

RACON 12 S, THT inside, 3.6 ± 0.7 N, 1 NO



fields of application

- > Measurement-control-regulation
- > Mechanical and system engineering
- > Automotive
- > Electro-medical

special features

- Gold contacts, reliable switching with low currents
- > Special tactile feedback
- > Different operating forces
- > Variable overall heights due to plunger
- > Terminal technology: SMT or THT
- > Traceability through product identification
- > sealable (tested media see Downloads)

CE

description

Our top-quality RACON 12 tactile switches – in the dimensions 12 x 12 mm – feature an unmistakeable 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	direct links
Operating temperature, min.	-40 °C	➤ RAFI eCatalog
Operating temperature, max.	90 °C	
Storage temperature, min.	-50 °C	
Storage temperature, max.	90 °C	
illuminated	No	
Soldering time for manual soldering, max.	5 sec	

The information in this data sheet only contains general descriptions and / or performance features, which may not apply precisely as described to the respective application, and which my 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. **date**: Aug 22, 2024 **page**: 1/6

RAFI GmbH & Co. KG

1.14.012.502/0000



	Soldering temperature for manual	350 °C
	soldering	
	Soldering temperature for wave	260 °C
	soldering	
	Soldering	Manual / wave
	Solder heat resistance according	DIN EN 60068-2-20
	to standard	Tube
	Packaging	Tube
	Packaging unit	45 pcs.
	net weight	1.2 g
	Operating life	1,000,000 cycles
	B10	1,300,000 cycles
	Degree of protection, front side, according to DIN EN 60529	IP54 IPx7
	Degree of protection, rear side,	IP54
	according to DIN EN 60529	IPx7
	MSL Moisture Sensitivity Level	1
	Corrosive gas testing according to	Yes
	standard	
	MOQ order	450 pcs.
	RoHS compliant	Yes
	REACH compliant	Yes
	Component material	Elastomer
	Product code	1B
>	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
>		
>	Grid, min.	
>	Grid, min. mechanical data	12.50 x 15.24 mm
>	Grid, min. mechanical data Actuation function	12.50 x 15.24 mm momentary contact function
>	Grid, min. mechanical data Actuation function Operating force, max.	12.50 x 15.24 mm momentary contact function 8 N
>	Grid, min. mechanical data Actuation function Operating force, max. Operating force, min.	12.50 x 15.24 mm momentary contact function 8 N 3.6 ± 0.7 N
>	Grid, min. mechanical data Actuation function Operating force, max. Operating force, min. Switching travel	12.50 x 15.24 mm momentary contact function 8 N $3.6 \pm 0.7 \text{ N}$ $0,61^{\pm0,1} \text{ mm}$ 1 NO Snap-action contact
>	Grid, min. mechanical data Actuation function Operating force, max. Operating force, min. Switching travel Contact function Contact system	12.50 x 15.24 mm momentary contact function 8 N $3.6 \pm 0.7 \text{ N}$ $0,61^{\pm0,1} \text{ mm}$ 1 NO Snap-action contact SPST - Single Pole Single Throw
>	Grid, min. mechanical data Actuation function Operating force, max. Operating force, min. Switching travel Contact function Contact system Contact material	12.50 x 15.24 mm momentary contact function 8 N $3.6 \pm 0.7 \text{ N}$ $0,61^{\pm0,1} \text{ mm}$ 1 NO Snap-action contact SPST - Single Pole Single Throw Gold
>	Grid, min. mechanical data Actuation function Operating force, max. Operating force, min. Switching travel Contact function Contact system Contact material Solderability	12.50 x 15.24 mm momentary contact function 8 N $3.6 \pm 0.7 \text{ N}$ $0,61^{\pm0,1} \text{ mm}$ 1 NO Snap-action contact SPST - Single Pole Single Throw Gold Yes
	Grid, min. mechanical data Actuation function Operating force, max. Operating force, min. Switching travel Contact function Contact system Contact material Solderability Terminal on the rear	12.50 x 15.24 mm momentary contact function 8 N $3.6 \pm 0.7 \text{ N}$ $0,61^{\pm0,1} \text{ mm}$ 1 NO Snap-action contact SPST - Single Pole Single Throw Gold
	Grid, min. mechanical data Actuation function Operating force, max. Operating force, min. Switching travel Contact function Contact system Contact material Solderability Terminal on the rear electrical data	12.50 x 15.24 mm momentary contact function 8 N $3.6 \pm 0.7 \text{ N}$ $0,61^{\pm0,1} \text{ mm}$ 1 NO Snap-action contact SPST - Single Pole Single Throw Gold Yes THT inward
	Grid, min. mechanical data Actuation function Operating force, max. Operating force, min. Switching travel Contact function Contact system Contact material Solderability Terminal on the rear electrical data Rated voltage, min.	12.50 x 15.24 mm momentary contact function 8 N 3.6 \pm 0.7 N 0,61 ^{\pm0,1} mm 1 NO Snap-action contact SPST - Single Pole Single Throw Gold Yes THT inward 0.02 V
	Grid, min. mechanical data Actuation function Operating force, max. Operating force, min. Switching travel Contact function Contact function Contact system Contact material Solderability Terminal on the rear electrical data Rated voltage, min. Rated voltage, max.	12.50 x 15.24 mm momentary contact function 8 N 3.6 \pm 0.7 N 0,61 ^{\pm0,1} mm 1 NO Snap-action contact SPST - Single Pole Single Throw Gold Yes THT inward 0.02 V 35 V
	Grid, min. mechanical data Actuation function Operating force, max. Operating force, min. Switching travel Contact function Contact system Contact material Solderability Terminal on the rear electrical data Rated voltage, min. Rated voltage, max. Rated current, min.	12.50 x 15.24 mm momentary contact function 8 N 3.6 \pm 0.7 N 0,61 ^{\pm0,1} mm 1 NO Snap-action contact SPST - Single Pole Single Throw Gold Yes THT inward 0.02 V 35 V 0.00001 A
	Grid, min. mechanical data Actuation function Operating force, max. Operating force, min. Switching travel Contact function Contact function Contact system Contact material Solderability Terminal on the rear electrical data Rated voltage, min. Rated voltage, max.	12.50 x 15.24 mm momentary contact function 8 N 3.6 \pm 0.7 N 0,61 ^{\pm0,1} mm 1 NO Snap-action contact SPST - Single Pole Single Throw Gold Yes THT inward 0.02 V 35 V

The information in this data sheet only contains general descriptions and / or performance features, which may not apply precisely as described to the respective application, and which my 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. **date**: Aug 22, 2024 **page**: 2/6

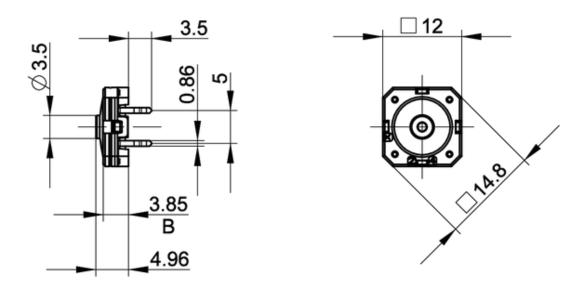
RAFI GmbH & Co. KG

1.14.012.502/0000

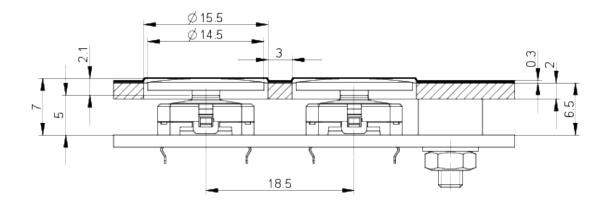


drawings

Dimensioned drawing



System drawing



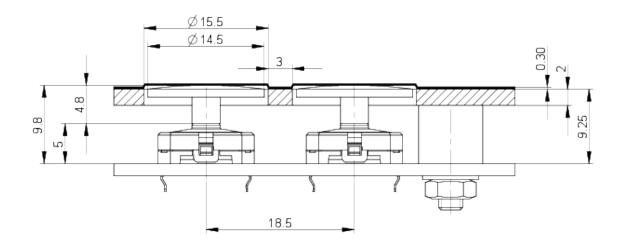
The information in this data sheet only contains general descriptions and / or performance features, which may not apply precisely as described to the respective application, and which my change due to further product enhancements. The technical data, illustrations and other information about our products 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. **date**: Aug 22, 2024 **page**: 3/6

RAFI GmbH & Co. KG



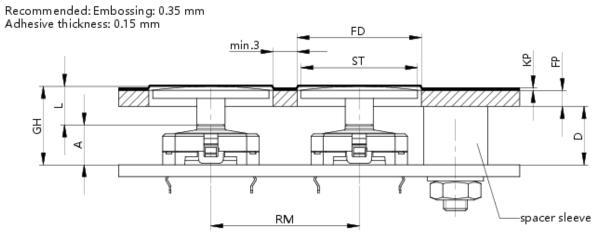


System drawing



System drawing

THT connection internal



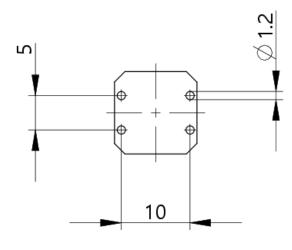
The information in this data sheet only contains general descriptions and / or performance features, which may not apply precisely as described to the respective application, and which my change due to further product enhancements. The technical data, illustrations and other information about our products 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. **date**: Aug 22, 2024 **page**: 4/6

RAFI GmbH & Co. KG



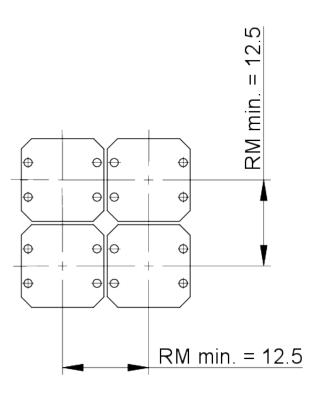


PCB drawing



PCB hole pattern component side

PCB drawing



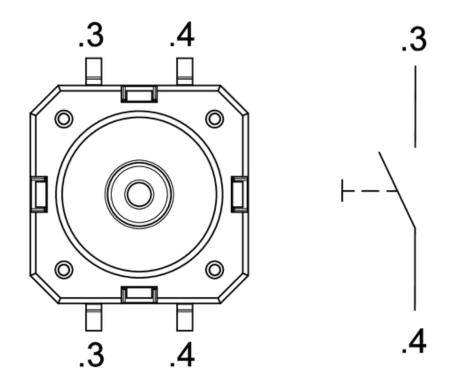
The information in this data sheet only contains general descriptions and / or performance features, which may not apply precisely as described to the respective application, and which my change due to further product enhancements. The technical data, illustrations and other information about our products 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. **date**: Aug 22, 2024 **page**: 5/6

RAFI GmbH & Co. KG

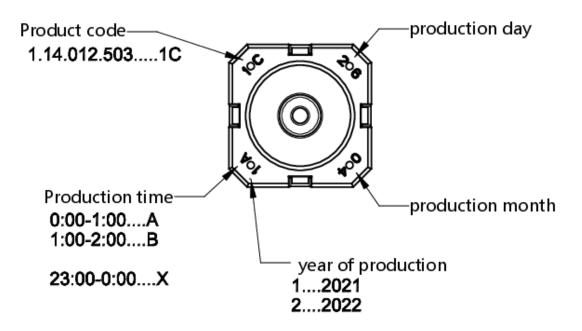




Schematic diagram



Product labeling drawing



RAFI GmbH & Co. KG