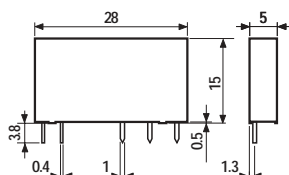


34

- Ultra-slim, 5 mm wide
- Sensitive DC coil, 170mW
- 6/8 mm distance/creepage
- 6kV (1.2/50 μ s) between coil and contacts

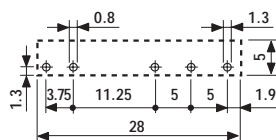
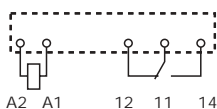


* for 400 V applications, requirements for pollution degree 2 are met.

34.51



- 5 mm wide
- P.C.B. mounting



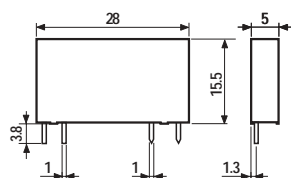
Copper side view



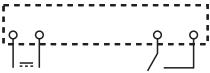
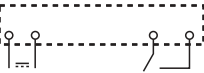
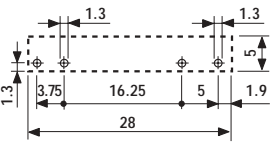
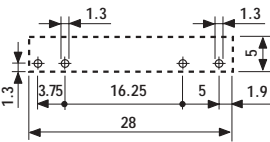
| Contact specifications | | |
|---|---------------------|------------------------|
| Contact configuration | | 1 CO |
| Rated current/Maximum peak current | A | 6/10 |
| Rated voltage/Maximum switching voltage V AC | | 250/400* |
| Rated load in AC1 | VA | 1,500 |
| Rated load in AC15 (230 VAC) | VA | 300 |
| Single phase motor rating (230 VAC) | kW | — |
| Breaking capacity in DC1: 30/110/220V | A | 6/0.2/0.12 |
| Minimum switching load | mW (V/mA) | 500 (12/10) |
| Standard contact material | | AgNi |
| Coil specifications | | |
| Nominal voltage (U_N) | V AC (50/60 Hz) | — |
| | V DC | 5 · 12 · 24 · 48 · 60 |
| Rated power AC/DC | VA (50 Hz)/W | —/0.17 |
| Operating range | AC (50 Hz) | — |
| | DC | (0.7 ... 1.5) U_N |
| Holding voltage | AC/DC | —/0.4 U_N |
| Must drop-out voltage | AC/DC | —/0.05 U_N |
| Technical data | | |
| Mechanical life AC/DC | cycles | —/10 · 10 ⁶ |
| Electrical life at rated load AC1 | cycles | 60 · 10 ³ |
| Operate/release time (bounce included) | ms | 7/8 |
| Insulation according to EN 61810-5 | | 4 kV/3 |
| Insulation between coil and contacts (1.2/50 μ s) | kV | 6 (8 mm) |
| Dielectric strength between open contacts | V AC | 1,000 |
| Ambient temperature range | °C | −40...+85 |
| Environmental protection | | RT II |
| Approvals: (according to type) | GOST VDE | |

- Ultra-slim, 5 mm wide
- High switching speed and endurance
- Silent switching

34.81....9024

34.81....7048



| | |
|---|--|
|  |  |
| <ul style="list-style-type: none">- Switching current 2A - 24 V DC- P.C.B. mounting | <ul style="list-style-type: none">- Switching current 100 mA - 48 V DC- P.C.B. mounting |
|  <p>A2- A1+ + A</p> <p>input output</p> |  <p>A2- A1+ + A</p> <p>input output</p> |
|  |  |
| Copper side view | Copper side view |
| | |
| 2 | 0.1 |
| 24 | 48 |
| 0...24 | 0...48 |
| 33 | 60 |
| | |
| 24 | 60 |
| 16...30 | 35...72 |
| 7 | 3 |
| 10 | 20 |
| | |
| 2500 | 2500 |
| -20...+55 | -20...+55 |
| RT II | RT II |
| — | — |

ORDERING INFORMATION

34 ELECTROMECHANICAL RELAY

Example: a 34 series slim electromechanical relay, 1 CO - 6 A, with 24 V sensitive DC coil.

| | | | | | | | | | | | | | | | | | |
|----------------------------|----------|----------|---|----------|---|----------|---|----------|---|----------|----------|----------|---|----------------------|----------------------|----------------------|----------------------|
| | 3 | 4 | . | 5 | . | 1 | . | 7 | . | 0 | 2 | 4 | . | A 0 | B 0 | C 1 | D 0 |
| Series | 3 4 | | | 5 | | 1 | | 7 | | 0 2 4 | | | | A | B | C | D |
| Type | 3 4 | | | 5 | | 1 | | 7 | | 0 2 4 | | | | A | B | C | D |
| 5 = Electromechanical type | | | | | | | | | | | | | | | | | |
| No. of poles | 3 4 | | | 5 | | 1 | | 7 | | 0 2 4 | | | | A | B | C | D |
| 1 = 1 pole, 6 A | | | | | | | | | | | | | | | | | |
| Coil version | 3 4 | | | 5 | | 1 | | 7 | | 0 2 4 | | | | A | B | C | D |
| 7 = Sensitive DC | | | | | | | | | | | | | | | | | |
| Coil voltage | 3 4 | | | 5 | | 1 | | 7 | | 0 2 4 | | | | A | B | C | D |
| see coil specifications | | | | | | | | | | | | | | | | | |

A: Contact material
 0 = Standard AgNi
 4 = AgSnO₂
 5 = AgNi + Au

B: Contact circuit
 0 = CO

C: Options
 1 = None

D: Special versions
 0 = Flux proof (RT II)

SOLID STATE RELAY

Example: a 34 series SSR relay, 2 A, with 24 V DC supply.

| | | | | | | | | | | | | | | | | | |
|--------------------------|----------|----------|---|----------|---|----------|---|----------|---|----------|----------|----------|---|----------|----------|----------|----------|
| | 3 | 4 | . | 8 | . | 1 | . | 7 | . | 0 | 2 | 4 | . | 9 | 0 | 2 | 4 |
| Series | 3 4 | | | 8 | | 1 | | 7 | | 0 2 4 | | | | 9 0 2 4 | | | |
| Type | 3 4 | | | 8 | | 1 | | 7 | | 0 2 4 | | | | 9 0 2 4 | | | |
| 8 = SSR type | | | | | | | | | | | | | | | | | |
| Output | 3 4 | | | 8 | | 1 | | 7 | | 0 2 4 | | | | 9 0 2 4 | | | |
| 1 = 1 NO | | | | | | | | | | | | | | | | | |
| Input circuit | 3 4 | | | 8 | | 1 | | 7 | | 0 2 4 | | | | 9 0 2 4 | | | |
| see input specifications | | | | | | | | | | | | | | | | | |

Output circuit
 9024 = 2 A - 24 VDC
 7048 = 100 mA - 48 VDC

SOLID STATE RELAY

OTHER DATA

| | | |
|-------------------------------|---------------------------|------|
| POWER LOST TO THE ENVIRONMENT | without contact current W | 0.17 |
| | with rated current W | 0.4 |

INPUT SPECIFICATION

DC VERSION DATA

| Nominal voltage U_N | Input code | Operating range | | Release voltage V | Control current I at U_N mA |
|--------------------------|------------|-----------------|----------------|----------------------|-------------------------------------|
| | | U_{min} V | U_{max} V | | |
| 24 | 7.024 | 16 | 30 | 10 | 7 |
| 60 | 7.060 | 35 | 72 | 20 | 3 |

ELECTROMECHANICAL RELAY

TECHNICAL DATA

INSULATION

| | | | |
|------------------------------------|---------------------------------|----|-----|
| INSULATION according to EN 61810-5 | insulation rated voltage | V | 250 |
| | rated impulse withstand voltage | kV | 4 |
| | pollution degree | | 3 |
| | overvoltage category | | III |

IMMUNITY

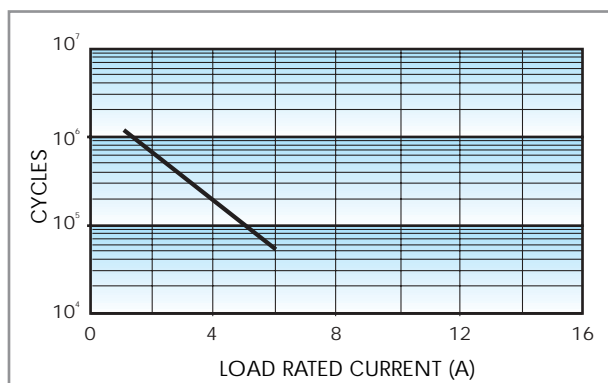
| | | |
|--------------------------------|-----------------------------------|----------------|
| CONDUCTED DISTURBANCE IMMUNITY | BURST (according to EN 61000-4-4) | level 4 (4 kV) |
| | SURGE (according to EN 61000-4-5) | level 3 (2 kV) |

OTHER DATA

| | | |
|--|---------------------------|------|
| VIBRATION RESISTANCE (10...55Hz): NO/NC | g/g | 10/5 |
| POWER LOST TO THE ENVIRONMENT | without contact current W | 0.2 |
| | with rated current W | 0.5 |
| RECOMMENDED DISTANCE between RELAYS mounted on P.C.B.s | mm | ≥5 |

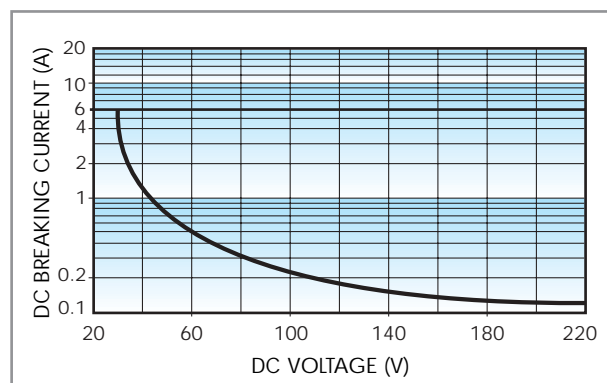
CONTACT SPECIFICATIONS

F 34



Electrical life vs AC1 load.

H 34



Breaking capacity in DC1 load.

- When switching a resistive load (DC1) having voltage and current values under the curve the expected electrical life is $\geq 100 \cdot 10^3$ cycles.
- In case of DC13 loads the connection of a diode in parallel with the load will permit the same electrical life as for a DC1 load.

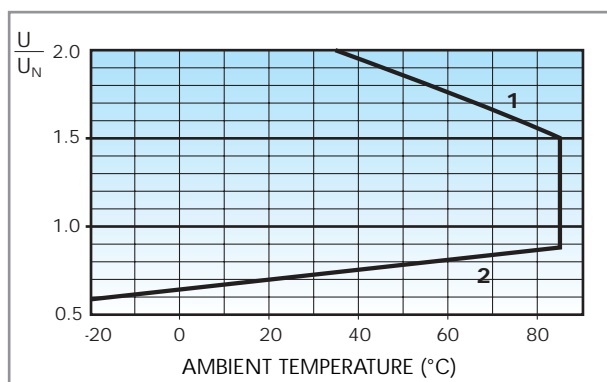
Note: the release time of load will be increase.

COIL SPECIFICATIONS

DC VERSION DATA

| Nominal voltage U_N V | Coil code | Operating range | | Resistance R Ω | Rated coil consumption I at U_N mA |
|-------------------------------|-----------|-----------------|----------------|-----------------------------|--|
| | | U_{min} V | U_{max} V | | |
| 5 | 7.005 | 3.5 | 7.5 | 130 | 38.4 |
| 12 | 7.012 | 8.4 | 18 | 840 | 14.2 |
| 24 | 7.024 | 16.8 | 36 | 3,350 | 7.1 |
| 48 | 7.048 | 33.6 | 72 | 12,300 | 3.9 |
| 60 | 7.060 | 42 | 90 | 19,700 | 3 |

R 34 DC



Operating range vs ambient temperature.

- 1 - Max coil voltage permitted.
- 2 - Min pick-up voltage with coil at ambient temperature.