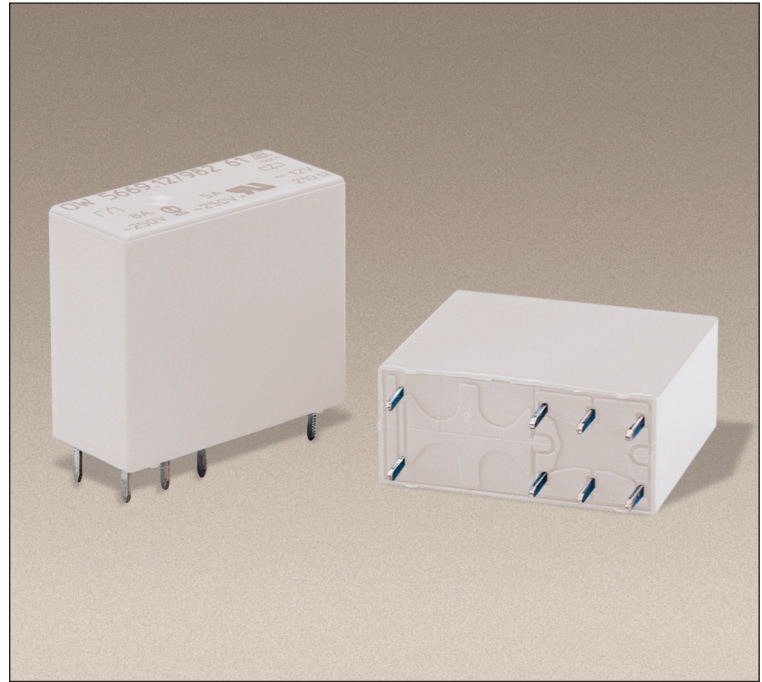


Safety Relay

OA/OW 5669

Features

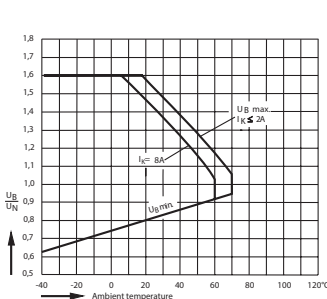
- 2 output contacts
- International approvals:
TÜV, UL, cUL
- Quality control check for each safety relay
- Forced-guided contacts, all gold flash plated
- Contact Gap > 0.5 mm throughout life of relay
- Various contact materials,
mixed contact material optional
- High coil voltage range
- High breakdown voltage: contact/coil ≥ 4 KV
contact/contact ≥ 4 KV
- High creeping distance: contact/coil ≥ 8 mm
contact/contact ≥ 5.5 mm
- Protection Rating
OA Version: IP 40, flow solder proof
OW Version: IP 67, washable
- Custom design available,
-coil voltage -coil resistance,
-contact pressure -operate/release time



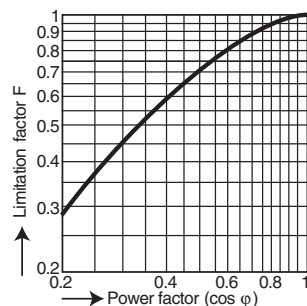
Technical Data

- **Nominal Coil Voltage** 6, 12, 20, 24, 48, 60, 110, DC
- **Coil Power Dissipation** 0.7 W
- **Max. Switching Voltage** 250V DC, 400V AC
- **Max. Switching Current** 8 A (2 x 5A simultaneous)
- **Max. Switching Power — DC** 200W (2 x 160W simultaneous)
- **Max. Switching Power — AC** 2000VA (2 x 1250VA simultaneous)
- **Contact Switching Rate** 10 operations per second
- **Relay Operate Time** ≤ 15 ms
- **Relay Release Time** ≤ 12 ms
- **Operation Vibration** 0.35 mm Ampl. max
@ 10...55Hz, 5g max
- **Contact Arrangements** 1NO/1NC, 2CO, 2NO*, 2NC*
- **Contact Material** AgNi10+0.2 μ mAu Standard
..... AgSnO₂+0.2 μ mAu, AgNi10+5 μ mAu Optional
- **Mechanical Life** $\geq 50 \times 10^6$ operation cycles
- **Electrical Life** AgSnO₂ > 2x10⁵, AgNi10 > 10⁵
..... operation cycles @ 230V AC, 6A, cos φ =1
- **Ambient Temperature** -40...+70°C
- **Cover Material** Polyamide 6
- **Weight** 15 g
- More detailed data upon request

Diagrams

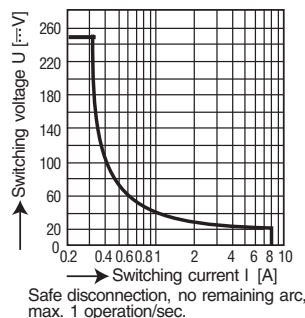


Relay operation voltage vs. ambient temperature

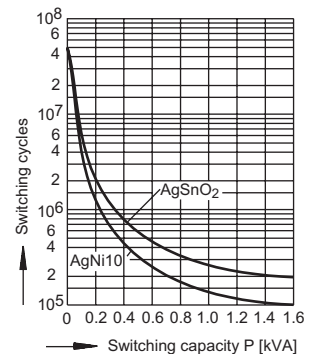


Operations =
Operations (ohmic) x limitation factor F

Limitation factor for inductive loads



Maximum switching power curve



Mechanical life

*Special order.

Safety Relay OA/OW 5669 Data

Relay Data

Ordering Information

Rated Voltage	Voltage Range	Coil Resistance (10%)	1 NO/1 NC Type	2 CO Type	2 NO* Type	2 NC* Type
6V	4.8 - 9.6V	50 Ω	56.O□69.0611□	56.O□69.0600□	56.O□69.0620□	56.O□69.0602□
10V	8.0 - 16.0V	150 Ω	56.O□69.1011□	56.O□69.1000□	56.O□69.1020□	56.O□69.1002□
12V	9.6 - 19.2V	210 Ω	56.O□69.1211□	56.O□69.1200□	56.O□69.1220□	56.O□69.1202□
20V	16.0 - 32.0V	580 Ω	56.O□69.2011□	56.O□69.2000□	56.O□69.2020□	56.O□69.2002□
24V	19.2 - 38.4V	820 Ω	56.O□69.2411□	56.O□69.2400□	56.O□69.2420□	56.O□69.2402□
48V	38.4 - 76.8V	3200 Ω	56.O□69.4811□	56.O□69.4800□	56.O□69.4820□	56.O□69.4802□
60V	48.0 - 96.0V	5200 Ω	56.O□69.6011□	56.O□69.6000□	56.O□69.6020□	56.O□69.6002□
110V	88.0 - 176.0V	18000 Ω	56.O□69.1111□	56.O□69.1100□	56.O□69.1120□	56.O□69.1102□

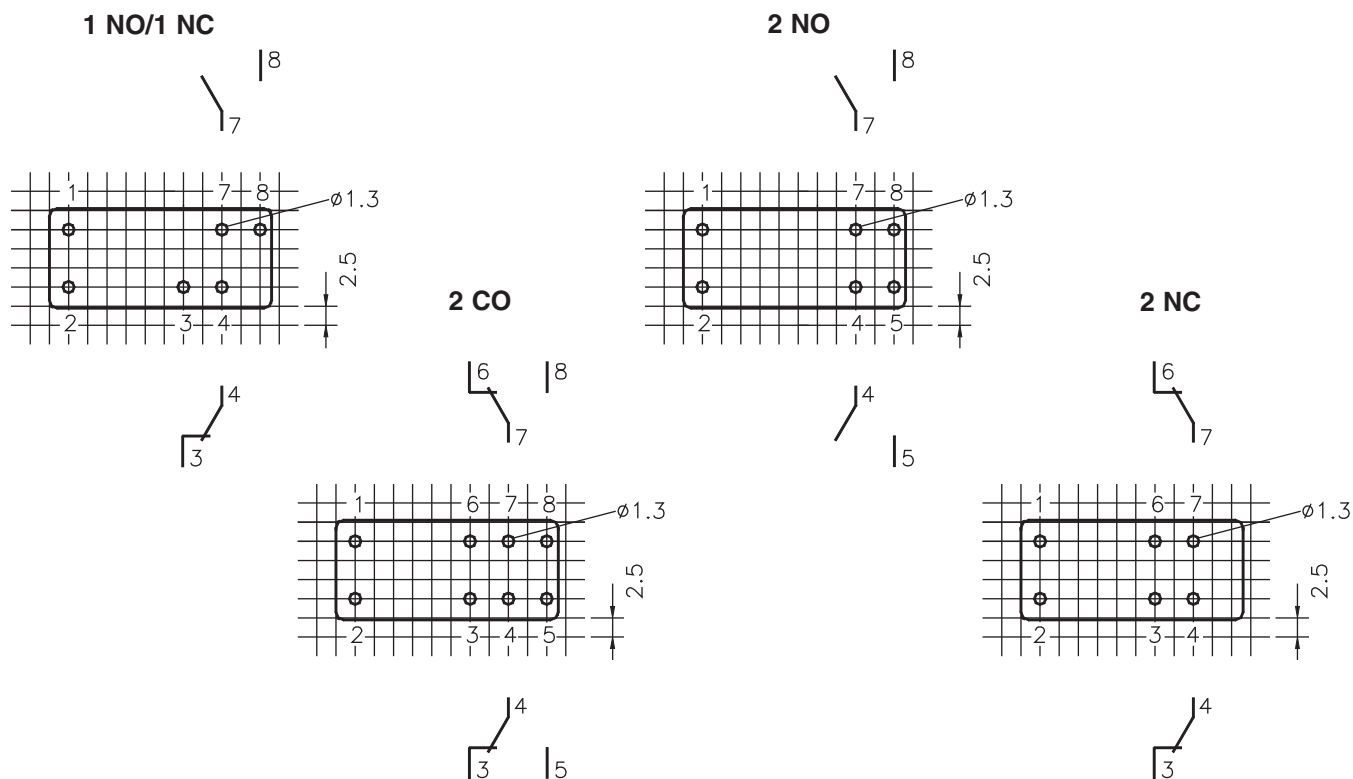
Protection Class, Example:

- A IP 40, Flow Solder Proof
W IP 67, Washable

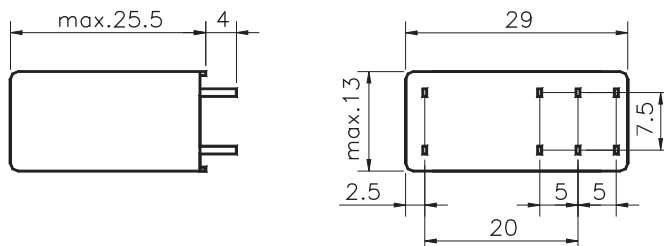
Contact Material, Example:

- C AgSnO₂+2μmAu
N AgNi10+.2μmAu
S AgNi0.15+5μmAu

Footprints (solder side)



Dimensions



Note: All dimensions are shown in millimeters. To convert to inches, divide by 25.4.

*Special order.

Mouser Electronics

Authorized Distributor

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[56.OA01.2422N](#)