / 120 V; 0.1 A / 250 V (R300) | 0.22 A / 120 V; 0.1 A / 250 V (R300) |
| Min. switching current | | 5 mA | 5 mA | 10 mA |
| Max. inrush current | | 20 A | 20 A | 20 A |
| Rated current | | 10A | 10A | 10A |
| Max. breaking capacity | AC1 | 2500 VA | 2500 VA | 2500 VA |
| Min. breaking capacity | | 0.3 W | 0.3 W | 0.5 W |
| Contact resistance | | ≤ 100 mΩ | ≤ 100 mΩ | ≤ 100 mΩ |
| Max. operating frequency | | | | |
| • at rated load | AC1 | 1200 cycles/hour | 1200 cycles/hour | 1200 cycles/hour |
| • no load | | 12000 cycles/hour | 12000 cycles/hour | 12000 cycles/hour |

Coil Data

| | | | | |
|-----------------------------------|-------------|--|--|--|
| Rated voltage | 50/60 Hz AC | 6 ... 240 V | 6 ... 240 V | 6 ... 240 V |
| | DC | 6 ... 220 V | 6 ... 220 V | 6 ... 220 V |
| Must release voltage | | AC: ≥ 0.15 U _n ; DC: ≥ 0.1 U _n | AC: ≥ 0.15 U _n ; DC: ≥ 0.1 U _n | AC: ≥ 0.15 U _n ; DC: ≥ 0.1 U _v |
| Operating range of supply voltage | | see page 68 | see page 68 | see page 68 |
| Rated power consumption | | AC: 2.8 VA 50 Hz; 2.5 VA 60 Hz; DC: 1.5 W | AC: 2.8 VA 50 Hz; 2.5 VA 60 Hz; DC: 1.5 W | AC: 2.8 VA 50 Hz; 2.5 VA 60 Hz; DC: 1.5 W |

Insulation

| | | | | |
|-----------------------------|--|---|---|---|
| Insulation rated voltage | | 250 V AC | 250 V AC | 250 V AC |
| Rated surge voltage | | 2500 V 1.2 / 50 μs | 2500 V 1.2 / 50 μs | 2500 V 1.2 / 50 μs |
| Overvoltage category | | III | III | III |
| Insulation pollution degree | | 3 | 3 | 3 |
| Dielectric strength | | | | |
| • between coil and contacts | | 2500 V AC type of insulation: basic | 2500 V AC type of insulation: basic | 2500 V AC type of insulation: basic |
| • contact clearance | | 1500 V AC type of clearance: micro-disco. | 1500 V AC type of clearance: micro-disco. | 1500 V AC type of clearance: micro-disco. |
| • pole - pole | | 2000 V AC type of insulation: basic | 2000 V AC type of insulation: basic | 2000 V AC type of insulation: basic |
| Contact - coil distance | | | | |
| • clearance | | ≥ 3 mm | ≥ 3 mm | ≥ 3 mm |
| • creepage | | ≥ 4.2 mm | ≥ 4.2 mm | ≥ 3.2 mm |

General Data

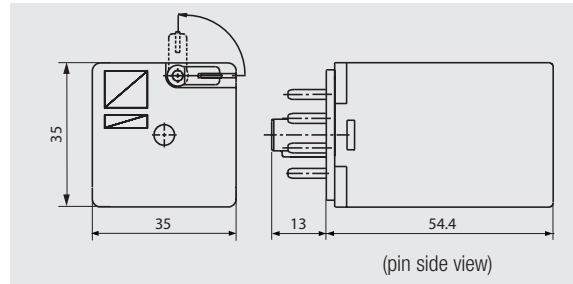
| | | | | |
|------------------------------------|--|--|--|--|
| Operating / release time (typical) | | AC: 12 ms / 10 ms; DC: 18 ms / 7 ms | AC: 12 ms / 10 ms; DC: 18 ms / 7 ms | AC: 12 ms / 10 ms; DC: 18 ms / 7 ms |
| Electrical life | | | | |
| • resistive AC1 | | > 2 x 10 ⁵ ; 10 A. 250 V AC | > 2 x 10 ⁵ ; 10 A. 250 V AC | > 2 x 10 ⁵ ; 10 A. 250 V AC |
| • cos | | see Fig. 2 | see Fig. 2 | see Fig. 2 |
| Mechanical life (cycles) | | > 2 x 10 ⁷ | > 2 x 10 ⁷ | > 2 x 10 ⁷ |
| Dimensions (L x W x H) | | 35 x 35 x 54.4 mm | 35 x 35 x 54.4 mm | 35 x 42.5 x 54.5 mm |
| Weight | | 83 g | 83 g | 95 g |
| Ambient temperature | | | | |
| • storage | | -40...+85 °C | -40...+85 °C | -40...+85 °C |
| • operating | | AC: -40...+55 °C DC: -40...+70 °C | AC: -40...+55 °C DC: -40...+70 °C | AC: -40...+55 °C DC: -40...+70 °C |
| Cover protection category | | IP 40 PN-EN 60529 | IP 40 PN-EN 60529 | IP 40 PN-EN 60529 |
| Environmental protection | | RTI PN-EN 116000-3 | RTI PN-EN 116000-3 | RTI PN-EN 116000-3 |
| Shock resistance | | 10 g | 10 g | 10 g |
| Vibration resistance | | 5 g 10...150 Hz | 5 g 10...150 Hz | 5 g 10...150 Hz |
| Solder bath temperature | | max. 270 °C | max. 270 °C | max. 270 °C |
| Soldering time | | max. 5 s | max. 5 s | max. 5 s |

DPDT

CONNECTION DIAGRAM

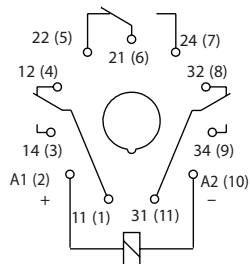


DIMENSIONS

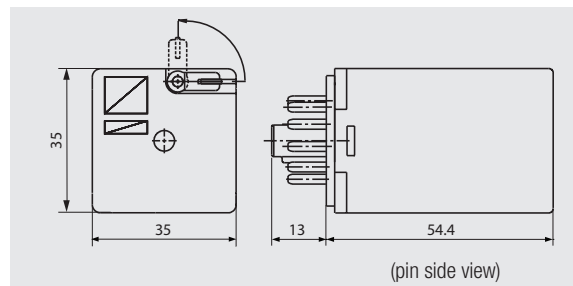


3PDT

CONNECTION DIAGRAM

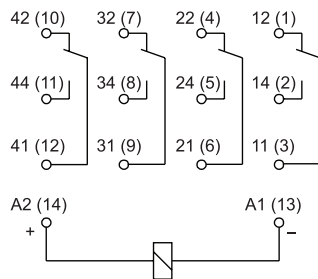


DIMENSIONS

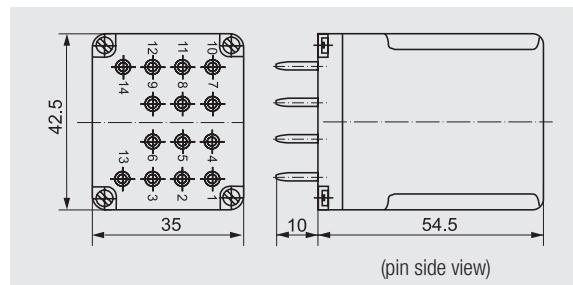


4PDT

CONNECTION DIAGRAM

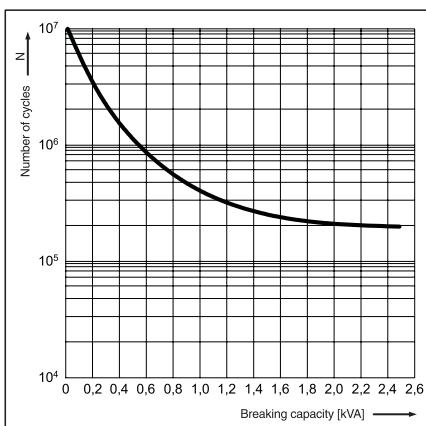


DIMENSIONS

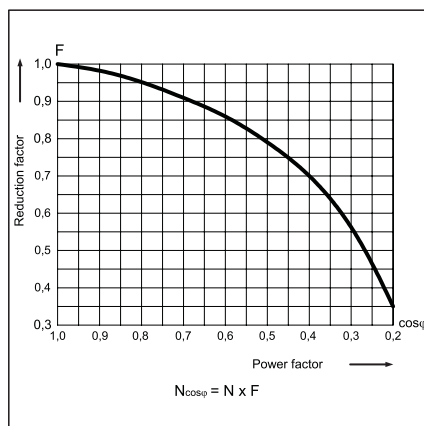


LOAD CHARTS

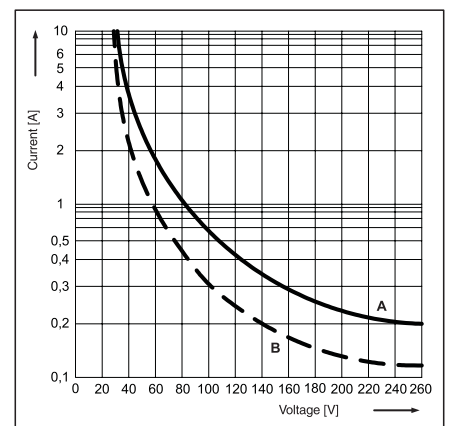
Electrical life at AC resistive load. Switching frequency: 1200 cycles/hour Fig. 1



Electrical life reduction factor at AC inductive load Fig. 2



Max. DC breaking capacity A - resistive load DC1 B - inductive load L/R = 40 ms Fig. 3



R15

Industrial Electromagnetic Relays

R15 DPDT AC 50/60Hz & DC coil

| Part Number | Coil Voltage (V) | Coil Type | Coil resistance at 20 °C in Ω | Coil operating range | | Options* | | |
|-------------------------------|------------------|------------|-------------------------------|----------------------|----------------|----------|----|-----|
| | | | | min. (at 20°C) | max. (at 55°C) | - | WT | WTL |
| ▶ R15-2012-23-1012 | 12 | DC | 110 | 9.6 | 13.2 | x | | |
| R15-2012-23-1012-WT | 12 | DC | 110 | 9.6 | 13.2 | | x | |
| R15-2012-23-1012-WTL | 12 | DC | 110 | 9.6 | 13.2 | | | x |
| ▶ R15-2012-23-1024 | 24 | DC | 430 | 19.2 | 26.4 | x | | |
| R15-2012-23-1024-WT | 24 | DC | 430 | 19.2 | 26.4 | | x | |
| ▶ R15-2012-23-1024-WTL | 24 | DC | 430 | 19.2 | 26.4 | | | x |
| R15-2012-23-1110 | 110 | DC | 9200 | 88.0 | 121.0 | x | | |
| R15-2012-23-1110-WT | 110 | DC | 9200 | 88.0 | 121.0 | | x | |
| R15-2012-23-1110-WTL | 110 | DC | 9200 | 88.0 | 121.0 | | | x |
| ▶ R15-2012-23-5024 | 24 | AC 50/60Hz | 75 | 19.2 | 26.4 | x | | |
| R15-2012-23-5024-WT | 24 | AC 50/60Hz | 75 | 19.2 | 26.4 | | x | |
| R15-2012-23-5024-WTL | 24 | AC 50/60Hz | 75 | 19.2 | 26.4 | | | x |
| ▶ R15-2012-23-5120 | 120 | AC 50/60Hz | 1910 | 96.0 | 132.0 | x | | |
| R15-2012-23-5120-WT | 120 | AC 50/60Hz | 1910 | 96.0 | 132.0 | | x | |
| ▶ R15-2012-23-5120-WTL | 120 | AC 50/60Hz | 1910 | 96.0 | 132.0 | | | x |
| ▶ R15-2012-23-5230 | 230 | AC 50/60Hz | 7080 | 184.0 | 253.0 | x | | |
| R15-2012-23-5230-WT | 230 | AC 50/60Hz | 7080 | 184.0 | 253.0 | | x | |
| R15-2012-23-5230-WTL | 230 | AC 50/60Hz | 7080 | 184.0 | 253.0 | | | x |

R15 3PDT AC 50/60Hz & DC coil

| Part Number | Coil Voltage (V) | Coil Type | Coil resistance at 20 °C in Ω | Coil operating range | | Options* | | |
|-------------------------------|------------------|------------|-------------------------------|----------------------|----------------|----------|----|-----|
| | | | | min. (at 20°C) | max. (at 55°C) | - | WT | WTL |
| ▶ R15-2013-23-1012 | 12 | DC | 110 | 9.6 | 13.2 | x | | |
| R15-2013-23-1012-WT | 12 | DC | 110 | 9.6 | 13.2 | | x | |
| R15-2013-23-1012-WTL | 12 | DC | 110 | 9.6 | 13.2 | | | x |
| ▶ R15-2013-23-1024 | 24 | DC | 430 | 19.2 | 26.4 | x | | |
| R15-2013-23-1024-WT | 24 | DC | 430 | 19.2 | 26.4 | | x | |
| ▶ R15-2013-23-1024-WTL | 24 | DC | 430 | 19.2 | 26.4 | | | x |
| R15-2013-23-1110 | 110 | DC | 9200 | 88.0 | 121.0 | x | | |
| R15-2013-23-1110-WT | 110 | DC | 9200 | 88.0 | 121.0 | | x | |
| R15-2013-23-1110-WTL | 110 | DC | 9200 | 88.0 | 121.0 | | | x |
| ▶ R15-2013-23-5024 | 24 | AC 50/60Hz | 75 | 19.2 | 26.4 | x | | |
| R15-2013-23-5024-WT | 24 | AC 50/60Hz | 75 | 19.2 | 26.4 | | x | |
| R15-2013-23-5024-WTL | 24 | AC 50/60Hz | 75 | 19.2 | 26.4 | | | x |
| ▶ R15-2013-23-5120 | 120 | AC 50/60Hz | 1910 | 96.0 | 132.0 | x | | |
| R15-2013-23-5120-WT | 120 | AC 50/60Hz | 1910 | 96.0 | 132.0 | | x | |
| ▶ R15-2013-23-5120-WTL | 120 | AC 50/60Hz | 1910 | 96.0 | 132.0 | | | x |
| ▶ R15-2013-23-5230 | 230 | AC 50/60Hz | 7080 | 184.0 | 253.0 | x | | |
| R15-2013-23-5230-WT | 230 | AC 50/60Hz | 7080 | 184.0 | 253.0 | | x | |
| R15-2013-23-5230-WTL | 230 | AC 50/60Hz | 7080 | 184.0 | 253.0 | | | x |

R15 4PDT AC 50/60Hz & DC coil

| Part Number | Coil Voltage (V) | Coil Type | Coil resistance at 20 °C in Ω | Coil operating range | | Options* | | | |
|-----------------------------|------------------|-----------|-------------------------------|----------------------|----------------|----------|---|----|-----|
| | | | | min. (at 20°C) | max. (at 55°C) | - | K | WT | WTL |
| R15-1014-23-1012 | 12 | DC | 110 | 9.6 | 13.2 | x | | | |
| R15-1014-23-1012-K | 12 | DC | 110 | 9.6 | 13.2 | | x | | |
| R15-1014-23-1012-L | 12 | DC | 110 | 9.6 | 13.2 | | | x | |
| R15-1014-23-1012-D | 12 | DC | 110 | 9.6 | 13.2 | | | | x |
| R15-1014-23-1024 | 24 | DC | 430 | 19.2 | 26.4 | x | | | |
| R15-1014-23-1024-K | 24 | DC | 430 | 19.2 | 26.4 | | x | | |
| ▶ R15-1014-23-1024-L | 24 | DC | 430 | 19.2 | 26.4 | | | x | |
| R15-1014-23-1024-D | 24 | DC | 430 | 19.2 | 26.4 | | | | x |
| R15-1014-23-1110 | 110 | DC | 9200 | 88.0 | 121.0 | x | | | |
| R15-1014-23-1110-K | 110 | DC | 9200 | 88.0 | 121.0 | | x | | |
| R15-1014-23-1110-L | 110 | DC | 9200 | 88.0 | 121.0 | | | x | |
| R15-1014-23-1110-D | 110 | DC | 9200 | 88.0 | 121.0 | | | | x |
| R15-1014-23-3024 | 24 | AC 50Hz | 72 | 19.2 | 26.4 | x | | | |
| R15-1014-23-3024-K | 24 | AC 50Hz | 72 | 19.2 | 26.4 | | x | | |
| R15-1014-23-3024-L | 24 | AC 50Hz | 72 | 19.2 | 26.4 | | | x | |
| R15-1014-23-3024-D | 24 | AC 50Hz | 72 | 19.2 | 26.4 | | | | x |
| R15-1014-23-3120 | 120 | AC 50Hz | 2300 | 96.0 | 132.0 | x | | | |
| R15-1014-23-3120-K | 120 | AC 50Hz | 2300 | 96.0 | 132.0 | | x | | |
| R15-1014-23-3120-L | 120 | AC 50Hz | 2300 | 96.0 | 132.0 | | | x | |
| R15-1014-23-3120-D | 120 | AC 50Hz | 2300 | 96.0 | 132.0 | | | | x |
| R15-1014-23-3230 | 230 | AC 50Hz | 7900 | 184.0 | 253.0 | x | | | |
| R15-1014-23-3230-K | 230 | AC 50Hz | 7900 | 184.0 | 253.0 | | x | | |
| R15-1014-23-3230-L | 230 | AC 50Hz | 7900 | 184.0 | 253.0 | | | x | |
| R15-1014-23-3230-D | 230 | AC 50Hz | 7900 | 184.0 | 253.0 | | | | x |
| R15-1014-23-6120 | 120 | AC 60Hz | 2000 | 96.0 | 132.0 | x | | | |
| R15-1014-23-6120-K | 120 | AC 60Hz | 2000 | 96.0 | 132.0 | | x | | |
| ▶ R15-1014-23-6120-L | 120 | AC 60Hz | 2000 | 96.0 | 132.0 | | | x | |
| R15-1014-23-6120-D | 120 | AC 60Hz | 2000 | 96.0 | 132.0 | | | | x |
| R15-1014-23-6230 | 230 | AC 60Hz | 7000 | 184.0 | 253.0 | x | | | |
| R15-1014-23-6230-K | 230 | AC 60Hz | 7000 | 184.0 | 253.0 | | x | | |
| R15-1014-23-6230-L | 230 | AC 60Hz | 7000 | 184.0 | 253.0 | | | x | |
| R15-1014-23-6230-D | 230 | AC 60Hz | 7000 | 184.0 | 253.0 | | | | x |

WT = with mechanical indicator + lockable front test button; WTL = with mechanical indicator + lockable front test button + light indicator (LED)
 K = with test button without block function; L = with light indicator (LED); D = with surge suppression element (diode); other options available upon request

▶ **BOLD** - Regular stocked items.

GZP8 for R15 DPDT

Screw terminals
 Max. tightening moment
 for the terminal: 0.5 Nm
 35 mm rail mount
 acc. to PN-EN 60715
 or on panel mounting
 73 x 38.2 x 27.2 mm Two poles
 12 A, 300 V AC

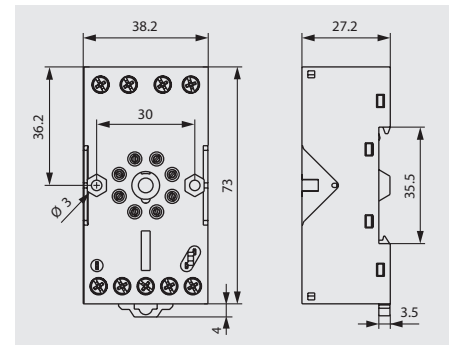


GZP8

CONNECTION DIAGRAM



DIMENSIONS



E22891



Time module COM3T



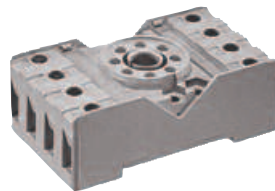
GZP-0035



GZP-0054

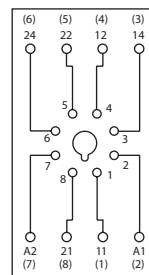
PZ8 for R15 DPDT

Screw terminals
 Max. tightening moment
 for the terminal: : 0.7 Nm
 35 mm rail mount
 acc. to PN-EN 60715
 or on panel mounting
 68.2 x 38 x 24.2 mm
 Two poles
 10 A, 250 V AC

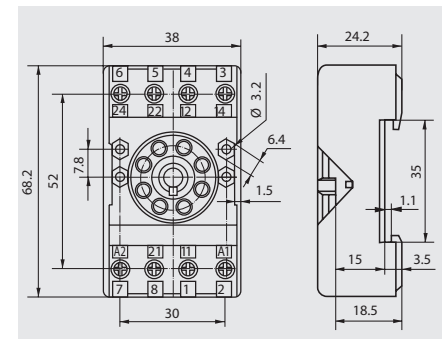


PZ8

CONNECTION DIAGRAM



DIMENSIONS



E105728



PZ11 0031

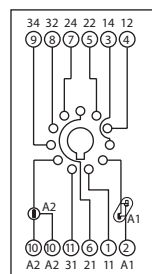
GZP11 for R15 3PDT

Screw terminals
 Max. tightening moment
 for the terminal: : 0,5 Nm
 35 mm rail mount
 acc. to PN-EN 60715
 or on panel mounting
 73 x 38.2 x 27.2 mm
 Three poles
 12 A, 300 V AC

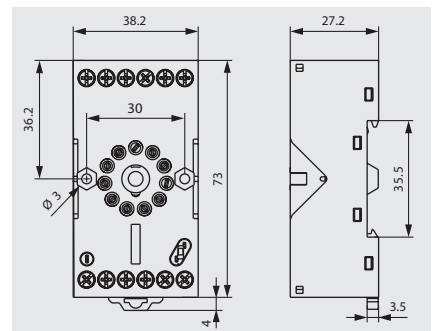


GZP11

CONNECTION DIAGRAM



DIMENSIONS



E22891



Time module COM3T



GZP-0035



GZP-0054

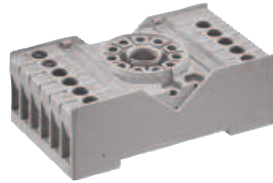
All accessories are sold separately.

R15

Industrial Electromagnetic Relays - Plug-in Sockets and Accessories

PZ11 for R15 3PDT

Screw terminals
 Max. tightening moment
 for the terminal: : 0.7 Nm
 35 mm rail mount
 acc. to PN-EN 60715
 or on panel mounting
 68.2 x 38 x 24.2 mm
 Three poles
 10 A, 250 V AC

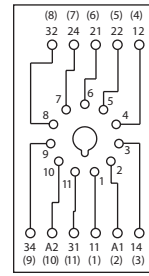


PZ11

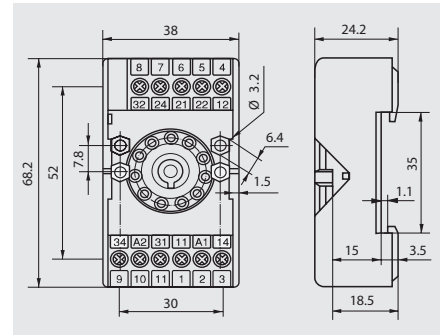


PZ11 0031

CONNECTION DIAGRAM



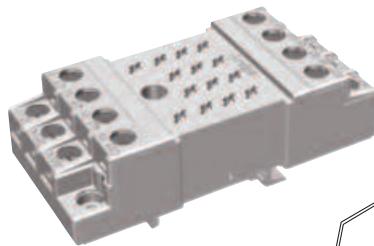
DIMENSIONS



E105728

GZ14U for R15 4PDT

Screw terminals
 Max. tightening moment
 for the terminal: : 0.7 Nm
 35 mm rail mount
 acc. to PN-EN 60715
 96.8 x 46.2 x 33.3 mm
 Four poles
 10 A, 250 V AC

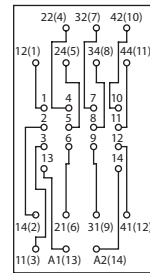


GZ14ZU

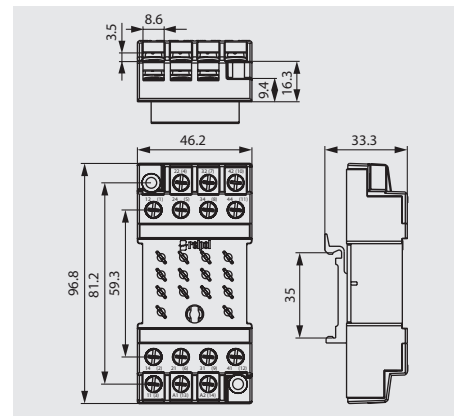


GZ14 0737

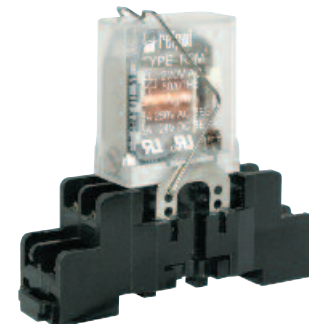
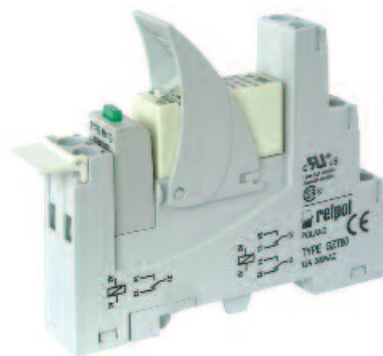
CONNECTION DIAGRAM



DIMENSIONS



See Relay Socket Combinations on pages 104-109



All accessories are sold separately.

Altech Custom Assemblies



Altech provides quick turnaround and competitive prices on assemblies.
For complete assemblies contact Altech.

Компания «Life Electronics» занимается поставками электронных компонентов импортного и отечественного производства от производителей и со складов крупных дистрибьюторов Европы, Америки и Азии.

С конца 2013 года компания активно расширяет линейку поставок компонентов по направлению коаксиальный кабель, кварцевые генераторы и конденсаторы (керамические, пленочные, электролитические), за счёт заключения дистрибьюторских договоров

Мы предлагаем:

- Конкурентоспособные цены и скидки постоянным клиентам.
- Специальные условия для постоянных клиентов.
- Подбор аналогов.
- Поставку компонентов в любых объемах, удовлетворяющих вашим потребностям.
- Приемлемые сроки поставки, возможна ускоренная поставка.
- Доставку товара в любую точку России и стран СНГ.
- Комплексную поставку.
- Работу по проектам и поставку образцов.
- Формирование склада под заказчика.
- Сертификаты соответствия на поставляемую продукцию (по желанию клиента).
- Тестирование поставляемой продукции.
- Поставку компонентов, требующих военную и космическую приемку.
- Входной контроль качества.
- Наличие сертификата ISO.

В составе нашей компании организован Конструкторский отдел, призванный помогать разработчикам, и инженерам.

Конструкторский отдел помогает осуществить:

- Регистрацию проекта у производителя компонентов.
- Техническую поддержку проекта.
- Защиту от снятия компонента с производства.
- Оценку стоимости проекта по компонентам.
- Изготовление тестовой платы монтаж и пусконаладочные работы.



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