MICON 5 SAFETY, SMT Standard, 2,9 ± 0,6 N, 1 Ö + 1 S



Beschreibung

MICON 5 SAFETY - Hinweis zu sicherheitskritischen Anwendungen:
Der MICON 5 SAFETY ist ein elektromechanischer Taster auf Basis von Schnappscheibentechnologie. Elektromechanische Bauelemente dieser Bauart weisen technologiebedingt eine begrenzte Frühausfallcharakteristik auf, die durch systemseitige Maßnahmen beherrscht werden muss.
Bei der Integration in sicherheitskritische Funktionen ist der Anwender verpflichtet, diese Eigenschaft im Rahmen der Risikobeurteilung des Gesamtsystems zu berücksichtigen. Die Verantwortung für die Eignung des Produkts im jeweiligen Sicherheitskreis verbleibt beim Systemintegrator.

Die MICON 5 Kurzhubtaster sind extrem schaltsichere Bauelemente mit sehr geringem Platzbedarf. Sie können einzeln, in Reihen oder als Tastenfelder angeordnet werden. Für den Einsatz unter Folie empfehlen wir die MICON 5-Taster mit Stößeln zu kombinieren.Die Eigenschaften auf einen Blick:

- Geeignet für die wichtigsten Lötverfahren
- Wellen-Lötbad für THT-Versionen
- Reflow-Löten für SMT-Versionen
- Dampfphasen-Löten für SMT-Versionen
- Handlötung
- Verarbeitung der SMT-Ausführung mit SMT-Bestückungsautomaten
- IMDS-Eintrag

- Verpackung im Blistergurt, Spule mit 2.100 Stück
- Vorschlag für Schablonendruck: 150 µm-Schablone mit 10% Pad-Verkleinerung auf Fläche

CE

Technische Daten

Allgemein

Arbeitstemperatur, min.	-40 °C
Arbeitstemperatur, max.	125 °C
Lagertemperatur, min.	-40 °C
Lagertemperatur, max.	90 °C
beleuchtbar	nein
Lötverfahren	Reflow
Lötwärmebeständigkeit nach	DIN EN 60068-2-58
Norm	DIN EN 61760-1
Verpackung	Blister
Verpackungseinheit	2.100 Stück
Nettogewicht	0,3 g
Lebensdauer	1.000.000 Zyklen
B10	1.300.000 Zyklen

Direkte Links

- RAFI eCatalog

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Schutzart frontseitig gem. ISO 20653	IP67 (IP6K7)
Schutzart rückseitig gem. ISO 20653	IP67 (IP6K7)
MSL Moisture Sensitivity Level	1
Schockfestigkeit gem. Norm IEC 60068-2-27	50 g bei 11 ms Amplitude halbsinusförmig
Schwingbeständigkeit gem. Norm IEC 60068-2-6	5 g bei 10...500 Hz
Mindestbestellmenge (MOQ)	2.100 Stück
RoHS konform	ja
REACH konform	ja
Produktcode	XW

Einbaumaße

Außenmaß Länge	6,4 ± 0.1 mm
Außenmaß Breite	5,1 ± 0.1 mm
Einbauhöhe	3,85 ± 0.1 mm
Raster, min.	6 x 7.8 mm

Mechanische Kennwerte

Anschluss rückseitig	SMT
Betätigungsfunktion	tastend
Betätigungskraft, max.	4 N
Betätigungskraft, min.	2,9 ± 0.6 N
Kontaktfunktion	1 Ö + 1 S
Kontaktsystem	Sprungkontakt DPST - Double Pole Single Throw
Kontaktwerkstoff	Gold
Lötbarkeit	Ja
Prellzeit bei 10 mm/s	<5 ms
Schaltfunktion	Öffnen vor Schließen
Schaltweg	0,7 ± 0.15 mm

Elektrische Kennwerte

Schaltspannung, min.	0,02 V
Schaltspannung, max.	35 V
Spannungsfestigkeit	250 V
Schaltstrom, min.	0,00001 A
Schaltstrom, max.	0,1 A
Schaltleistung, max.	1 W

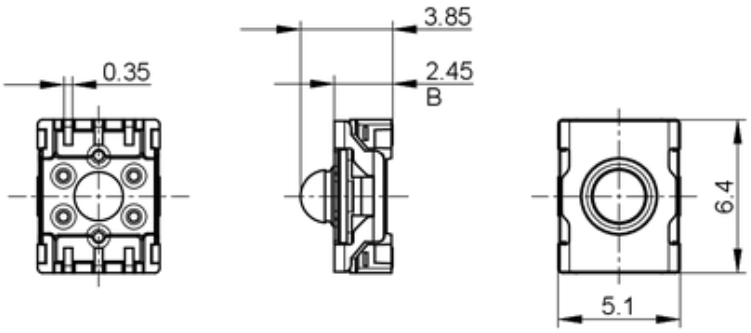
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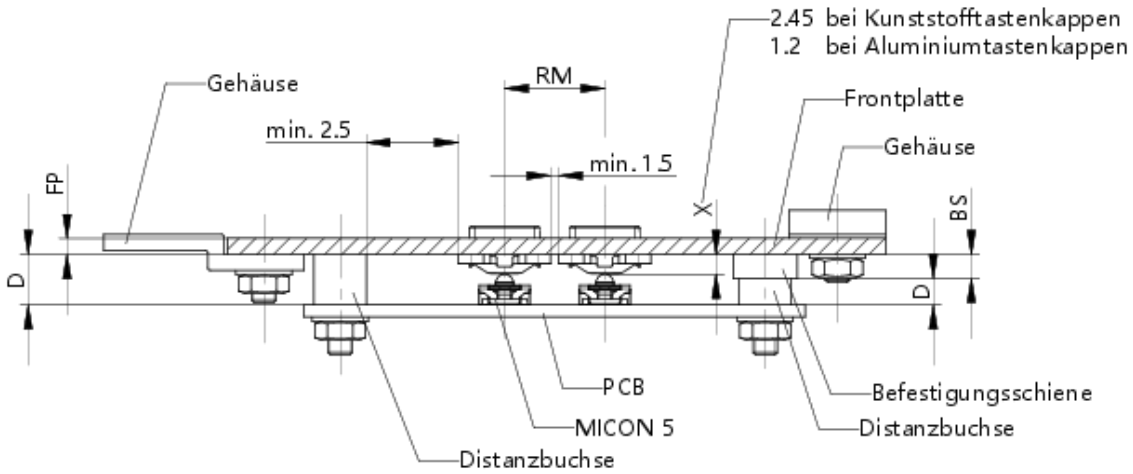
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Zeichnungen

Maß-Zeichnungen



System-Zeichnung

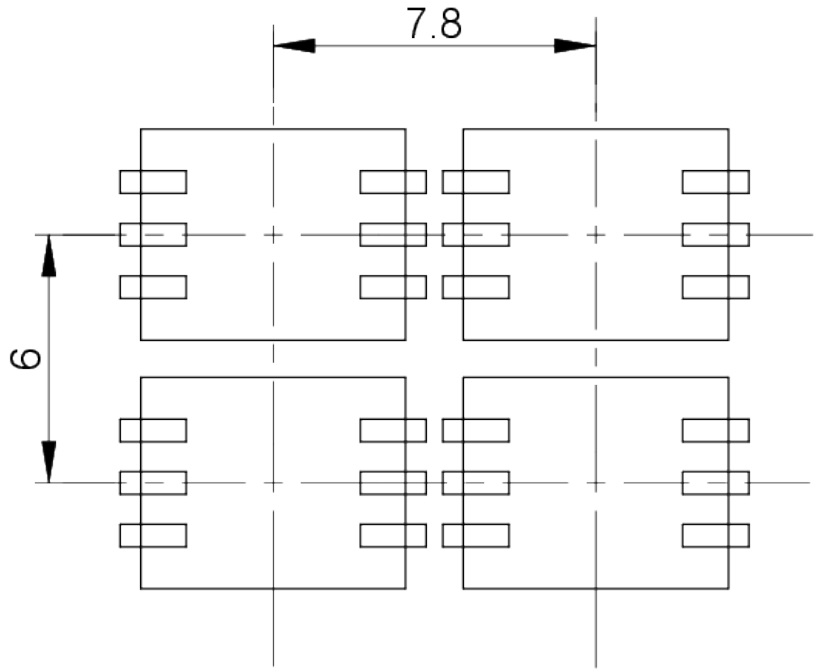


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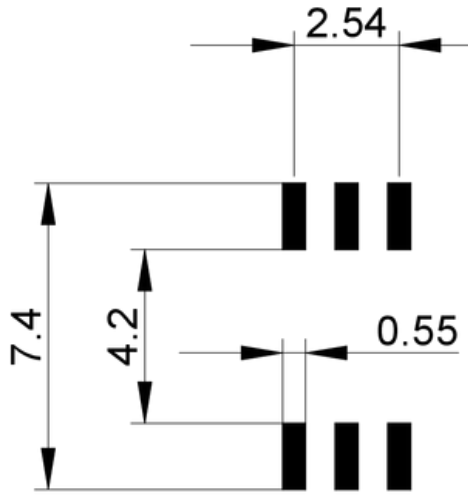
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Leiterplatten-Zeichnung



Leiterplatten-Zeichnung

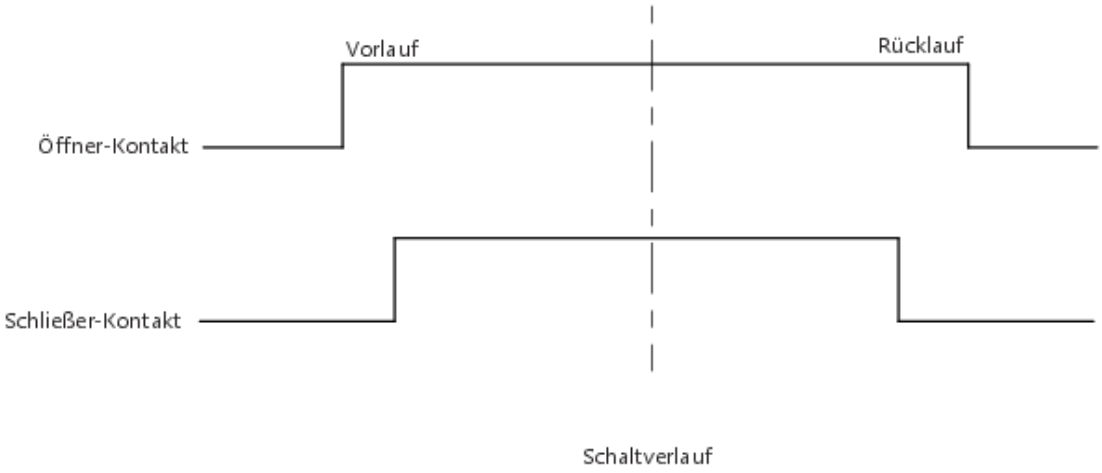


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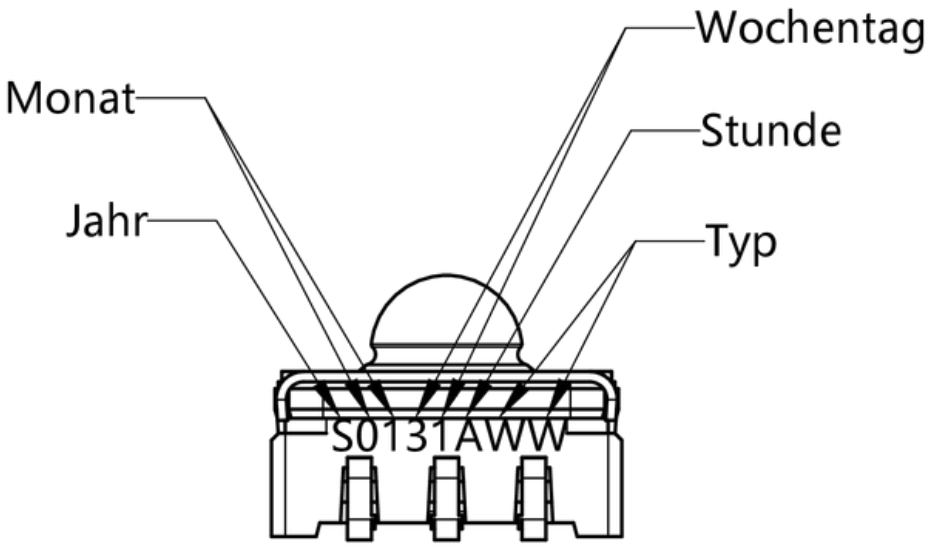
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Schaltschema-Zeichnung



Produktkennzeichnung-Zeichnung

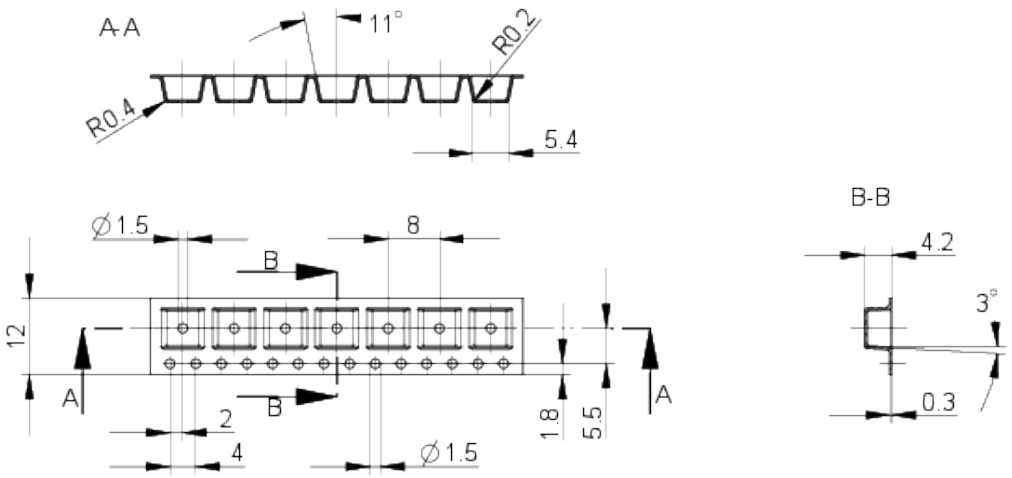


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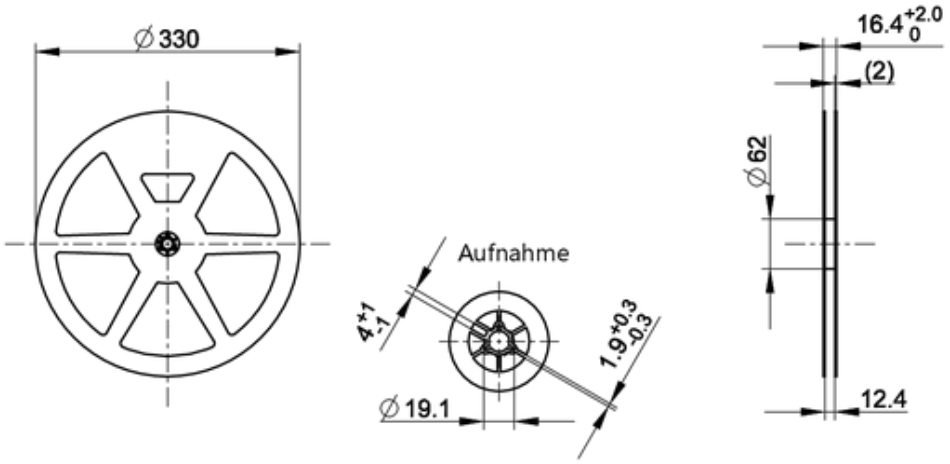
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Verpackungs-Zeichnung



Verpackungs-Zeichnung

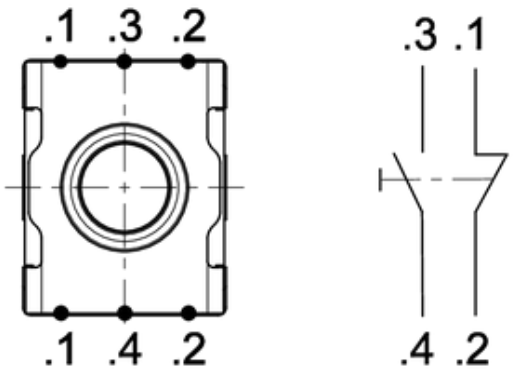


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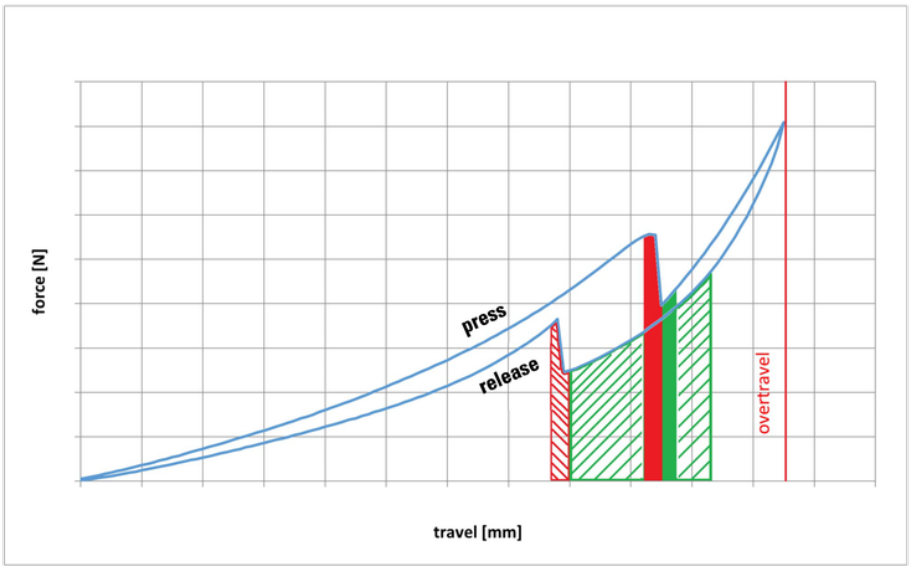
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Anschlussplan-Zeichnung



Kraft-Weg-Diagramm



press: NC switching range
NO switching range
release: NC switching range
NO switching range

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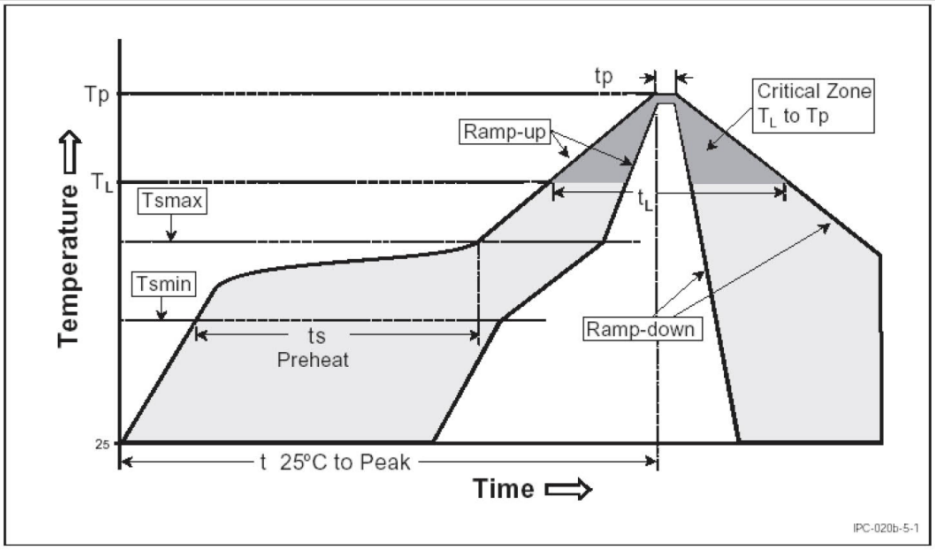
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Montage

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
Preheating zone Minimum temperature (T_{smin}) Maximum temperature (T_{smax}) Time (from min. to max.) (ts)	 150°C 200°C 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 (tp)	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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Media Robust Electronics

Publication date: February 13, 2025

MICON 5 S, SL and SAFETY

Valid for all variants MICON 5 S 1.14.005., MICON 5 SL 1.14.105. and MICON 5 SAFETY 1.14.205.

Recommended potting compounds

WEVO-CHEMIE GmbH	**WEVOPUR 7210 FL/WEVONAT 507**

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.

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