Safety Relay
OA 5612

Features

- 6 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
- Very high switching voltage
- High breakdown voltage: contact/coil ≥ 4 KV
  contact/contact ≥ 2.5KV
- High creeping distance: contact/coil ≥ 8 mm
  contact/contact ≥ 4.5 mm
- Crown contacts
- Solid connection between coil and contact housing
- Compact size
- Custom design available,
  -coil voltage -IP67 washable
  -contact pressure -coil resistance
  -operate/release time
  -low power dissipation models

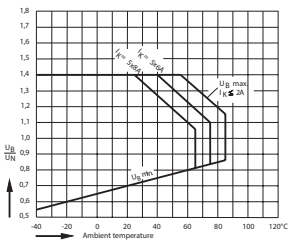
Type Approved TÜVRheinland — GERMANY

C US — USA/CANADA E146415

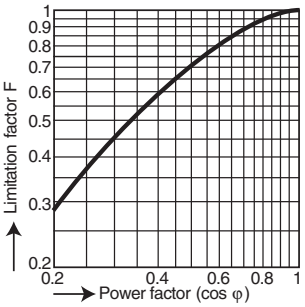
Technical Data

- **Nominal Coil Voltage** .....6, 12, 24, 48, 60, 110, DC
- **Coil Power Dissipation** .....0.8 - 1.0 W
- **Max. Switching Voltage** .....250V DC, 400V AC
- **Max. Switching Current** .....8 A
- **Max. Switching Power—DC** 200W
- **Max. Switching Power—AC** 2000VA
- **Contact Switching Rate** .....10 operations per second
- **Relay Operate Time** .....20 ms
- **Relay Release Time** .....6 ms
- **Operation Vibration** .....0.35 mm Ampl. max @ 10...200Hz, 3g max
- **Protection Rating** .....IP 40
- **Contact Arrangements** 2NO/4NC, 3NO/3NC, 4NO/2NC
- **Contact Material** ..AgNi10+0.2µmAu, $AgSnO_2$ +0.2µmAu, AgNi10+5µmAu
- **Mechanical Life** .....≥50x10^6 operation cycles
- **Electrical Life** .....$AgSnO_2$ >1.5x10^5, AgNi10 >10^5 .....operation cycles @ 230V AC, 8A, cos φ=1
- **Ambient Temperature** .....-40...+85°C
- **Cover Material** .....Thermoplast
- **Weight** .....38 g
- More detailed data upon request

Diagrams

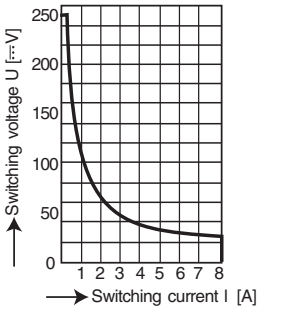


Relay operation voltage vs. ambient temperature



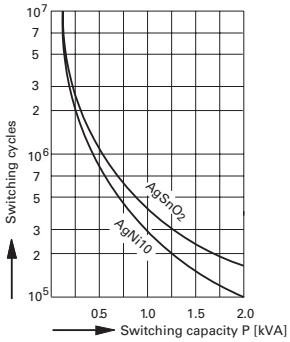
Operations =
Operations (ohmic) x limitation factor F

Limitation factor for inductive loads



Safe disconnection, no remaining arc, max. 1 operation/sec.

Maximum switching power curve



Mechanical life

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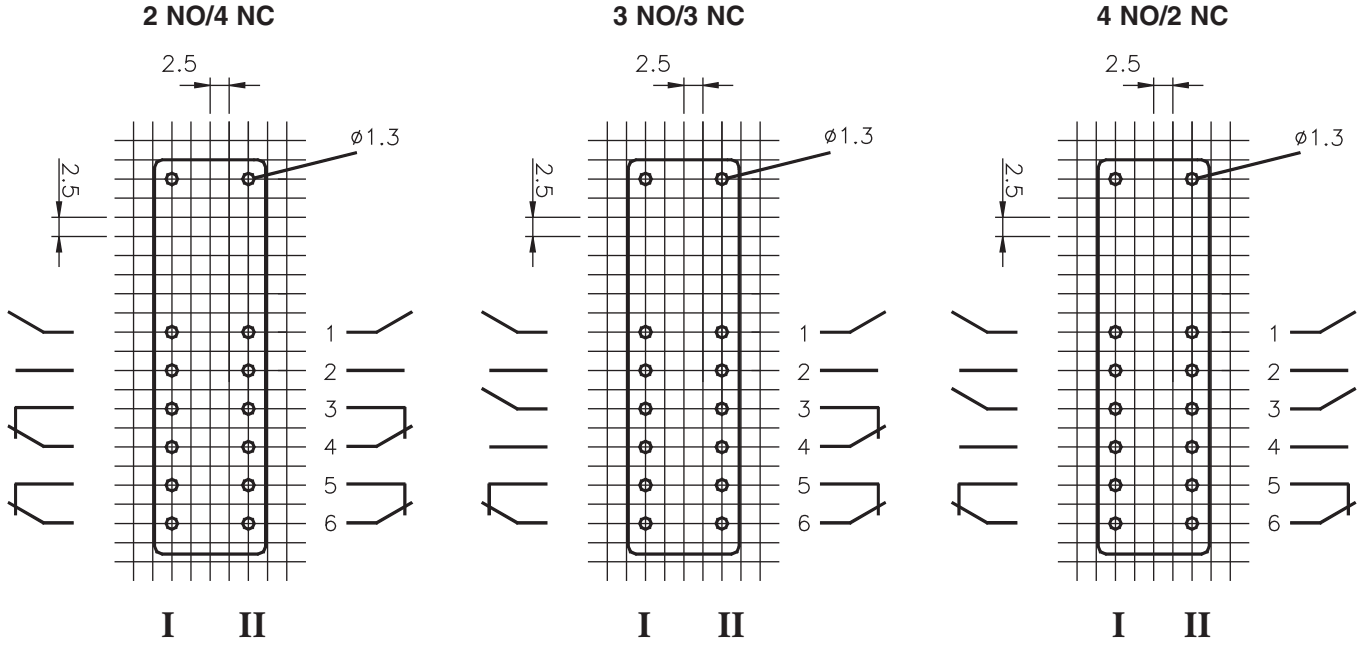
Safety Relay OA 5612 Data

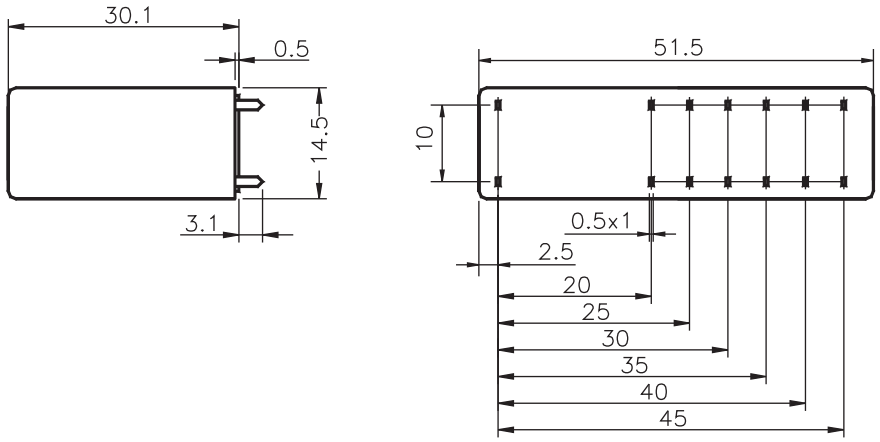
Relay Data			Ordering Information			
Rated Voltage	Voltage Range	Coil Resistance (10%)	2 NO/4 NC Type	Coil Resistance (10%)	3 NO/3 NC Type	4 NO/2 NC Type
6V	4.2 - 8.4V	36 Ω	56.OA12.0624□	45 Ω	56.OA12.0633□	56.OA12.0642□
12V	8.4 - 16.8V	145 Ω	56.OA12.1224□	180 Ω	56.OA12.1233□	56.OA12.1242□
24V	16.8 - 33.6V	600 Ω	56.OA12.2424□	720 Ω	56.OA12.2433□	56.OA12.2442□
48V	33.6 - 67.2V	2300 Ω	56.OA12.4824□	2880 Ω	56.OA12.4833□	56.OA12.4842□
60V	42.0 - 84.0V	3600 Ω	56.OA12.6024□	4500 Ω	56.OA12.6033□	56.OA12.6042□
110V	77.0 - 154.0V	12100 Ω	56.OA12.1124□	15125 Ω	56.OA12.1133□	56.OA12.1142□

Contact Material, Example: C $AgSnO_2$+.2µmAu
N AgNi10+.2µmAu
S AgNi10+5µmAu

Footprints (solder side)



Dimensions



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