

# Safety Relay

## OA 5622 / OA 5622S

### 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 breakdown voltage: contact/coil  $\geq 4$  KV  
contact/contact  $\geq 4$  KV
- High creeping distance: contact/coil  $\geq 5.5$  mm  
contact/contact  $\geq 5.5$  mm
- Protection Rating RTIII wash proof
- Custom design available,
  - coil voltage
  - coil resistance
  - contact pressure
  - operate/release time
  - gold plated double contacts
- Standard Pack: 20 piece sleeve or 200 piece case



GERMANY

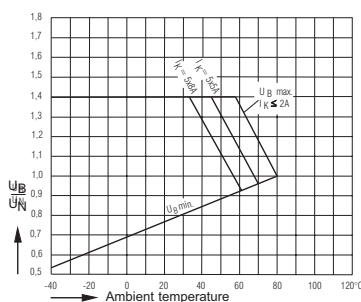


USA/CANADA  
E146415

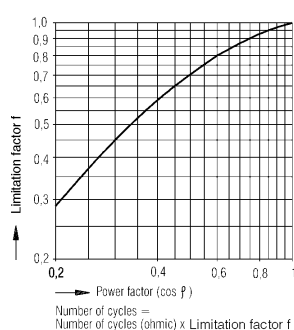
### Technical Data

- |                                                                                         |                                                                                                 |
|-----------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| ■ <b>Nominal Coil Voltage</b> .....6, 12, 24, 48, 60, 110, DC                           | ■ <b>Contact Arrangements</b> .....2NO/4NC, 3NO/3NC, 4NO/2NC, 5NO/1NC                           |
| ■ <b>Coil Power Dissipation*</b> .....0.8 W                                             | ■ <b>Contact Material</b> .....AgNi10+0.2 $\mu$ mAu                                             |
| ■ <b>Min./Max. Switching Voltage</b> .....AC/DC10V / 250VDC, 400VAC <sup>1</sup>        | .....AgSnO <sub>2</sub> +0.2 $\mu$ mAu, AgNi10+5 $\mu$ mAu                                      |
| ■ <b>Min./Max. Switching Current</b> .....10mA / 8 A (5 x 8A simultaneous) <sup>1</sup> | ■ <b>Mechanical Life</b> .....>20x10 <sup>6</sup> operation cycles                              |
| ■ <b>Min./Max. Switching Power — DC</b> .....0.1W / 200W <sup>1</sup>                   | ■ <b>Electrical Life</b> .....AgSnO <sub>2</sub> >1.5x10 <sup>5</sup> , AgNi10 >10 <sup>5</sup> |
| ■ <b>Min./Max. Switching Power — AC</b> .....0.1VA / 2000VA <sup>1</sup>                | .....operation cycles @ 230V AC, 8A, cos $\phi$ =1                                              |
| ■ <b>Contact Switching Rate</b> .....10 operations per second                           | ■ <b>Ambient Temperature</b> .....-40...+80°C                                                   |
| ■ <b>Relay Operate Time</b> .....12 ms                                                  | ■ <b>Cover Material</b> .....Polyamide 6                                                        |
| ■ <b>Relay Release Time</b> .....8 ms                                                   | ■ <b>Weight</b> .....38 g                                                                       |
| ■ <b>Operation Vibration</b> .....0.35 mm Ampl. max                                     | ■ <b>Wave Solder Temperature/Duration</b> .....260°C/5s                                         |
| .....@ 10...200Hz, 5g max                                                               | ■ More detailed data upon request                                                               |

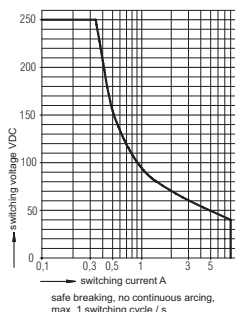
### Diagrams



Relay operation voltage vs. ambient temperature



Limitation factor for inductive loads



Maximum switching power curve

<sup>1</sup> AgNi10+5 $\mu$ mAu contact material has limited switching capacity  
(Min./Max. 2V/60VAC/DC, 2mA/0.3A, 10mVA/12VA, 10mW/12W)

\*2NO/4NC: 0.9W

## Relay Data

## Ordering Information

| Rated Voltage | Voltage Range | Coil Resistance (10%) | 2 NO/4 NC Type | Coil Resistance (10%) | 3 NO/3 NC Type | 4 NO/2 NC Type | 5 NO/1 NC Type |
|---------------|---------------|-----------------------|----------------|-----------------------|----------------|----------------|----------------|
| 6V            | 4.5 - 8.4V    | 38 Ω                  | 56.OA22.0624□  | 45 Ω                  | 56.OA22.0633□  | 56.OA22.0642□  | 56.OA22.0651□  |
| 12V           | 9.0 - 16.8V   | 150 Ω                 | 56.OA22.1224□  | 180 Ω                 | 56.OA22.1233□  | 56.OA22.1242□  | 56.OA22.1251□  |
| 24V           | 18.0 - 33.6V  | 600 Ω                 | 56.OA22.2424□  | 720 Ω                 | 56.OA22.2433□  | 56.OA22.2442□  | 56.OA22.2451□  |
| 48V           | 36.0 - 67.2V  | 2425 Ω                | 56.OA22.4824□  | 2880 Ω                | 56.OA22.4833□  | 56.OA22.4842□  | 56.OA22.4851□  |
| 60V           | 45.0 - 84.0V  | 3790 Ω                | 56.OA22.6024□  | 4500 Ω                | 56.OA22.6033□  | 56.OA22.6042□  | 56.OA22.6051□  |
| 110V          | 82.5 - 154.0V | 12735 Ω               | 56.OA22.1124□  | 15125 Ω               | 56.OA22.1133□  | 56.OA22.1142□  | 56.OA22.1151□  |

For S-Type:

Please specify **S** when ordering:

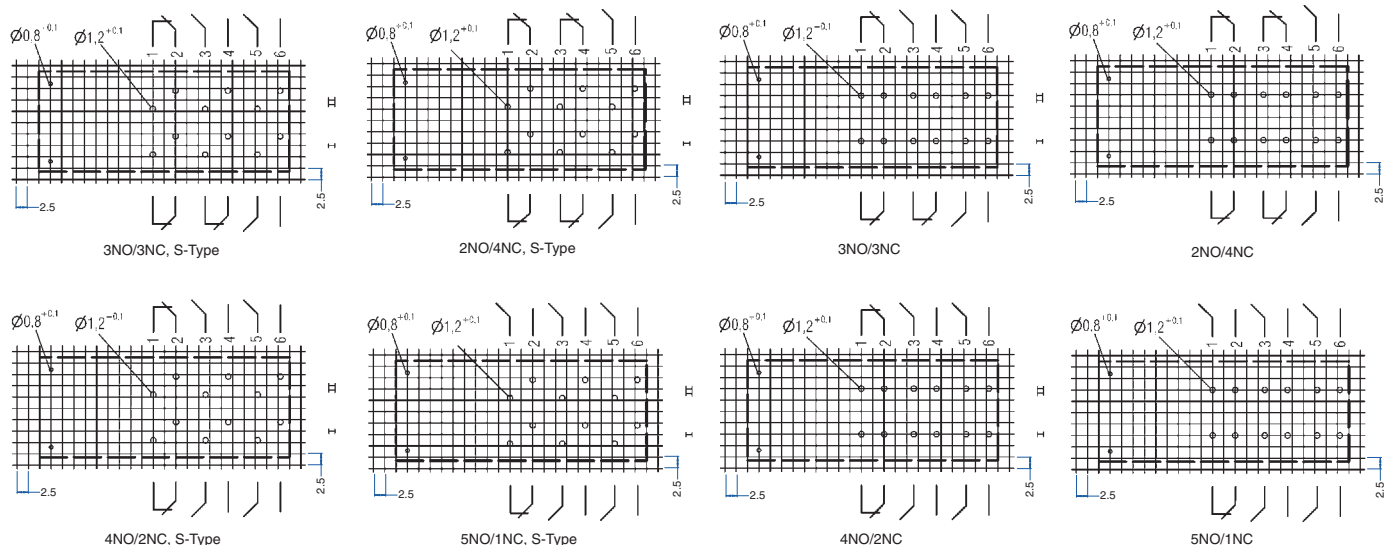
Example: 56.OA22S. \_ \_ \_ □

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

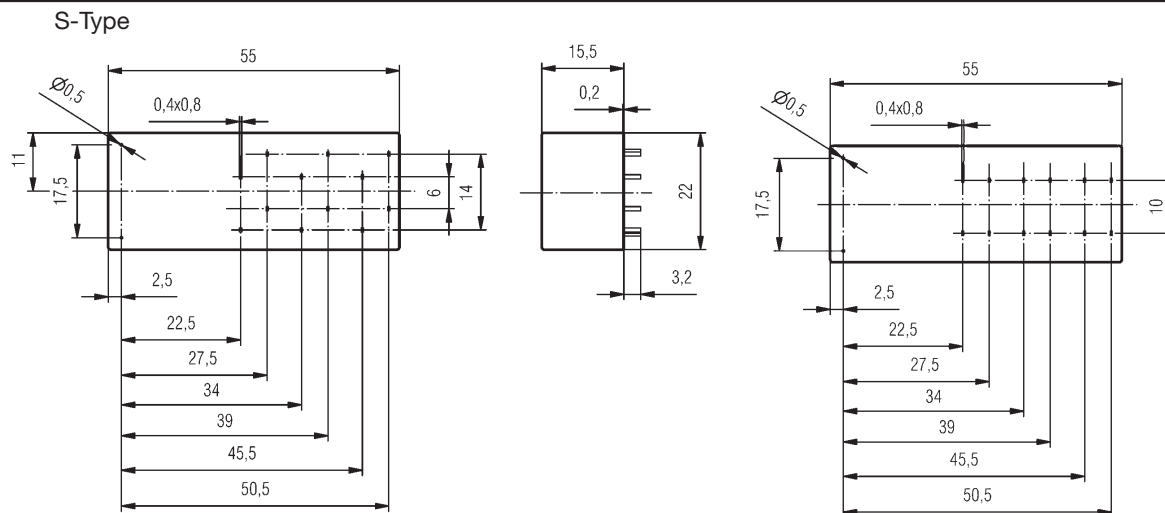
☐ AgNi10+2μmAu

☐ AgNi10+5μmAu

## Footprints (solder side)



## Dimensions



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