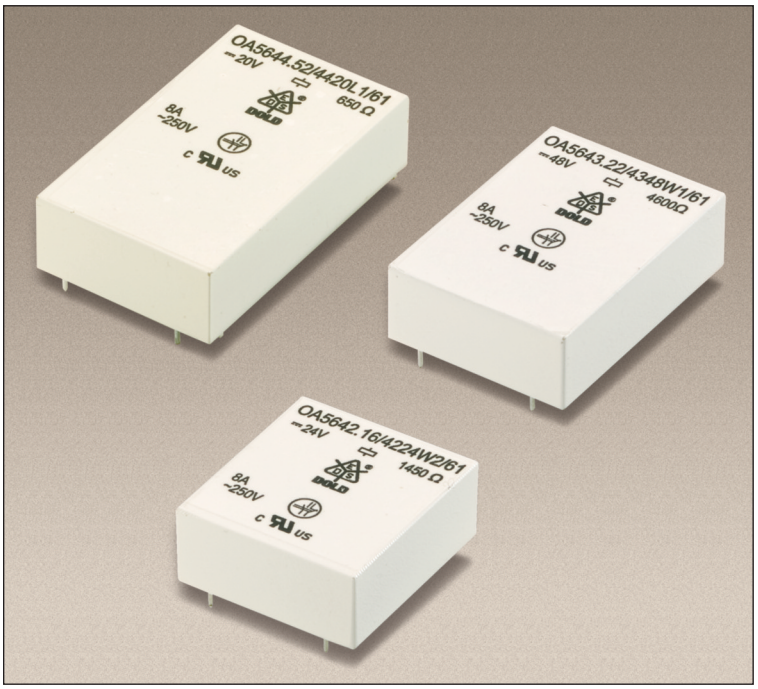
Safety Relay
OA 5642/43/44

Features

- 2-4 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 ≥ 4 KV
  contact/contact ≥ 4KV
- High creeping distance: contact/coil ≥ 5.5 mm
  contact/contact ≥ 5.5 mm
- Protection Rating IP67, washable
- Compact size- ony 10.3 mm height
- SMD component can be mounted under relay
- Custom design available,
  -coil voltage -operate/release time
  -contact pressure -coil resistance



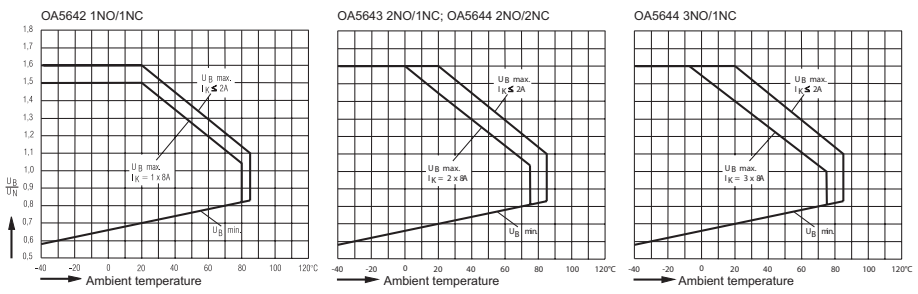
Type Approved
TÜVRheinland
GERMANY

C US
USA/CANADA
E146415

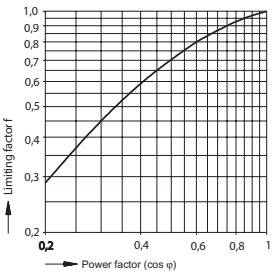
Technical Data

- **Nominal Coil Voltage** .....6, 12, 21, 24, 48, 60, 110, DC
- **Coil Power Dissipation** .....0.4/0.5/0.65 W
- **Max. Switching Voltage** .....250V DC, 400 V AC
- **Max. Switching Current** .....8 A
- **Max. Switching Power — DC**.....240W
- **Max. Switching Power — AC**.....2000VA
- **Contact Switching Rate** .....20 operations per second
- **Relay Operate Time** .....≤ 15 ms
- **Relay Release Time** .....≤ 5 ms
- **Operation Vibration** .....@ 10...100Hz, 3g max
- **Protection Rating** .....IP 67
- **Contact Arrangements**.....1NO/1NC, 2NO/1NC, 2NO/2NC, 3NO/1NC,
- **Contact Material**.....AgNi10+0.2µmAu, $AgSnO_2$+0.2µmAu, AgNi10+5µmAu
- **Mechanical Life** .....>40x10^6 operation cycles
- **Electrical Life** .....operation cycles @ 230V AC, 8A, cos φ=1
- **Ambient Temperature**.....-40...+85°C
- **Cover Material**.....Thermoplast
- **Weight**.....14/15/16 g
- More detailed data upon request

Diagrams

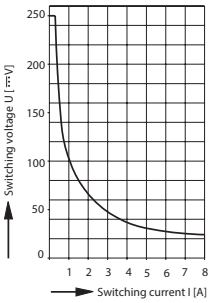


Relay operation voltage vs. ambient temperature



Operations = Operations (ohmic) x limitation factor F

Limitation factor for inductive loads



Maximum switching power curve

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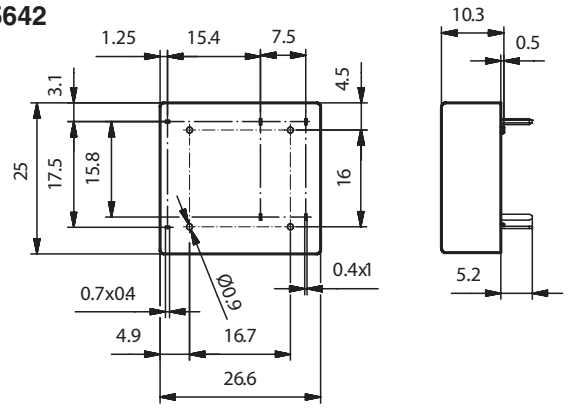
Safety Relay OA 5642/43/44 Data

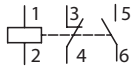
Relay Data			Ordering Information					
Rated Voltage	Voltage Range	Coil Resistance (10%)	1 NO/1 NC Type	Coil Resistance (10%)	2NO/1NC Type	Coil Resistance (10%)	3NO/1NC Type	2NO/2NC Type
6V	4.2 - 7.8V	90 Ω	56.OA42.0611☐	70 Ω	56.OA43.0621☐	55 Ω	56.OA44.0631☐	56.OA44.0622☐
12V	8.4 - 15.2V	370 Ω	56.OA42.1211☐	290 Ω	56.OA43.1221☐	230 Ω	56.OA44.1231☐	56.OA44.1222☐
21V	15.0 - 27.3V	1050 Ω	56.OA42.2111☐	840 Ω	56.OA43.2121☐	680 Ω	56.OA44.2131☐	56.OA44.2122☐
24V	16.8 - 31.2V	1450 Ω	56.OA42.2411☐	1150 Ω	56.OA43.2421☐	900 Ω	56.OA44.2431☐	56.OA44.2422☐
48V	33.6 - 62.4V	6000 Ω	56.OA42.4811☐	4600 Ω	56.OA43.4821☐	3600 Ω	56.OA44.4831☐	56.OA44.4822☐
60V	42.0 - 78.0V	9250 Ω	56.OA42.6011☐	7100 Ω	56.OA43.6021☐	5600 Ω	56.OA44.6031☐	56.OA44.6022☐
110V	77.0 - 143.0V	31000 Ω	56.OA42.1111☐	24000 Ω	56.OA43.1121☐	18500 Ω	56.OA44.1131☐	56.OA44.1122☐

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

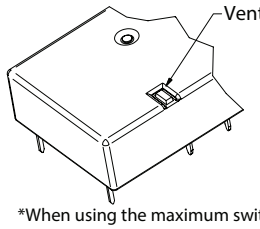
Dimensions & Pin Configurations

5642





1NO/1NC



*When using the maximum switching capacity it is recommended to open the relay at the indicated position.

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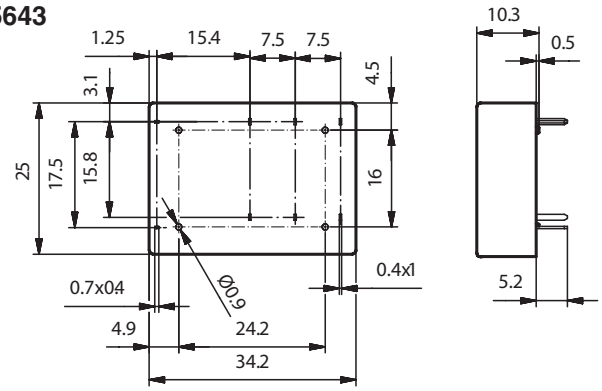

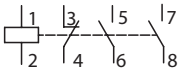

2NO/1NC

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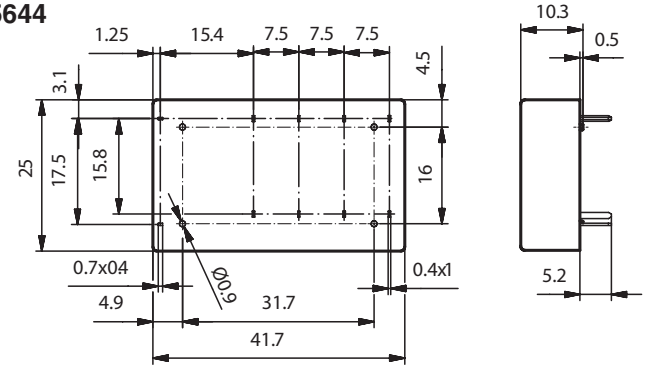
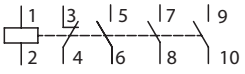
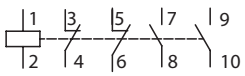




3NO/1NC



2NO/2NC

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

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56.OA43.2421N 56.OA43.1221N 56.OA42.2111C 56.OA44.0631S 56.OA43.1221C 56.OA42.4811N 56.OA43.4821N 56.OA43.6021S 56.OA42.1211N 56.OA42.1111C 56.OA42.6011N 56.OA44.2131S 56.OA44.1122C 56.OA44.1131C 56.OA42.6011C 56.OA44.1131S 56.OA44.1222N 56.OA44.6031C 56.OA44.1222S 56.OA43.2121S 56.OA42.1211C 56.OA44.0631C 56.OA44.0622N 56.OA42.2111S 56.OA42.2411S 56.OA43.1121C 56.OA43.2421S 56.OA44.2131N 56.OA42.2111N 56.OA44.0622C 56.OA43.2421C 56.OA44.2422N 56.OA44.1231N 56.OA44.2122S 56.OA44.0631N 56.OA44.1222C 56.OA44.2122C 56.OA43.4821S 56.OA44.0622S 56.OA43.6021C 56.OA44.6022C 56.OA44.6031N 56.OA44.2422S 56.OA43.4821C 56.OA44.4822N 56.OA42.1111S 56.OA44.2422C 56.OA43.1121N 56.OA44.1131N 56.OA42.2411N 56.OA42.0611C 56.OA42.2411C 56.OA43.1221S 56.OA44.4831S 56.OA44.2431S 56.OA42.1211S 56.OA44.1122S 56.OA44.6022N 56.OA44.2431C 56.OA44.4831C 56.OA44.2131C 56.OA43.1121S 56.OA44.2122N 56.OA43.0621N 56.OA43.2121C 56.OA44.4822C 56.OA42.4811C 56.OA42.0611S 56.OA44.6022S 56.OA43.2121N 56.OA44.1231S 56.OA44.1231C 56.OA44.6031S 56.OA42.4811S 56.OA44.4831N 56.OA42.0611N 56.OA43.6021N 56.OA43.0621C 56.OA43.0621S 56.OA44.1122N 56.OA44.2431N 56.OA42.1111N 56.OA44.4822S 56.OA42.6011S