

# RACON 12 ST, THT inside, 9.7 ± 2.5 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.	125 °C	
Storage temperature, min.	-50 °C	
Storage temperature, max.	90 °C	
illuminated	No	
Soldering time for manual soldering, max.	5 sec	

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	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	
	Packaging	Tube
	Packaging unit	45 pcs.
	net weight	1.2 g
	Operating life	65,000 cycles
	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	Yes
	standard	
	MOQ order	450 pcs.
	RoHS compliant	Yes
	REACH compliant	Yes
	Product code	TM
>	mounting diameters	
-	mounting diameters	
-	Outside dimension, length	12 mm
	-	12 mm 12 mm
-	Outside dimension, length	
	Outside dimension, length Outside dimension, width	12 mm
	Outside dimension, length Outside dimension, width Installation height	12 mm 5.05 ± 0.1 mm
	Outside dimension, length Outside dimension, width Installation height Grid, min.	12 mm 5.05 ± 0.1 mm
	Outside dimension, length Outside dimension, width Installation height Grid, min. <b>mechanical data</b>	12 mm 5.05 ± 0.1 mm 12.50 x 15.24 mm
	Outside dimension, length Outside dimension, width Installation height Grid, min. <b>mechanical data</b> Actuation function	12 mm 5.05 ± 0.1 mm 12.50 x 15.24 mm momentary contact function
	Outside dimension, length Outside dimension, width Installation height Grid, min. <b>mechanical data</b> Actuation function Operating force, max.	12 mm 5.05 ± 0.1 mm 12.50 × 15.24 mm momentary contact function 18 N
	Outside dimension, length Outside dimension, width Installation height Grid, min. <b>mechanical data</b> Actuation function Operating force, max. Operating force, min.	12 mm 5.05 ± 0.1 mm 12.50 × 15.24 mm momentary contact function 18 N 9.7 ± 2.5 N
	Outside dimension, length Outside dimension, width Installation height Grid, min. <b>mechanical data</b> Actuation function Operating force, max. Operating force, min. Switching travel	12 mm 5.05 ± 0.1 mm 12.50 × 15.24 mm momentary contact function 18 N 9.7 ± 2.5 N 0.73 ± 0.15 mm
	Outside dimension, length Outside dimension, width Installation height Grid, min. <b>mechanical data</b> Actuation function Operating force, max. Operating force, min. Switching travel Bounce time at 10 mm/s	12 mm 5.05 ± 0.1 mm 12.50 × 15.24 mm momentary contact function 18 N 9.7 ± 2.5 N 0.73 ± 0.15 mm <5 ms
	Outside dimension, length Outside dimension, width Installation height Grid, min. <b>mechanical data</b> Actuation function Operating force, max. Operating force, min. Switching travel Bounce time at 10 mm/s Contact function	12 mm 5.05 ± 0.1 mm 12.50 x 15.24 mm momentary contact function 18 N 9.7 ± 2.5 N 0.73 ± 0.15 mm <5 ms 1 NO
	Outside dimension, length Outside dimension, width Installation height Grid, min. <b>mechanical data</b> Actuation function Operating force, max. Operating force, min. Switching travel Bounce time at 10 mm/s Contact function	12 mm $5.05 \pm 0.1$ mm 12.50 x 15.24 mm momentary contact function 18 N $9.7 \pm 2.5$ N $0.73 \pm 0.15$ mm <5 ms 1 NO Snap-action contact
	Outside dimension, length Outside dimension, width Installation height Grid, min. <b>mechanical data</b> Actuation function Operating force, max. Operating force, min. Switching travel Bounce time at 10 mm/s Contact function Contact system	12 mm $5.05 \pm 0.1$ mm $12.50 \times 15.24$ mm momentary contact function 18  N $9.7 \pm 2.5 \text{ N}$ $0.73 \pm 0.15$ mm <5  ms 1  NO Snap-action contact SPST - Single Pole Single Throw
	Outside dimension, length Outside dimension, width Installation height Grid, min. <b>mechanical data</b> Actuation function Operating force, max. Operating force, min. Switching travel Bounce time at 10 mm/s Contact function Contact system	12 mm 5.05 $\pm$ 0.1 mm 12.50 x 15.24 mm momentary contact function 18 N 9.7 $\pm$ 2.5 N 0.73 $\pm$ 0.15 mm <5 ms 1 NO Snap-action contact SPST - Single Pole Single Throw Gold
>	Outside dimension, length Outside dimension, width Installation height Grid, min. <b>mechanical data</b> Actuation function Operating force, max. Operating force, min. Switching travel Bounce time at 10 mm/s Contact function Contact system	12 mm $5.05 \pm 0.1$ mm $12.50 \times 15.24$ mm momentary contact function 18 N $9.7 \pm 2.5$ N $0.73 \pm 0.15$ mm <5 ms 1 NO Snap-action contact SPST - Single Pole Single Throw Gold Yes
>	Outside dimension, length Outside dimension, width Installation height Grid, min. <b>mechanical data</b> Actuation function Operating force, max. Operating force, min. Switching travel Bounce time at 10 mm/s Contact function Contact system Contact material Solderability Terminal on the rear	12 mm $5.05 \pm 0.1$ mm $12.50 \times 15.24$ mm momentary contact function 18 N $9.7 \pm 2.5$ N $0.73 \pm 0.15$ mm <5 ms 1 NO Snap-action contact SPST - Single Pole Single Throw Gold Yes
>	Outside dimension, length Outside dimension, width Installation height Grid, min. <b>mechanical data</b> Actuation function Operating force, max. Operating force, min. Switching travel Bounce time at 10 mm/s Contact function Contact system Contact material Solderability Terminal on the rear <b>electrical data</b>	12 mm 5.05 ± 0.1 mm 12.50 × 15.24 mm momentary contact function 18 N 9.7 ± 2.5 N 0.73 ± 0.15 mm <5 ms 1 NO Snap-action contact SPST - Single Pole Single Throw Gold Yes THT inward
>	Outside dimension, length Outside dimension, width Installation height Grid, min. <b>mechanical data</b> Actuation function Operating force, max. Operating force, min. Switching travel Bounce time at 10 mm/s Contact function Contact system Contact system Contact material Solderability Terminal on the rear <b>electrical data</b> Rated voltage, min.	12 mm 5.05 $\pm$ 0.1 mm 12.50 $\times$ 15.24 mm momentary contact function 18 N 9.7 $\pm$ 2.5 N 0.73 $\pm$ 0.15 mm <5 ms 1 NO Snap-action contact SPST - Single Pole Single Throw Gold Yes THT inward 0.02 V
>	Outside dimension, length Outside dimension, width Installation height Grid, min. <b>mechanical data</b> Actuation function Operating force, max. Operating force, min. Switching travel Bounce time at 10 mm/s Contact function Contact system Contact material Solderability Terminal on the rear <b>electrical data</b> Rated voltage, min. Rated voltage, max.	12 mm 5.05 $\pm$ 0.1 mm 12.50 $\times$ 15.24 mm momentary contact function 18 N 9.7 $\pm$ 2.5 N 0.73 $\pm$ 0.15 mm <5 ms 1 NO Snap-action contact SPST - Single Pole Single Throw Gold Yes THT inward 0.02 V 35 V
>	Outside dimension, length Outside dimension, width Installation height Grid, min. <b>mechanical data</b> Actuation function Operating force, max. Operating force, min. Switching travel Bounce time at 10 mm/s Contact function Contact function Contact system Contact material Solderability Terminal on the rear <b>electrical data</b> Rated voltage, min. Rated voltage, max. Rated current, min.	12 mm $5.05 \pm 0.1$ mm $12.50 \times 15.24$ mm momentary contact function 18  N $9.7 \pm 2.5 \text{ N}$ $0.73 \pm 0.15$ mm <5 ms 1  NO Snap-action contact SPST - Single Pole Single Throw Gold Yes THT inward 0.02  V 35  V 0.00001  A

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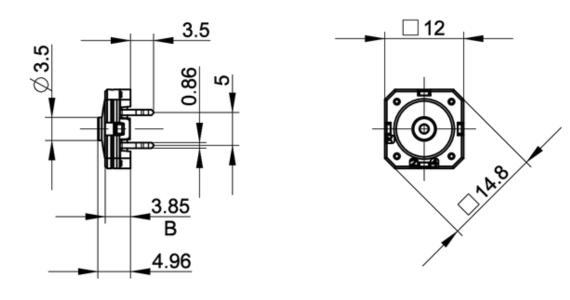
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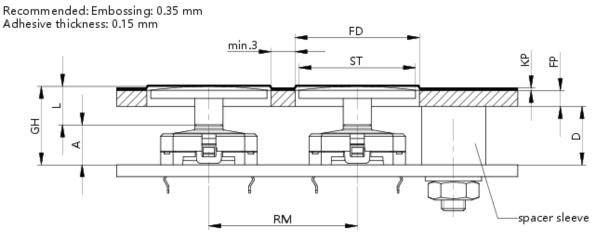
# drawings

#### **Dimensioned drawing**



### System drawing

### THT connection internal



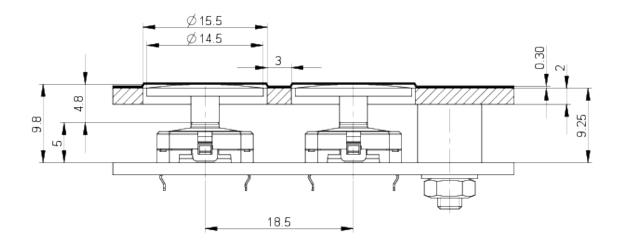
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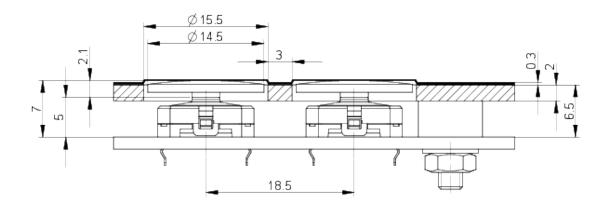




#### System drawing



#### System drawing



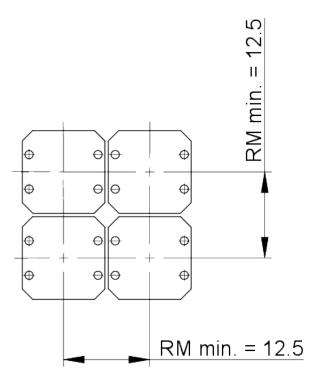
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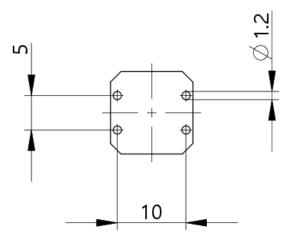
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#### PCB drawing



#### **PCB drawing**



PCB hole pattern component side

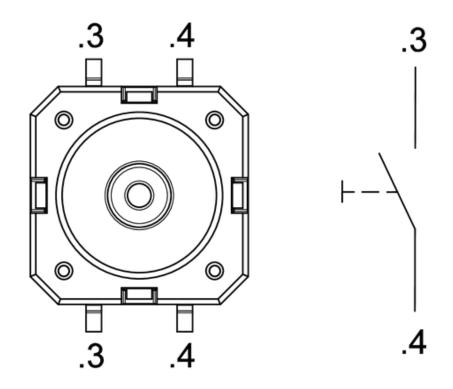
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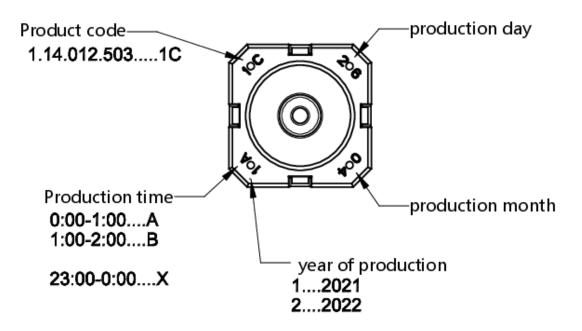




#### Schematic diagram



### Product labeling drawing



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