

Pluggable interface relays CR-M

Miniature relays

Pluggable interface relays are used for electrical isolation, amplification and signal matching between the electronic controlling, e.g. PLC (programmable logic controller), PC or field bus systems and the sensor / actuator level. They don't use additional internal protective circuits and thus are overload-proof against short-time variations like current or voltage peaks.











2CDC 291 046 F0004

Characteristics

- Standard miniature relays with mechanical status indication
- 13 different rated control supply voltages:
DC versions: 12 V, 24 V, 48 V, 60 V, 110 V, 125 V, 220 V
AC versions: 24 V, 48 V, 60 V, 110 V, 120 V, 230 V
- Output: 2 c/o (SPDT) contacts (12 A), 3 c/o (SPDT) contacts (10 A) or 4 c/o (SPDT) contacts (6 A)
- Available with or without LED
- 4 c/o (SPDT) contact version optionally equipped with gold contacts, LED and free wheeling diode
- Integrated test button for manual actuation and locking of output contacts (blue =DC, orange = AC) that can be removed if necessary
- Cadmium-free contact material
- Suited for logical and standard sockets
- Width on socket: 27 mm (1.063 in)
- Pluggable function modules: reverse polarity protection/ free wheeling diode, LED indication, RC elements, overvoltage protection

Approvals

| | | |
|---|---------------------|--|
|  | UL508 | (except 60 V DC and 125 V DC devices with gold contacts) |
|  | CAN/CSA C22.2 No.14 | (except devices with gold contacts) |
|  | CAN/CSA C22.2 No.14 | (except 60 V DC and 125 V DC devices) |
|  | VDE | (except 125 V DC devices) |
|  | GOST | |
|  | Lloyd's Register | (only devices with 4 c/o (SPDT) contacts) |
|  | CCC | |
|  | RMRS | (except 60 V and 125 V devices) |

Marks

 CE CE

Order data

Bold printed products = stocked products. Packing unit = 10 pieces

Interface relays without LED, 2 c/o (SPDT) contacts: 250 V, 12 A

| Type | Rated control supply voltage U _s | Order code |
|-------------------|---|---------------------------|
| CR-M012DC2 | 12 V DC | 1SVR 405 611 R4000 |
| CR-M024DC2 | 24 V DC | 1SVR 405 611 R1000 |
| CR-M048DC2 | 48 V DC | 1SVR 405 611 R6000 |
| CR-M060DC2 | 60 V DC | 1SVR 405 611 R4200 |
| CR-M110DC2 | 110 V DC | 1SVR 405 611 R8000 |
| CR-M125DC2 | 125 V DC | 1SVR 405 611 R8200 |
| CR-M220DC2 | 220 V DC | 1SVR 405 611 R9000 |
| CR-M024AC2 | 24 V AC | 1SVR 405 611 R0000 |
| CR-M048AC2 | 48 V AC | 1SVR 405 611 R5000 |
| CR-M110AC2 | 110 V AC | 1SVR 405 611 R7000 |
| CR-M120AC2 | 120 V AC | 1SVR 405 611 R2000 |
| CR-M230AC2 | 230 V AC | 1SVR 405 611 R3000 |

Interface relays without LED, 3 c/o (SPDT) contacts: 250 V, 10 A

| | | |
|-------------------|-----------------|---------------------------|
| CR-M012DC3 | 12 V DC | 1SVR 405 612 R4000 |
| CR-M024DC3 | 24 V DC | 1SVR 405 612 R1000 |
| CR-M048DC3 | 48 V DC | 1SVR 405 612 R6000 |
| CR-M060DC3 | 60 V DC | 1SVR 405 612 R4200 |
| CR-M110DC3 | 110 V DC | 1SVR 405 612 R8000 |
| CR-M125DC3 | 125 V DC | 1SVR 405 612 R8200 |
| CR-M220DC3 | 220 V DC | 1SVR 405 612 R9000 |
| CR-M024AC3 | 24 V AC | 1SVR 405 612 R0000 |
| CR-M048AC3 | 48 V AC | 1SVR 405 612 R5000 |
| CR-M060AC3 | 60 V AC | 1SVR 405 612 R5200 |
| CR-M110AC3 | 110 V AC | 1SVR 405 612 R7000 |
| CR-M120AC3 | 120 V AC | 1SVR 405 612 R2000 |
| CR-M230AC3 | 230 V AC | 1SVR 405 612 R3000 |

Interface relays without LED, 4 c/o (SPDT) contacts: 250 V, 6 A

| | | |
|-------------------|-----------------|---------------------------|
| CR-M012DC4 | 12 V DC | 1SVR 405 613 R4000 |
| CR-M024DC4 | 24 V DC | 1SVR 405 613 R1000 |
| CR-M048DC4 | 48 V DC | 1SVR 405 613 R6000 |
| CR-M060DC4 | 60 V DC | 1SVR 405 613 R4200 |
| CR-M110DC4 | 110 V DC | 1SVR 405 613 R8000 |
| CR-M125DC4 | 125 V DC | 1SVR 405 613 R8200 |
| CR-M220DC4 | 220 V DC | 1SVR 405 613 R9000 |
| CR-M024AC4 | 24 V AC | 1SVR 405 613 R0000 |
| CR-M048AC4 | 48 V AC | 1SVR 405 613 R5000 |
| CR-M110AC4 | 110 V AC | 1SVR 405 613 R7000 |
| CR-M120AC4 | 120 V AC | 1SVR 405 613 R2000 |
| CR-M230AC4 | 230 V AC | 1SVR 405 613 R3000 |

Interface relays with LED, 2 c/o (SPDT) contacts: 250 V, 12 A

| Type | Rated control supply voltage U_c | Order code |
|--------------------|------------------------------------|---------------------------|
| CR-M012DC2L | 12 V DC | 1SVR 405 611 R4100 |
| CR-M024DC2L | 24 V DC | 1SVR 405 611 R1100 |
| CR-M048DC2L | 48 V DC | 1SVR 405 611 R6100 |
| CR-M060DC2L | 60 V DC | 1SVR 405 611 R4300 |
| CR-M110DC2L | 110 V DC | 1SVR 405 611 R8100 |
| CR-M125DC2L | 125 V DC | 1SVR 405 611 R8300 |
| CR-M220DC2L | 220 V DC | 1SVR 405 611 R9100 |
| CR-M024AC2L | 24 V AC | 1SVR 405 611 R0100 |
| CR-M048AC2L | 48 V AC | 1SVR 405 611 R5100 |
| CR-M110AC2L | 110 V AC | 1SVR 405 611 R7100 |
| CR-M120AC2L | 120 V AC | 1SVR 405 611 R2100 |
| CR-M230AC2L | 230 V AC | 1SVR 405 611 R3100 |

Interface relays with LED, 3 c/o (SPDT) contacts: 250 V, 10 A

| | | |
|--------------------|-----------------|---------------------------|
| CR-M012DC3L | 12 V DC | 1SVR 405 612 R4100 |
| CR-M024DC3L | 24 V DC | 1SVR 405 612 R1100 |
| CR-M048DC3L | 48 V DC | 1SVR 405 612 R6100 |
| CR-M060DC3L | 60 V DC | 1SVR 405 612 R4300 |
| CR-M110DC3L | 110 V DC | 1SVR 405 612 R8100 |
| CR-M125DC3L | 125 V DC | 1SVR 405 612 R8300 |
| CR-M220DC3L | 220 V DC | 1SVR 405 612 R9100 |
| CR-M024AC3L | 24 V AC | 1SVR 405 612 R0100 |
| CR-M048AC3L | 48 V AC | 1SVR 405 612 R5100 |
| CR-M110AC3L | 110 V AC | 1SVR 405 612 R7100 |
| CR-M120AC3L | 120 V AC | 1SVR 405 612 R2100 |
| CR-M230AC3L | 230 V AC | 1SVR 405 612 R3100 |

Interface relays with LED, 4 c/o (SPDT) contacts: 250 V, 6 A

| | | |
|--------------------|-----------------|---------------------------|
| CR-M012DC4L | 12 V DC | 1SVR 405 613 R4100 |
| CR-M024DC4L | 24 V DC | 1SVR 405 613 R1100 |
| CR-M048DC4L | 48 V DC | 1SVR 405 613 R6100 |
| CR-M060DC4L | 60 V DC | 1SVR 405 613 R4300 |
| CR-M110DC4L | 110 V DC | 1SVR 405 613 R8100 |
| CR-M125DC4L | 125 V DC | 1SVR 405 613 R8300 |
| CR-M220DC4L | 220 V DC | 1SVR 405 613 R9100 |
| CR-M024AC4L | 24 V AC | 1SVR 405 613 R0100 |
| CR-M048AC4L | 48 V AC | 1SVR 405 613 R5100 |
| CR-M110AC4L | 110 V AC | 1SVR 405 613 R7100 |
| CR-M120AC4L | 120 V AC | 1SVR 405 613 R2100 |
| CR-M230AC4L | 230 V AC | 1SVR 405 613 R3100 |

Interface relays with LED and free wheeling diode, 4 c/o (SPDT) contacts: 250 V, 6 A

| | | |
|--------------|---------|--------------------|
| CR-M024DC4LD | 24 V DC | 1SVR 405 614 R1100 |
|--------------|---------|--------------------|

Interface relays with gold contacts, 4 c/o (SPDT) contacts: 250 V, 6 A

| | | |
|--------------------|-----------------|--------------------|
| CR-M024DC4G | 24 V DC | 1SVR 405 618 R1000 |
| CR-M024AC4G | 24 V AC | 1SVR 405 618 R0000 |
| CR-M110AC4G | 110 V AC | 1SVR 405 618 R7000 |
| CR-M230AC4G | 230 V AC | 1SVR 405 618 R3000 |

Interface relays with LED and gold contacts, 4 c/o (SPDT) contacts: 250 V, 6 A

| Type | Rated control supply voltage U_s | Order code |
|---------------------|------------------------------------|---------------------------|
| CR-M012DC4LG | 12 V DC | 1SVR 405 618 R4100 |
| CR-M024DC4LG | 24 V DC | 1SVR 405 618 R1100 |
| CR-M048DC4LG | 48 V DC | 1SVR 405 618 R6100 |
| CR-M060DC4LG | 60 V DC | 1SVR 405 618 R4300 |
| CR-M110DC4LG | 110 V DC | 1SVR 405 618 R8100 |
| CR-M125DC4LG | 125 V DC | 1SVR 405 618 R8300 |
| CR-M220DC4LG | 220 V DC | 1SVR 405 618 R9100 |
| CR-M024AC4LG | 24 V AC | 1SVR 405 618 R0100 |
| CR-M048AC4LG | 48 V AC | 1SVR 405 618 R5100 |
| CR-M110AC4LG | 110 V AC | 1SVR 405 618 R7100 |
| CR-M120AC4LG | 120 V AC | 1SVR 405 618 R2100 |
| CR-M230AC4LG | 230 V AC | 1SVR 405 618 R3100 |

Interface-relays with gold contacts, LED and free wheeling diode, 4 c/o (SPDT) contacts: 250 V, 6 A

| | | |
|----------------------|----------------|---------------------------|
| CR-M012DC4LDG | 12 V DC | 1SVR 405 618 R4400 |
| CR-M024DC4LDG | 24 V DC | 1SVR 405 618 R1400 |

Accessories

Bold printed products = stocked products. Packing unit = 10 pieces

Function modules

| Type | Rated control supply voltage U_s | Version | Order code |
|------|------------------------------------|---------|------------|
|------|------------------------------------|---------|------------|

Diode - Reverse polarity protection

| | | | |
|-----------|------------|----------|--------------------|
| CR-P/M 22 | 6-230 V DC | A1+, A2- | 1SVR 405 651 R0000 |
|-----------|------------|----------|--------------------|

Diode and LED - Reverse polarity protection

| | | | |
|-------------|--------------|-----------------|--------------------|
| CR-P/M 42 | 6-24 V DC | red, A1+, A2- | 1SVR 405 652 R0000 |
| CR-P/M 42V | 6-24 V DC | green, A1+, A2- | 1SVR 405 652 R1000 |
| CR-P/M 42B | 24-60 V DC | red, A1+, A2- | 1SVR 405 652 R4000 |
| CR-P/M 42BV | 24-60 V DC | green, A1+, A2- | 1SVR 405 652 R4100 |
| CR-P/M 42C | 110-230 V DC | red, A1+, A2- | 1SVR 405 652 R9000 |
| CR-P/M 42CV | 110-230 V DC | green, A1+, A2- | 1SVR 405 652 R9100 |

RC element - Arc elimination

| | | | |
|------------|--------------|--|--------------------|
| CR-P/M 52B | 6-24 V AC | | 1SVR 405 653 R0000 |
| CR-P/M 52D | 24-60 V AC | | 1SVR 405 653 R4000 |
| CR-P/M 52C | 110-230 V AC | | 1SVR 405 653 R1000 |

Diode and LED

| | | | |
|-------------|-----------------|-------------------------|--------------------|
| CR-P/M 62 | 6-24 V AC/DC | red, for DC: A1+, A2- | 1SVR 405 654 R0000 |
| CR-P/M 62V | 6-24 V AC/DC | green, for DC: A1+, A2- | 1SVR 405 654 R1000 |
| CR-P/M 62E | 24-60 V AC/DC | red, for DC: A1+, A2- | 1SVR 405 654 R4000 |
| CR-P/M 62EV | 24-60 V AC/DC | green, for DC: A1+, A2- | 1SVR 405 654 R4100 |
| CR-P/M 92 | 110-230 V AC/DC | red, for DC: A1+, A2- | 1SVR 405 654 R0100 |
| CR-P/M 92V | 110-230 V AC/DC | green, for DC: A1+, A2- | 1SVR 405 654 R1100 |

Varistor and LED - Overvoltage protection

| | | | |
|-------------|-----------------|-------------------------|--------------------|
| CR-P/M 62C | 6-24 V AC/DC | red, for DC: A1+, A2- | 1SVR 405 655 R0000 |
| CR-P/M 62CV | 6-24 V AC/DC | green, for DC: A1+, A2- | 1SVR 405 655 R1000 |
| CR-P/M 62D | 24-60 V AC/DC | red, for DC: A1+, A2- | 1SVR 405 655 R4000 |
| CR-P/M 62DV | 24-60 V AC/DC | green, for DC: A1+, A2- | 1SVR 405 655 R4100 |
| CR-P/M 92C | 110-230 V AC/DC | red, for DC: A1+, A2- | 1SVR 405 655 R0100 |
| CR-P/M 92CV | 110-230 V AC/DC | green, for DC: A1+, A2- | 1SVR 405 655 R1100 |

Varistor - Overvoltage protection

| | | | |
|------------|----------|--|--------------------|
| CR-P/M 72 | 24 V AC | | 1SVR 405 656 R0000 |
| CR-P/M 72A | 115 V AC | | 1SVR 405 656 R1000 |
| CR-P/M 82 | 230 V AC | | 1SVR 405 656 R2000 |

Sockets

| Type | Version | Connection | Order code |
|------|---------|------------|------------|
|------|---------|------------|------------|

Logical sockets

| | | | |
|---------|--------------------------------|--------|--------------------|
| CR-M2LS | for 2 c/o (SPDT) contacts | screw | 1SVR 405 651 R1100 |
| CR-M3LS | for 3 c/o (SPDT) contacts | screw | 1SVR 405 651 R2100 |
| CR-M4LS | for 2 or 4 c/o (SPDT) contacts | screw | 1SVR 405 651 R3100 |
| CR-M2LC | for 2 c/o (SPDT) contacts | spring | 1SVR 405 651 R1200 |
| CR-M4LC | for 2 or 4 c/o (SPDT) contacts | spring | 1SVR 405 651 R3200 |

Standard sockets

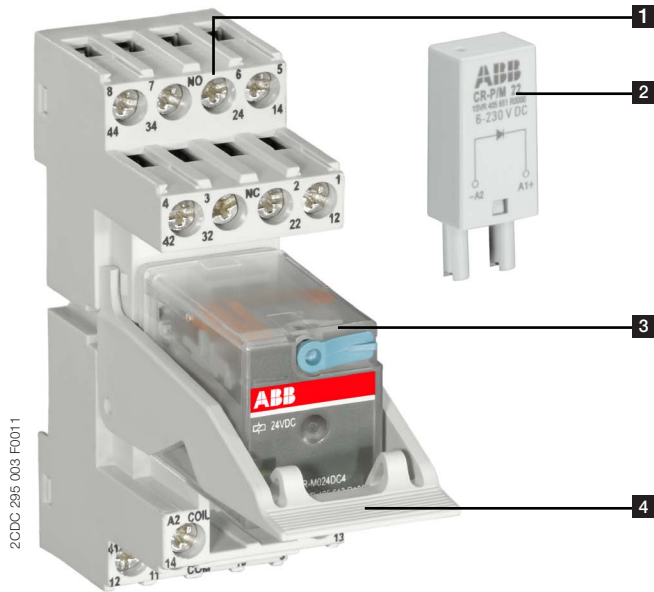
| | | | |
|---------|--------------------------------|-----------------|--------------------|
| CR-M2SS | for 2 c/o (SPDT) contacts | screw | 1SVR 405 651 R1000 |
| CR-M3SS | for 3 c/o (SPDT) contacts | screw | 1SVR 405 651 R2000 |
| CR-M4SS | for 2 or 4 c/o (SPDT) contacts | screw | 1SVR 405 651 R3000 |
| CR-M2SF | for 2 c/o (SPDT) contacts | fork type screw | 1SVR 405 651 R1300 |
| CR-M4SF | for 2 or 4 c/o (SPDT) contacts | fork type screw | 1SVR 405 651 R3300 |

Accessories for CR-M sockets

| | | | |
|--------|--|--|--------------------|
| CR-MH | Plastic holder | | 1SVR 405 659 R1000 |
| CR-MH1 | Metall holder | | 1SVR 405 659 R1100 |
| CR-MJ | Jumper bar for sockets with screw clamps | | 1SVR 405 658 R6000 |

Functions

Operating controls



- 1 Socket
- 2 Pluggable function module
- 3 Interface relay
- 4 Holder

Application

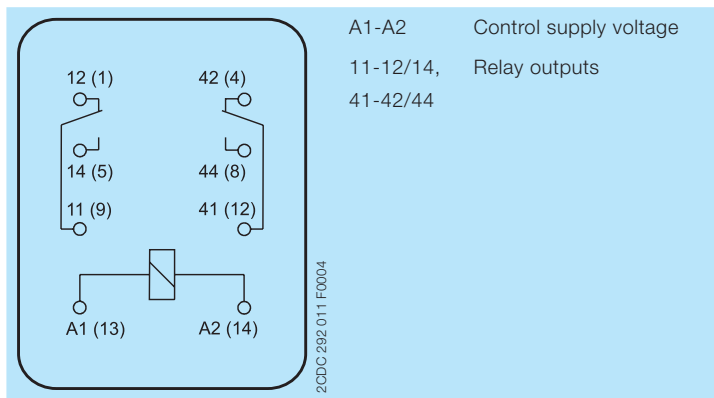
Interface relays are electromechanic and electronic input and output modules for electrical isolation, levelling, noise suppression or signal amplification between control unit and process.

Operating mode

When control supply voltage is applied, the output contacts get closed. When control supply voltage is switched off, the contacts fall back into their starting position. Manual operation and locking of the output relays is possible via the integrated test button.

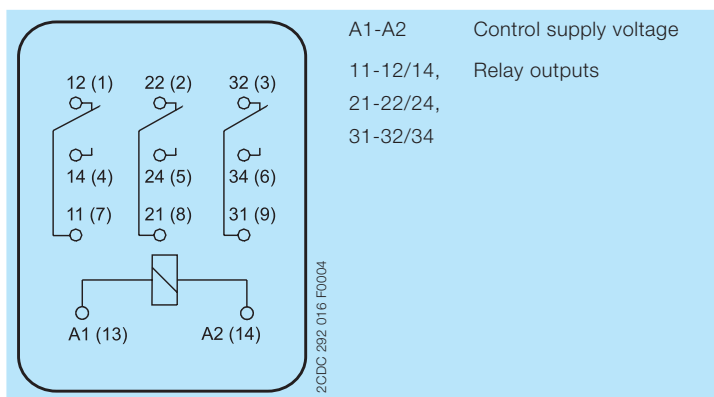
Electrical connection

CR-M with 2 c/o (SPDT) contacts



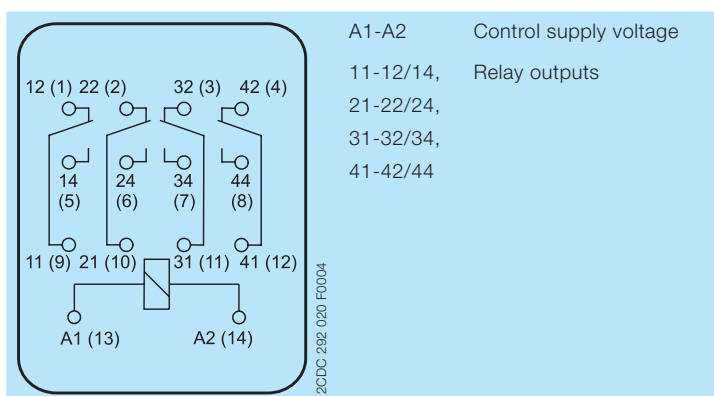
Connection diagram

CR-M with 3 c/o (SPDT) contacts



Connection diagram

CR-M with 4 c/o (SPDT) contacts



Connection diagram

Technical data

Input circuit - Coil data A1-A2

| | Rated control supply voltage U_s | Rated frequency | Make voltage (at 20 °C) | Maxium voltage (at 55 °C) | Break voltage | Rated power | Coil resistance (at 20 °C) | Tolerance of coil resistance |
|----------|------------------------------------|-----------------|-------------------------|---------------------------|----------------|-------------|----------------------------|------------------------------|
| DC coils | 12 V DC | - | 9.6 V DC | 13.2 V DC | $\geq 0.1 U_s$ | 0.9 W | 160 Ω | $\pm 10 \%$ |
| | 24 V DC | - | 19.2 V DC | 26.4 V DC | $\geq 0.1 U_s$ | 0.9 W | 640 Ω | $\pm 10 \%$ |
| | 48 V DC | - | 38.4 V DC | 52.8 V DC | $\geq 0.1 U_s$ | 0.9 W | 2600 Ω | $\pm 10 \%$ |
| | 60 V DC | - | 48.0 V DC | 66.0 V DC | $\geq 0.1 U_s$ | 0.9 W | 4000 Ω | $\pm 10 \%$ |
| | 110 V DC | - | 88.0 V DC | 121.0 V DC | $\geq 0.1 U_s$ | 0.9 W | 13600 Ω | $\pm 10 \%$ |
| | 125 V DC | - | 100.0 V DC | 137.5 V DC | $\geq 0.1 U_s$ | 0.9 W | 16000 Ω | $\pm 10 \%$ |
| | 220 V DC | - | 176.0 V DC | 242.0 V DC | $\geq 0.1 U_s$ | 0.9 W | 54000 Ω | $\pm 10 \%$ |
| AC coils | 24 V AC | 50/60 Hz | 19.2 V AC | 26.4 V AC | $\geq 0.2 U_s$ | 1.6 VA | 158 Ω | $\pm 10 \%$ |
| | 48 V AC | 50/60 Hz | 38.4 V AC | 52.8 V AC | $\geq 0.2 U_s$ | 1.6 VA | 640 Ω | $\pm 10 \%$ |
| | 60 V AC | 50/60 Hz | 48.0 V AC | 66.0 V AC | $\geq 0.2 U_s$ | 1.6 VA | 930 Ω | $\pm 10 \%$ |
| | 110 V AC | 50/60 Hz | 88.0 V AC | 121.0 V AC | $\geq 0.2 U_s$ | 1.6 VA | 3450 Ω | $\pm 10 \%$ |
| | 120 V AC | 50/60 Hz | 96.0 V AC | 132.0 V AC | $\geq 0.2 U_s$ | 1.6 VA | 3770 Ω | $\pm 10 \%$ |
| | 230 V AC | 50/60 Hz | 184.0 V AC | 253.0 V AC | $\geq 0.2 U_s$ | 1.6 VA | 16100 Ω | $\pm 10 \%$ |

Output circuits

| Type | | CR-M...2 | CR-M...3 | CR-M...4 |
|---|---|---|------------------------------------|---|
| Output circuits | | 11-12/14, 21-22/24 | 11-12/14, 21-22/24, 31-32/34 | 11-12/14, 21-22/24, 31-32/34, 41-42/44 |
| Kind of output | | Relay, 2 c/o (SPDT) contacts | Relay, 3 c/o (SPDT) contacts | Relay, 4 c/o (SPDT) contacts |
| Contact material | | AgNi | AgNi | AgNi AgNi/Au 5 μ m |
| Rated operational voltage U_e (VDE 0110, IEC 60947-1) | | 250 V | | |
| Minimum switching voltage | | 10 V (AgNi), 5 V (AgNi/Au) | | |
| Maximum switching voltage | | 250 V DC / 250 V AC | | |
| Minimum switching current | | 5 mA (AgNi), 2 mA (AgNi/Au) | | |
| Rated free air thermal current I_{th} | | 12 A | 10 A | 6 A |
| Rated operational current (IEC 60947-5-1) | AC12 (resistive) 230 V | 12 A | 10 A | 6 A |
| | AC15 (inductive) 230 V | 1.5 A | 1.5 A | 1 A |
| | AC15 (inductive) 120 V | 3 A | 3 A | 1.5 A |
| | DC12 (resistive) 24 V | 12 A | 10 A | 6 A |
| | DC13 (inductive) 24 V | 2.5 A | 2.5 A | 2 A |
| | DC13 (inductive) 120 V | 0.22 A | 0.22 A | 0.22 A |
| | DC13 (inductive) 250 V | 0.1 A | 0.1 A | 0.1 A |
| AC rating * (UL 508; NEMA ICS-5) | Utilization category (pilot duty) (Contact rating code designation) | B300 | | |
| | Max. rated operational voltage | 300 V AC | | |
| | Max. continuous thermal current at utilization category | 5 A | | 2.5 A |
| | Max. making / breaking apparent power at utilization category | 3600 / 360 VA | | 1800 / 180 VA |
| | Utilization category (resistive) (CSA22.2 No.14...) | 10 A, 250 V AC 12 A, 150 V AC | 6 A, 250 V AC 10 A, 150 V AC | 5 A, 250 V AC 10 A, 150 V AC |
| | DC rating * (UL 508; NEMA ICS-5) | Utilization category (pilot duty) (Contact rating code designation) | R300 | |
| Max. rated operational voltage | | 300 V DC | | |
| Max. continuous thermal current at utilization category | | 1 A | | |

| Type | | CR-M...2 | CR-M...3 | CR-M...4 |
|------|---|--|------------------------------------|---------------|
| | Max. making / breaking apparent power at utilization category | 28 VA | | |
| | Maximum making (inrush) current | 24 A | 20 A | 12 A |
| | Minimum switching power | 0.3 W (AgNi), 0.1 W (AgNi/Au) | | |
| | Maximum switching (breaking) power | AC1 (resistive) | 3000 VA | 2500 VA |
| | Contact resistance | ≤ 100 mΩ | | |
| | Maximum operating frequency | rated load AC1 | 1200 switching cycles/h | |
| | | without load | 18000 switching cycles/h | |
| | Mechanical lifetime | > 2 x 10 ⁷ switching cycles | | |
| | Electrical lifetime | electrical AC1 (resistive) | > 10 ⁵ switching cycles | |
| | | | (12 A, 250 V) | (10 A, 250 V) |
| | | cos φ | see Reduction factor F | |
| | Response time | typ. 13 ms (DC), typ. 10 ms (AC) | | |
| | Release time | typ. 3 ms (DC), typ. 8 ms (AC) | | |

*) Those ratings are based on different type tests but they are not covered by the cULus or CSA approvals

Isolation data

| Type | | CR-M...2 | CR-M...3 | CR-M...4 |
|------|--|-----------------------------|-----------|-----------|
| | Rated insulation voltage | 250 V AC | | |
| | Insulation class | C250 / B250 | | |
| | Rated impulse withstand voltage U _{imp} | between coil and contacts | 2.5 kV AC | |
| | | between open contacts | 1.5 kV AC | |
| | | between c/o (SPDT) contacts | 2.5 kV AC | ≥ 2 kV AC |
| | Clearance | between coil and contacts | ≥ 2.5 mm | ≥ 1.6 mm |
| | Creepage distance | between coil and contacts | ≥ 4 mm | ≥ 3.2 mm |
| | Overvoltage category | III | | II |
| | Pollution degree | 3 | | 2 |

General data

| Type | | CR-M...2 | CR-M...3 | CR-M...4 |
|------|-------------------------------------|--|----------|----------|
| | Dimensions (W x H x D) when mounted | 21.2 x 27.5 x 35.6 mm (0.83 x 1.08 x 1.4 in) | | |
| | Weight | 35 g (0.077 lb) | | |
| | Mounting | on socket (see accessories) | | |
| | Mounting position | any | | |
| | Degree of protection | IP 40 | | |

Electrical data

| Type | | CR-M...2 | CR-M...3 | CR-M...4 |
|------|------------|-----------|----------|----------|
| | Connection | by socket | | |

Environmental data

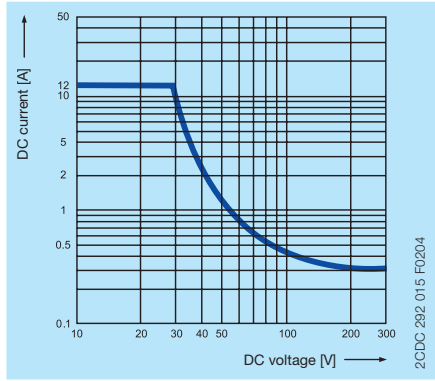
| Type | | CR-M...2 | CR-M...3 | CR-M...4 |
|------|----------------------------------|-------------|-----------------------------------|----------|
| | Ambient temperature range | operation | DC: -40...+70 °; AC: -40...+55 °C | |
| | | storage | -40...+85 °C | |
| | Vibration resistance (10-150 Hz) | n/o contact | 5 g | |
| | | n/c contact | 5 g | |
| | Shock resistance | n/o contact | 10 g | |
| | | n/c contact | 5 g | |

Standards

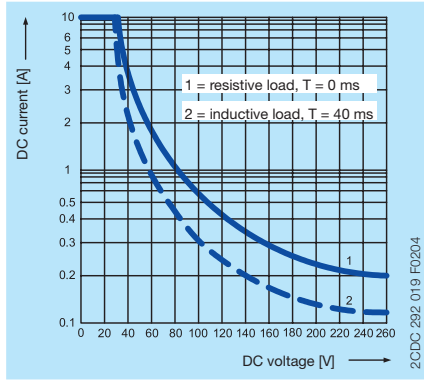
| Type | | CR-M...2 | CR-M...3 | CR-M...4 |
|------|-----------------------|--------------------------------------|----------|----------|
| | Product standard | EN 60810-1, EN 60255-23, IEC 61810-7 | | |
| | Low Voltage Directive | 2006/95/EC | | |

Technical diagrams

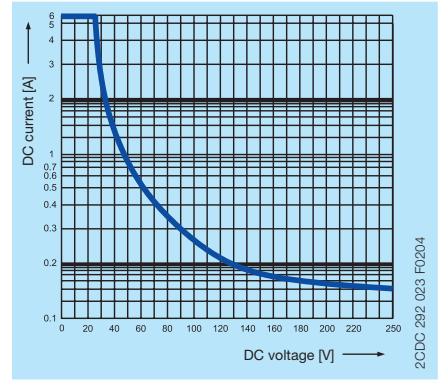
Load limit curves - Maximum switching power at resistive DC load



Versions with 2 c/o (SPDT) contacts
(CR-M ... 2)

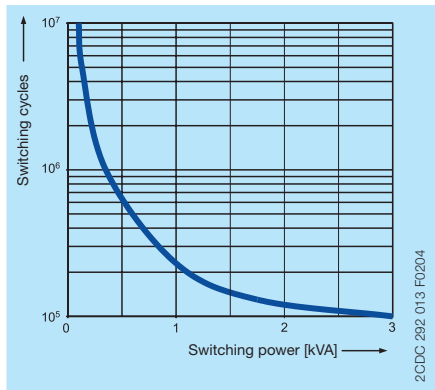


Versions with 3 c/o (SPDT) contacts
(CR-M ... 3)

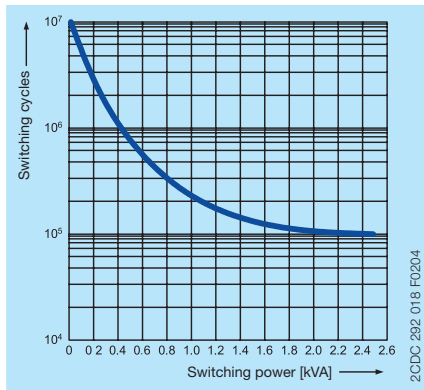


Versions with 4 c/o (SPDT) contacts
(CR-M ... 4)

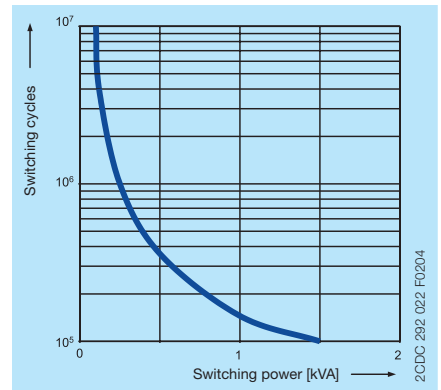
Load limit curves - Electrical lifetime at resistive AC load



Versions with 2 c/o (SPDT) contacts
(CR-M ... 2)

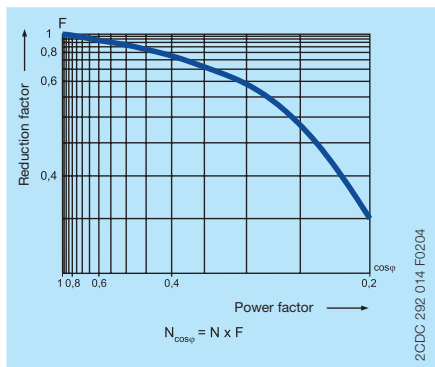


Versions with 3 c/o (SPDT) contacts
(CR-M ... 3)



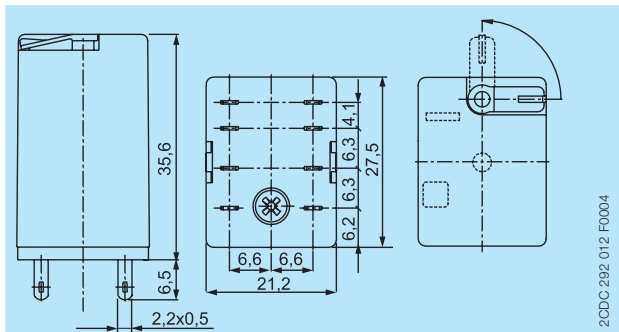
Versions with 4 c/o (SPDT) contacts
(CR-M ... 4)

Reduction factor F at inductive AC load

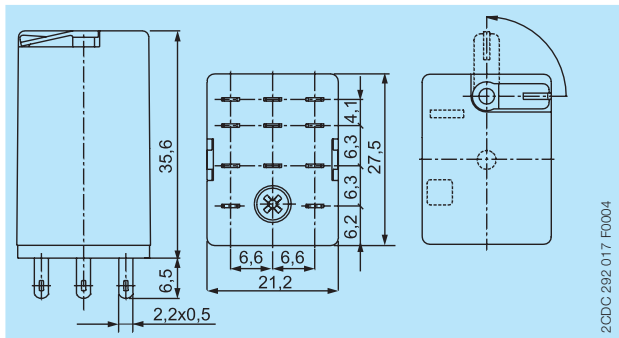


Dimensions

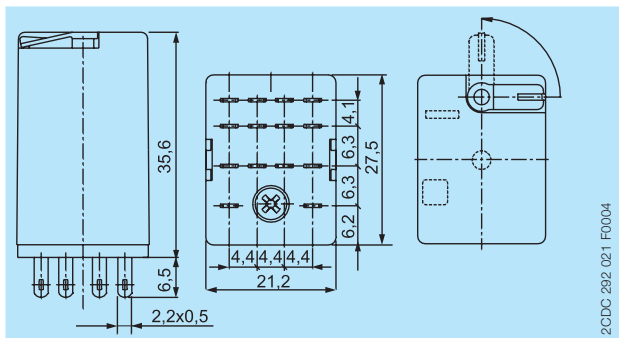
in mm



Versions with 2 c/o (SPDT) contacts (CR-M ... 2)



Versions with 3 c/o (SPDT) contacts (CR-M ... 3)



Versions with 4 c/o (SPDT) contacts (CR-M ... 4)

Further documentation

| Document title | Document type | Document number |
|-----------------------------------|---------------------|--------------------|
| Electronic Products and Relays | Technical catalogue | 2CDC 110 004 C02xx |
| Sockets CR-M | Data sheet | 2CDC 117 005 D020x |
| Jumper bar CR-MJ | Data sheet | 2CDC 117 015 D020x |
| Pluggable function modules CR-P/M | Data sheet | 2CDC 117 007 D020x |

You can find the documentation on the internet at www.abb.com/lowvoltage -> Control Products -> Electronic Relays and Controls -> Interface Relays and Optocouplers.

CAD system files

You can find the CAD files for CAD systems at <http://abb-control-products.partcommunity.com/PARTcommunity/Portal/abb-control-products> -> Low Voltage Products & Systems -> Control Products -> Electronic Relays and Controls -> Interface Relays and Optocouplers -> CR-M - Pluggable Interface Relays.

Contact us

ABB STOTZ-KONTAKT GmbH

P. O. Box 10 16 80
69006 Heidelberg, Germany
Phone: +49 (0) 6221 7 01-0
Fax: +49 (0) 6221 7 01-13 25
E-mail: info.desto@de.abb.com

You can find the address of your
local sales organization on the
ABB home page
<http://www.abb.com/contacts>
-> Low Voltage Products and Systems

Note:

We reserve the right to make technical changes or modify the contents of this document without prior notice. With regard to purchase orders, the agreed particulars shall prevail. ABB AG does not accept any responsibility whatsoever for potential errors or possible lack of information in this document.

We reserve all rights in this document and in the subject matter and illustrations contained therein. Any reproduction, disclosure to third parties or utilization of its contents – in whole or in parts – is forbidden without prior written consent of ABB AG.

Copyright© 2012 ABB
All rights reserved