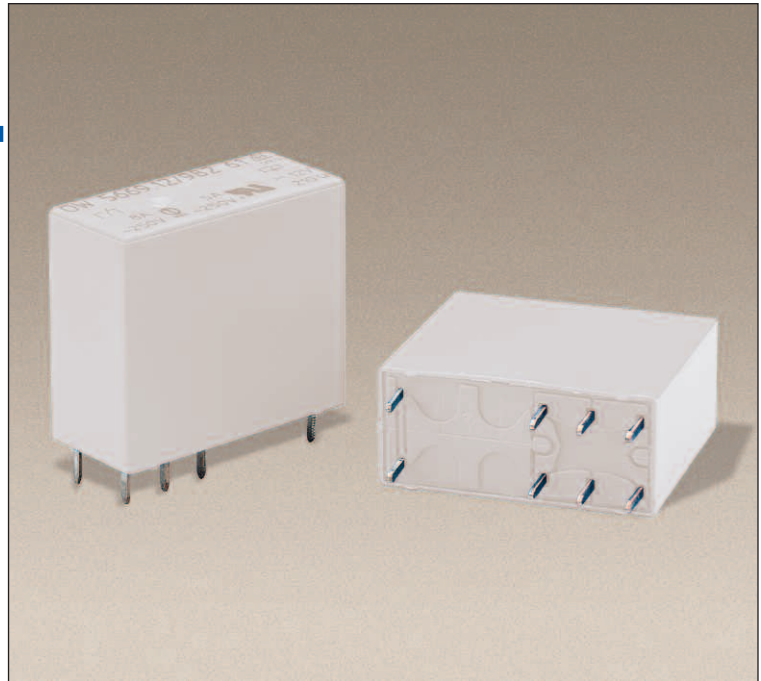


# Safety Relay OA/OW 5669

## Features

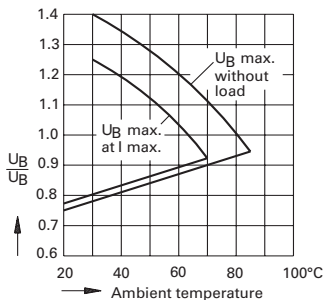
- n 2 output contacts
- n International approvals:  
TÜV, CSA, UL, cUL
- n Quality control check for each safety relay
- n Forced-guided contacts, all gold flash plated
- n Contact Gap > 0.5 mm throughout life of relay
- n Various contact materials,  
mixed contact material optional
- n High coil voltage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



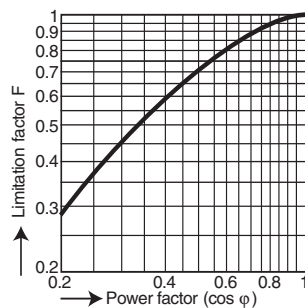
## Technical Data

- n **Nominal Coil Voltage** .....5, 6, 12, 20, 24, 48, 60, 110, DC
- n **Coil Power Dissipation** .....0.7 W
- n **Max. Switching Voltage** .....250V DC, 400V AC
- n **Max. Switching Current** .....8 A (2 x 5A simultaneous)
- n **Max. Switching Power – DC** .....200W (2 x 160W simultaneous)
- n **Max. Switching Power – AC** .....2000VA (2 x 1250VA simultaneous)
- n **Contact Switching Rate** .....10 operations per second
- n **Relay Operate Time** .....≤15 ms
- n **Relay Release Time** .....≤12 ms
- n **Operation Vibration** .....0.35 mm Ampl. max  
.....@ 10...55Hz, 5g max
- n **Contact Arrangements** .....1NO/1NC, 2CO, 2NO, 2NC
- n **Contact Material** .....AgNi10+0.2µmAu Standard  
.....AgSnO<sub>2</sub>+0.2µmAu, AgNi0.15+5µmAu Optional
- n **Mechanical Life** .....50x10<sup>6</sup> operation cycles
- n **Electrical Life** .....AgSnO<sub>2</sub> >2x10<sup>5</sup>, AgNi10 >10<sup>5</sup>  
.....operation cycles @ 230V AC, 6A, cos φ=1
- n **Ambient Temperature** .....-20...+85°C
- n **Cover Material** .....Polyamide 6
- n **Weight** .....15 g
- n More detailed data upon request

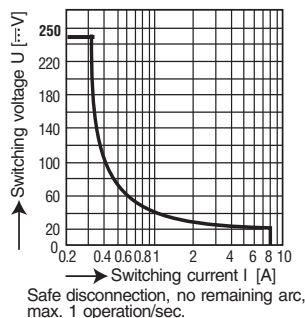
## Diagrams



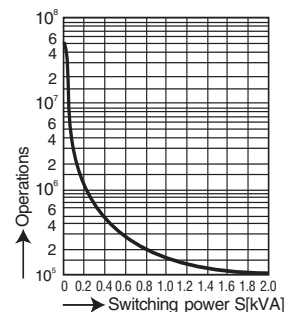
Relay operation voltage vs. ambient temperature



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



Maximum switching power curve



Mechanical life

## Safety Relay 5669 Data

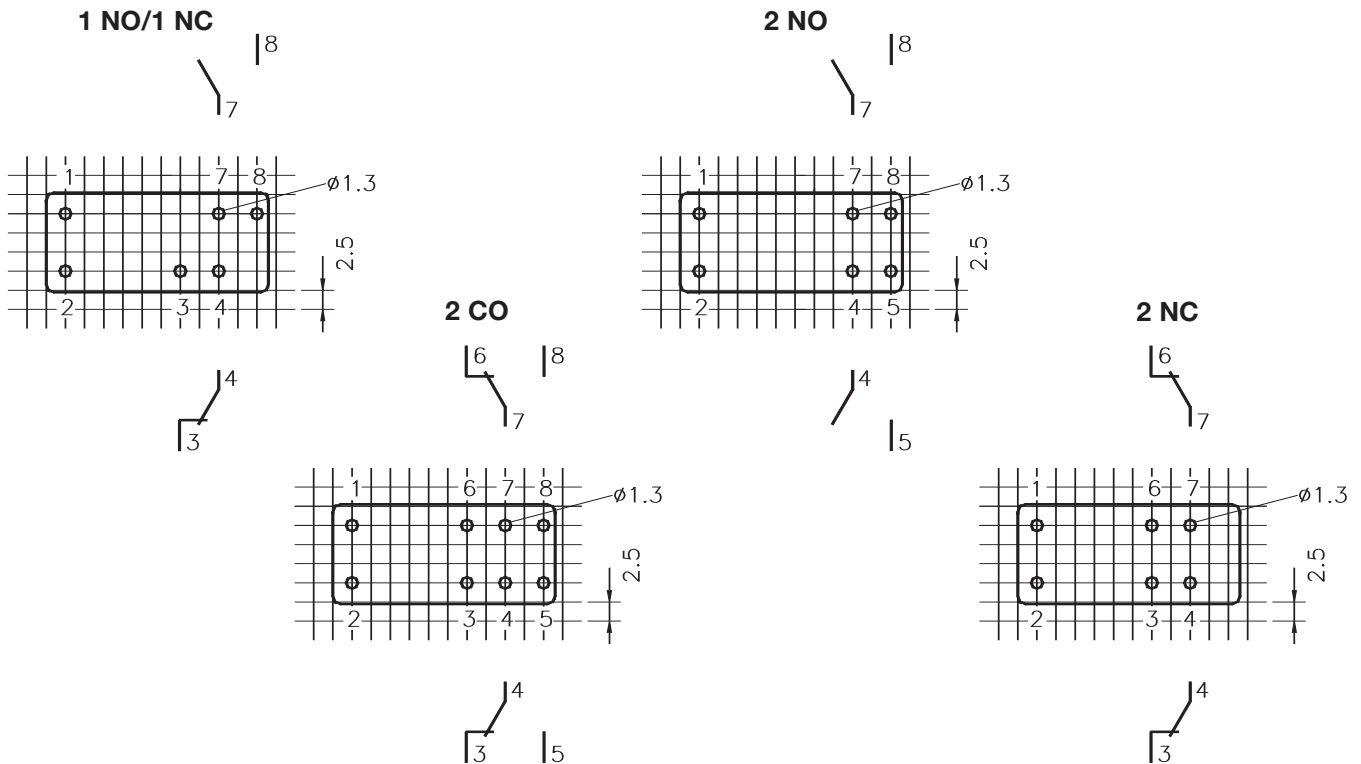
Relay Data			Ordering Information			
Rated Voltage	Voltage Range	Coil Resistance	1 NO/1 NC Type	2 CO Type	2 NO Type	2 NC Type
5V	4.0 - 8.0V	36 Ω	56.O□69.0511□	56.O□69.0500□	56.O□69.0520□	56.O□69.0502□
6V	4.8 - 9.6V	50 Ω	56.O□69.0611□	56.O□69.0600□	56.O□69.0620□	56.O□69.0602□
12V	9.6 - 19.2V	210 Ω	56.O□69.1211□	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** AgSnO<sub>2</sub>+2μmAu  
**N** AgNi10+.2μmAu  
**S** AgNi0.15+5μmAu

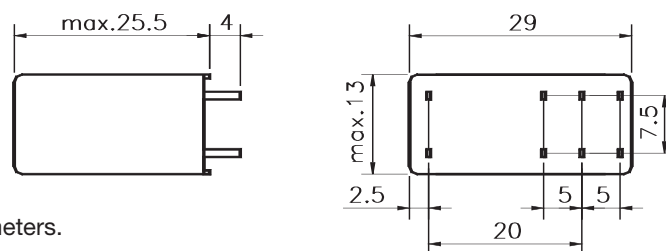
## Footprints

(Note: Shown at their actual size.)



## Dimensions

(Note: Shown at their actual size.)



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