Surface Mount Terminal Blocks

120-M-221-THR | 5.00 mm (0.197 in) Spacing - 2-24 poles

PICTURES

120-M-221-THR

120-M-221-THR & 120-D-111

TECHNICAL INFORMATION

Description

Standoffs underneath the molding prevent bottom of molding from touching the solder paste and allow for a visual inspection of the solder joints and better air flow during the reflow soldering process. Material will handle reflow temperatures well without deforming or melting.

Type 120-M-221-THR terminal block has been specially designed to allow effective potting of PC boards. The molding design prevents seepage of the potting material into the wire clamping area up to 7.5 mm (0.295 in.) from the board.Removable thermo resistant pick caps are supplied when packed in tape and reel. This allows automated pick & place applications.

Through Hole Reflow

Technical Data

Center to Center Spacing: 5.000 mm (0.197 in)
Recommended Hole Diameter in PC Board: 1.500 mm (0.059 in)

Bill of Materials

Solder Pin: Tin plated copper alloy 1 x 1 mm (0.04 x 0.04 in.) (square)
Average weight per pole: 0.7 g

Application

WECO's THR designs are adapted for easy integration into your processes. Standoffs provide for;od convective heat circulation for reliable soldering through the elimination of cold spots and also allow for a visual inspection of the solder joints. The main advantage of through-hole terminal blocks is their reliable mechanical strength. This robustness is particularly important for applications exposed to harsh environments or strong vibrations such as mobile equipment, engine or motor compartments.

APROVAL INFORMATION

UL File No. E69841 | CSA File No. LR24322

	Type	Current (A)	Voltage (V)	Application Group	AWG	Screw Tightening Torque
	120-M-221-THR	15	300	B		
	5.0 mm	10	300	D		
	120-M-221-THR	15	300	B		
	5.0 mm	10	300	D, E		

Internationl Approval Information

Rated Impulse Withstand Voltage : 2500 V

PLUGGING PARTS

Plug-In Direction Perpendicular to PCB and Wire Entrance Parallel to PCB

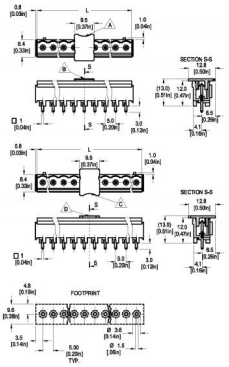
TYPE 120-D-111
5.00 mm spacing - 2-24 poles

TYPE 120-D-121
5.00 mm spacing - 2-24 poles

Plug-In Direction and Wire Entrance Perpendicular to PCB

TYPE 120-A-111
5.00 mm spacing - 2-24 poles

TECHNICAL DRAWING



Description :

Length of Connector (L)

L = No. of Poles x Center to Center Spacing + 0.4 mm

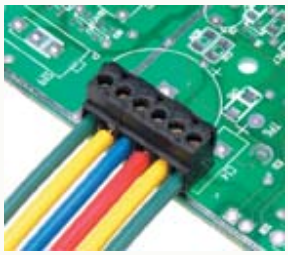
(A)This cavity on this side of the connector for odd numbers of poles

(B) Pick-cap installed in the middle of the header

(C) This cavity on this side of the connector for even numbers of poles

(D) Pick-cap installed in the middle of the header

SECTION A - SERIES SMT



Terminal Blocks for Printed Circuit Boards

WECO is the industry leader in surface mount (SMT) connectors. Whether they are stock catalogue products or custom designed to customers' specifications, SMarTconn products are engineered to meet your dimensional, material, mounting, packaging, reliability and cost savings production requirements.

WECO offers two categories of solder-reflow process compatible products:
Genuine surface mount technology (SMT). The products have SMT leads that sit on surface mount solder pads. There are with no through-holes required in the printed circuit board (PCB).
Through-hole reflow (THR). The products have through-hole leads that penetrate the holes in the solder pads in the PCB.

WECO's genuine surface mount connectors have excellent coplanarity performances that consistently meet industrial requirements.

Our existing product line of genuine surface mount and through hole reflow connectors, terminal blocks and pinstrips consist of versions incorporating flat leads, gull wing leads, floating terminal bodies, floating pins, and integrated or removable pick-surfaces. All these products are meant for ease of installation into automated assembly processes. If you can apply the paste and reflow process some WECO SMT products can be soldered onto THR pads. Some products protect the solder joint from screw driving and wire pulling stresses. One innovation addresses coefficient of thermal expansion (CTE) mismatch and warped PCBs. If you have a need, WECO has a solution.

All connector moldings consist of a high heat resistant and self-extinguishing thermoplastic material. All SMarTconn products can be supplied in transfer tubes or on tape and reel, carrier tape for use with feeders and dispensers for automated pick and place machinery. The majority of the SMarTconn products are equipped with pick-and-place surfaces making the family adaptable to PCBA automation / robotic assembly processes. SMarTconn products are UL and CSA approved and can be approved with any appropriate international standard. A complete listing of approvals specifications may be found on the following pages. Complementary information can also be found on our web site: www.weco.ca.

-SMT screw tightened terminal block with floating leads.
Its floating terminal bodies compensate for irregularities (non planarity and bumps) on the printed circuit board and thus promote high first pass yields and a low rate of open circuits. The same feature eliminates CTE mismatch with the PCB and thus promotes excellent in field reliability and the successful passing of thermal cycling testing. The product ships in cartons or in tape and reel with an integrated pick surface.

-SMT screw tightened terminal block with flat leads.
Flat contact leads (also known as gull wings leads) provide a large solder joint surface area that is isolated from the mechanical screw driving forces. Integrated, floating, solderable retention devices ensure in field reliability in thermal cycling. These retention devices protect against the human factors during in field use. They protect the solder joints from stresses induced by wire pulling. These solder joints have the strength and the shape required to make a consistently safe and reliable field-proven connections that meet application and regulatory requirements. The elevator-style-clamping mechanism allows an almost unlimited number of connections and disconnections of the wire. The product ships in cartons or in tape and reel with removable pick surfaces.

-SMT screw tightened terminal blocks with rigid leads
WECO's SMT designs are adapted for easy integration into your processes. Standoffs provide for good convective heat circulation

SECTION A - SERIES SMT

for reliable soldering through the elimination of cold spots and also allow for a visual inspection of the solder joints. The main advantage of SMT terminal blocks is the ease that they can be reliably picked and placed onto the solder pads. The product ships in cartons or in tape and reel with removable or integrated pick surfaces.

-SMT pinstrips for depluggable connections
This SMT pinstrip product plugs with a variety of wire harness or base mounted plugs. Insertion and extraction forces are custom adjusted to your needs. This genuine SMT product is designed to be soldered onto an SMT pad, but has been proven to solder well onto THR pads. The most popular version is 1.1 mm in diameter. A 1.3 mm version is also available. The patented (#6,224,399) "nail head" pin design ensures a secure and reliable contact with the printed circuit board. The excellent and robust co-planarity of this pinstrip allows it to be successfully manufactured, stored, transported and processed at yields approaching zero defects for this characteristic and its effects. The plugs isolate the solder joints from external wire pulling forces and screw driving torques. The product ships in cartons or in tape and reel with removable pick surfaces.

-THR hang-through type pinstrips for depluggable connections
This THR pinstrip product plugs with a variety of wire harness or base mounted plugs. Insertion and extraction forces are custom adjusted to your needs. This pinstrips depluggable end goes through the PCB, to be connected with a plug on the opposite side. Its depluggable end and solderable end are the same. The best is to see it. It is 1.1 mm in diameter. The THR version is through hole for added strength and can be picked and placed, which is unusual for a through-hole (THR) device. It has an integrated pick surface and material performance that promote this. The plugs isolate the solder joints from external wire pulling forces and screw driving torques. The product ships in cartons or in tape and reel with integrated pick surfaces.

-THR classic type pinstrips for depluggable connections
This THR pinstrip product plugs with a variety of wire harness or base mounted plugs. Insertion and extraction forces are custom adjusted to your needs. This is the future should you insist on through-hole. Available in different lengths they are 1.3 or 1.1 mm diameter on the plug end and 1.3, 1.1 or 1 mm diameter on the PCB end. This series replaces the 971-SLK through-hole wave (THW) products. They are suitable for wave soldering and for reflow soldering. The plugs isolate the solder joints from external wire pulling forces and screw driving torques. The product ships in cartons or in tape and reel with removable pick surfaces.

-SMT gull wing lead horizontal socket header
This plug device is equipped with retention devices to firmly hold its mating plug. Flat contact leads (also known as gull wings leads) provide a large solder joint surface area that is isolated from the mechanical screw driving forces. Integrated, floating, solderable retention devices ensure in field reliability in thermal cycling. These retention devices protect against the human factors during in field use. They protect the solder joints from stresses induced by wire pulling. These solder joints have the strength and the shape required to make a consistently safe and reliable field-proven connections that meet application and regulatory requirements. The product ships in cartons or in tape.

-SMT floating lead vertical socket header
This plug device is equipped with retention devices to firmly hold its mating plug. Its floating pins compensate for irregularities (non planarity and bumps) on the printed circuit board and thus promote high first pass yields and a low rate of open circuits. The same feature eliminates CTE mismatch with the PCB and thus promotes excellent in field reliability and the successful passing of thermal cycling testing. The product ships in cartons or in tape and reel with removable pick surfaces.

-THR screw tightened terminal blocks
WECO's THR designs are adapted for easy integration into your processes. Standoffs provide for good convective heat circulation for reliable soldering through the elimination of cold spots and also allow for a visual inspection of the solder joints. The main advantage of through-hole terminal blocks is their reliable mechanical strength. This robustness is particularly important for applications exposed to harsh environments or strong vibrations such as mobile equipment, engine or motor compartments. The product ships in cartons or in tape and reel with removable or integrated pick surfaces.