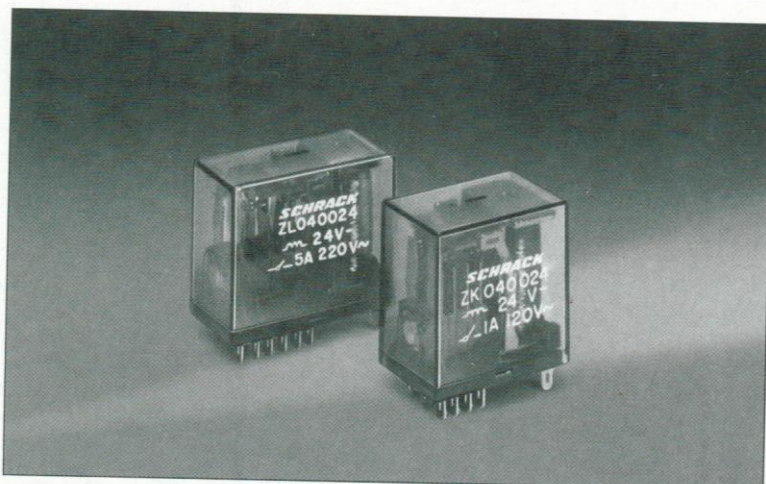


# Miniature Relay ZK/ZL



- 2, 4 or 6 Change-over (FormC) contacts
- Current rating up to 5 A
- P.C. terminals or solder lugs (plug-in relay)
- For control circuits in electrical instruments etc.



Technical data of approved types on request

## Contacts

|                            | ZK                                 | ZL                     |
|----------------------------|------------------------------------|------------------------|
| Number (Configuration)     | 2, 4 or 6 C/O                      | 2 or 4 C/O             |
| Type of contact            | single or twin contacts            | single contact         |
| Rated Voltage VAC          | 120                                | 220                    |
| Rated current A            | 1                                  | 5                      |
| Rated breaking capacity VA | 50                                 | 500                    |
| Contact material           | AgNi 0,15 g.fl.,<br>Ag gold plated | AgNi 0,15 g.fl., AgCdO |

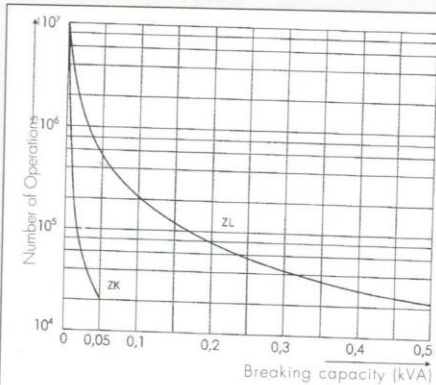
## General Data

|                                                  |               |                       |
|--------------------------------------------------|---------------|-----------------------|
| Mechanical life                                  | >ops          | 100 x 10 <sup>6</sup> |
| Max. switching rate, mechanical at rated load    | ops/h         | 72000                 |
|                                                  | ops/h         | 3600                  |
| Operate (pick-up)/release (drop-out)/bounce time | appr.msecs.   | 15/6/6                |
| Ambient temperature                              | °C            | -40...+ 75            |
| Dielectric strength coil-contact                 | VAC           | 500                   |
| pole-pole                                        | VAC           | 500                   |
| contact-contact                                  | VAC           | 1000                  |
| Creepage/Clearance (coil/contact)                | ≥mms          | 1,3/1,0               |
| Insulation Category/Voltage rating to VDE 0110   | B 125         | 2,0/1,6               |
| Solder bath temperature/Soldering time           | max. °C/max.s | 260/5                 |

ZK  
ZL

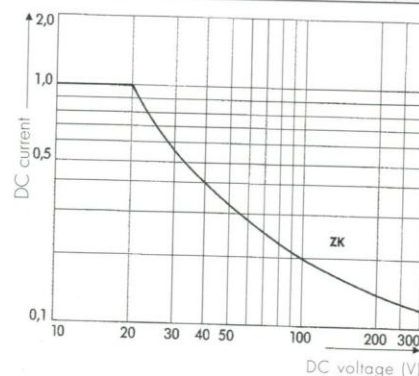
## Contact Life

for resistive AC load\*



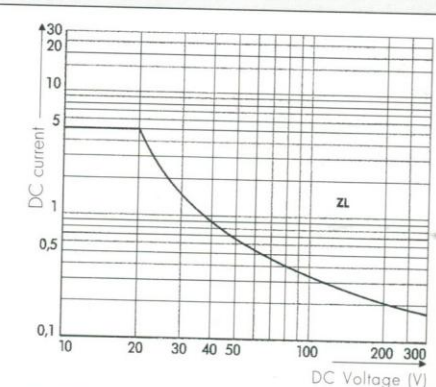
## Max. DC breaking Capacity

with resistive load



## Max. DC breaking Capacity

with resistive load



\* Reduction factor for inductive load; please refer to Relay Glossary

**SCHRACK**

## Ordering Key

### Type

|   |   |
|---|---|
| Z | K |
|---|---|

### Contacts

|  |  |  |
|--|--|--|
|  |  |  |
|--|--|--|

### Coil

|  |  |  |
|--|--|--|
|  |  |  |
|--|--|--|

Coil code: Please refer to schedule of coil data

02 2 C/O Contacts  
04 4 C/O Contacts  
06 6 C/O Contacts

0 AgNi 0,15 g.fl., single contact plug-in  
4 AgNi 0,15 g.fl., single contact PCB version

Special types on request

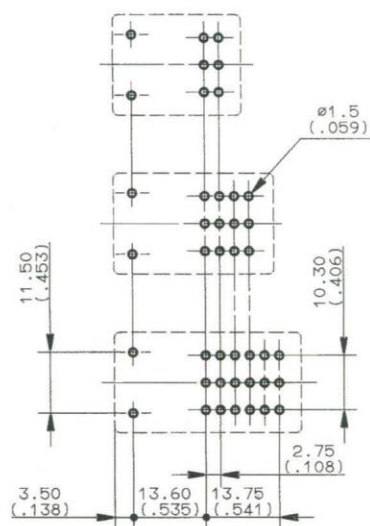
## Coil Data

| Coil Code | Rated Voltage VDC | 2 C/O Contacts     |                 |                      | 4 C/O Contacts     |                 |                      | 6 C/O Contacts     |                 |                      |
|-----------|-------------------|--------------------|-----------------|----------------------|--------------------|-----------------|----------------------|--------------------|-----------------|----------------------|
|           |                   | Operate (pull-in)V | Coil Current mA | Coil Resistance ohms | Operate (pull-in)V | Coil Current mA | Coil Resistance ohms | Operate (pull-in)V | Coil Current mA | Coil Resistance ohms |
| 006       | 6                 | 3,8                | 44,0            | 135 ± 10 %           | 4,5                | 67,0            | 90 ± 10 %            | 4,5                | 115,0           | 52 ± 10 %            |
| 012       | 12                | 7,7                | 23,0            | 530 ± 10 %           | 8,8                | 37,0            | 325 ± 10 %           | 9,0                | 56,0            | 220 ± 10 %           |
| 024       | 24                | 16,0               | 11,0            | 2250 ± 10 %          | 18,0               | 19,0            | 1250 ± 10 %          | 18,0               | 28,0            | 890 ± 10 %           |
| 048       | 48                | 30,0               | 6,3             | 7600 ± 10 %          | 36,0               | 8,3             | 5800 ± 10 %          | 36,0               | 15,0            | 3200 ± 10 %          |
| 060       | 60                | 38,0               | 4,6             | 13000 ± 10 %         | 45,0               | 7,9             | 7600 ± 10 %          | 45,0               | 10,0            | 5800 ± 10 %          |
| 110       | 110               | 38,0               | 8,5             | 13000 ± 10 %         | 56,0               | 8,5             | 13000 ± 10 %         | 74,0               | 8,5             | 13000 ± 10 %         |

All figures are given for cold coil (Ambient temperature +20 °C/68 °F)

## Connections and P.C. Lay-out

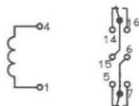
### P.C. Lay-out



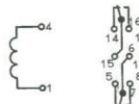
View on solder pins  
All dimensions in mm (inch)

### Connections

2pole



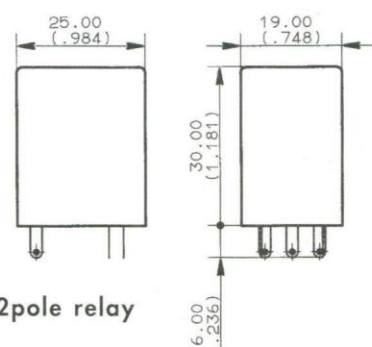
4pole



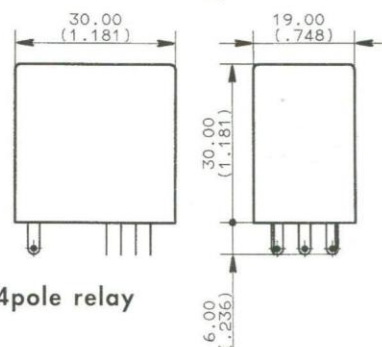
6pole



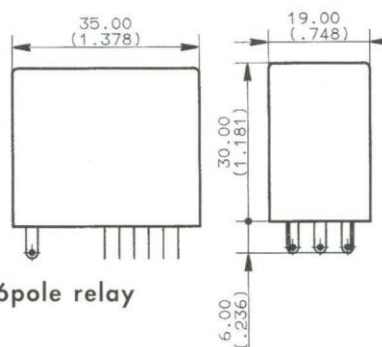
## Dimensions



2pole relay



4pole relay



6pole relay

All dimensions in mm (inch)

ZK  
ZL

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COMPONENTS