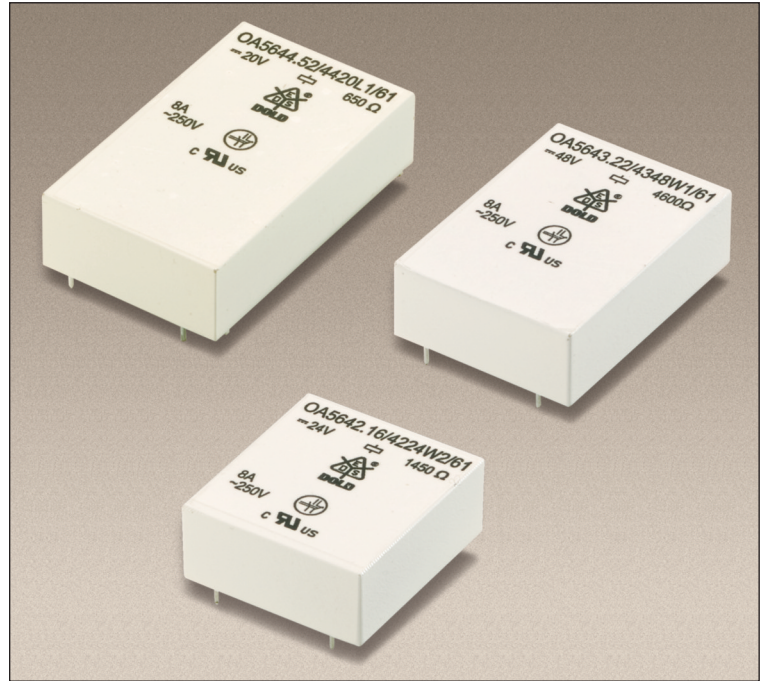


Safety Relay

OA 5642/43/44

Features

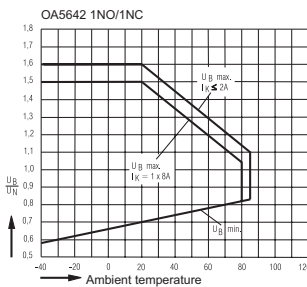
- 2-4 output contacts
- International approvals: TÜV, UL, cUL
- Quality control check for each safety relay
- Forced-guided contacts, all gold flash plated
- Contact Gap > 0.5 mm throughout life of relay
- Various contact materials, mixed contact material optional
- High coil voltage range
- High switching voltage
- High breakdown voltage: contact/coil \geq 4 KV
contact/contact \geq 4KV
- High creeping distance: contact/coil \geq 5.5 mm
contact/contact \geq 5.5 mm
- Protection Rating IP67, washable
- Compact size- only 10.3 mm height
- SMD component can be mounted under relay
- Custom design available,
 - coil voltage -operate/release time
 - contact pressure -coil resistance



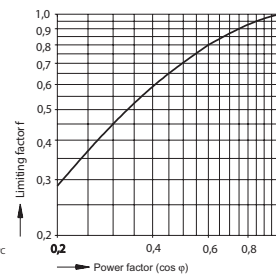
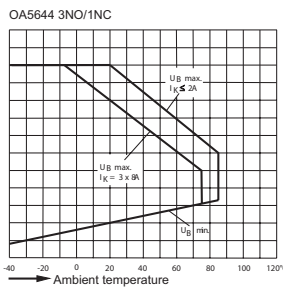
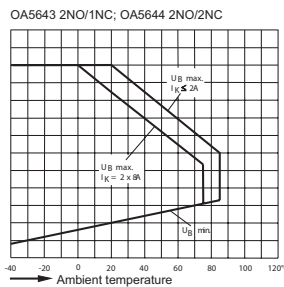
Technical Data

- **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** \leq 15 ms
- **Relay Release Time** \leq 5 ms
- **Operation Vibration**0.5 mm Ampl. max
.....@ 10...100Hz, 3g max
- **Protection Rating**IP 67
- **Contact Arrangements**.....1NO/1NC, 2NO/1NC, 2NO/2NC, 3NO/1NC,
- **Contact Material**.....
...AgNi10+0.2 μ mAu, AgSnO₂+0.2 μ mAu, AgNi10+5 μ mAu
- **Mechanical Life**>40x10⁶ operation cycles
- **Electrical Life**>50,000
.....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

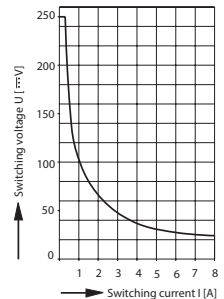
Diagrams



Relay operation voltage vs. ambient temperature



Operations =
Operations (ohmic) x
limitation factor F



Maximum switching power curve

Limitation factor for inductive loads

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□

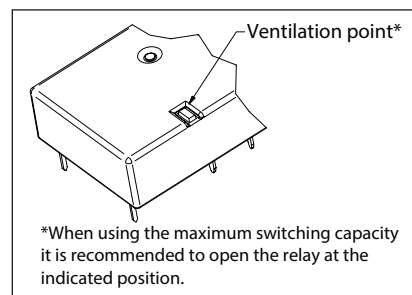
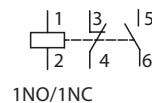
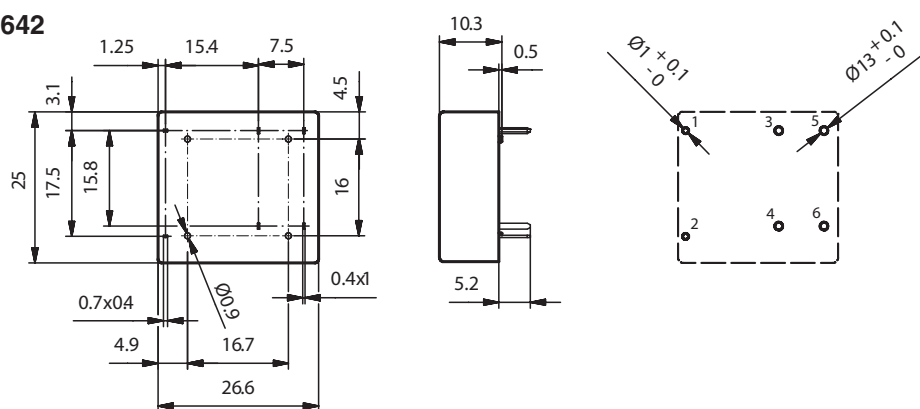
Contact Material, Example: □ AgSnO₂+2μmAu

□ AgNi10+.2μmAu

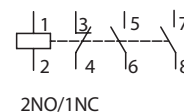
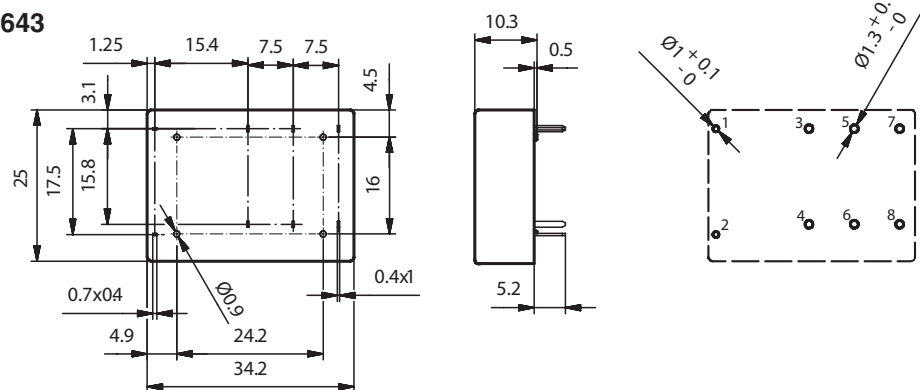
□ AgNi10+5μmAu

Dimensions & Pin Configurations

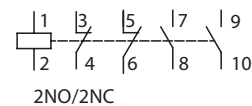
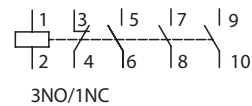
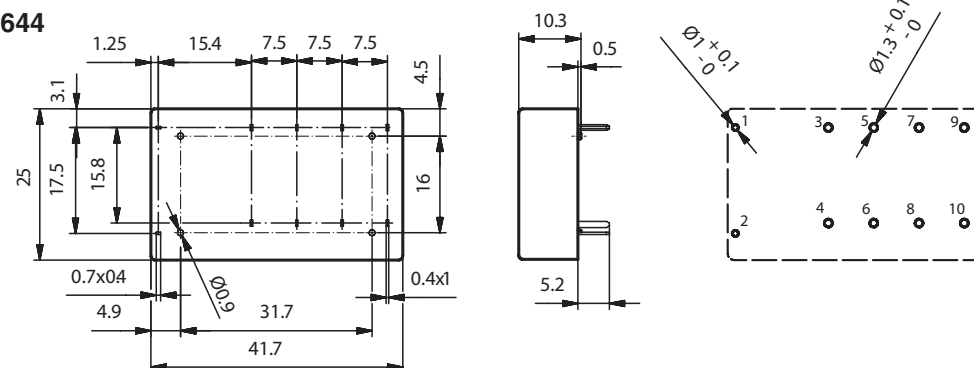
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Note: All dimensions are shown in millimeters. To convert to inches, divide by 25.4.