

# **Power Relay RM 8**

- 2 pole 25 A, 2 form C (2 CO) contacts
- DC or AC coil
- Mechanical indicator
- **■** Push-to-test button
- **■** Chassis or DIN rail mount

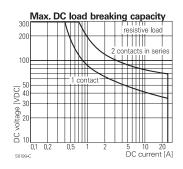
Typical applications Cleaning equipment, heating and cooling equipment.

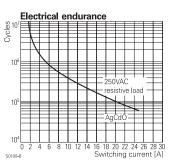
| Approvals                                    |
|--|
| VDE Cert. No. 40003144, UL E214025,          |
| Technical data of approved types on request. |

| Contact Data                             |                         |
|--|-------------------------|
| Contact arrangement                      | 2 form C (CO)           |
| Rated voltage                            | 400VAC                  |
| Max. switching voltage                   | 400VAC                  |
| Rated current                            | 25A                     |
| Limiting making current, 20ms max.       | 60A                     |
| Switching power                          | 6000VA                  |
| Contact material                         | AgCdO, AgNi90/10        |
| Min. recommended contact load            | 24VDC/100mA             |
| Frequency of operation,                  |                         |
| with/without load, DC coil               | 960/6000h <sup>-1</sup> |
| Operate/release time max., DC coil       | 15/10ms                 |
| Bounce time max., form A/form B, DC coil | 4/6ms                   |

| Contac         | t ratings   |                                     |                    |
|----------------|-------------|-------------------------------------|--------------------|
| Type           | Contact     | Load                                | Cycles             |
| <b>IEC 618</b> | 310         |                                     |                    |
| RM82           | C (CO)      | 25 A, 250 VAC, cosφ=1 DC-coil, 65°C | 10x10 <sup>3</sup> |
| RM82           | C (CO)      | 25 A, 250 VAC, cosφ=1 AC-coil, 40°C | 10x10 <sup>3</sup> |
| <b>UL 508</b>  |             |                                     |                    |
| RM80           | A/B (NO/NC) | 25 A, 240 VAC, 1 phase per pole,    |                    |
|                |             | general purpose 40°C                | 6x10 <sup>3</sup>  |
| RM8            | A/B (NO/NC) | 25 A, 415 VAC, resistive, 45°C      | 10x10 <sup>3</sup> |
| RM82           | C (CO)      | 16 A, 415 VAC, resistive, 70°C      | 30x10 <sup>3</sup> |
| RM82           | A/B (NO/NC) | 240 VAC, 1phase, 2HP, 50°C          | 6x10 <sup>3</sup>  |

| Mechanical endurance | 10x10 <sup>6</sup> operations |
|----------------------|-------------------------------|
|                      |                               |





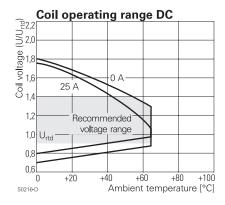


| Coil Data                           |               |  |
|-------------------------------------|---------------|--|
| Coil voltage range                  | 6 to 220VDC   |  |
|                                     | 6 to 400VAC   |  |
| Operative range, IEC 61810          | 2             |  |
| Coil insulation system according UL | class 130 (B) |  |

| Coil v   | ersions, I  | OC coil          |                  |         |                          |            |
|--|-------------|------------------|------------------|---------|--------------------------|------------|
|  |             | Coil code        | Э                | Rated   | Coil                     | Rated coil |
| STD  | LED         | PD <sup>3)</sup> | LED+             | voltage | resistance               | power      |
|  | bipolar     |                  | PD <sup>3)</sup> | VDC     | $\Omega \pm 10\%^{1)2)}$ | W          |
| 006  | L06         | 0A6              | LA6              | 6       | 32                       | 1.1        |
| 012  | L12         | 0B2              | LB2              | 12      | 110                      | 1.3        |
| 024  | L24         | 0C4              | LC4              | 24      | 475                      | 1.2        |
| 048  | L48         | 0E8              | LE8              | 48      | 2000                     | 1.2        |
| 060  | L60         | 0G0              | LG0              | 60      | 2850                     | 1.3        |
| 110  | M10         | 1B0              | MB0              | 110     | 100001)                  | 1.2        |
| 221  | N21         | 2C1              | NC1              | 220     | 400002)                  | 1.2        |
| Operate voltage, DC coil 75% of rated coil voltage |             |                  |                  |         |                          | age        |
| Releas   | se voltage, | DC coil          |                  | 10% of  | rated coil volta         | age        |

- Release voltage, DC coil

  1) Coil resistance ±12%, 2) Coil resistance ±15%.
- 3) Protection diode PD; standard polarity: +A1 / -A2.
- All figures are given for coil without pre-energization, at ambient temperature +23°C.





## Power Relay RM 8 (Continued)

| Coil [                 | Coil Data (continued) |         |             |         |                          |            |  |  |  |
|------------------------|-----------------------|---------|-------------|---------|--------------------------|------------|--|--|--|
| Coil versions, AC coil |                       |         |             |         |                          |            |  |  |  |
| Coil c                 | ode                   | Rated   | Operate     | Release | Coil                     | Rated coil |  |  |  |
| STD                    | LED                   | voltage | voltage     | voltage | resistance               | power      |  |  |  |
|                        |                       |         | 50/60Hz     | 50/60Hz |                          | 50/60Hz    |  |  |  |
|                        |                       | VAC     | VAC         | VAC     | $\Omega \pm 10\%^{1)2)}$ | VA         |  |  |  |
| 506                    | R06                   | 6       | 4.8/5.1     | 1.8     | 4.7                      | 2.86/2.36  |  |  |  |
| 512                    | R12                   | 12      | 9.6/10.2    | 3.6     | 19.5                     | 2.71/2.27  |  |  |  |
| 524                    | R24                   | 24      | 19.2/20.4   | 7.2     | 80                       | 2.62/2.00  |  |  |  |
| 548                    | R48                   | 48      | 38.4/40.8   | 14.4    | 320                      | 2.60/2.17  |  |  |  |
| 560                    | R60                   | 60      | 48.0/51.0   | 18.0    | 500                      | 2.62/2.20  |  |  |  |
| 615                    | S15                   | 115     | 92.0/97.8   | 34.5    | 1850                     | 2.65/2.22  |  |  |  |
| 730                    | T30                   | 230     | 184.0/195.5 | 69.0    | 7500                     | 2.69/ 2.26 |  |  |  |
| 900                    | V00                   | 400     | 320.0/340.0 | 120.0   | 235002)                  | 2.61/2.20  |  |  |  |

<sup>2)</sup> Coil resistance ±15%.

| Insulation Data                    |                 |
|------------------------------------|-----------------|
| Initial dielectric strength        |                 |
| between open contacts              | 1500Vrms        |
| between contact and coil           | 2500Vrms        |
| between adjacent contacts          | 4000Vrms        |
| Initial surge withstand voltage    |                 |
| between contact and coil           | 5000V(1.2/50µs) |
| between adjacent contacts          | 6000V(1.2/50µs) |
| Clearance/creepage                 |                 |
| between contact and coil           | ≥4.0/14.9mm     |
| between adjacent contacts          | ≥15.3/15.3mm    |
| Material group of insulation parts | Illa            |

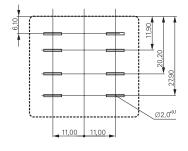
### **Other Data**

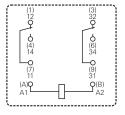
Material compliance: EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at www.te.com/customersupport/rohssupportcenter

| Ambient temperature                  |                      |
|--------------------------------------|----------------------|
| for mounting/handling                | -20 to +40°C         |
| in operation                         |                      |
| DC coil                              | -40 to +65°C         |
| AC coil                              | -40 to +40°C         |
| 16 A contact load                    | -40 to +70°C         |
| Category of environmental protection |                      |
| IEC 61810                            | RTI - dust protected |
| Vibration resistance (functional)    |                      |
| form A (NO)/form B (NC)              | 10/5g, 30 to 150Hz   |
| Terminal type                        | quick-connect        |
| Cover retention, pull/push force     | 100/100N             |
| Weight                               | 81g                  |
| Packaging unit                       | 10/25 pcs.           |
|                                      |                      |

#### Terminal assignment

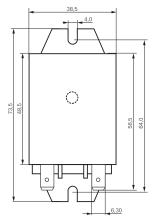
Bottom view on pins

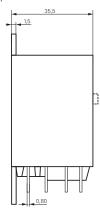


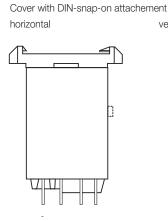


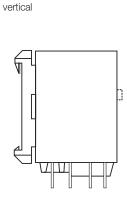
## **Dimensions**

Cover with mounting brackets, 6.3mm quick connect terminals









All figures are given for coil without pre-energization, at ambient temperature +23°C.



# Power Relay RM 8 (Continued)

| Product    | code structure                               |            |                                 | Typical product code | RM | 8 | 0        | 9 | 024 |
|------------|--|------------|---------------------------------|----------------------|----|---|----------|---|-----|
| Туре       |  |            |                                 |                      |    |   |          |   |     |
|            | Power relay RM8                              |            |                                 |                      |    |   |          |   |     |
| Contact of | configuration                                |            |                                 |                      |    | , |          |   |     |
| 8          | 2 form C contacts (2 CO), 25A                |            |                                 |                      |    |   |          |   |     |
| Version    |  |            |                                 |                      |    |   | <b>'</b> |   |     |
| 0          | AgCdO, without test button                   | 3          | AgCdO, with test button         |                      |    |   |          |   |     |
| 2          | AgNi90/10, without test button               | 7          | AgNi90/10, with test button     |                      |    |   |          |   |     |
| Enclosure  | •  |            |                                 |                      |    |   |          |   |     |
| 5          | cover with mounting brackets, 6.3mm          | quick co   | onnect terminals                |                      |    |   |          |   |     |
| 8          | cover with DIN-snap-on attachment, he        | orizontal  | l, 6.3mm quick connect terminal | ls                   |    |   |          |   |     |
| 9          | cover with DIN-snap-on attachment, ve        | ertical, 6 | .3mm quick connect terminals    |                      |    |   |          |   |     |
| Coil       | ·  |            |                                 |                      |    |   |          |   |     |
| Co         | il code: please refer to coil versions table | )          |                                 |                      |    |   |          |   |     |

| Product code | Contacts      | Cont. material | Version     | Enclosure         | Coil    | Coil   | Part number |
|--------------|---------------|----------------|-------------|-------------------|---------|--------|-------------|
| RM825012     | 2 form C,     | AgNi           | Without     | Mounting brackets | DC-coil | 12VDC  | 4-1415546-4 |
| RM825024     | 2 CO contacts | AgNi           | test button | quick c. 6.3 mm   | DC-coil | 24VDC  | 7-1415544-3 |
| RM805024     | 25 A          | AgCdO          |             | ·                 | DC-coil | 24VDC  | 2-1393844-7 |
| RM825524     |               | AgNi           |             |                   | AC-coil | 24VAC  | 4-1415546-5 |
| RM805524     |               | AgCdO          |             |                   | AC-coil | 24VAC  | 2-1393147-9 |
| RM825615     |               | AgNi           |             |                   | AC-coil | 115VAC | 4-1415546-6 |
| RM805615     |               | AgCdO          |             |                   | AC-coil | 115VAC | 3-1393147-1 |
| RM825730     |               | AgNi           |             |                   | AC-coil | 230VAC | 5-1415544-8 |
| RM805730     |               | AgCdO          |             |                   | AC-coil | 230VAC | 3-1393147-3 |
| RM808024     |               | AgCdO          |             | DIN-snap-on       | DC-coil | 24VDC  | 2-1393844-9 |
| RM808730     |               | AgCdO          |             | horizontal        | AC-coil | 230VAC | 5-1393149-7 |
| RM829024     |               | AgNi           |             | DIN-snap-on       | DC-coil | 24VDC  | 4-1415546-7 |
| RM809024     |               | AgCdO          |             | vertical          | DC-coil | 24VDC  | 5-1393149-8 |
| RM809615     |               | AgCdO          |             |                   | AC-coil | 115VAC | 3-1393147-8 |
| RM829730     |               | AgNi           |             |                   | AC-coil | 230VAC | 4-1415546-8 |
| RM875024     |               | AgNi           | With        | Mounting brackets | DC-coil | 24VDC  | 4-1415546-9 |
| RM835024     |               | AgCdO          | test button | quick c. 6.3 mm   | DC-coil | 24VDC  | 4-1393147-1 |
| RM875048     |               | AgNi           |             |                   | DC-coil | 48VDC  | 5-1415546-0 |
| RM875730     |               | AgNi           |             |                   | AC-coil | 230VAC | 5-1415546-1 |
| RM835730     |               | AgCdO          |             |                   | AC-coil | 230VAC | 4-1393147-6 |
| RM878012     |               | AgNi           |             | DIN-snap-on       | DC-coil | 12VDC  | 5-1415546-2 |
| RM878024     |               | AgNi           |             | horizontal        | DC-coil | 24VDC  | 5-1415546-3 |
| RM838024     |               | AgCdO          |             |                   | DC-coil | 24VDC  | 5-1415546-3 |
| RM879024     |               | AgNi           |             | DIN-snap-on       | DC-coil | 24VDC  | 5-1415546-4 |
| RM839024     |               | AgCdO          |             | vertical          | DC-coil | 24VDC  | 5-1393147-4 |
| RM839730     |               | AgCdO          |             |                   | AC-coil | 230VAC | 5-1393147-6 |

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