

# Safety Relay

## OA 5602

### Features

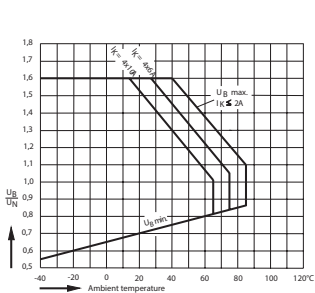
- 6 output contacts
- International approvals: TÜV, UL, cUL
- Quality control check for each safety relay
- Forced-guided contacts, all gold flash plated
- Contact gap > 0.5 mm throughout life of relay
- Various contact materials, mixed contact material optional
- High coil voltage range
- High switching voltage
- High breakdown voltage: contact/coil  $\geq 4$  KV  
contact/contact  $\geq 4$  KV
- High creeping distance: contact/coil  $\geq 8$  mm  
contact/contact  $\geq 5.5$  mm
- Crown contacts
- Solid connection between coil and contact housing
- Custom coil voltage available
- Custom design available,
  - coil voltage
  - coil resistance,
  - contact pressure
  - operate/release time
  - IP67 washable



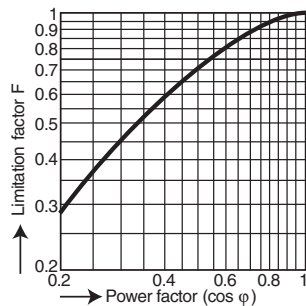
### Technical Data

- **Nominal Coil Voltage** .....6, 12, 24, 48, 60, 110, DC
- **Coil Power Dissipation** .....1.0 W
- **Max. Switching Voltage** .....250V DC, 400V AC
- **Max. Switching Current** .....10 A
- **Max. Switching Power—DC** .....240W
- **Max. Switching Power—AC** .....2500VA
- **Contact Switching Rate** .....10 operations per second
- **Relay Operate Time** .....27 ms
- **Relay Release Time** .....5 ms
- **Operation Vibration** .....0.35 mm Ampl. max @ 10...55Hz
- **Protection Rating** .....IP 40
- **Contact Arrangements** .....2NO/4NC, 3NO/3NC, 4NO/2NC
- **Contact Material** .....AgSnO<sub>2</sub>+0.2µmAu, AgNi10+0.2µmAu, AgNi10+5µmAu
- **Mechanical Life** .....>30x10<sup>6</sup> Operation cycles
- **Electrical Life** .....AgSnO<sub>2</sub> >3x10<sup>5</sup>, AgNi10 >2x10<sup>5</sup> operation cycles @ 230V AC, 10A, cos φ=1
- **Ambient Temperature** .....-40...+85°C
- **Cover Material** .....Thermoplast
- **Weight** .....85 g
- More detailed data upon request

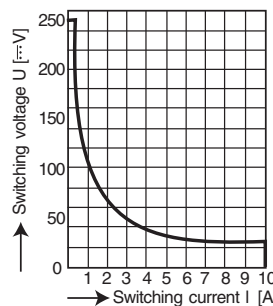
### Diagrams



Relay operation voltage vs. ambient temperature

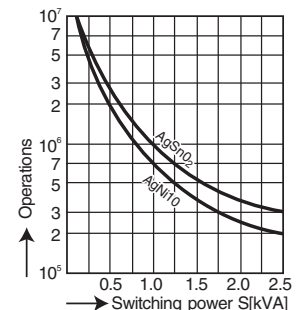


Limitation factor for inductive loads  
Operations = Operations (ohmic) x limitation factor F



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

Maximum switching power curve



Mechanical life

# Safety Relay OA 5602 Data

## Relay Data

## Ordering Information

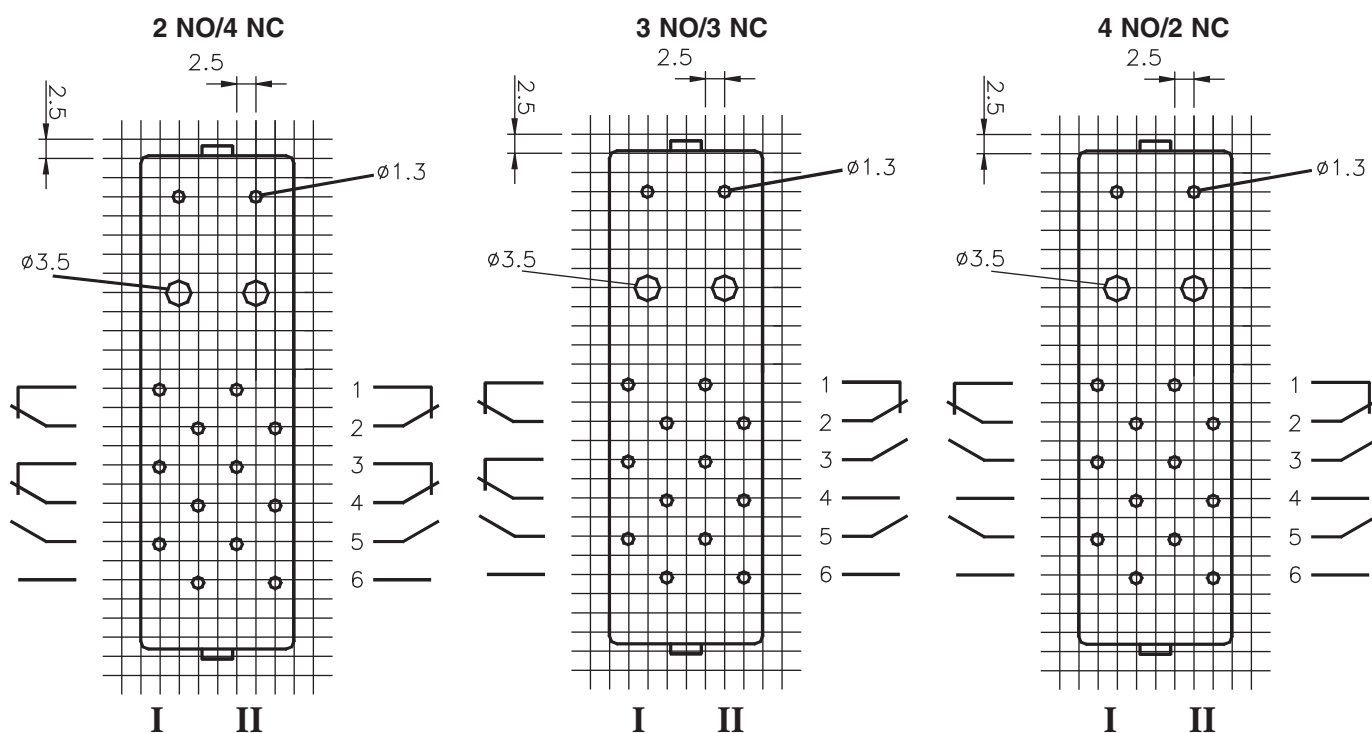
Rated Voltage	Voltage Range	Coil Resistance (10%)	2 NO/4 NC Type	3 NO/3 NC Type	4 NO/2 NC Type
6V	4.2 - 9.6V	35 Ω	56.OA02.0624□	56.OA02.0633□	56.OA02.0642□
12V	8.4 - 19.2V	140 Ω	56.OA02.1224□	56.OA02.1233□	56.OA02.1242□
24V	16.8 - 38.4V	570 Ω	56.OA02.2424□	56.OA02.2433□	56.OA02.2442□
48V	33.6 - 76.8V	2300 Ω	56.OA02.4824□	56.OA02.4833□	56.OA02.4842□
60V	42.0 - 96.0V	3600 Ω	56.OA02.6024□	56.OA02.6033□	56.OA02.6042□
110V	77.0 - 176.0V	12100 Ω	56.OA02.1124□	56.OA02.1133□	56.OA02.1142□

Contact Material, Example: □ AgSnO<sub>2</sub>+2μmAu

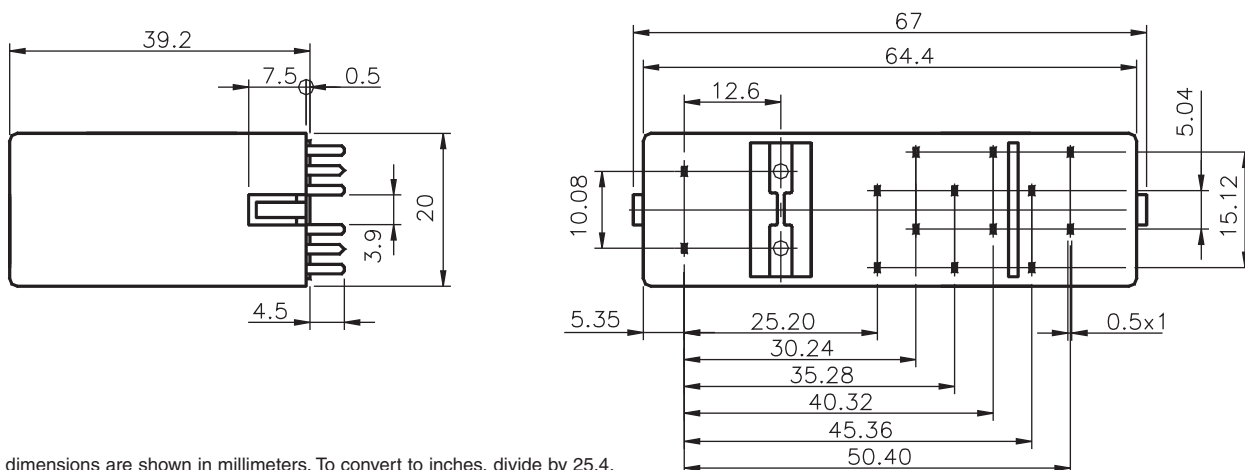
□ AgNi10+.2μmAu

□ AgNi10+5μmAu

## Footprints (solder side)



## Dimensions



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