

## RACON 12 S, SMT, 6,8 ± 1,6 N, 1 S



### Haupt- / Anwendungsgebiete

- › Messen-Steuern-Regeln
- › Maschinen- und Anlagenbau
- › Automotive
- › Elektromedizin

### Spezielle Features

- › Goldkontakte, sicheres Schalten bei niedrigen Strömen
- › Besonderes taktiles Feedback
- › Unterschiedliche Betätigungskräfte
- › Variable Bauhöhen durch Stößel
- › Anschlusstechnik: SMT oder THT
- › Traceability durch Produktkennzeichnung
- › vergussfähig (getestete Medien siehe Downloads)



## Beschreibung

Unsere hochwertigen Kurzhubtaster RACON 12 – in den Abmessungen 12 x 12 mm – zeichnen sich durch einen unverwechselbaren Tastenklick, 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.	90 °C
Lagertemperatur, min.	-50 °C
Lagertemperatur, max.	90 °C
beleuchtbar	nein
Lötverfahren	Reflow

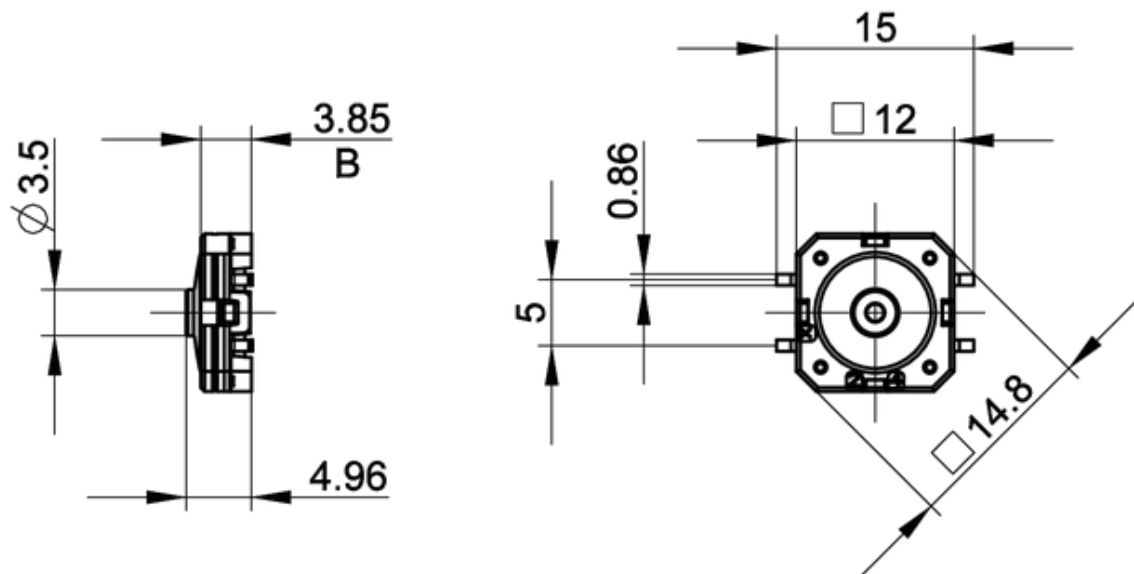
### Direkte Links

- › [RAFI eCatalog](#)

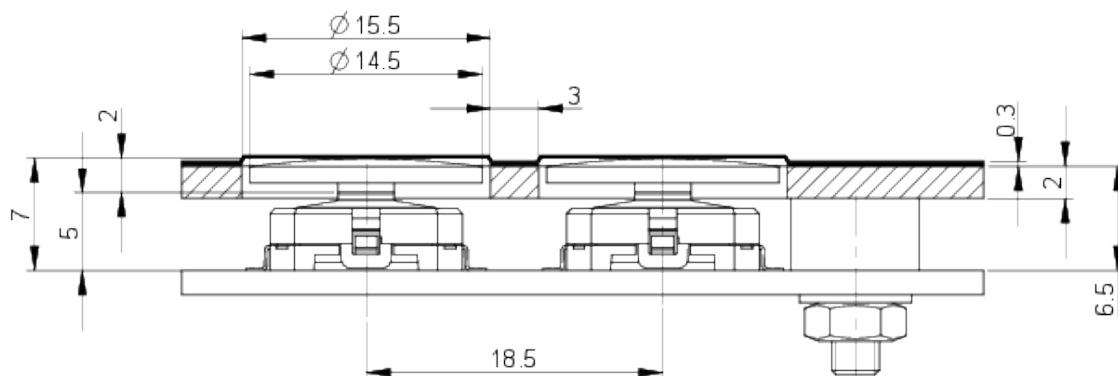
Lötwärmebeständigkeit nach Norm	DIN EN 60068-2-58
Verpackung	Blister
Verpackungseinheit	750 Stück
Nettogewicht	1,5 g
Lebensdauer	1.000.000 Zyklen
B10	1.300.000 Zyklen
Schutzart frontseitig gem. DIN EN 60529	IP54 IPx7
Schutzart rückseitig gem. DIN EN 60529	IP54 IPx7
MSL Moisture Sensitivity Level	1
Schadgasprüfung nach Norm	ja
MOQ Auftrag	750 Stück
RoHS konform	ja
REACH konform	ja
Material der Komponente	Elastomer
Produktcode	DZ
<b>&gt; Einbaumaße</b>	
Außenmaß Länge	12 mm
Außenmaß Breite	12 mm
Einbauhöhe	5,05 ± 0.1 mm
Raster, min.	12.50 x 15.24 mm
<b>&gt; Mechanische Kennwerte</b>	
Betätigungsfunktion	tastend
Betätigungskraft, max.	10 N
Betätigungskraft, min.	6,8 ± 1.6 N
Schaltweg	0,7 ± 0.12 mm
Kontaktfunktion	1 S
Kontaktsystem	Sprungkontakt SPST - Single Pole Single Throw
Kontaktwerkstoff	Gold
Lötbarkeit	Ja
Anschluss rückseitig	SMT
<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

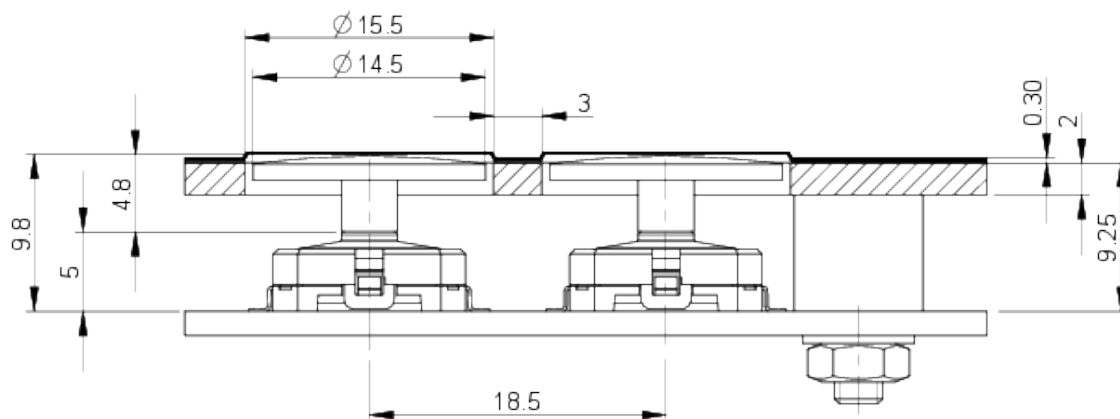
### Maß-Zeichnungen



### System-Zeichnung



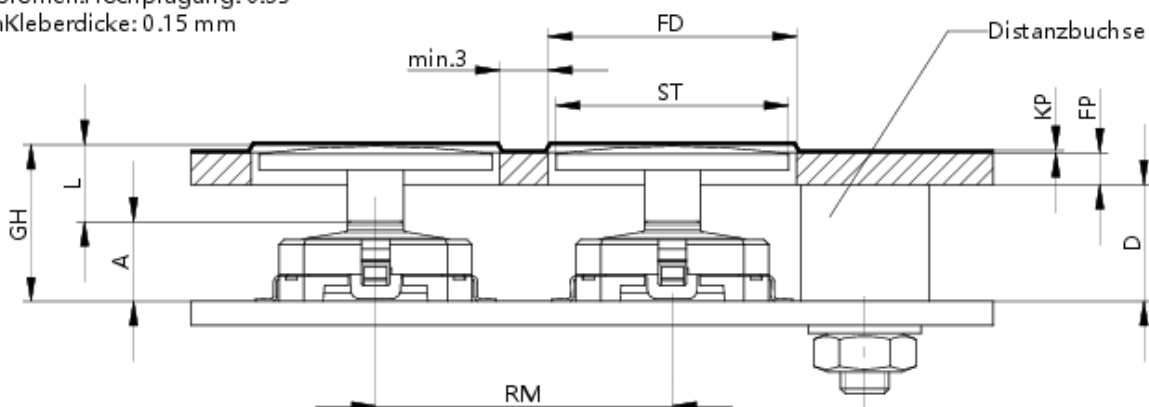
**System-Zeichnung**



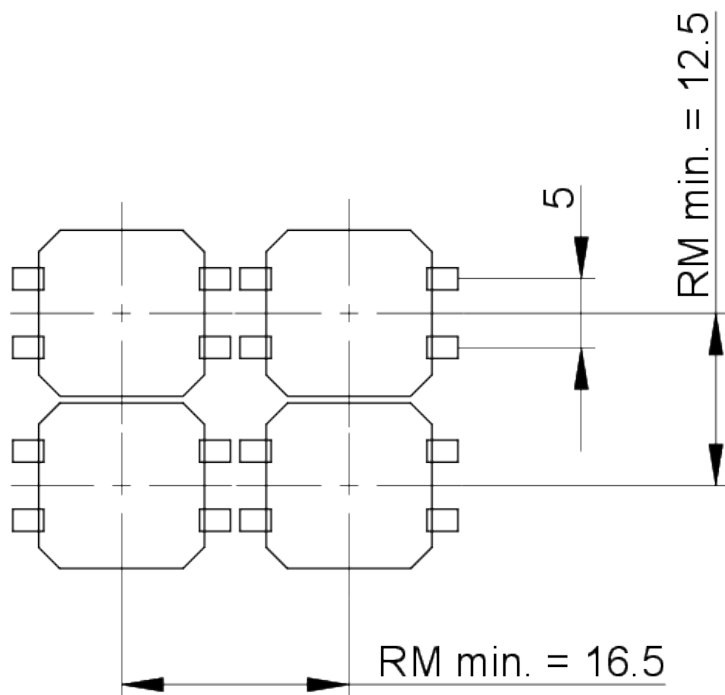
**System-Zeichnung**

SMT-Gullwing-Anschluss

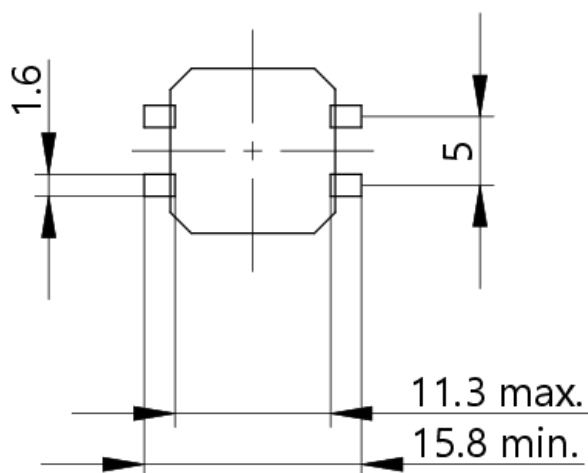
Empfohlen: Hochprägung: 0.35 mm  
Kleberdicke: 0.15 mm



Leiterplatten-Zeichnung

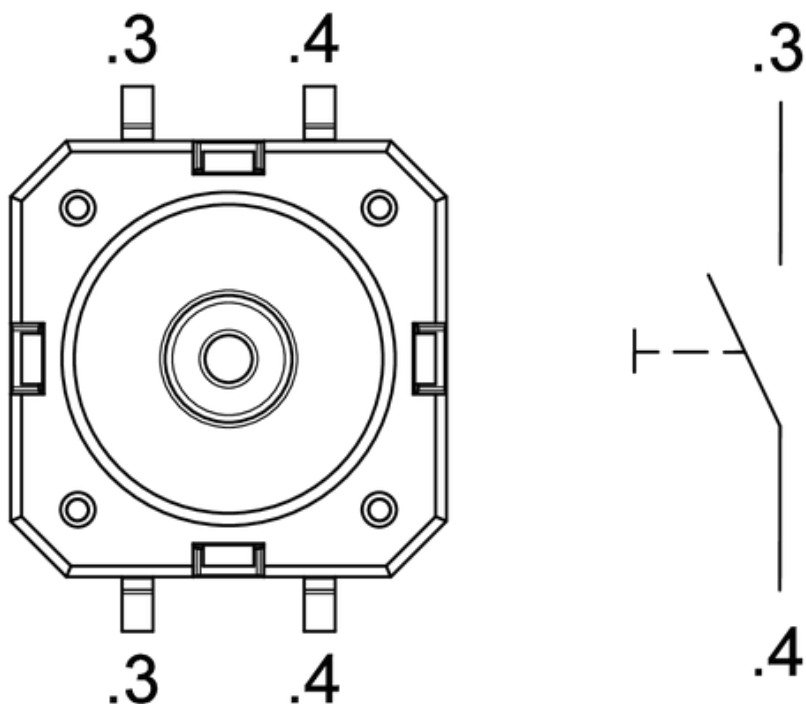


Leiterplatten-Zeichnung

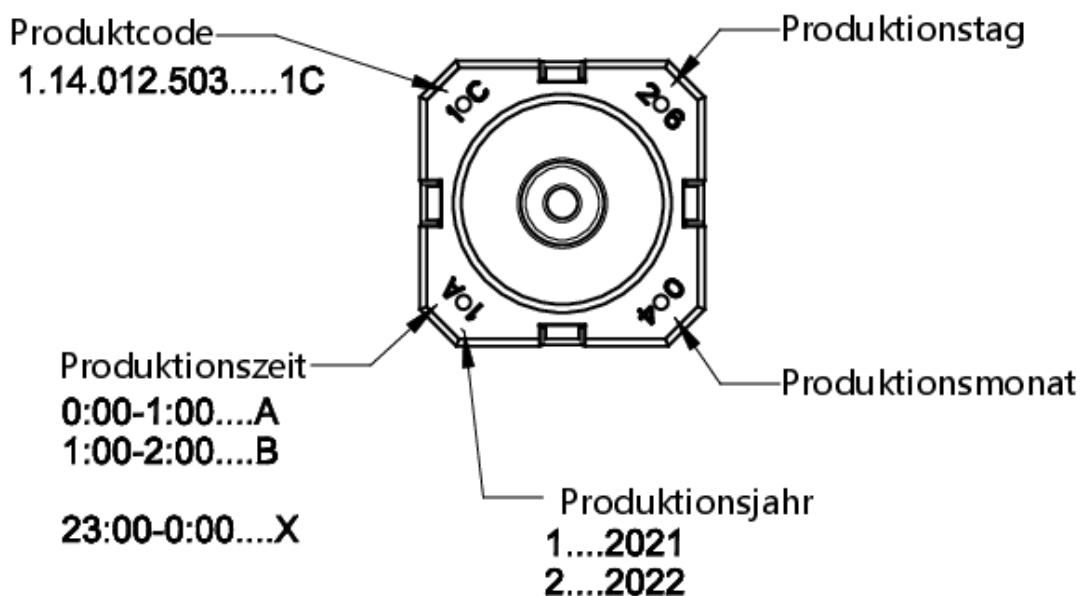


PCB-Pad  
Bestückungsseite

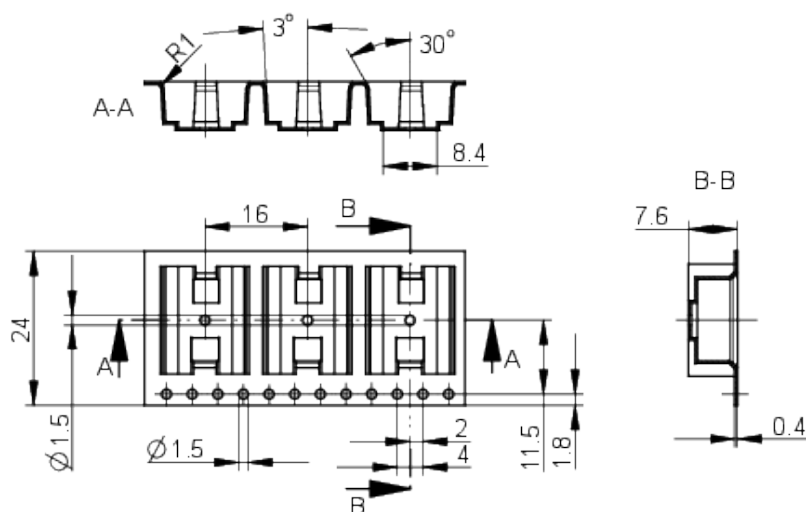
Schalt-schema-Zeichnung



Produktkennzeichnung-Zeichnung



Verpackungs-Zeichnung

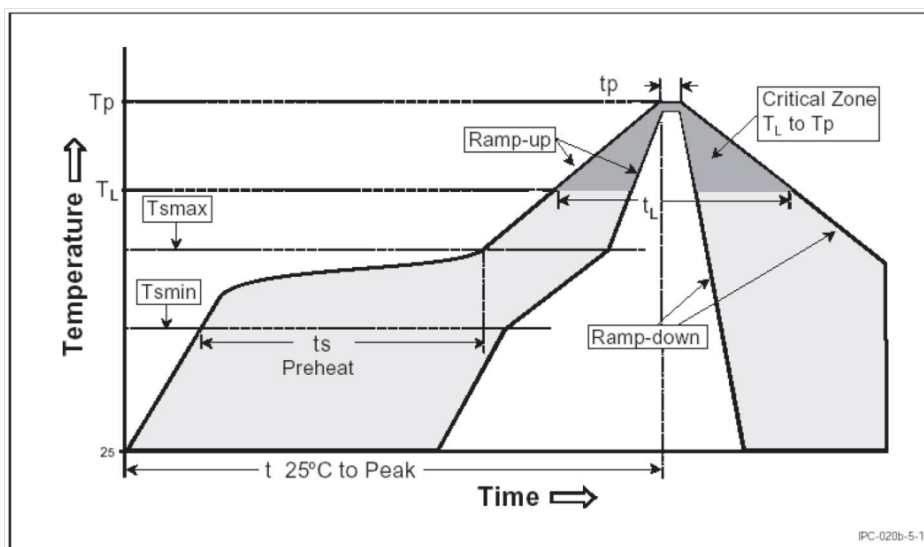


## Montage

### 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 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



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# RACON 12 S

Valid for all variants RACON 12 S, 1.14.012.5XX-9XX

### Approved 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.

### Approved circuit board protection

- Lackwerke Peters GmbH & Co.KG **ELPEGUARD® SL 1307**

#### Important note

If the tactile switch is completely painted, the paint may peel off the elastomer of the tactile switch during the first few actuations. Press the tactile switch only after the paint has hardened. We recommend leaving out the elastomer area when painting to prevent detachment.

- TIEFCO Coating Company **3M™ Novec™ 1700**

#### Important note

After coating, the contact resistance can increase. After repeated actuation, the contact resistance drops again under 100 mΩ.

#### General remark:

The potting, varnish and nano medias must be used in accordance with the manufacturer's technical data sheet. Actuation of the tactile switch only after the potting compound, varnish and nano medias has hardened.

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

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