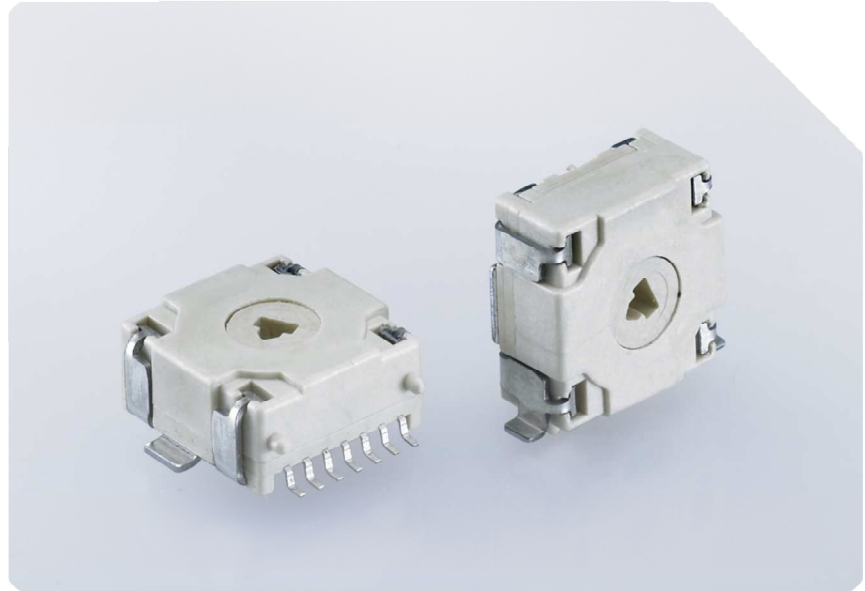


## ENCODER | ENCODER



### 510

#### Ausführung

- Miniatur-Drehcodierschalter mit Binär- oder Graycode
- 64 Schaltstellungen
- Horizontale oder vertikale Ausführung

#### Anschlüsse

SMD-Ausführung

#### Abmessungen

Vertikal: 12 x 12 x 5,6 mm  
Horizontal: 12 x 5,6 x 12,2 mm

### 510

#### Construction

- Miniature rotary code switch with binary or gray code
- 64 positions
- Operated horizontally or vertically

#### Pining

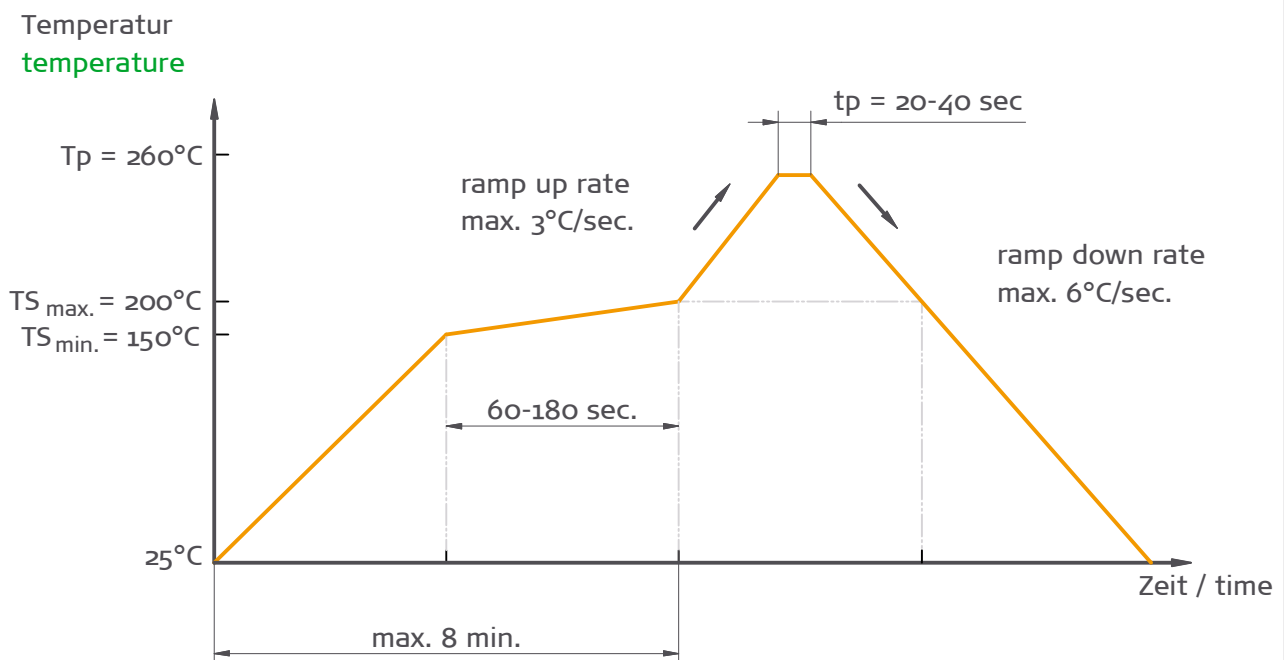
SMD design

#### Dimensions

Vertical: 12 x 12 x 5,6 mm  
Horizontal: 12 x 5,6 x 12,2 mm

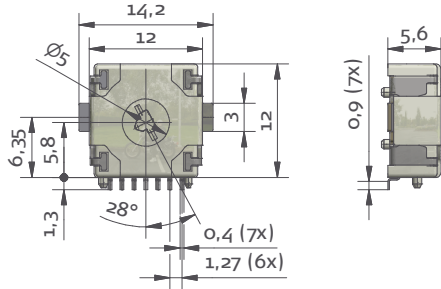
|  |   |   |   |
|--|---|---|---|
| <b>Ausführung<br/>Construction</b>               | Schaltweise<br>Anschlussmaße<br>Abmessungen   | Brake before make (bbm)<br>See drawings<br>See drawings   | Function<br>Pining<br>Outline Dimensions  |
| <b>Isolierwerkstoffe<br/>Insulation Material</b> | Gehäuse<br>Kontaktträger<br>Betätiger<br>Blechbügel   | Thermoplastic-UL-94-Vo<br>Thermoplastic-UL-94-Vo<br>Thermoplastic-UL-94-Vo<br>Tinplate  | Housing<br>Contact Body<br>Actuator<br>Metal Cover  |
| <b>Kontaktwerkstoffe<br/>Contact Material</b>    | Festkontakte<br>Schaltkontakte<br>Lötanschlüsse   | CuBe gal. min. 2 µm Au<br>CuSn gal. NiPd; Au flash<br>CuBe gal. max. 2 µm Sn  | Fixed Contacts<br>Sliding Contacts<br>Pins  |
| <b>Elektrische Daten<br/>Electrical Data</b>     | Schaltspannung<br>Schaltstrom<br>Übergangswiderstand<br>Isolierwiderstand                         | max. 24 V<br>max. 100 mA<br>< 80 mOhm<br>> 100 MOhm   | Switching Voltage<br>Switching Current<br>Contact Resistance<br>Insulation Resistance                             |
| <b>Mechanische Daten<br/>Mechanical Data</b>     | Lebensdauer<br>Betriebstemperatur<br>Lagertemperatur<br>Lötbedingungen / Art<br>Betätigungsmoment | > 1000 operations<br>-25 °C to +95 °C<br>-30 °C to +95 °C<br>acc. to IPC/JEDEC J-STD -020C Tab. 4-2<br>(max. peak temperature +260°)<br>1 Ncm | Life Expectancy<br>Operation Temperature<br>Storage Temperature<br>Soldering Time / Conditions<br>Operating Force |

### Empfohlene Reflow Temperaturkurve recommended reflow temperature profile

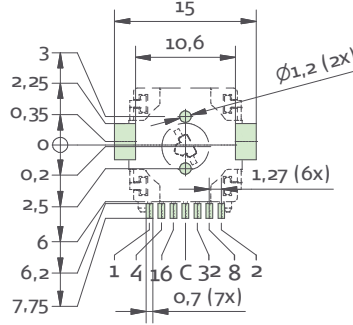


### Schalterausführung switch version

**1** vertikale Betätigung  
vertical version



Löt-Pad-Anordnung  
SMD soldering pad



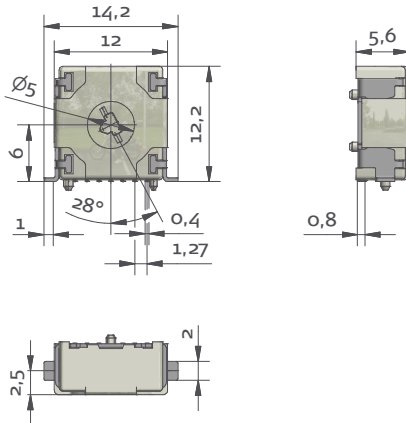
### Kodierung code

**1**

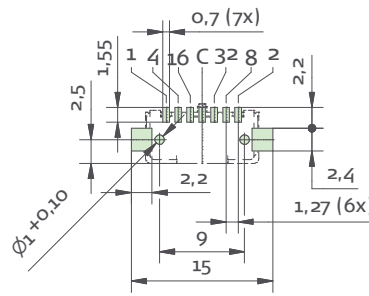
Graycode 64 Pos.  
graycode 64 Pos.

|    | Spur   track |   |   |   |       |
|----|--------------|---|---|---|-------|
|    | 1            | 2 | 4 | 8 | 16 32 |
| 0  |              |   |   |   |       |
| 1  |              |   |   |   |       |
| 2  |              |   |   |   |       |
| 3  |              |   |   |   |       |
| 4  |              |   |   |   |       |
| 5  |              |   |   |   |       |
| 6  |              |   |   |   |       |
| 7  |              |   |   |   |       |
| 8  |              |   |   |   |       |
| 9  |              |   |   |   |       |
| 10 |              |   |   |   |       |
| 11 |              |   |   |   |       |
| 12 |              |   |   |   |       |
| 13 |              |   |   |   |       |
| 14 |              |   |   |   |       |
| 15 |              |   |   |   |       |
| 16 |              |   |   |   |       |
| 17 |              |   |   |   |       |
| 18 |              |   |   |   |       |
| 19 |              |   |   |   |       |
| 20 |              |   |   |   |       |
| 21 |              |   |   |   |       |
| 22 |              |   |   |   |       |
| 23 |              |   |   |   |       |
| 24 |              |   |   |   |       |
| 25 |              |   |   |   |       |
| 26 |              |   |   |   |       |
| 27 |              |   |   |   |       |
| 28 |              |   |   |   |       |
| 29 |              |   |   |   |       |
| 30 |              |   |   |   |       |
| 31 |              |   |   |   |       |
| 32 |              |   |   |   |       |
| 33 |              |   |   |   |       |
| 34 |              |   |   |   |       |
| 35 |              |   |   |   |       |
| 36 |              |   |   |   |       |
| 37 |              |   |   |   |       |
| 38 |              |   |   |   |       |
| 39 |              |   |   |   |       |
| 40 |              |   |   |   |       |
| 41 |              |   |   |   |       |
| 42 |              |   |   |   |       |
| 43 |              |   |   |   |       |
| 44 |              |   |   |   |       |
| 45 |              |   |   |   |       |
| 46 |              |   |   |   |       |
| 47 |              |   |   |   |       |
| 48 |              |   |   |   |       |
| 49 |              |   |   |   |       |
| 50 |              |   |   |   |       |
| 51 |              |   |   |   |       |
| 52 |              |   |   |   |       |
| 53 |              |   |   |   |       |
| 54 |              |   |   |   |       |
| 55 |              |   |   |   |       |
| 56 |              |   |   |   |       |
| 57 |              |   |   |   |       |
| 58 |              |   |   |   |       |
| 59 |              |   |   |   |       |
| 60 |              |   |   |   |       |
| 61 |              |   |   |   |       |
| 62 |              |   |   |   |       |
| 63 |              |   |   |   |       |

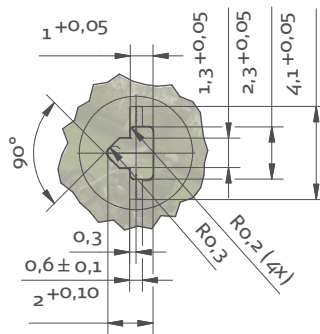
**2** horizontale Betätigung  
horizontal version



Löt-Pad-Anordnung  
SMD soldering pad



Achsaufnahme beider Varianten  
slot for the axis of both varieties



### Bestell-Schlüssel ordering code

5 1 0 - 0 5 0 1 2 1 0 0 0 2

Schalterausführung  
switch version

Verpackung  
packaging

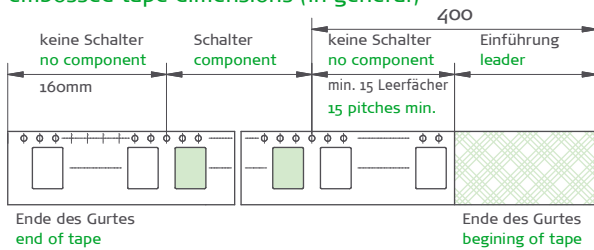
Anlieferungs-  
Position  
delivery  
position

|  |                       |               |                             |
|--|-----------------------|---------------|-----------------------------|
| <b>Werkstoffe</b><br><b>Materials</b>      | Blistergurt           | PET           | Embossed tape               |
|  | Abdeckband            | PET           | Reel                        |
| <b>Abdeckband</b><br><b>Top Cover Tape</b> | Zugmoment             | Min 10 Nm     | Embossed tape pull strength |
|  | Abzugswinkel          | 165°C - 180°C | Peel of angle               |
|  | Abzugsgeschwindigkeit | 300 mm / min. | Peel speed                  |
|  | Abzugskraft           | 0.1 - 0.7 Nm  | Peel force                  |

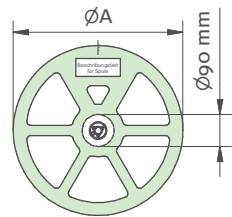
Verpackung | packaging

2 Gurt embossed tape

Blistergurtabmessungen (allgemein)  
embossed tape dimensions (in general)



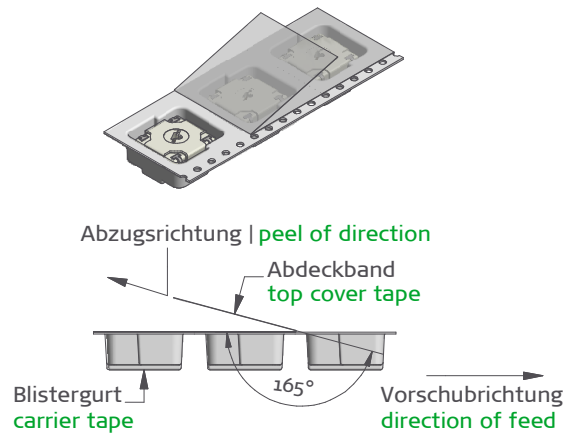
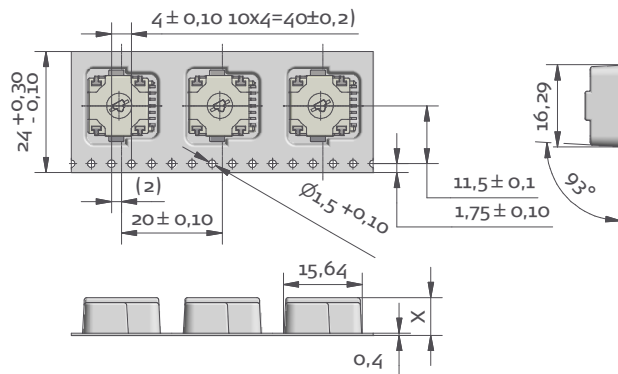
Spulenabmessungen  
reel dimensions



| Maß "x"<br>dimension "x" | Ausführung<br>version   | max. Stückzahl<br>number of pieces | Maß "A"<br>dimension "A" |
|--------------------------|-------------------------|------------------------------------|--------------------------|
| 7,5                      | vertikal   horizontal   | 600                                | 330                      |
| 14,5                     | horizontal   horizontal | 300                                | 380                      |

andere Rollen-Maße auf Anfrage  
other reel dimensions on demand

Blistergurtabmessungen für die vertikale Ausführung  
embossed tape dimensions for the vertical version



Blistergurtabmessungen für die horizontale Ausführung  
embossed tape dimensions for the horizontal version

