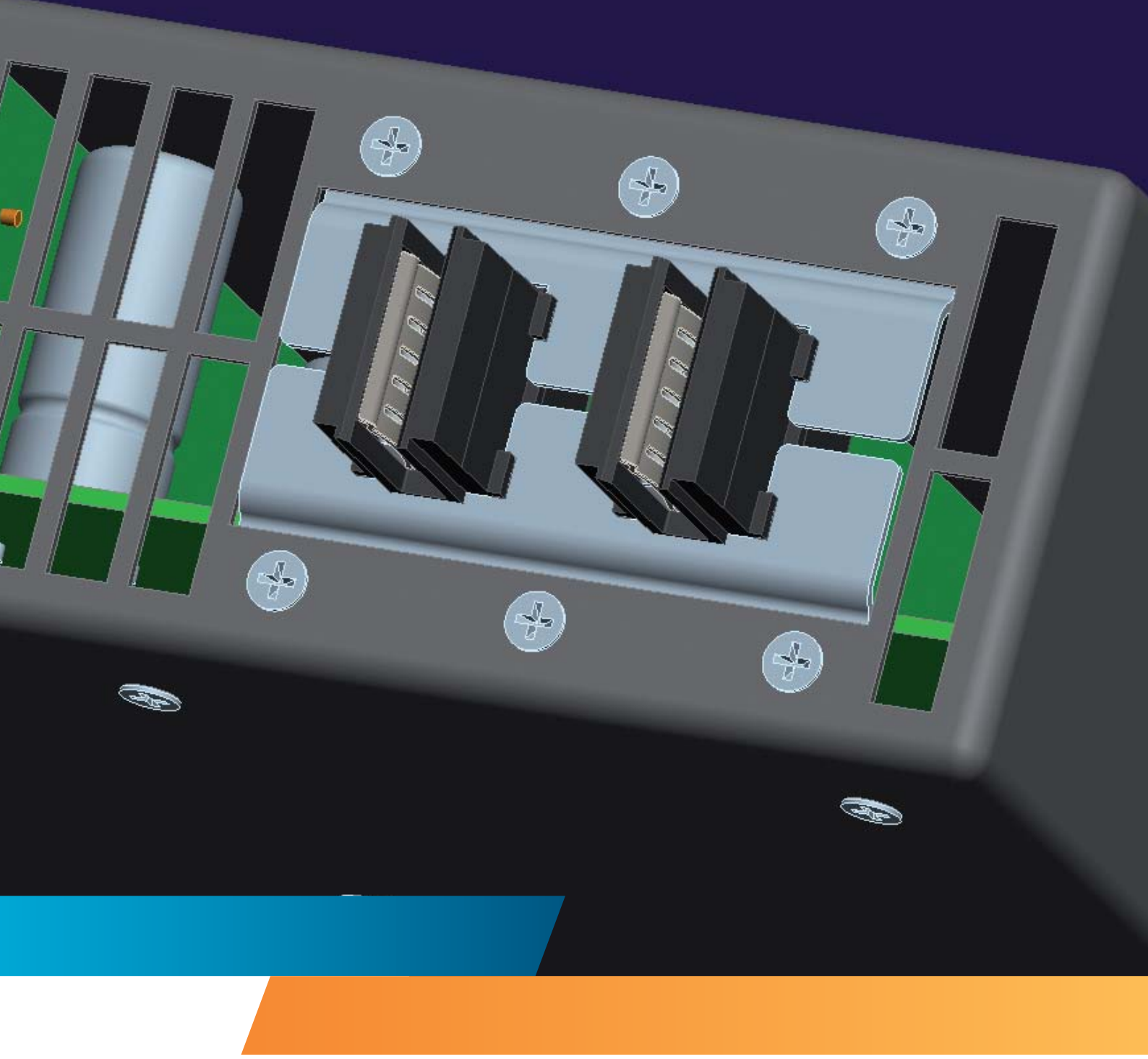


CROWN CLIP JUNIOR

Direct Power Connection for Bus Bars

RoHS Ready

Tyco Electronics

Introduction

Features and Benefits

Current:
150 A

Mating Force:
40 N max.

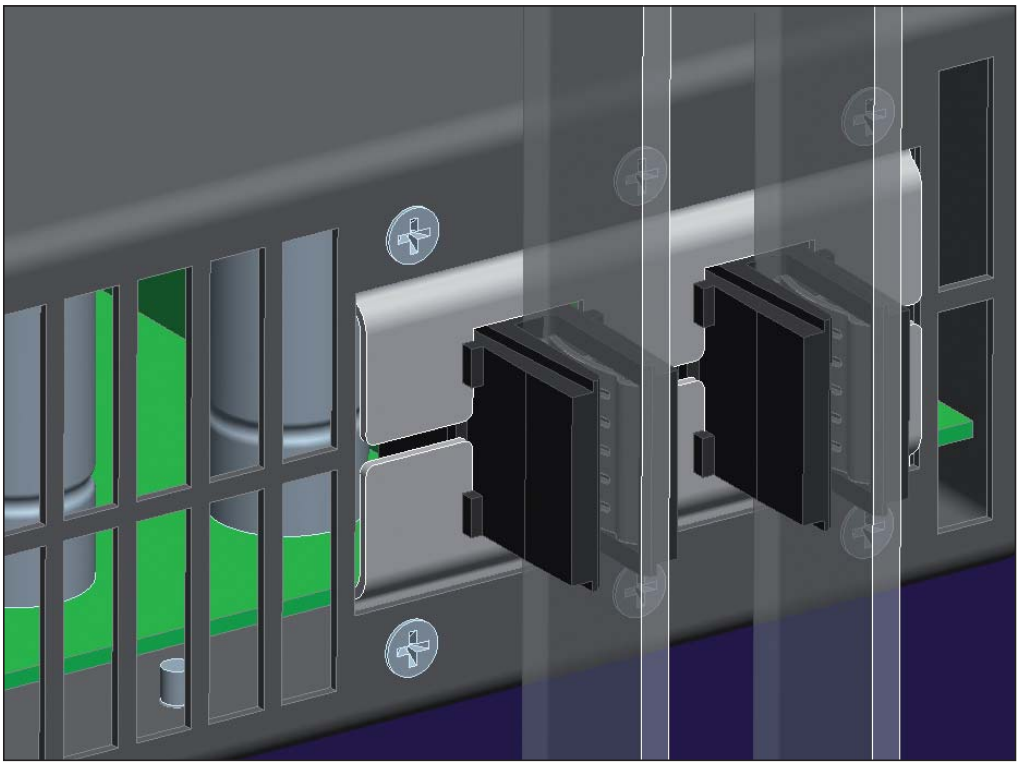
Mating Bus Bar Thickness:
3.0 ±0.1 mm

Bus Bar Misalignment:
±0.75 mm max.

Hot Pluggable:
Yes

Contact Resistance:
0.2 milliohms max.

- **Blind Mate**
- **Anti Over Stress Feature**
- **Reduced Installation Costs**
- **Screw Fix or PC Tail Option**



Technical Features

Product Specification:
108-19360

Application Specification:
114-19128

The CROWN CLIP JUNIOR connector provides a space efficient connector in solder or screw mount configurations ideal for power supply/distribution applications. Satisfying the demand for low insertion/extraction forces it is hot plug capable for controlled and reliable separation of high power.

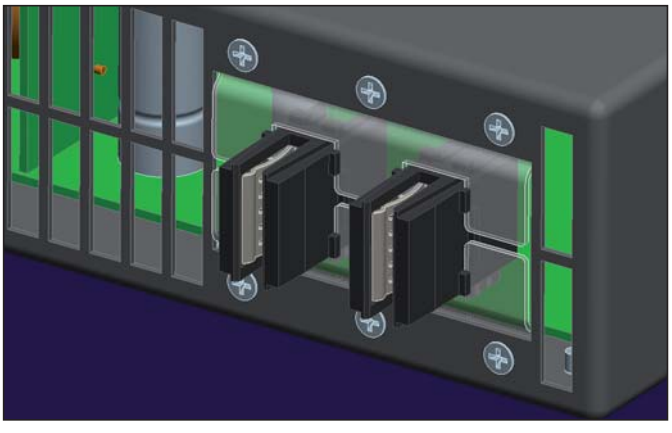
The connector mates to a 3.0 mm thick plated Bus Bar that provides a separable interface to ease assembly, inspection and trouble shooting.

The selective plated, high conductivity copper contacts offer low resistance and low millivolt drop for efficient power distribution. In blind mate applications this connector can handle adverse tolerances through the unique antistress feature allowing reliable mating to misaligned bus bars.

The CROWN CLIP JUNIOR connector can be soldered direct to a PCB or screwed to a Bus Bar for a 150 A maximum current capacity.

Applications

- **Core Network Energy Systems**
- **Cellular Base Stations**
- **PSU Power Distribution**
- **Servers, Storage & Network Routers**
- **Industrial**



All specifications subject to change. Consult Tyco Electronics for latest specifications.

Screw Mount

Materials and Plating

Bus Bar

Conductor:
Copper

Plating:
Nickel or suitable alternative

Temperature:
–40 °C to +125 °C

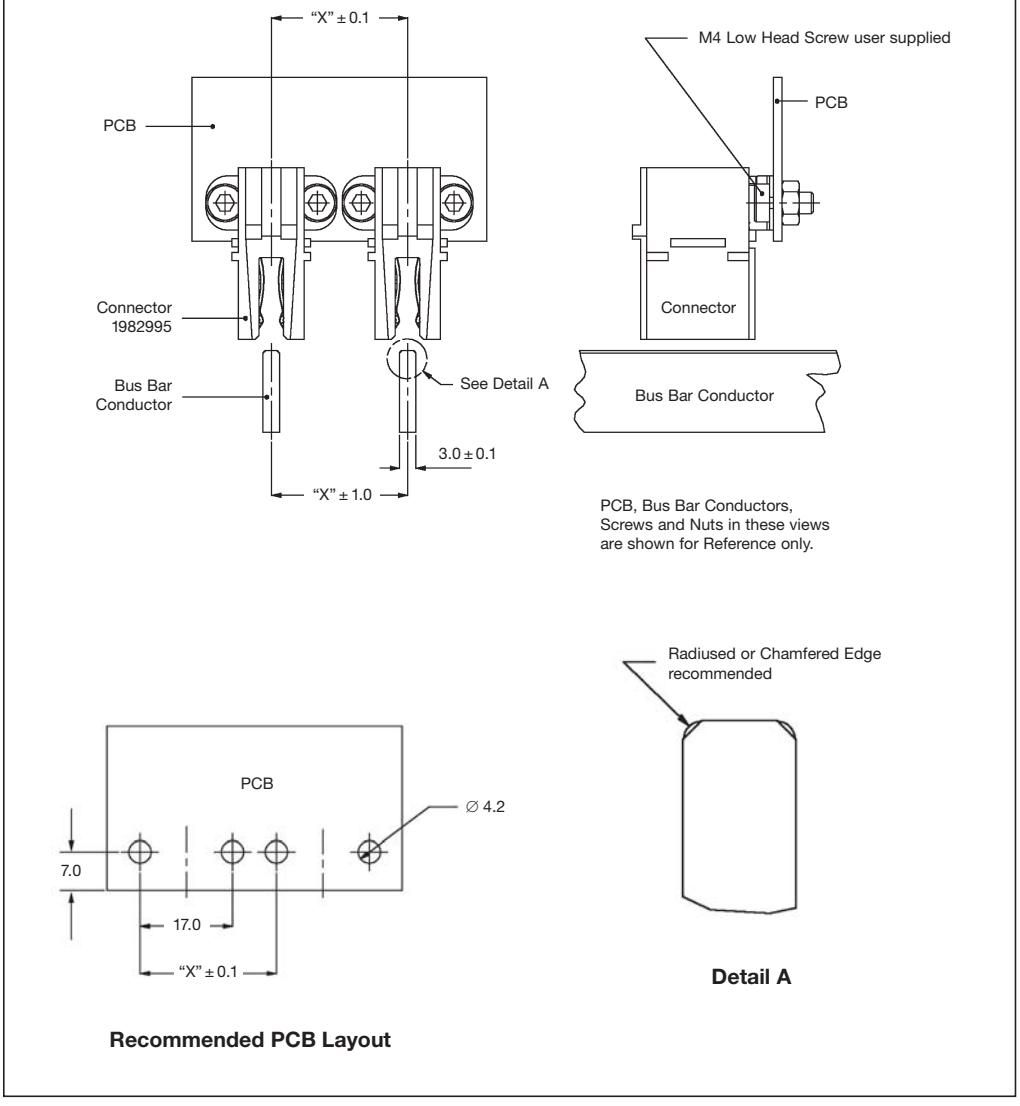
Connector

Conductor:
High Conductivity Copper Alloy

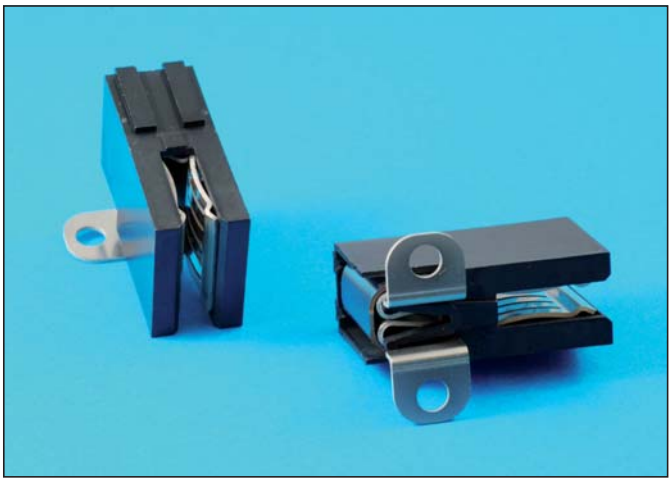
Plating:
Nickel or suitable alternative

Insulator:
Thermoplastic, glass reinforced

Temperature:
–40 °C to +125 °C



Part No. **1982995-1**



PCB Mount

Materials and Plating

Bus Bar

Conductor:
Copper

Plating:
Nickel or suitable alternative

Temperature:
–40 °C to +125 °C

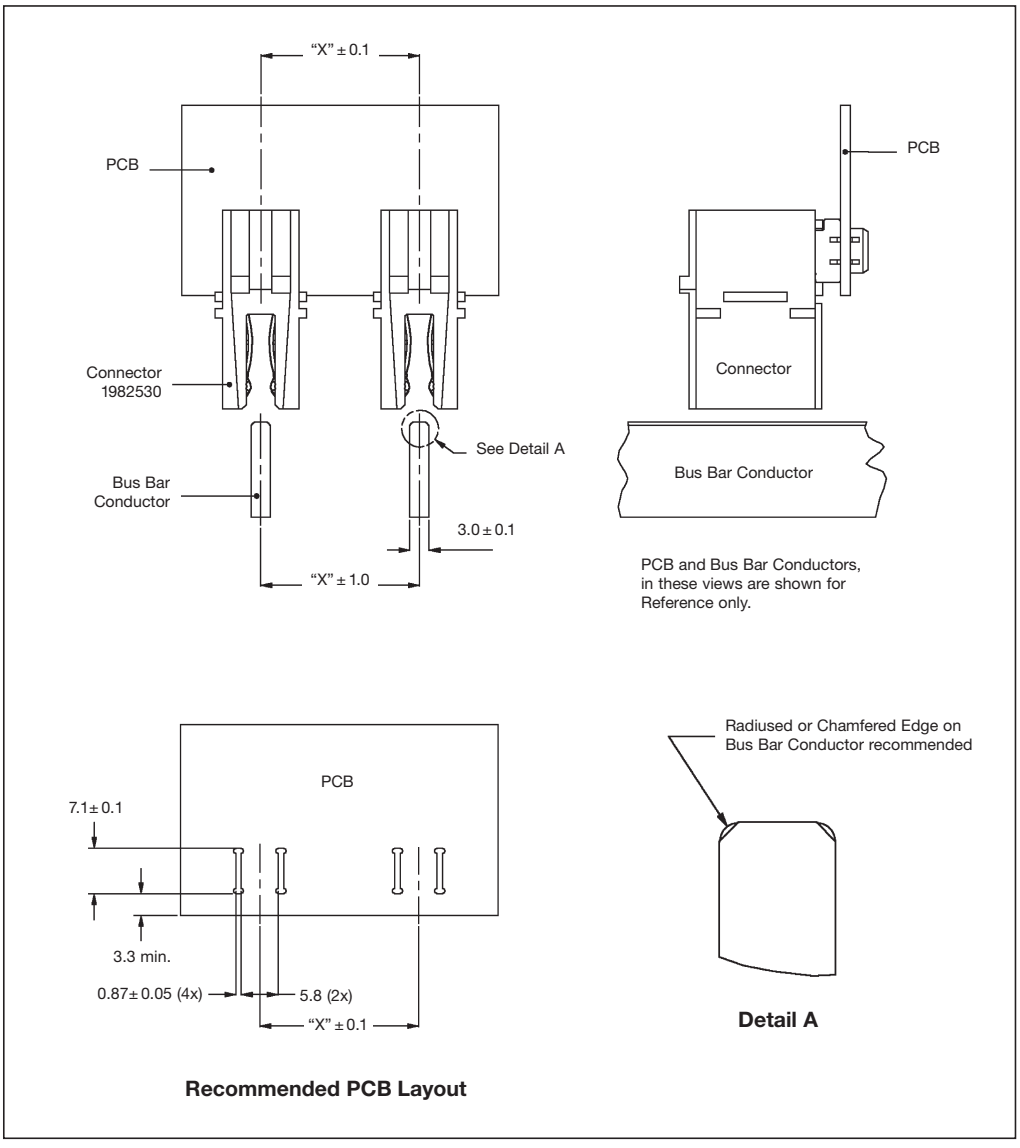
Connector

Conductor:
High Conductivity Copper Alloy

Plating:
Nickel or suitable alternative

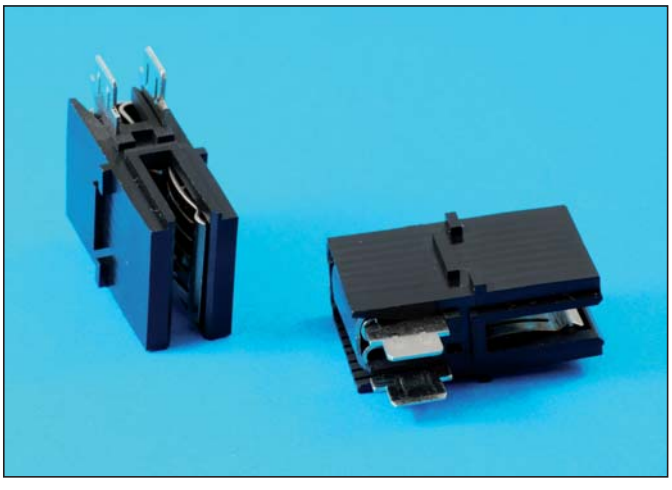
Insulator:
Thermoplastic, glass reinforced

Temperature:
–40 °C to +125 °C



Recommended PCB Layout

Part No. **1982530-1**



All specifications subject to change. Consult Tyco Electronics for latest specifications.

Technical Data

Performance and Test Description

The product is designed to meet electrical, mechanical and environmental performance specified in Design Objectives 108-19360.

Unless otherwise specified, all tests are performed at ambient environmental conditions per IEC specification 60068-1 clause 5.3 and are performed with connectors in mated condition.

Visual

Para-graph	Test Title	Performance / Severity Requirements	Procedure
1.1.1	Examination of product	Meets requirements of product drawing and applicable instructions on customer drawing, and application specification.	Visual, dimensional and functional per applicable inspection plan. In acc. with IEC 60512-1-1 Magnification 10x

Electrical

1.1.2	Contact resistance	0.2 milliohms max.	Subject contacts assembled in housing and mated to a bus bar conductor to 50 mV maximum open circuit at 100 mA DC maximum.
1.1.3	Insulation resistance	5000 MΩ min. initial (After moisture 1000 MΩ min.)	Test voltage 500 V DC, duration 1 minute. In acc. with IEC 60512-3-1
1.1.4	Voltage proof	Requirement: no break-down or flash-over.	Test voltage: 1000 V AC Duration 1 minute. In acc. with IEC 60512-4-1 Test between 2 connectors when mounted on a PCB with a pitch of 25 ± 1 mm.
1.1.5	Hot insertion/extraction	Contact resistance after test 0.2 milliohms maximum.	Min. 10 mating/unmating cycles. Mating/unmating speed between max. 750 mm/s and min. 50 mm/s. Current: 150 A

Technical Data

Mechanical

Para-graph	Test Title	Performance / Severity Requirements	Procedure
1.1.6	Mating force	20 N maximum	Measure force necessary to mate samples with a Bus Bar conductor.
1.1.7	Unmating force	5 N minimum	Measure force necessary to unmate samples with a Bus Bar conductor.
1.1.8	Durability	No damage allowed.	With connector mounted on PCB mate and unmate samples for 50 cycles with a Bus Bar conductor.
1.1.9	Solderability	5 % maximum de-wetting.	Solder bath temperature 260 °C

Environmental

1.1.10	Temperature cycling	–55 °C / 105 °C, 0.5 hrs / 0.5 hrs, Transition time: <2 sec. Number of cycles: 25 (unmated) Recovery time: 1 hour.	In accordance with IEC 60512-11-4
1.1.11	Damp/heat cyclic	25 °C / 55 °C 12 hrs / 12 hrs (= 1 cycle) RH 95 % Number of cycles: 10 (unmated)	In accordance with IEC 60512-11-12

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Sample Kit

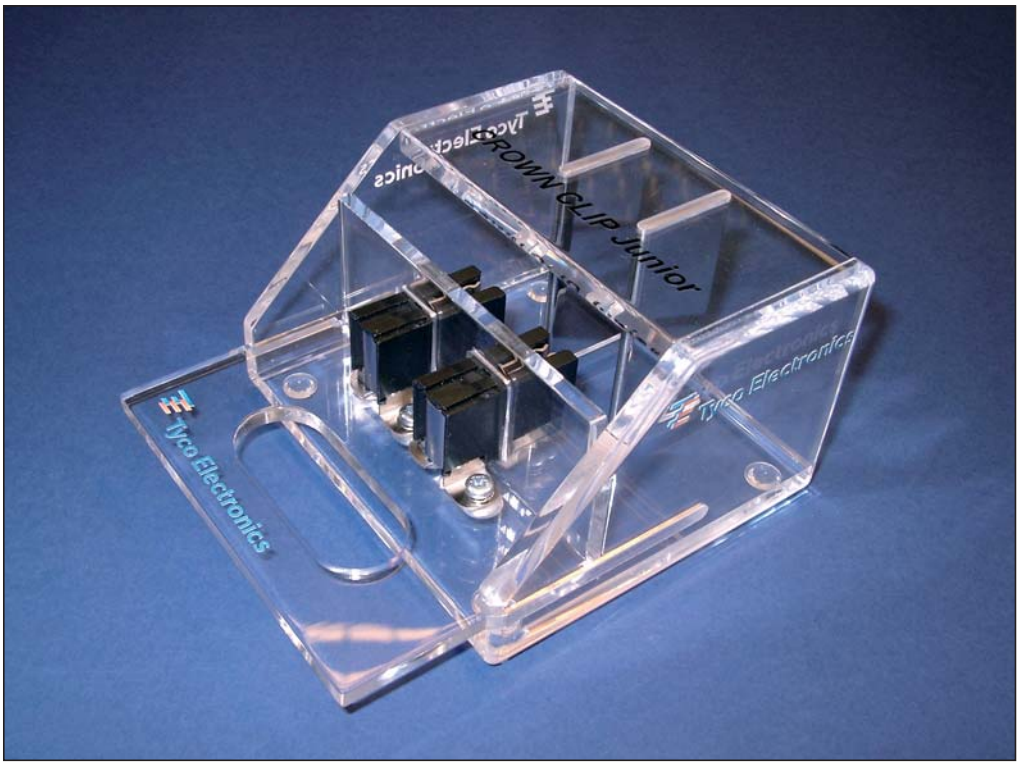
CROWN CLIP JUNIOR – Demo Kits

Demo Kit Complete:
Part No. **2042631-1**

Demo Kit – Slide only:
Part No. **2042632-1**

The CROWN CLIP JUNIOR connector display model is manufactured from clear acrylic which allows you see right to the heart of the connector function. The compact display model interactively demonstrates the connector features, ease of configuration and space efficient design of the CROWN CLIP JUNIOR connector.

This sample kit is available to order using part number specified above.



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Tyco Electronics AMP GmbH
AMPèrestr. 12–14
64625 Bensheim / Germany
Phone: +49-(0)6251-133-0
Fax: +49-(0)6251-133-1600

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