



This new board-to-board right angled SMC connector with locking system is a perfect addition to our existing product range of 1.27 mm SMC connectors.

The locking system can withstand normal vibration/shock loads, which usually occur in day to day usages.

Both female and male connectors are available with SMT terminals. The plastic housing is made of high temperature resisting LCP material, which makes the connector suitable for lead free reflow soldering processes.

The connectors are available in tape-and-reel packaging for automated pick-and-place assembly.

## Technical Features

- Configurations: 12 pin (other versions on demand)
- Interlockable
- Assembly Heights: 9 mm
- Design acc. to DIN EN 60068-1
- Termination: SMT
- High temperature resisting housing material
- Robust friction locking feature
- Tape and Reel packaging

# 1.27 mm SMC Connectors

## With Locking System

### Electrical And Mechanical Characteristics



	Standard	Male Type B	Female Type Q
Number of Pins		12	12
<b>Technical data</b>			
Climate category	DIN EN 60068-1 test b	-55/125/56	-55/125/56
Temperature range		-55/125 °C	-55/125 °C
Current rating	IEC60512 test 5b	By ambient temperature: 20 °C 1.2 A 70 °C 0.9 A 100 °C 0.6 A	By ambient temperature: 20 °C 1.2 A 70 °C 0.9 A 100 °C 0.6 A
Air – and creepage distance		0.4 mm	0.4 mm
Operating voltage	IEC 60664	The permissible operating voltages depend on the customer application and on the applicable or specified safety requirements. Insulation coordination according to IEC 60664-1 has to be regarded for the complete electrical device. Therefore, the maximum creepage and clearance distances of the mated connectors are specified for consideration as a part of the whole current path. In practice, reductions in creepage or clearance distances may occur due to the conductive pattern of the printed board or the wiring used, and have to be taken into account separately. As a result the creepage and clearance distances for the application may be reduced compared to those of the connector.	
Dielectric strength	IEC 60512 test 4a	contact – contact 500 V <sub>rms</sub>	contact – contact 500 V <sub>rms</sub>
Contact resistance	IEC 60512 test 2a	< 25 mΩ	< 25 mΩ
Insulation resistance	IEC 60512 test 3a	> 10 <sup>4</sup> MΩ	> 10 <sup>4</sup> MΩ
Vibration, sine	IEC 60512 test 6d	10 – 2000 Hz 20g	10 – 2000 Hz 20g
Contact disturbance (while vibration test)	IEC 60512 test 2e	< 1 μs	< 1 μs
Shock, halfsine	IEC 60512 test 6c	50 g 11 ms	50 g 11 ms
Contact disturbance (while shock test)	IEC 60512 test 2e	< 1 μs	< 1 μs
Mechanical operation (mating cycles)	IEC 60512 test 9a	> 500 mating cycles	> 500 mating cycles
Insertion and withdrawal force	IEC 60512 test 13b	in preparation	in preparation
Gauge retention force	IEC 60512 test 16e	0.1 N min.	0.1 N min.



# 1.27 mm SMC Connectors With Locking System

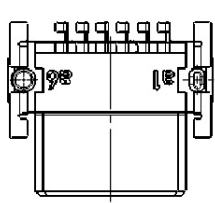
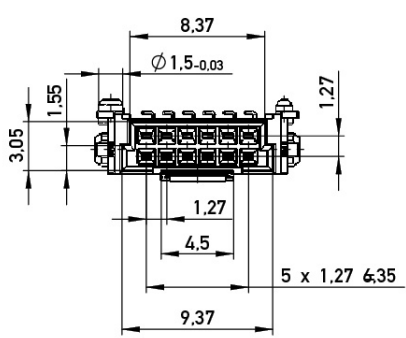
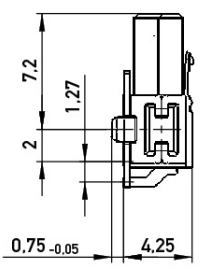
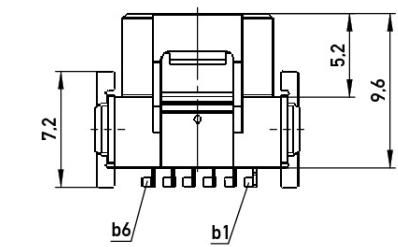
## Electrical And Mechanical Characteristics

	Standard	Male Type B	Female Type Q
Number of Pins		12	12
<b>Process-conditions</b>			
Solder temperature max.	IEC 68-2-20		
Hand soldering temperature max.		3.5 s at 350 °C	3.5 s at 350 °C
Dip soldering temperature max.		10 s at 260 °C	10 s at 260 °C
Reflow soldering temperature max.	JEDEC J-STD-020C	20 - 40 s at 260 °C	20 - 40 s at 260 °C
Coplanarity		< 0.1 mm	< 0.1 mm
<b>Housing Materials</b>			
Plastic material (symbol)		LCP	LCP
CTI value	IEC 112	CTI 175	CTI 175
UL flame rating		UL 94 V-0	UL 94 V-0
UL file		E 83005	E 83005
<b>Contact Materials</b>			
Base material		Cu alloy	Cu alloy
Mating area		min. 1.0 µm PdNi + 0.1 µm Au over 2-3 µm Ni	min. 1.0 µm PdNi + 0.1 µm Au over 2-3 µm Ni
Termination area		4-6 µm Sn over 2-3 µm Ni	4-6 µm Sn over 2-3 µm Ni
<b>Environment compatibility</b>			
Recycling		no flame-retardent additives, no toxic additives allows easy recycling	
<b>Product-approval</b>			
UL		E 84703	E 84703

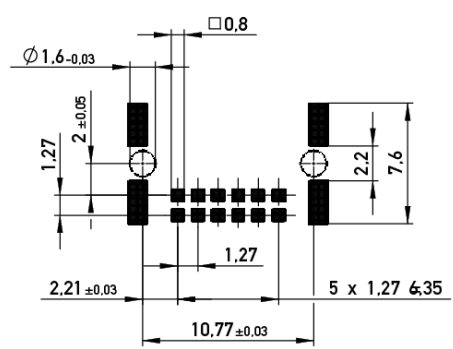
# 1.27 mm SMC Connectors With Locking System Right Angle Female Connector Type Q



## Dimensional Drawings

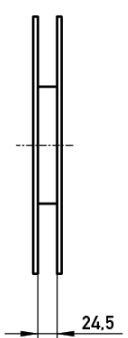
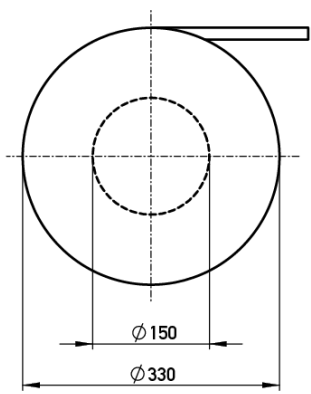


## Leiterplatten-Layout Vorschlag für SMT PCB-Layout Proposal for SMT

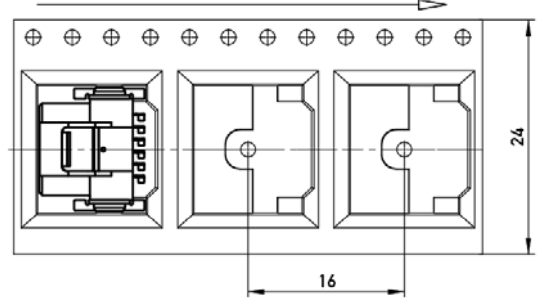


Verpackt in Gurtverpackung  
Verpackungseinheit: 560 Stück

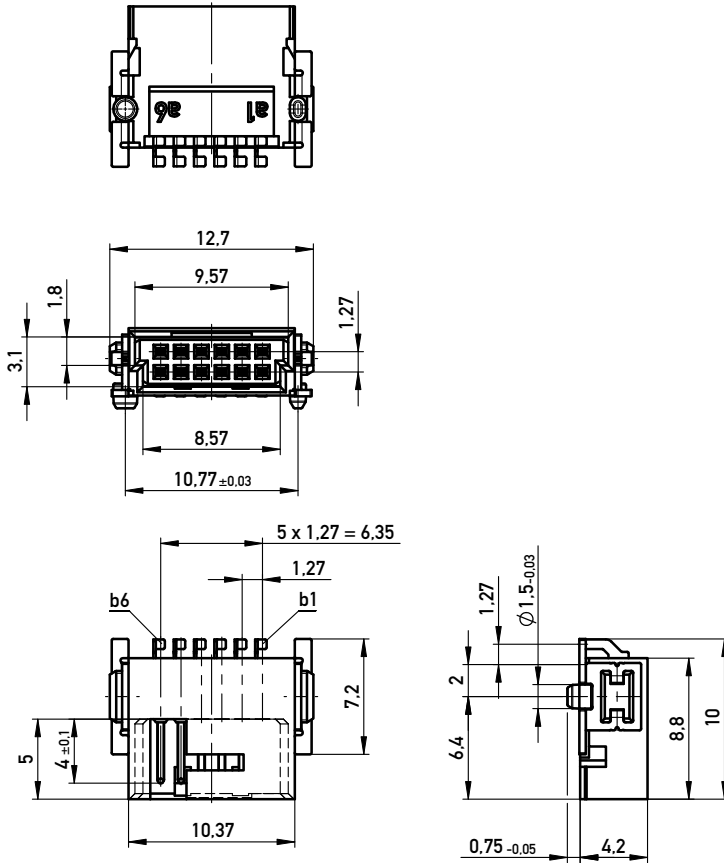
Tape on Reel Packaging  
Packaging unit: 560 pcs



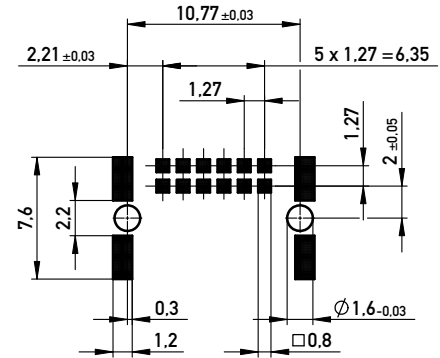
Abspulrichtung - Reel off Direction



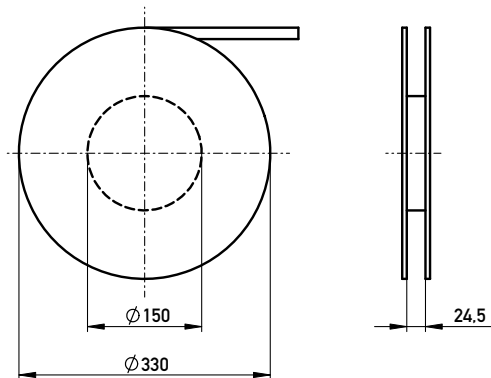
### Dimensional Drawings



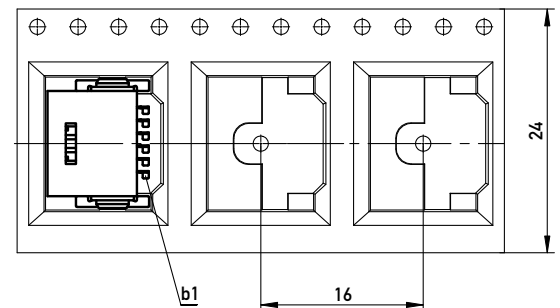
### Leiterplatten-Layout Vorschlag für SMT PCB-Layout Proposal for SMT



Verpackt in Gurtverpackung - *Tape on Reel Packaging*  
Verpackungseinheit: 560 Stück - *Packaging unit: 560 pcs*



### Abspulrichtung - *Reel off Direction*



# 1.27 mm SMC Connectors With Locking System

## Ordering Information



Configuration	Number of Pins	Termination	Height	Packaging/Unit	Part Number
Right Angle Female	12	SMT	9 mm	Tape and reel/560 pcs	254262
Right Angle Male	12	SMT	9 mm	Tape and reel/560 pcs	254273