

RACON 12 S, SMT, 3.6 ± 0.7 N, 1 NO

LBL_NRFND



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.	90 °C
Storage temperature, min.	-50 °C
Storage temperature, max.	90 °C
illuminated	No
Soldering	Reflow
Solder heat resistance according to standard	DIN EN 60068-2-58
Packaging	Blister
Packaging unit	750 pcs.
Net weight	1.5 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, according to DIN EN 60529	IP54 IPx7

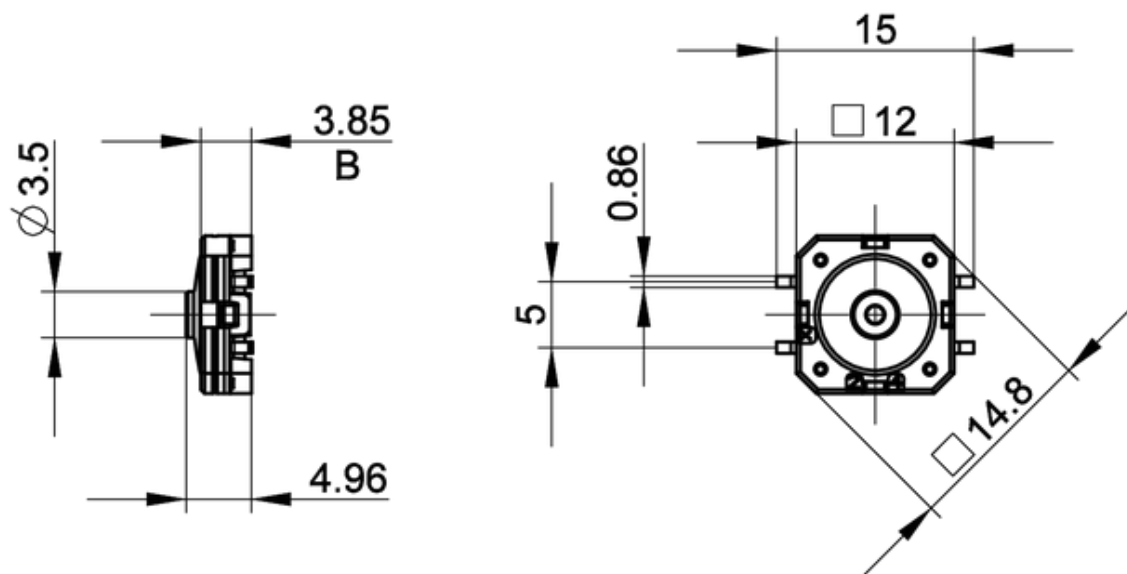
direct links

> [RAFI eCatalog](#)

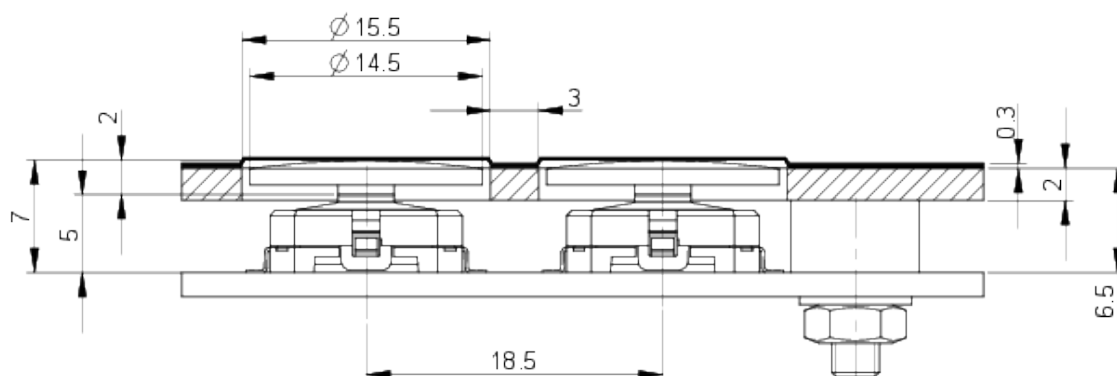
MSL Moisture Sensitivity Level	1
Corrosive gas testing according to standard	Yes
Minimum order quantity (MOQ)	750 pcs.
RoHS compliant	Yes
REACH compliant	Yes
Component material	Elastomer
Product code	1C
Country of origin	DE
> mounting diameters	
Outside dimension, length	12 mm
Outside dimension, width	12 mm
Installation height	4.95 ± 0.1 mm
Grid, min.	12.50 x 15.24 mm
> mechanical data	
Terminal on the rear	SMT
Actuation function	momentary contact function
Operating force, max.	8 N
Operating force, min.	3.6 ± 0.7 N
Contact function	1 NO
Contact system	Snap-action contact SPST - Single Pole Single Throw
Contact material	Gold
Solderability	Yes
Switching travel	0.61 ± 0.1 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

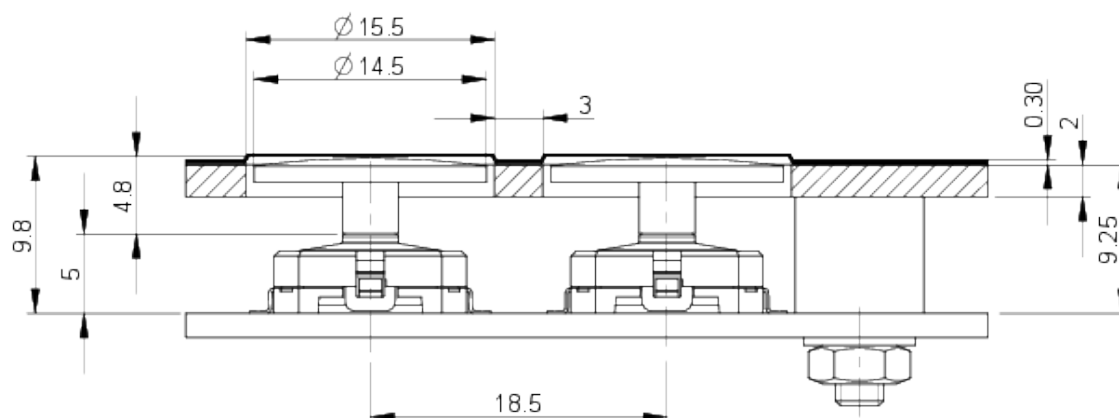
Dimensioned drawing



System drawing



System drawing

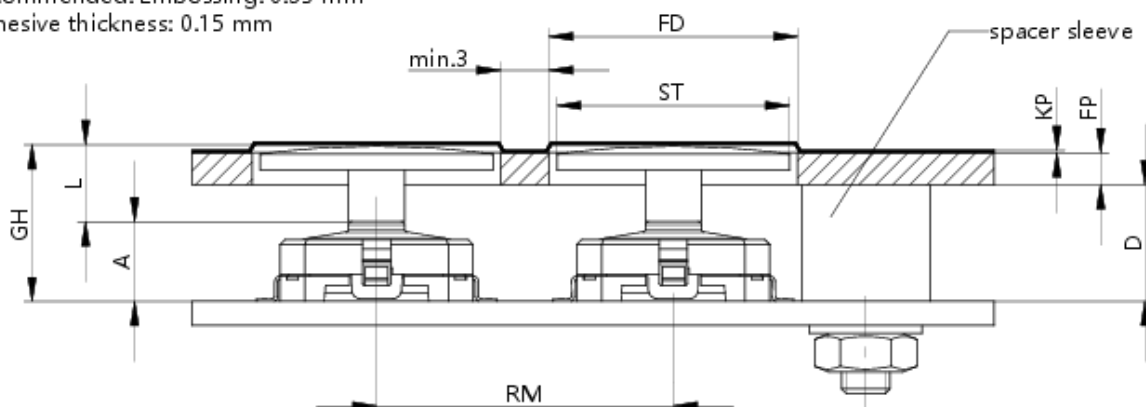


System drawing

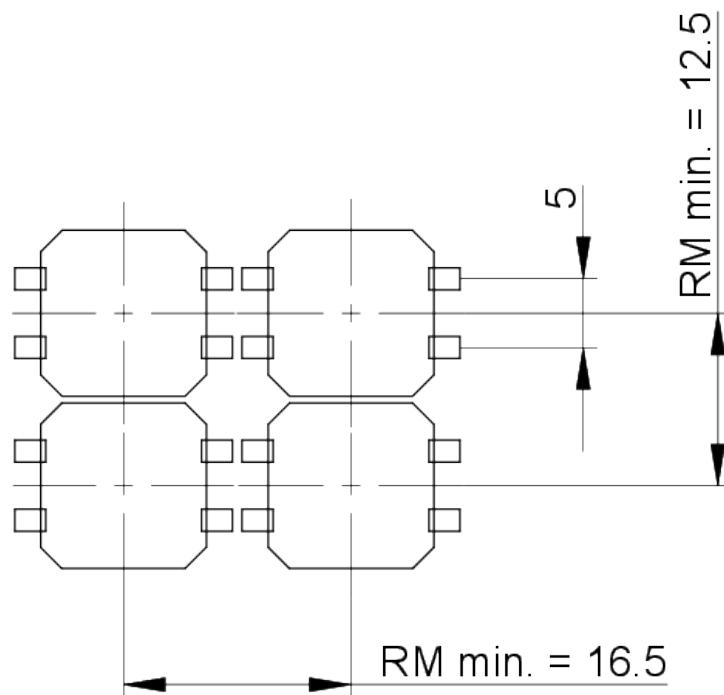
SMT gullwing connection

Recommended: Embossing: 0.35 mm

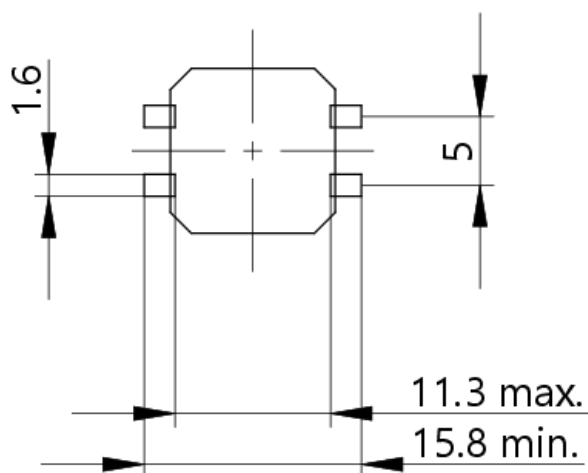
Adhesive thickness: 0.15 mm



PCB drawing

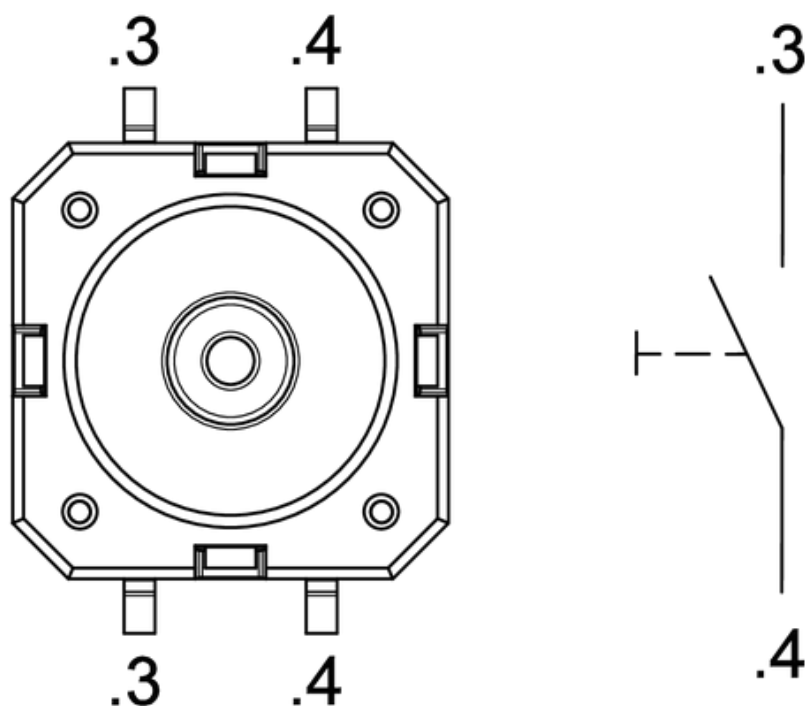


PCB drawing

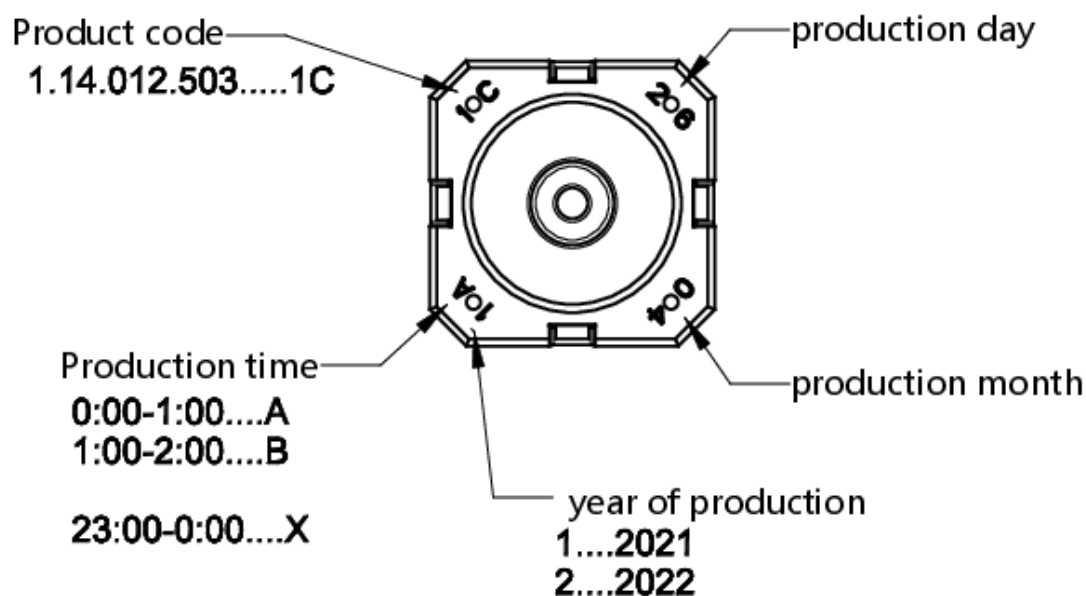


PCB-Pad
component side

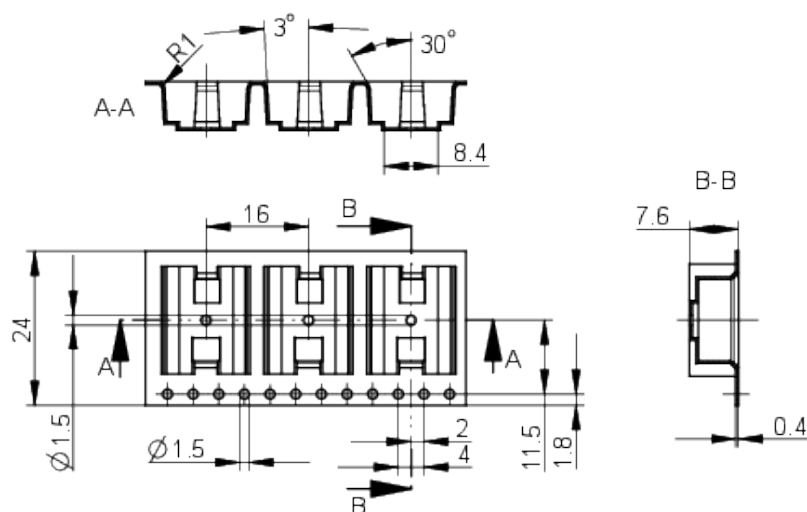
Schematic diagram



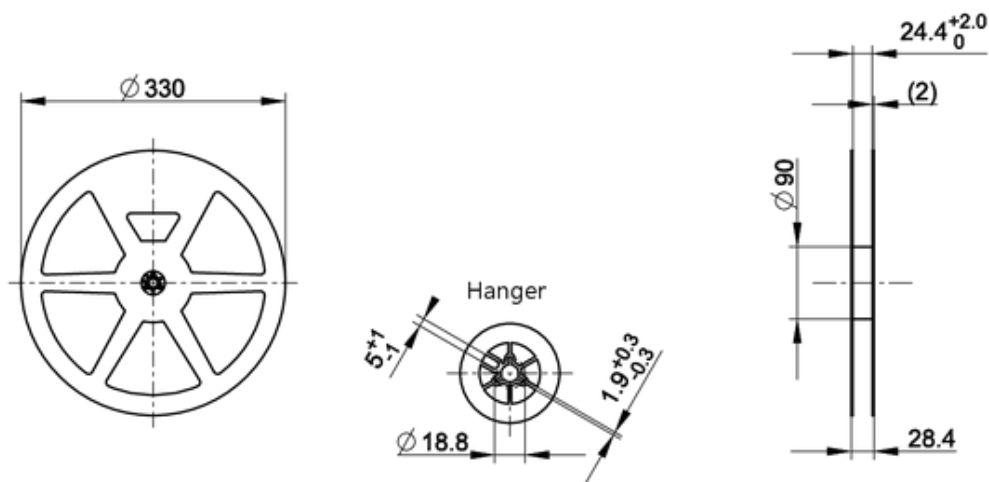
Product labeling drawing



Packaging drawing



Packaging drawing

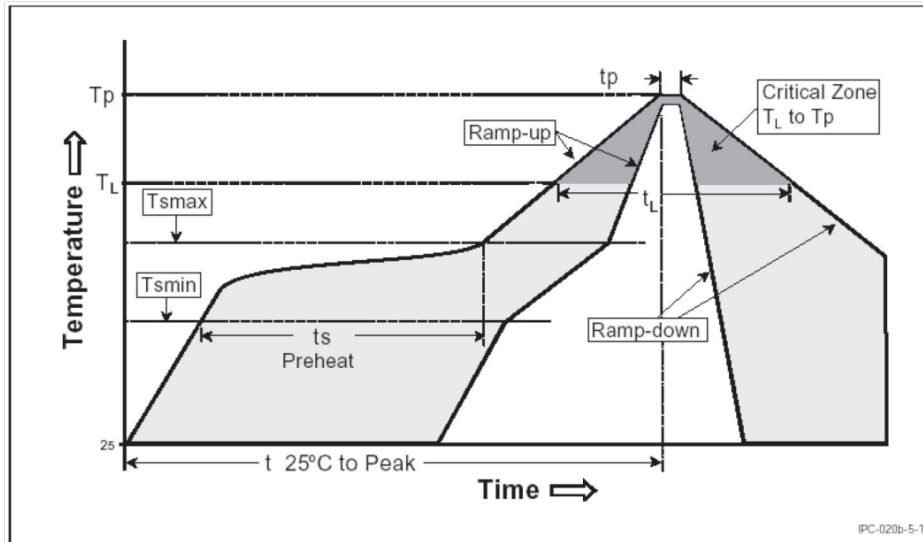


mounting

RAFI soldering profile for ROHS compliant reflow components



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Parameter	RAFI values
Gradient (T_L to T_P)	max. 3°C / s
Preheating zone	
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 Jedec J-STD-020D.

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page 1 of 1