

RACON 12 ST, THT outside, 4.7 ± 0.8 N, 1 NO



Description

Our top-quality RACON 12 tactile switches – in the dimensions 12 x 12 mm – feature an unmistakable click, high switching reliability, a sealed contact system and castability. That has made RACON the standard in many industries. Whether for automotive applications, systems with keycaps, or membrane keyboards, RACON impresses in the THT or SMT versions – for your application too.

RACON 12 tactile switches can be arranged individually, in rows or as key blocks. When used beneath membrane overlays, the RACON key switches should be combined with plungers. Suitable for the most important soldering techniques.

Soldering bath for THT versions

Reflow soldering for SMT versions

Vapor phase soldering for SMT versions

Manual soldering

Processing of the SMT designs with SMT automatic assembly machines

IMDS entry



technical data

> general

Color	blue
Operating temperature, min.	-40 °C
Operating temperature, max.	125 °C
Storage temperature, min.	-50 °C
Storage temperature, max.	90 °C
illuminated	No
Soldering time for manual soldering, max.	5 sec
Soldering temperature for manual soldering	350 °C
Soldering temperature for wave soldering	260 °C
Soldering	Manual / wave
Solder heat resistance according to standard	DIN EN 60068-2-20
Packaging	Tube
Packaging unit	45 pcs.
Operating life	1,000,000 cycles

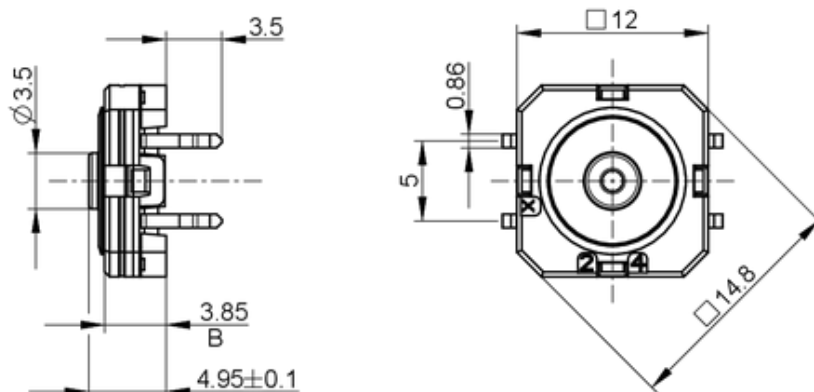
direct links

> [RAFI eCatalog](#)

B10	1,300,000 cycles
Degree of protection, front side, according to ISO 20653	IP67 (IP6K7)
Degree of protection on rear side acc. to ISO 20653	IP67 (IP6K7)
MSL Moisture Sensitivity Level	1
Corrosive gas testing according to standard	Yes
Minimum order quantity (MOQ)	450 pcs.
RoHS compliant	Yes
REACH compliant	Yes
Product code	TG
> mounting diameters	
Outside dimension, length	12 mm
Outside dimension, width	12 mm
Installation height	4.95 ± 0.1 mm
Grid, min.	12.50 x 15.24 mm
> mechanical data	
Terminal on the rear	THT outward
Actuation function	momentary contact function
Operating force, max.	8 N
Operating force, min.	4.7 ± 0.8 N
Contact function	1 NO
Contact system	Snap-action contact SPST - Single Pole Single Throw
Contact material	Gold
Solderability	Yes
Bounce time at 10 mm/s	<5 ms
Switching travel	0.66 ± 0.15 mm
> electrical data	
Rated voltage, min.	0.02 V
Rated voltage, max.	35 V
Rated current, min.	0.00001 A
Rated current, max.	0.1 A
Rated power, max.	1 W

drawings

Dimensioned drawing

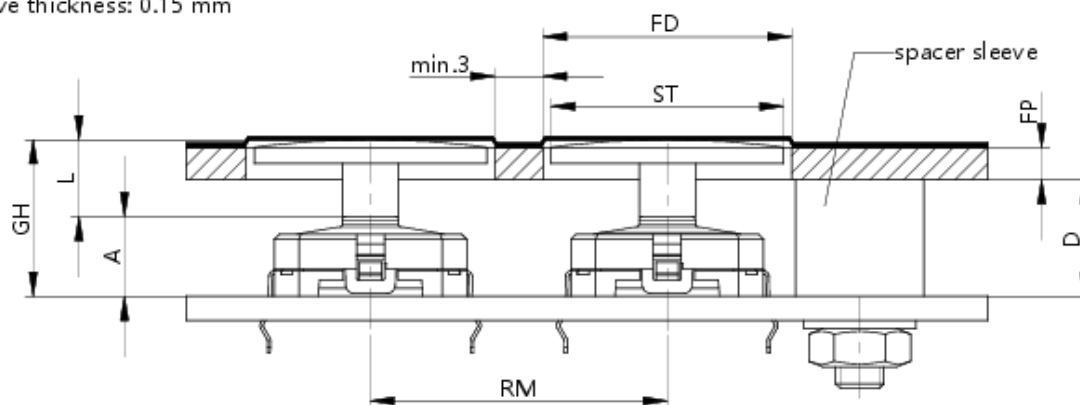


System drawing

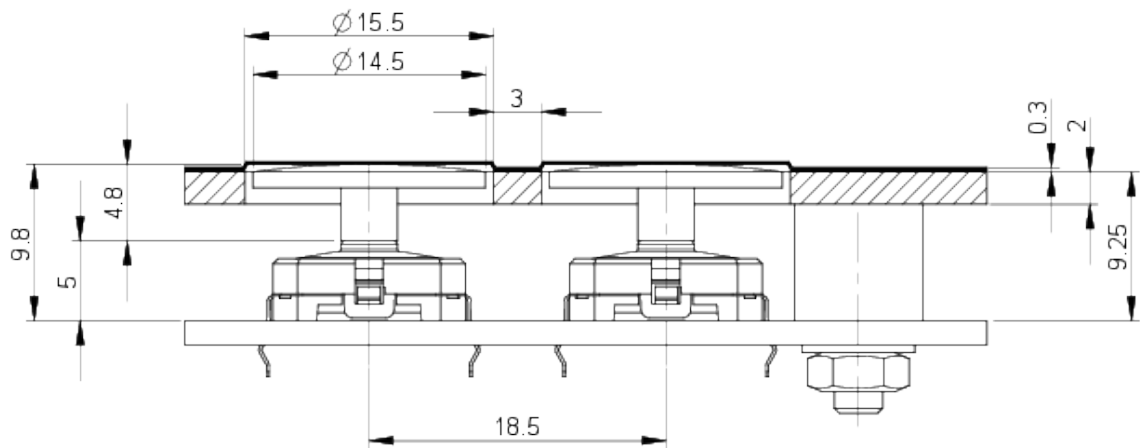
THT connection external

Recommended: Embossing: 0.35 mm

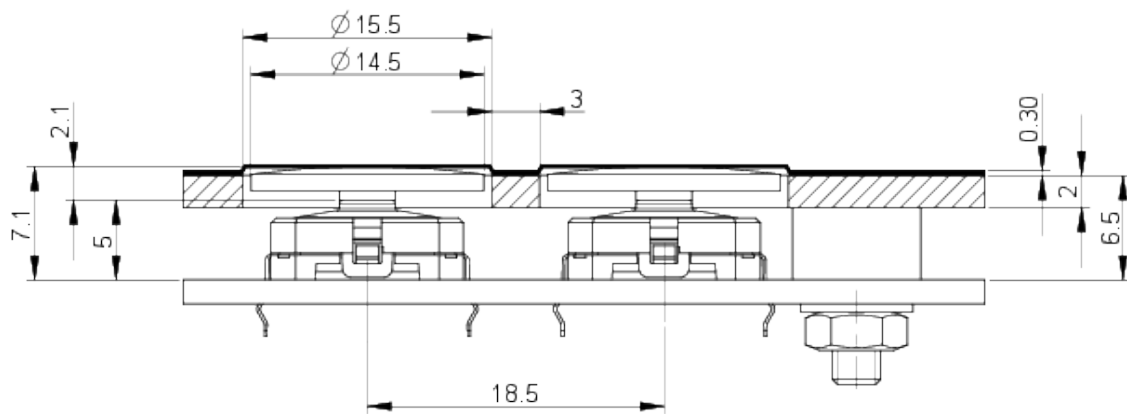
Adhesive thickness: 0.15 mm



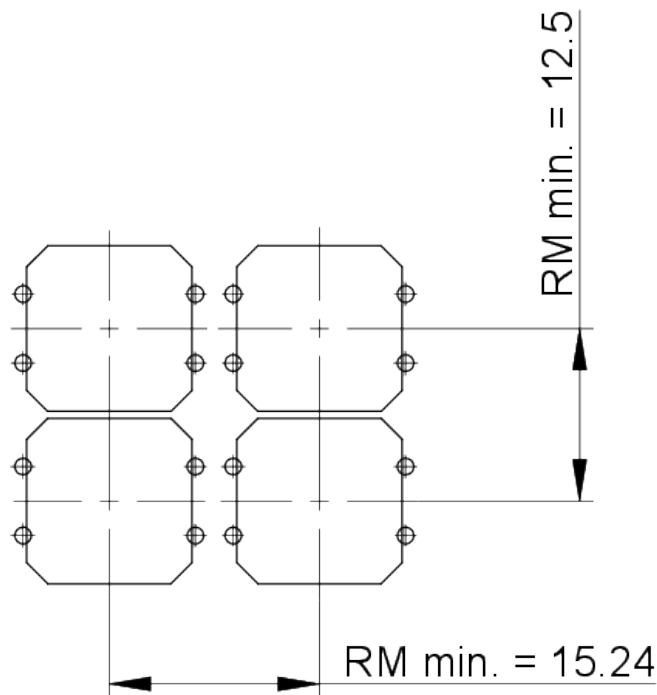
System drawing



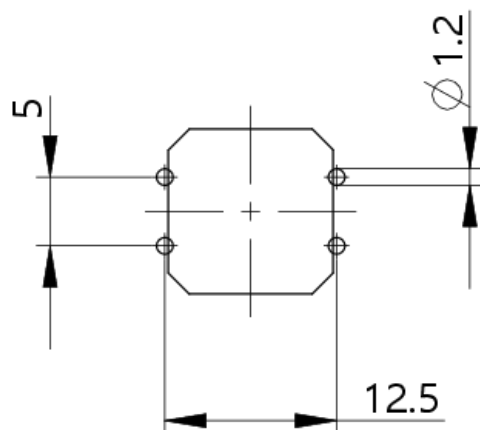
System drawing



PCB drawing

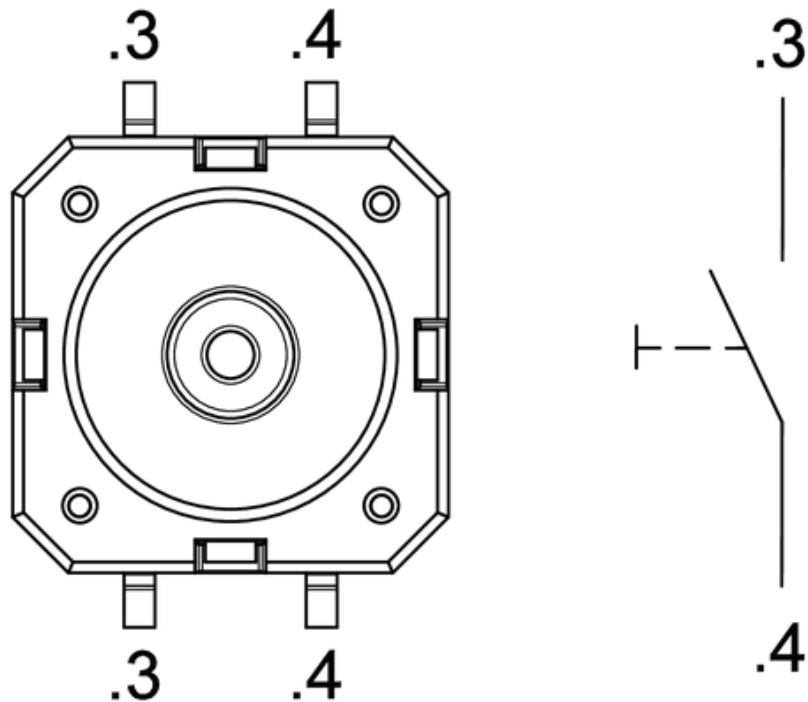


PCB drawing

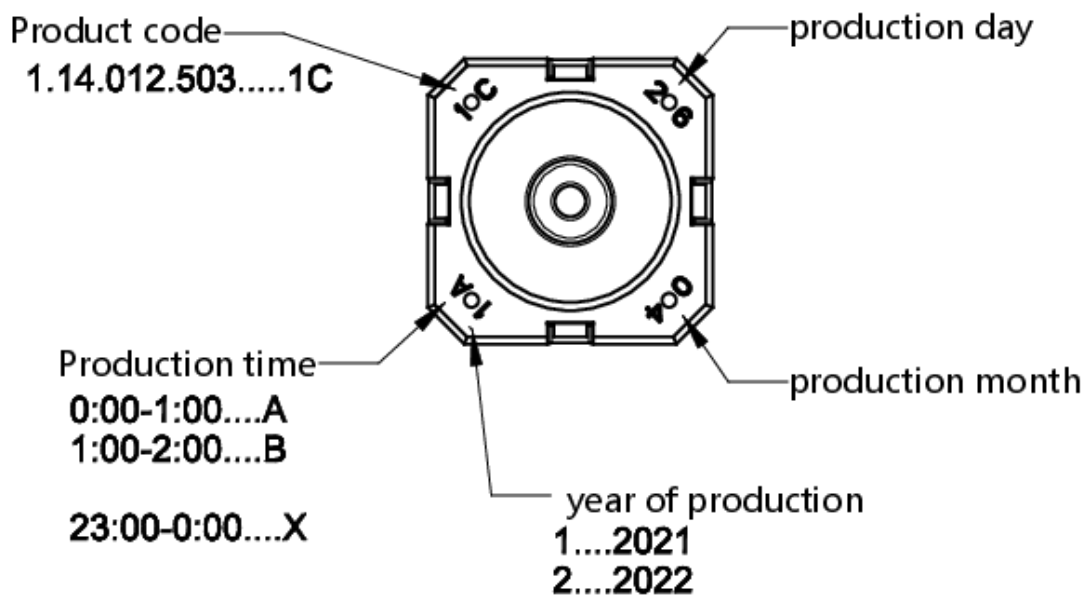


PCB hole pattern
component side

Schematic diagram



Product labeling drawing



mounting

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.

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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