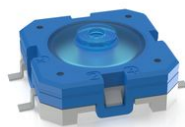


## RACON 12 ST, SMT, 4,7 ± 0,8 N, 1 S

### Beschreibung



Unsere hochwertigen Kurzhubtaster RACON 12 – in den Abmessungen 12 x 12 mm – zeichnen sich durch einen unverwechselbaren Tastenклик, hohe Schaltsicherheit, ein dichtes Kontaktsystem und Vergussfähigkeit aus. Dadurch wurde der RACON zum Standard in vielen Branchen. Ob in Automotive-Applikationen, Systemen mit Tastenkappen oder Folientastaturen: der RACON überzeugt in der THT- oder SMT-Variante – auch in Ihrer Anwendung.

Die RACON 12 Kurzhubtaster können einzeln, in Reihen oder als Tastenfelder angeordnet werden. Für den Einsatz unter Folie sollten die RACON-Taster mit Stößeln kombiniert werden. Geeignet für die wichtigsten Lötverfahren.

- › Wellen-Lötbad für THT-Versionen
- › Reflow-Löten für SMT-Versionen
- › Dampfphasen-Löten für SMT-Versionen
- › Handlötung
- › Verarbeitung der SMT-Ausführungen mit SMT-Bestückungsautomaten
- › IMDS-Eintrag



### Technische Daten

#### › Allgemein

|                                      |                   |
|--------------------------------------|-------------------|
| Farbe                                | blau              |
| Arbeitstemperatur, min.              | -40 °C            |
| Arbeitstemperatur, max.              | 125 °C            |
| Lagertemperatur, min.                | -50 °C            |
| Lagertemperatur, max.                | 90 °C             |
| beleuchtbar                          | nein              |
| Lötverfahren                         | Reflow            |
| Lötwärmebeständigkeit nach Norm      | DIN EN 60068-2-58 |
| Verpackung                           | Blister           |
| Verpackungseinheit                   | 750 Stück         |
| Lebensdauer                          | 1.000.000 Zyklen  |
| B10                                  | 1.300.000 Zyklen  |
| Schutzart frontseitig gem. ISO 20653 | IP67 (IP6K7)      |
| Schutzart rückseitig gem. ISO 20653  | IP67 (IP6K7)      |
| MSL Moisture Sensitivity Level       | 1                 |

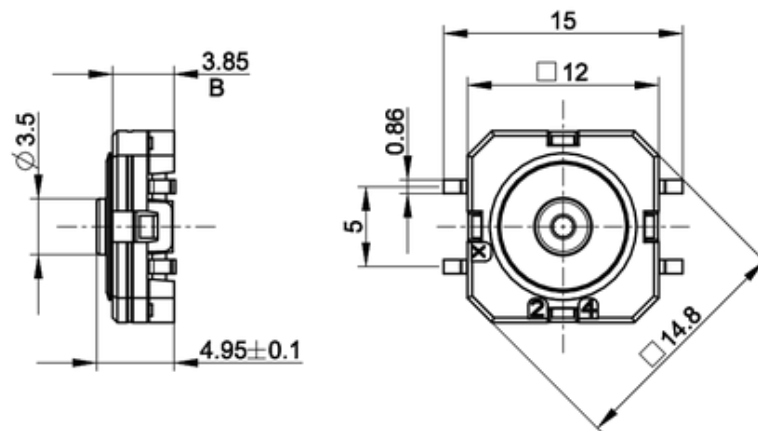
#### Direkte Links

- › [RAFI eCatalog](#)

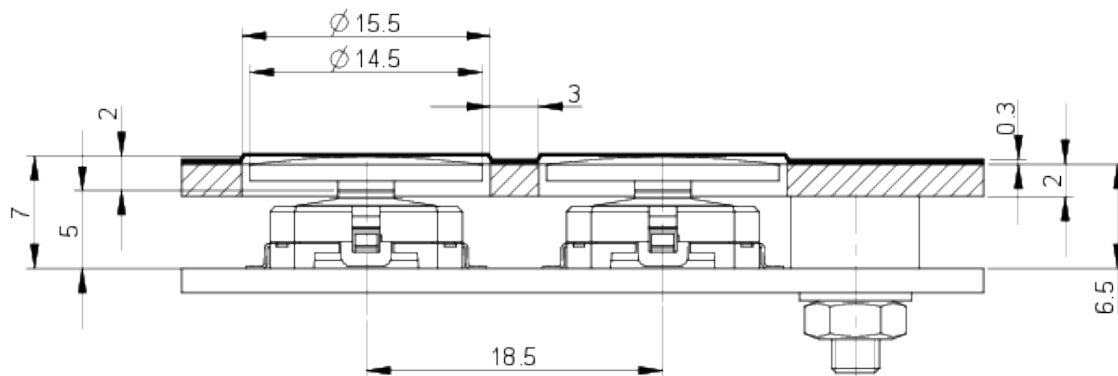
|                                   |  |
|-----------------------------------|--|
| Schadgasprüfung nach Norm         | ja   |
| Mindestbestellmenge (MOQ)         | 750 Stück  |
| RoHS konform                      | ja   |
| REACH konform                     | ja   |
| Produktcode                       | TI   |
| Ursprungsland                     | DE   |
| <b>&gt; Einbaumaße</b>            |  |
| Außenmaß Länge                    | 12 mm  |
| Außenmaß Breite                   | 12 mm  |
| Einbauhöhe                        | 4,95 ± 0.1 mm                                    |
| Raster, min.                      | 12.50 x 15.24 mm                                 |
| <b>&gt; Mechanische Kennwerte</b> |  |
| Anschluss rückseitig              | SMT  |
| Betätigungsfunktion               | tastend  |
| Betätigungskraft, max.            | 8 N  |
| Betätigungskraft, min.            | 4,7 ± 0.8 N                                      |
| Kontaktfunktion                   | 1 S  |
| Kontaktsystem                     | Sprungkontakt<br>SPST - Single Pole Single Throw |
| Kontaktwerkstoff                  | Gold   |
| Lötbarkeit                        | Ja   |
| Prellzeit bei 10 mm/s             | <5 ms  |
| Schaltweg                         | 0,66 ± 0.15 mm                                   |
| <b>&gt; Elektrische Kennwerte</b> |  |
| Schaltspannung, min.              | 0,02 V   |
| Schaltspannung, max.              | 35 V   |
| Schaltstrom, min.                 | 0,00001 A  |
| Schaltstrom, max.                 | 0,1 A  |
| Schaltleistung, max.              | 1 W  |

## Zeichnungen

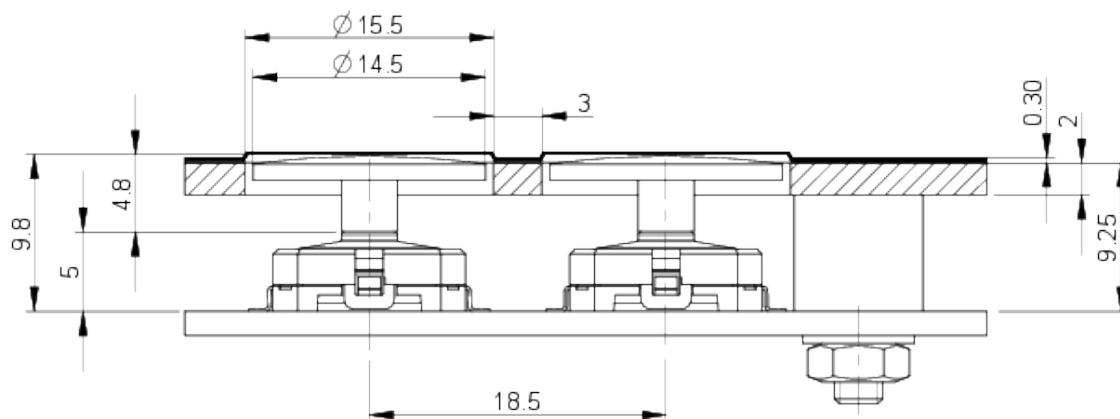
### Maß-Zeichnungen



### System-Zeichnung



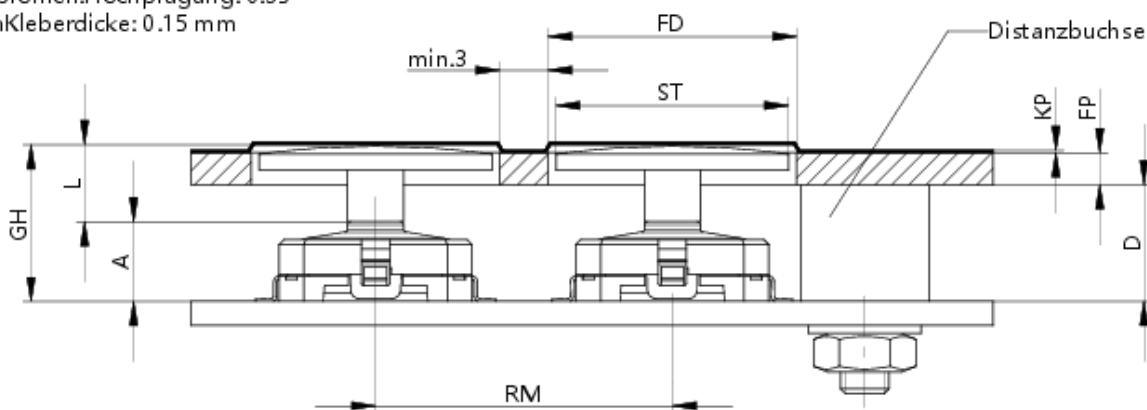
**System-Zeichnung**



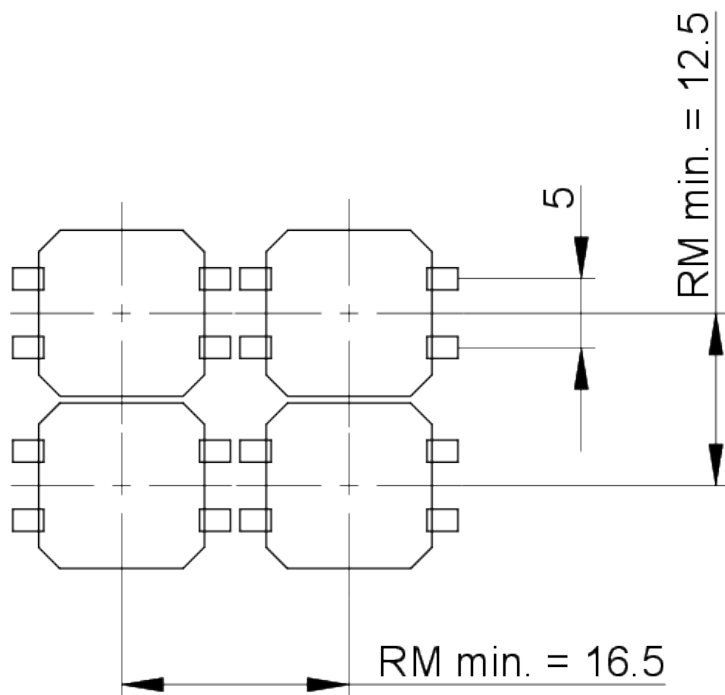
**System-Zeichnung**

SMT-Gullwing-Anschluss

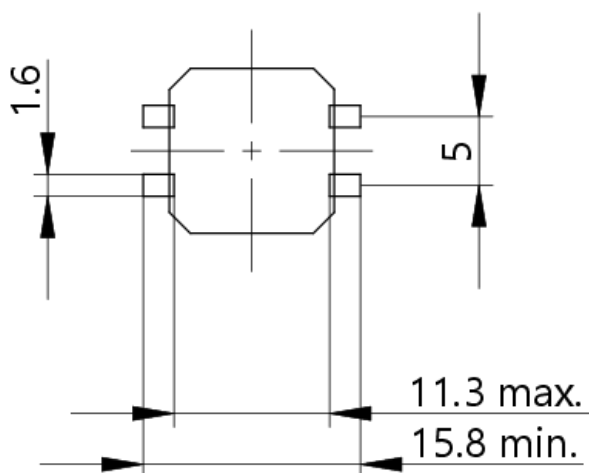
Empfohlen: Hochprägung: 0.35 mm  
Kleberdicke: 0.15 mm



Leiterplatten-Zeichnung

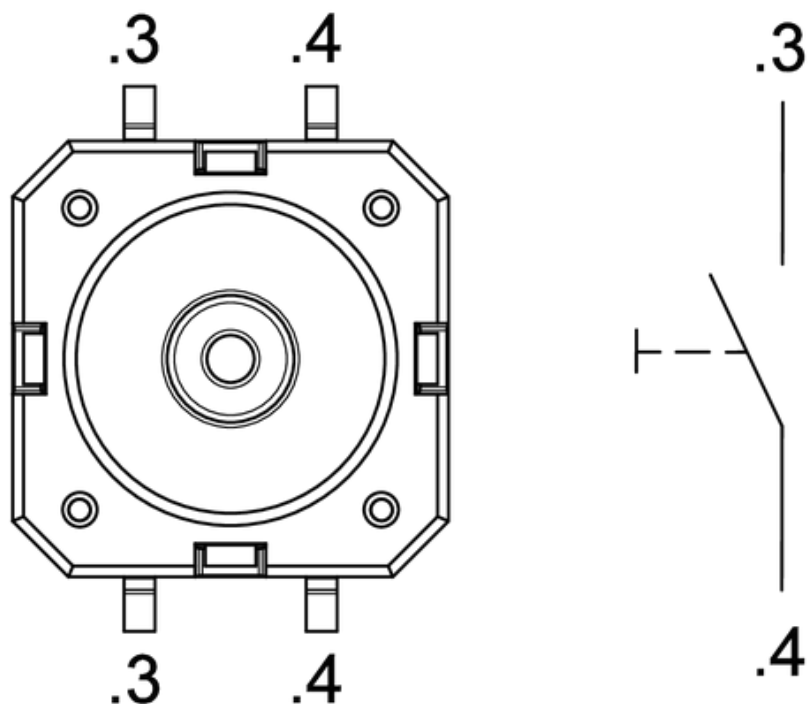


Leiterplatten-Zeichnung

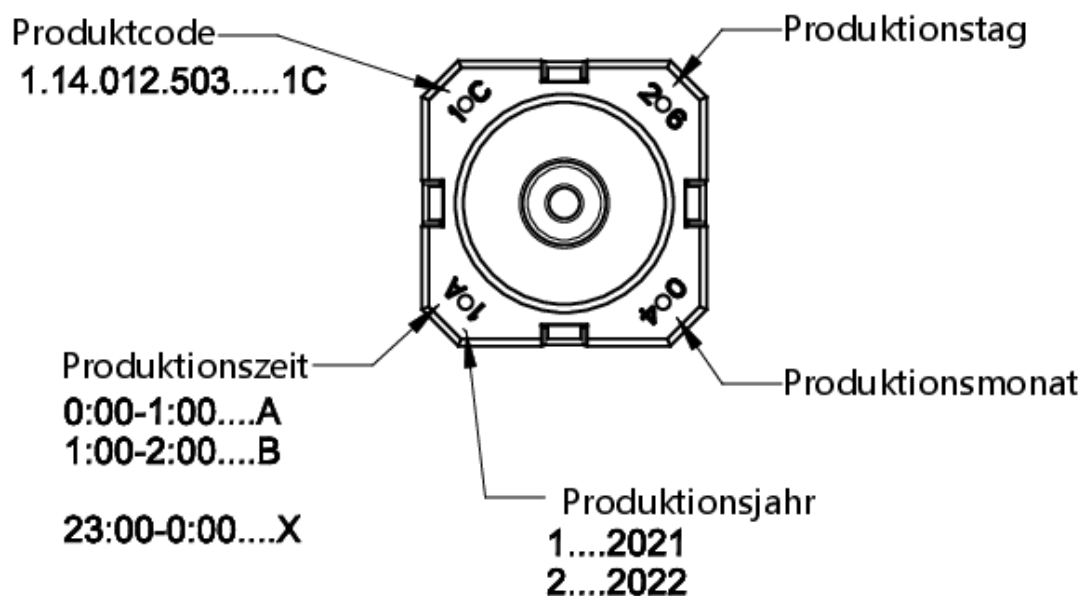


PCB-Pad  
Bestückungsseite

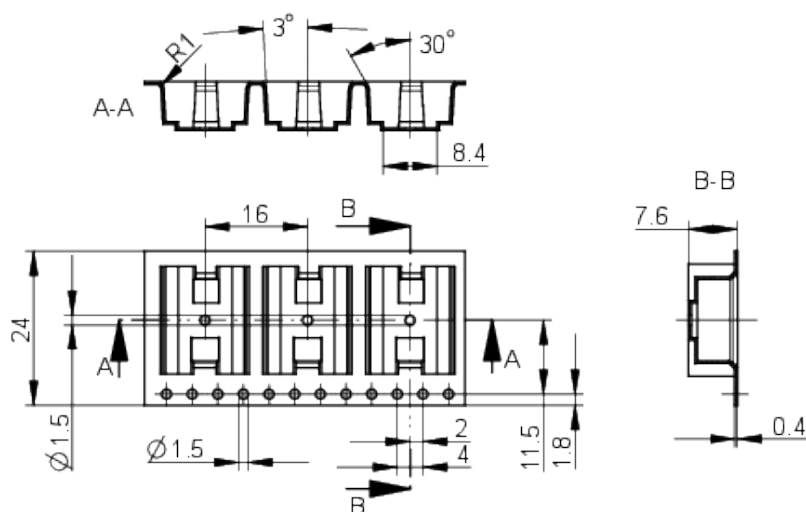
Schaltschema-Zeichnung



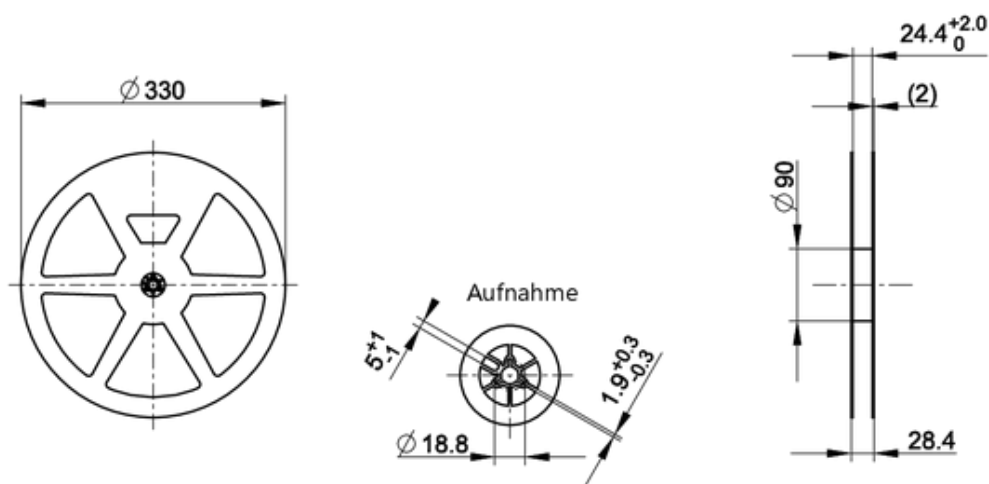
Produktkennzeichnung-Zeichnung



Verpackungs-Zeichnung



Verpackungs-Zeichnung

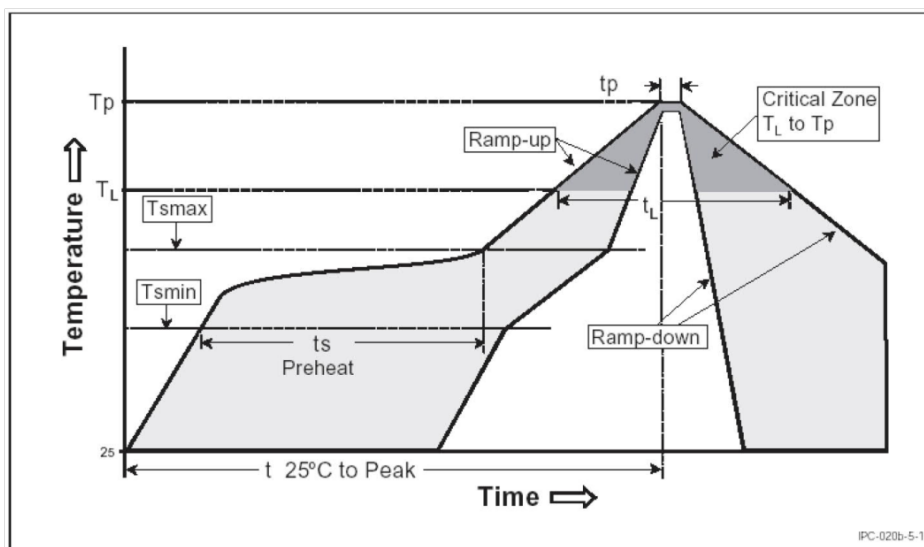


## Montage

### RAFI soldering profile for ROHS compliant reflow components



Publication date: October 7, 2021



| Parameter  | RAFI values         |
|--|---------------------|
| Gradient ( $T_L$ to $T_P$ )                            | max. 3°C / s        |
| <b>Preheating zone</b>                                 |                     |
| Minimum temperature ( $T_{smin}$ )                     | 150°C               |
| Maximum temperature ( $T_{smax}$ )                     | 200°C               |
| Time (from min. to max.) ( $t_s$ )                     | 60 - 120 s          |
| Gradient ( $T_{smax}$ to $T_L$ )                       | max. 3°C / s        |
| Time over melting temperature ( $T_L$ ) time ( $t_L$ ) | 217°C<br>60 - 150 s |
| Peak temperature ( $T_P$ )                             | max. 260°C (+0°C)   |
| Time within peak temperature - 5°C ( $t_p$ )           | 20-40 s             |
| Gradient ramp down                                     | max. 6°C / s        |
| Time difference from 25°C to peak temperature          | max. 8 minutes      |

The reflow soldering profile is based on the definition of Jecdec J-STD-020D.

The information in this sheet only contains general descriptions and / or performance features, which may not apply precisely as described to the respective application, and which may change due to further product enhancements. The technical data, illustrations and other information about our products are the mere results of individual technical testing. These descriptions and other product features are only binding if they expressly agreed upon at the time of the conclusion of a binding contract. In all other cases, we reserve the right to make technical changes as well as changes of availability. Pictures and other graphic illustrations are approximations only. All product names may be trademarks or brand names of the RAFI Group or any other sub-supplier of RAFI. The use of such by any third parties for their own purposes may infringe the rights of the respective entity holding those rights. Subject to change and errors excepted. Details about delivery times and availability are noncommittal and have no legal force.

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## Media Robust Electronics



Publication date: February 13, 2025

### RACON 12 ST

Valid for all variants RACON 12 ST, 1.14.112.5XX-9XX

#### Recommended potting compounds

**WEVO-CHEMIE GmbH**

**WEVOPUR 7210 FL/WEVONAT 507**

**WEVOPUR PD4431 FL/WEVONAT 300**

**STOCKMAIER URETHANES GmbH & Co.KG**

**Stobicast® L768.16 Polyol/Isocyanat**

#### **Important note**

Maximum potting height B must not be exceeded.

#### Recommended circuit board protection

**Lackwerke Peters GmbH & Co.KG**

**combination of high-viscosity (HT-T)  
and low-viscosity coating from the  
ELPEGUARD® SL 1307 family**

**Lackwerke Peters GmbH & Co.KG**

**ELPEGUARD® SL 1800**

#### **Important note**

The conformal coating of our tactile switches must be tested in the final application. Coating that enters the tactile switch does not harden directly, so that any resulting malfunction can only be detected later.

If the tactile switch is completely coated, the coating may peel off the elastomer of the tactile switch during the first few actuations. Press the tactile switch only after the coating has hardened.

We recommend leaving out the elastomer area when coating to prevent detachment.

#### **General remark**

The suitability and use of the recommended media for potting, conformal coating and nano-coating must be qualified and approved in the final application.

The potting, conformal coating and nano-coating must be used in accordance with the manufacturer's technical data sheet.

Actuation of the tactile switch only after the potting compound, conformal coating and nano coating has complete hardened.

Other potting compounds and processes for printed circuit board protection on request.

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