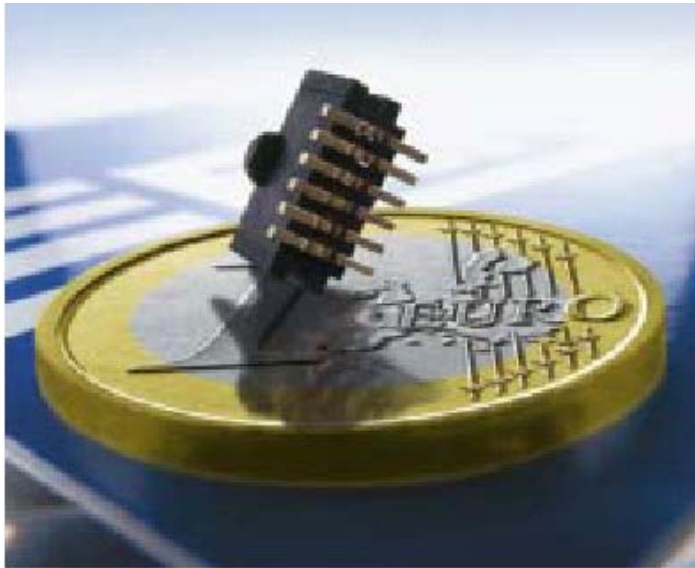


Board to Board Series**Table of Contents**

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Board to Board Series

Applications

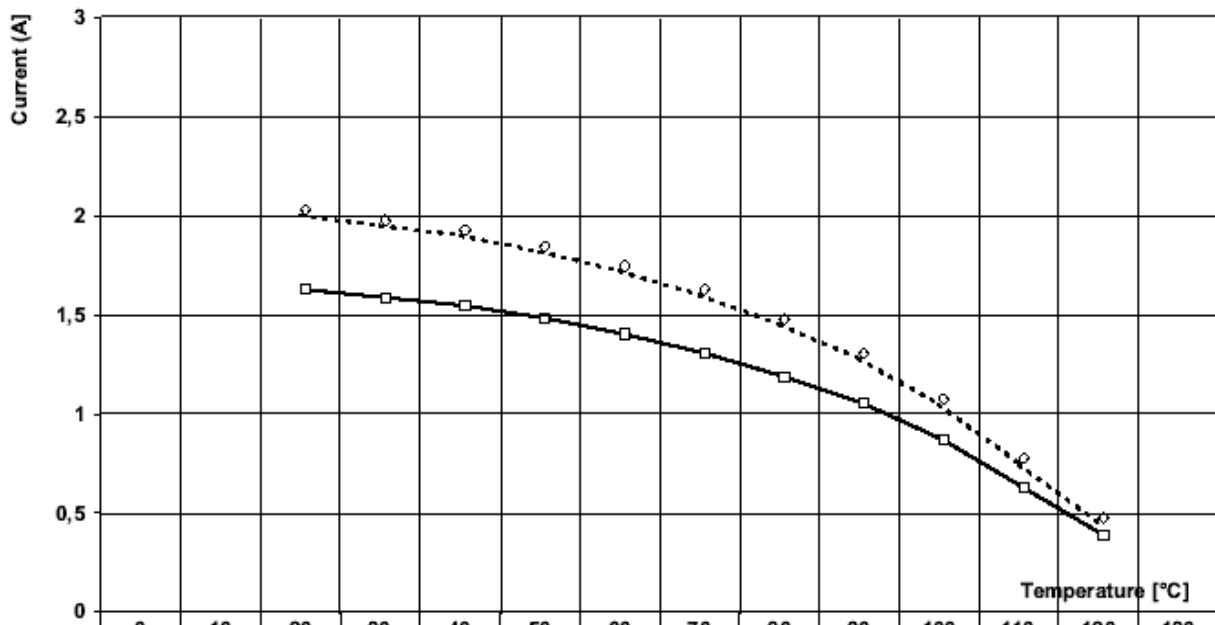


- Sensor engineering: Light barriers, switches
- Medical engineering: Intensive medical equipment, portable diagnostics
- Mobile communication: Mobile phones, PDAs, organizer, memory modules
- Car electronics: Car radios, mobile car phones, mobile car office equipment
- Control engineering: Mini PLCs, fieldbus modules, mini solenoid systems
- Facility management: Signal and indicator devices, alarm systems and bus modules

Technical Features

Derating Curve

In spite of the small design of the **Coconn 0.8mm Pitch connectors Board to Board series**, they reach a high current rating. The contacts feature large radiant surfaces to derive heat. The derating curve shows the 50pin version without PCB.



Base curve [A]			2	1,95	1,9	1,82	1,72	1,6	1,45	1,28	1,05	0,75	0,45	
Derating curve [A]			1,6	1,56	1,52	1,456	1,376	1,28	1,16	1,024	0,84	0,6	0,36	

Board to Board Series

Electrical And Mechanical Characteristics

	Standard	1 Row and 2 Row Types
Number of Pins		6, 12 and 50
Technical data		
Climate Category	DIN EN 60068-1 test b	-55/125/21
Bearing and operating temperature area		-55/125 °C
Current rating	IEC60512 test 5b	By ambient temperature: 20°C 1,6 A 70°C 1,3 A 100°C 0,8 A
Air – and creepage distance		0,4mm
Comparative figure of voltage	IEC 60112	CTI-250
Voltage rating	IEC 60664	Has to be determined according to client-specific using case (degree of environmental pollution) according to IEC 60664
Dielectric strength	IEC 60512	contact – contact 500V
Contact resistance	IEC 60512 test 2a	< 10 mΩ
Insulation resistance	IEC 60512 test 3a	> 10 ⁹ MΩ
Vibration	IEC 60512 test 6d	10 – 2000 Hz 20g
Contact disturbance (while vibration sine)	IEC 60512 test 2e	< 1 μs
Shock halfsine	IEC 60512 test 6c	50g 11 ms
Contact disturbance (while shock halfsine)	IEC 60512 test 2e	< 1 μs
Mechanical operation (mating cycles)	IEC 60512 test 9a	> 10 mating cycles
Insertion and withdrawal force	IEC 60512 test 13b	6 cont.: 12 N max. 12 cont.: 24 N max. 50 cont.: 100 N max.

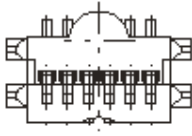



Board to Board Series

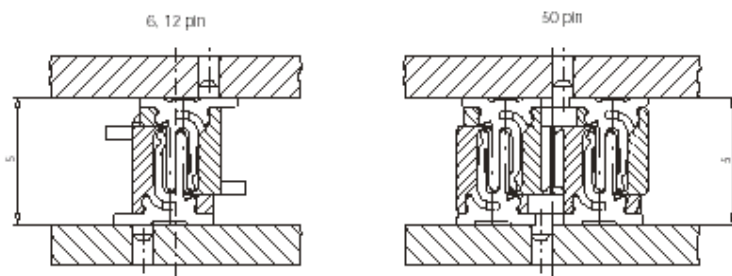
Electrical And Mechanical Characteristics

	Standard	1 Row and 2 Row Types
Number of Pins		6, 12 and 50
Process-conditions		
Hand soldering temperature max.	IEC 68-2-20	3,5s at 350°C
SMT-Reflow soldering temperature max.	IEC 68-2-20	10s at 260°C
Coplanarity		< 0,1mm
Materials		
Housing: plastic material (symbol)		PA 46
CTI value	IEC 60112	CTI 250
UL flame rating		UL 94 V-0
UL file		E 119177
Contact and mating area		
Base material		Cu alloy
Plating		Au over Ni
Termination area		
Base material		Cu alloy
Plating		Au
Enviroment compatibility		
recycling		no flame-retardent additives, no toxic additives allow easy recycling

0.8mm Pitch Connectors

Board to Board Series

Configuration		Height	No. of Pins	Part Number
Single row with peg, tape and reel, 1500 pcs/reel	 	5 - 6.5mm	6	MS0601
Single row without peg, tape and reel, 1500 pcs/reel	 	5 - 6.5mm	6	MS0612



All dimensions in mm

0.8mm Pitch Connectors

Board to Board Series

12 Pin Single Row Version

The SMT 0.8 Pitch Connectors Board to Board Series with 0.8mm pitch and with SMT termination is based on a hermaphroditic design. As result of this the male and female connector are identical. The same style for male and female connector meet the requirement for a economical connector solution in modern applications in electronics. The dual-sided PCB application contact principle provides for a tilt-proof and insertion-proof connector position on the PCB. The gripper surface is integrated within the insulator body. The obviates the need for the standard assembly hood. Optionally, version featuring positioning pegs are also available. Using the 0.8mm Pitch Connectors board-to-board series height from 5.0mm up to 6.5mm is achieved.


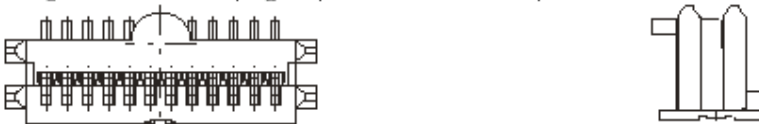
3

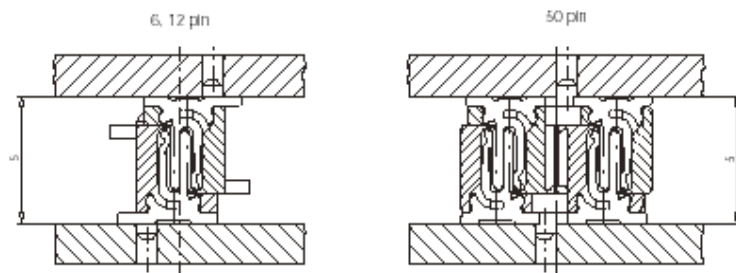
3

0.8mm Pitch Connectors

Board to Board Series

12 Pin Single Row Version

Configuration	Height	No. of Pins	Part Number
<p>Single row with peg, tape and reel, 1500 pcs/reel</p> 	5 - 6.5mm	12	MS1201
<p>Single row without peg, tape and reel, 1500 pcs/reel</p> 	5 - 6.5mm	12	MS1212

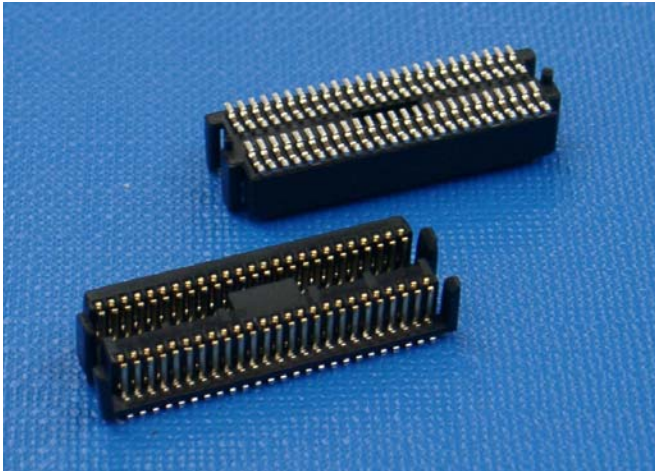


All dimensions in mm

0.8mm Pitch Connectors

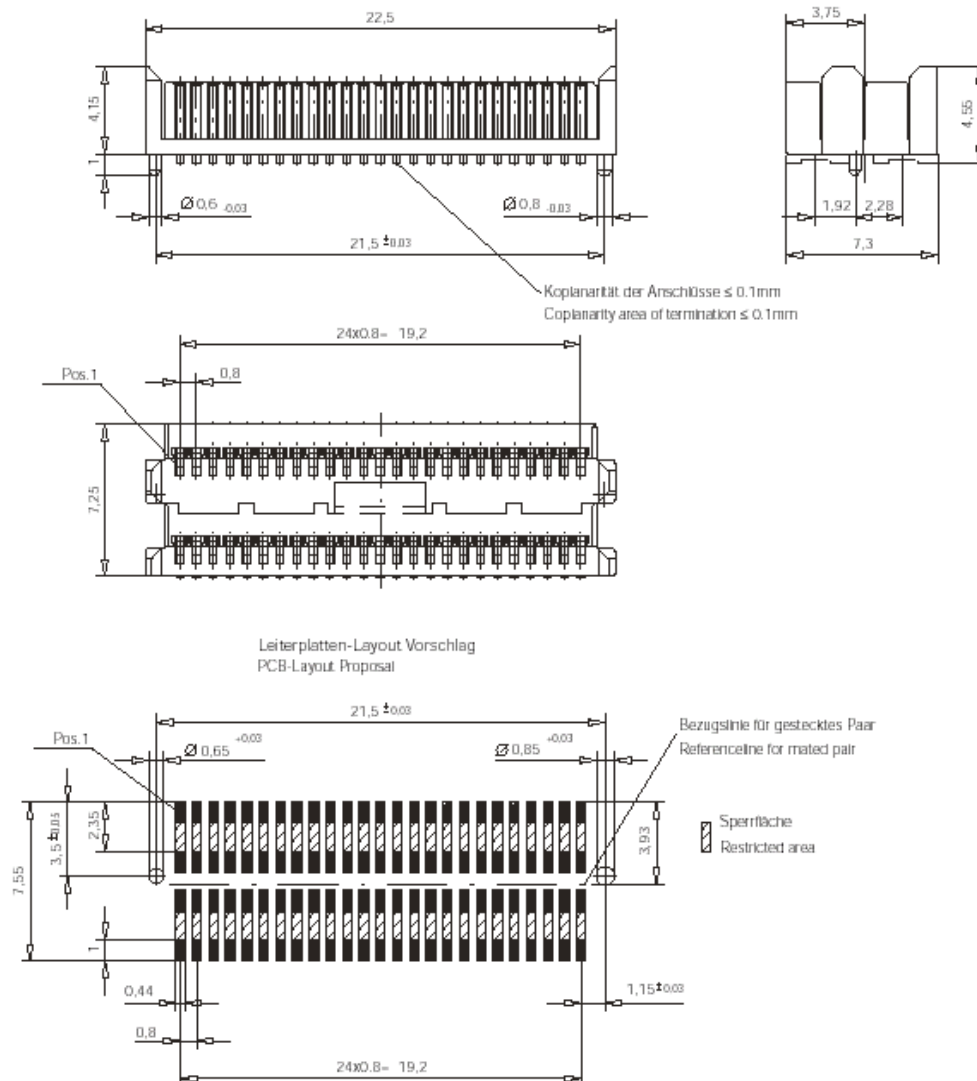
Board to Board Series

50 Pin Dual Row Version



The SMT **0.8 Pitch Connectors Board to Board Series** with 0.8mm pitch and with SMT termination is based on a hermaphroditic design. As result of this the male and female connector are identical. The same style for male and female connector meet the requirement for a economical connector solution in modern applications in electronics. The dual-sided PCB application contact principle provides for a tilt-proof and insertion-proof connector position on the PCB. The gripper surface is integrated within the insulator body. The obviates the need for the standard assembly hood. Optionally, version featuring positioning pegs are also available. Using the **0.8mm Pitch Connectors board-to-board series** height from 5.0mm up to 6.5mm is achieved.

Dimensional Drawing

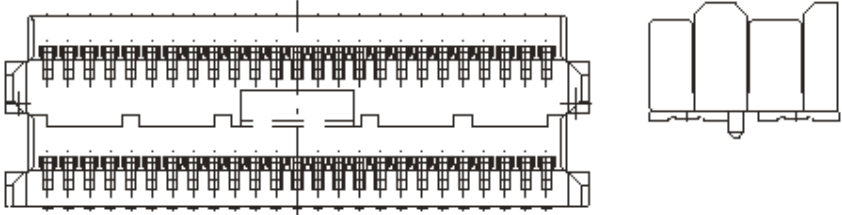
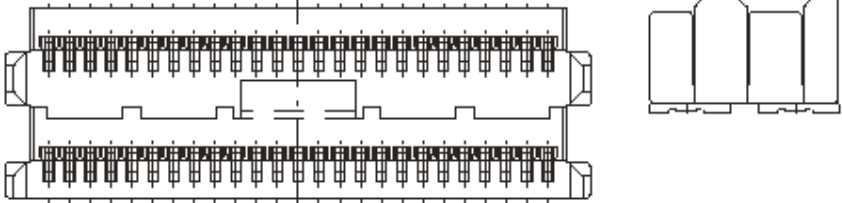


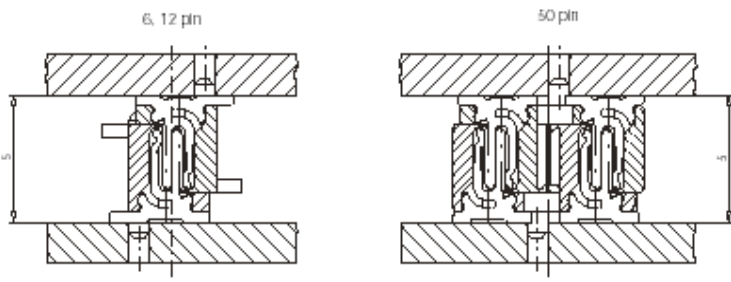
All dimensions in mm

0.8mm Pitch Connectors

Board to Board Series

50 Pins Dual Row Version

Configuration		Height	No. of Pins	Part Number
Dual row with peg, tape and reel, 1000 pcs/reel		5 - 6.5mm	50	MS5001
Dual row without peg, tape and reel, 1000 pcs/reel		5 - 6.5mm	50	MS5012



All dimensions in mm

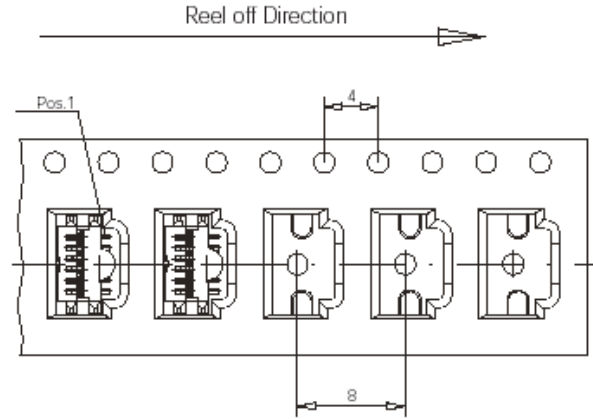
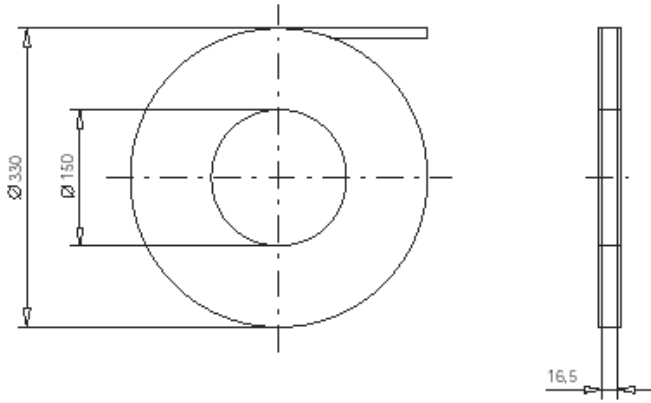
0.8mm Pitch Connectors

Board to Board Series

Packaging

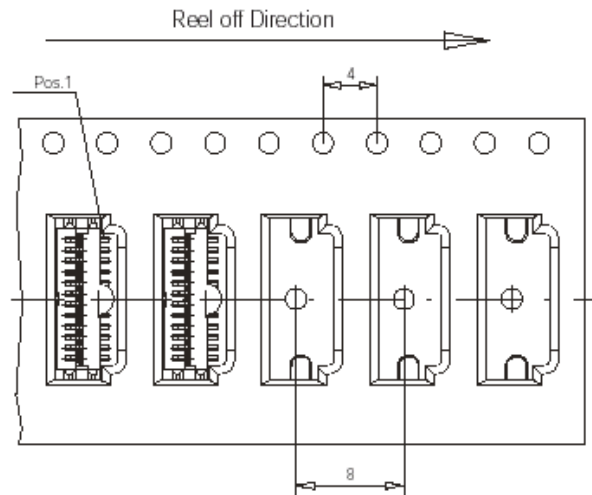
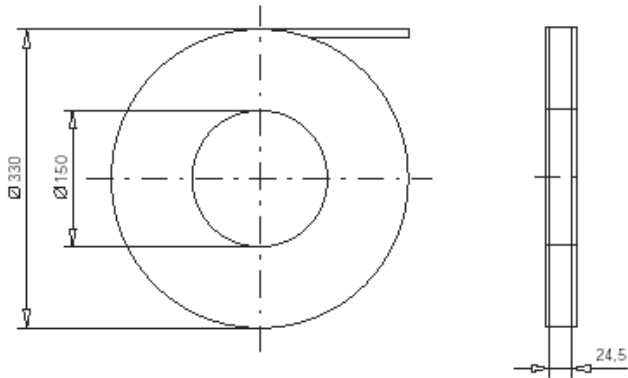
6 Pin Version

Tape and Reel Packaging - Packaging unit: 1500 pcs



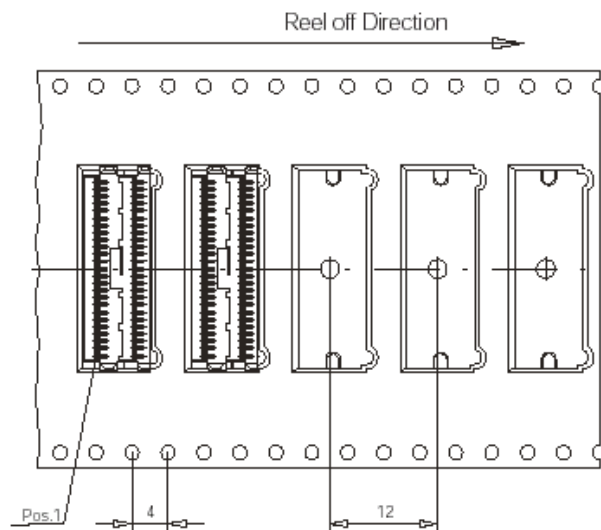
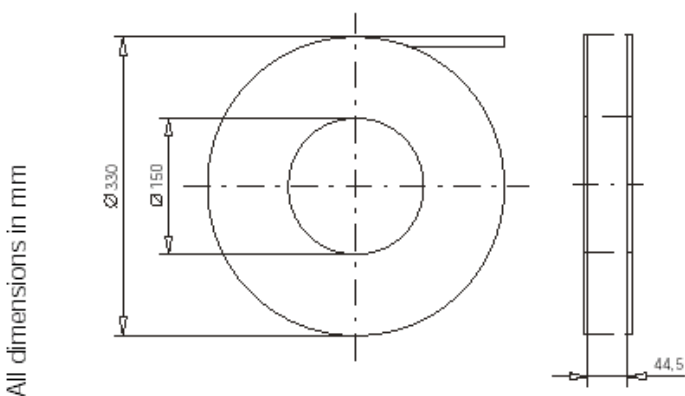
12 Pin Version

Tape and Reel Packaging - Packaging unit: 1500 pcs



50 Pin Version

Tape and Reel Packaging - Packaging unit: 1000 pcs



All dimensions in mm

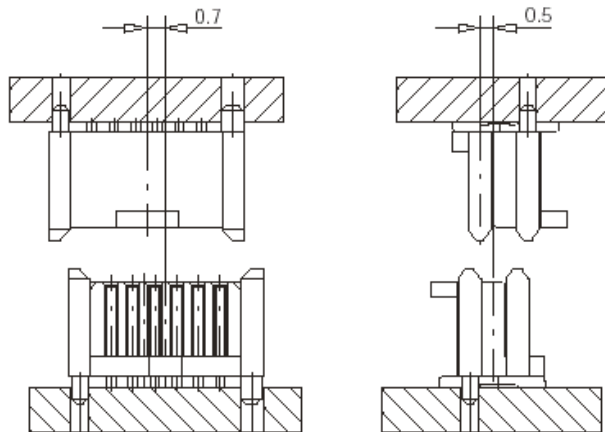
0.8mm Pitch Connectors

Board to Board Series

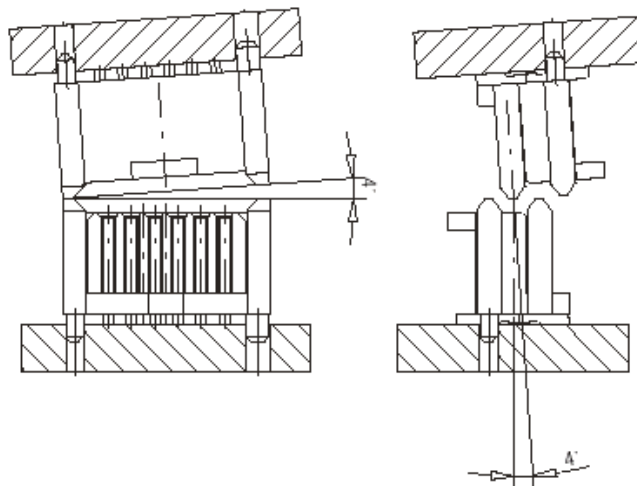
Mating Conditions for

0.8mm Pitch Connectors Borad to Borad series

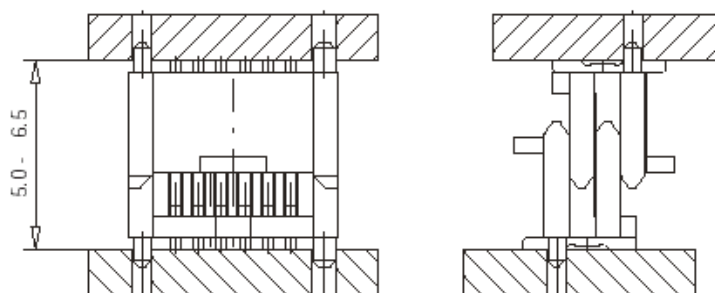
Misalignment Tolerances longitudinal: $\pm 0.7\text{mm}$; transverse: $\pm 0.5\text{mm}$



Angular Inclination tolerances longitudinal: $\pm 4^\circ$; transverse: $\pm 4^\circ$



"Board to Board" Height distance: 5.0-6.5mm



All dimensions in mm

Board to Board Series

Part Number Index

Part Number	<i>Page</i>
MS0601	MS 6
MS0612	MS 6
MS1201	MS 8
MS1212	MS 8
MS5001	MS 10
MS5012	MS 10