

# Safety Relay

## OA 5611

### Features

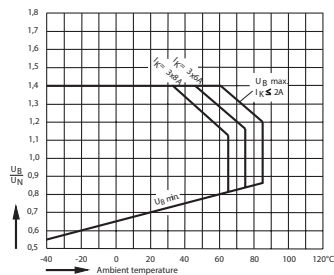
- 4 output contacts
- International approvals: TÜV, UL, cUL
- Quality control check for each safety relay
- Forced-guided contacts, all gold flash plated
- Contact Gap > 0.5 mm throughout life of relay
- Various contact materials, mixed contact material optional
- High coil voltage range
- High switching voltage
- High breakdown voltage: contact/coil  $\geq$  4 KV  
contact/contact  $\geq$  2.5KV
- High creeping distance: contact/coil  $\geq$  8 mm  
contact/contact  $\geq$  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
  - Manual test relay (slide activated)



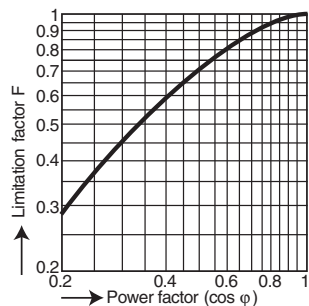
### Technical Data

- **Nominal Coil Voltage** .....6, 12, 24, 48, 60, 110, DC
- **Coil Power Dissipation** .....0.6 W
- **Max. Switching Voltage** .....250V DC, 400 V 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/2NC, 3NO/1NC
- **Contact Material**.....AgNi10+0.2 $\mu$ mAu, AgSnO<sub>2</sub>+0.2 $\mu$ mAu, AgNi10+5 $\mu$ mAu
- **Mechanical Life**..... $\geq$ 50x10<sup>6</sup> operation cycles
- **Electrical Life** .....AgSnO<sub>2</sub> >1.5x10<sup>5</sup>, AgNi10 >10<sup>5</sup>  
.....operation cycles @ 230V AC, 8A, cos  $\varphi$ =1
- **Ambient Temperature**.....-40...+85°C
- **Cover Material**.....Thermoplast
- **Weight**.....35 g
- More detailed data upon request

### Diagrams

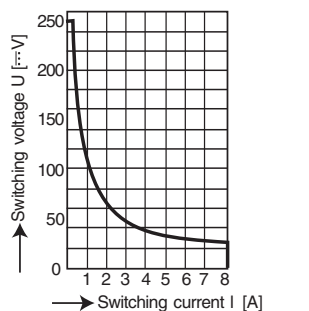


Relay operation voltage vs. ambient temperature



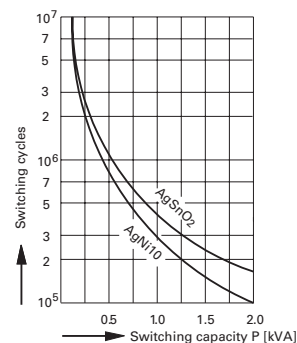
Operations =  
Operations (ohmic) x limitation factor F

Limitation factor for inductive loads



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

Maximum switching power curve



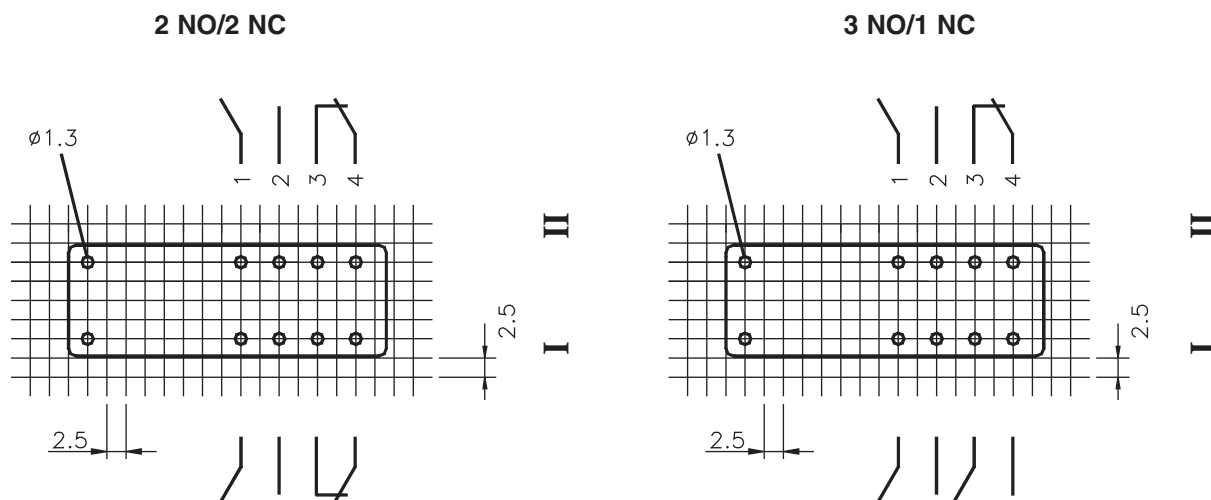
Mechanical life

# Safety Relay OA 5611 Data

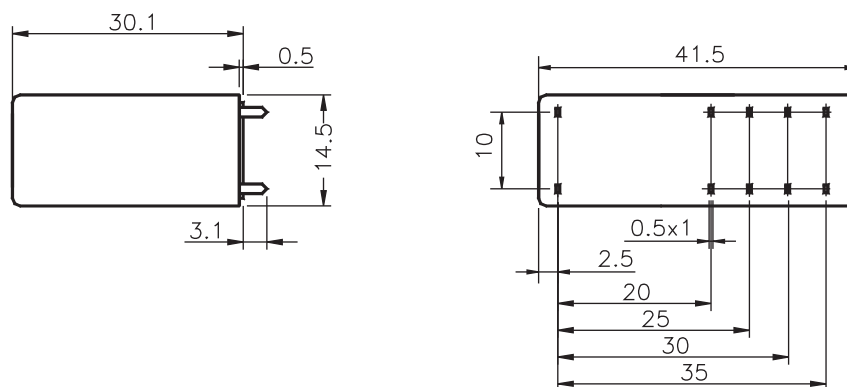
Relay Data			Ordering Information	
Rated Voltage	Voltage Range	Coil Resistance (10%)	2 NO/2 NC Type	3 NO/1 NC Type
6V	4.2 - 8.4V	56 Ω	56.OA11.0622□	56.OA11.0631□
12V	8.4 - 16.8V	240 Ω	56.OA11.1222□	56.OA11.1231□
24V	16.8 - 33.6V	960 Ω	56.OA11.2422□	56.OA11.2431□
48V	33.6 - 67.2V	3840 Ω	56.OA11.4822□	56.OA11.4831□
60V	42.0 - 84.0V	6000 Ω	56.OA11.6022□	56.OA11.6031□
110V	77.0 - 154.0V	20150 Ω	56.OA11.1122□	56.OA11.1131□

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.