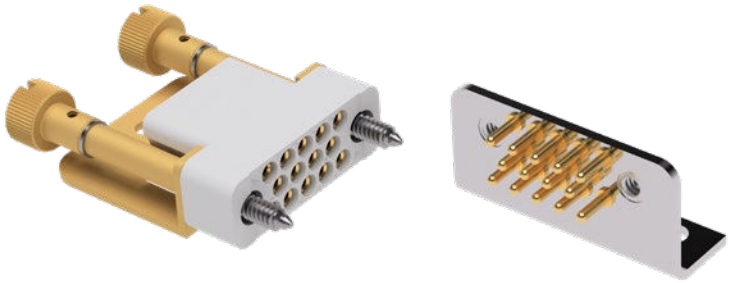
Grounding Plates Designed For Aircraft Applications

Standard Rectangular Series



FEATURES

- Proven, affordable technology
- Offers secure grounding which is fundamental for reliable electronic circuits
- Allows multiple grounds to one location and low resistance to ground
- Common ground on the aircraft side, discrete ground on the system/harness side
- Uses Positronic solid machined contacts accommodating wide range of wire sizes
- Toolless design using reliable, time saving jackscrew system

Positronic Industries' grounding plates were designed especially for aircraft applications where shielded cable must be grounded to the aircraft frame. The ground wires of the shielded cable are piggy-backed out of the cable with ferrules and are crimped to Size 16 female contacts. The female contacts are loaded into standard 14 or 34 contact connector housings. These connectors can then be mated to the grounding plate which is fastened to the aircraft frame.

Grounding plates have Size 16 precision-machined male contacts which are swaged and soldered onto the metal plate. The metal plates (angled and plane) have fixed female jackscrews that accept the rotating jackscrews, which are an integral part of the mating female connector. Long rotating jackscrews extend beyond the edge of the cable adapter of the 14-contact female connector which permits easy coupling to the grounding plate.

Other contact variants are available for grounding plate applications. Contact Technical Sales for information on the availability of other grounding plates offered by Positronic Industries.

TECH SPECS

MATERIALS

Insulator	Glass-filled DAP per MIL-M-14, Type SDG-F. Grey or black in color.
Grounding Plates	Copper alloy with tin plate.
Contacts	Copper alloy with gold flash over nickel plate.
Jackscrew System	Stainless steel, passivated.
Strain Reliefs	Steel with zinc plate or aluminum with yellow anodize.

MECHANICAL

Removable Female Contacts	Insert contact to rear face of insulator, release from front face of insulator. "Closed Entry" design for highest reliability.
Contact Retention in Insulator	20 lbs. (89N) after 10 cycles of contact insertion/extraction.
Female Contact Termination	Crimp wires, sizes 20 AWG [0.5 mm^2] through 24 AWG [0.25 mm^2].
Jackscrew System	6-32 UNC threads.

ELECTRICAL

Contact Current Rating	13 amperes nominal.
Insulation Resistance	5 G ohms.
Working Voltage	500 VAC (rms).

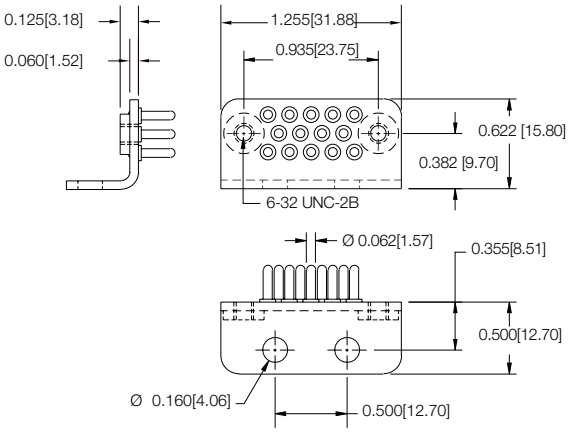
ENVIRONIMENTAL

Operating Temperature	-65°C to 150°C.

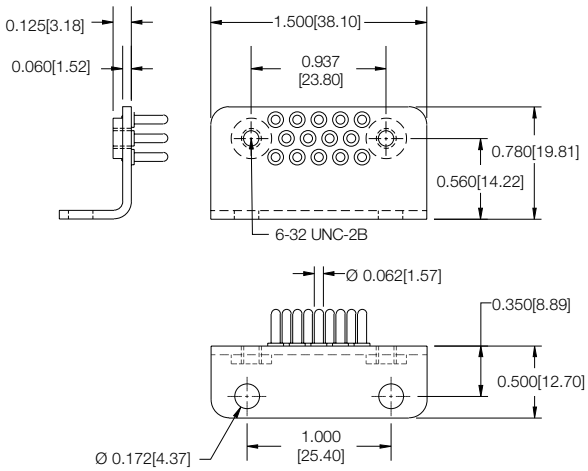
ORDERING INFORMATION

Grounding plates are offered in five (5) different configurations, as shown below. These grounding plates can be used with the connector strain relief assemblies shown to the right below. The connector strain relief assemblies are provided with an appropriate number of FC120N2 female contacts. The FC120N2 contacts feature a “Closed Entry” design and accomodate wire sizes 20 - 24 AWG (0.5 - 0.25 mm²). Reference the schematics below for dimensional information. Use the indicated part numbers below to order your grounding plate assemblies from Positronic Industries.

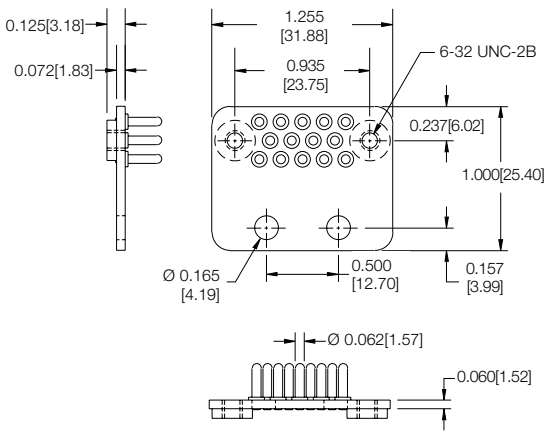
Grounding plate, part number: G14000H000-1265.0



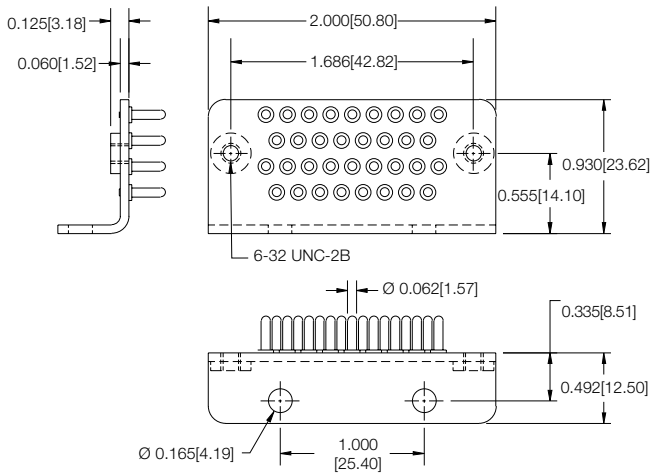
Grounding plate, part number: SK2484



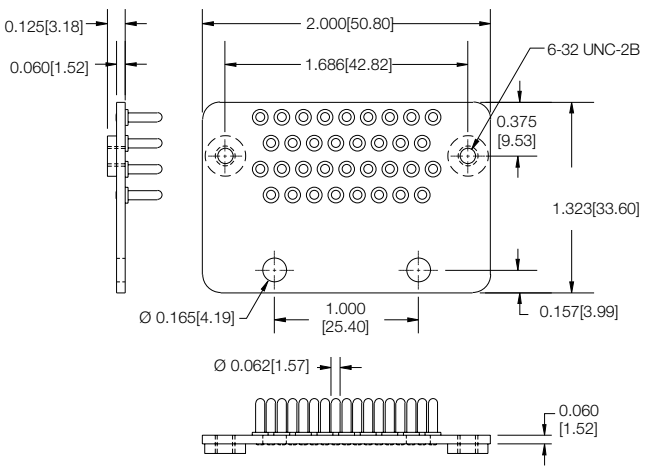
Grounding plate, part number: SK2665



Grounding plate, part number: SK2114



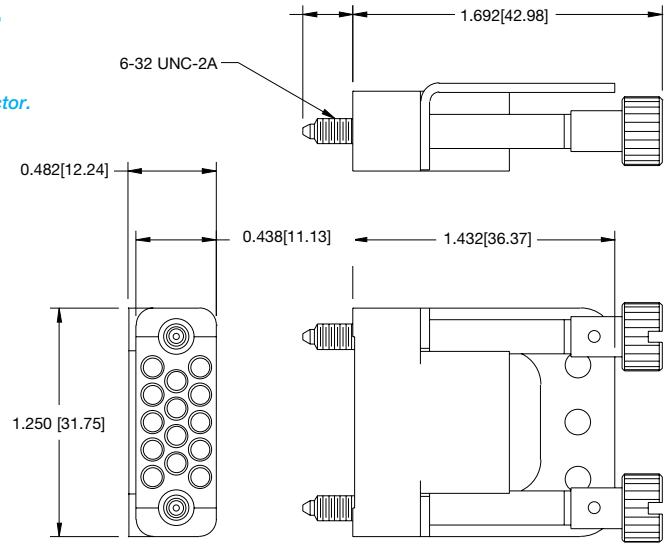
Grounding plate, part number: SK2664

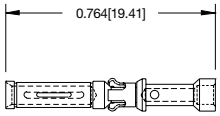


Dimensions are in inches [millimeters]. All dimensions are subject to change.

For this connector strain relief assembly, order part number: GMCT14F0EX00A0-697.0

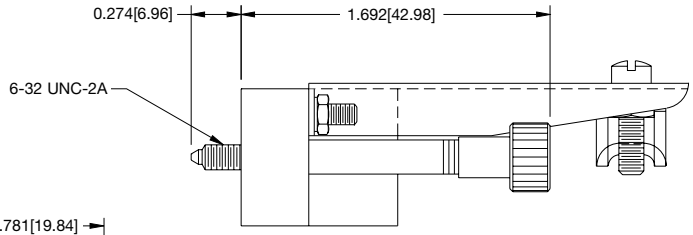
A plastic cable tie is supplied with this connector.



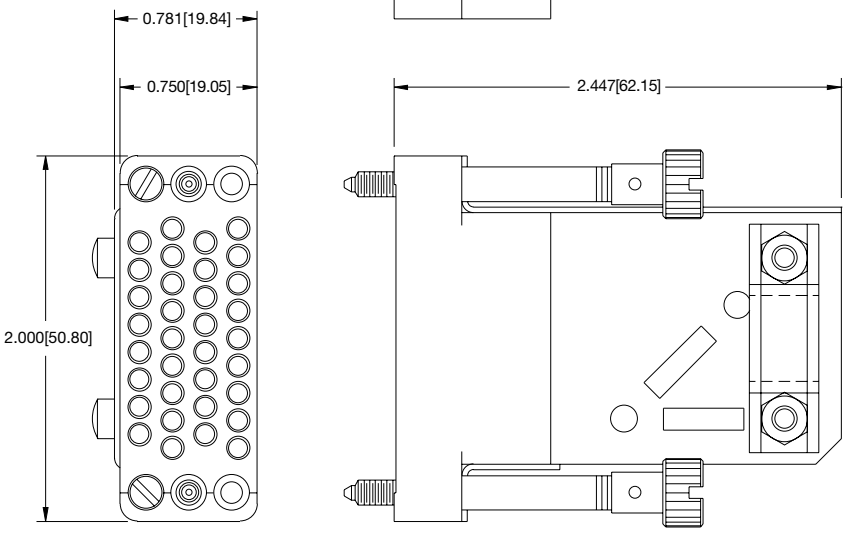


FC120N2 female contact "Closed Entry" design
(Enlarged)

The appropriate number of contacts are supplied with the connectors. These crimp termination contacts accomodate wire sizes 20 - 24 AWG (0.5 - 0.25 mm^2). Contact Technical Sales for crimp tool ordering information.



For this connector strain relief assembly, order part number: SK2113



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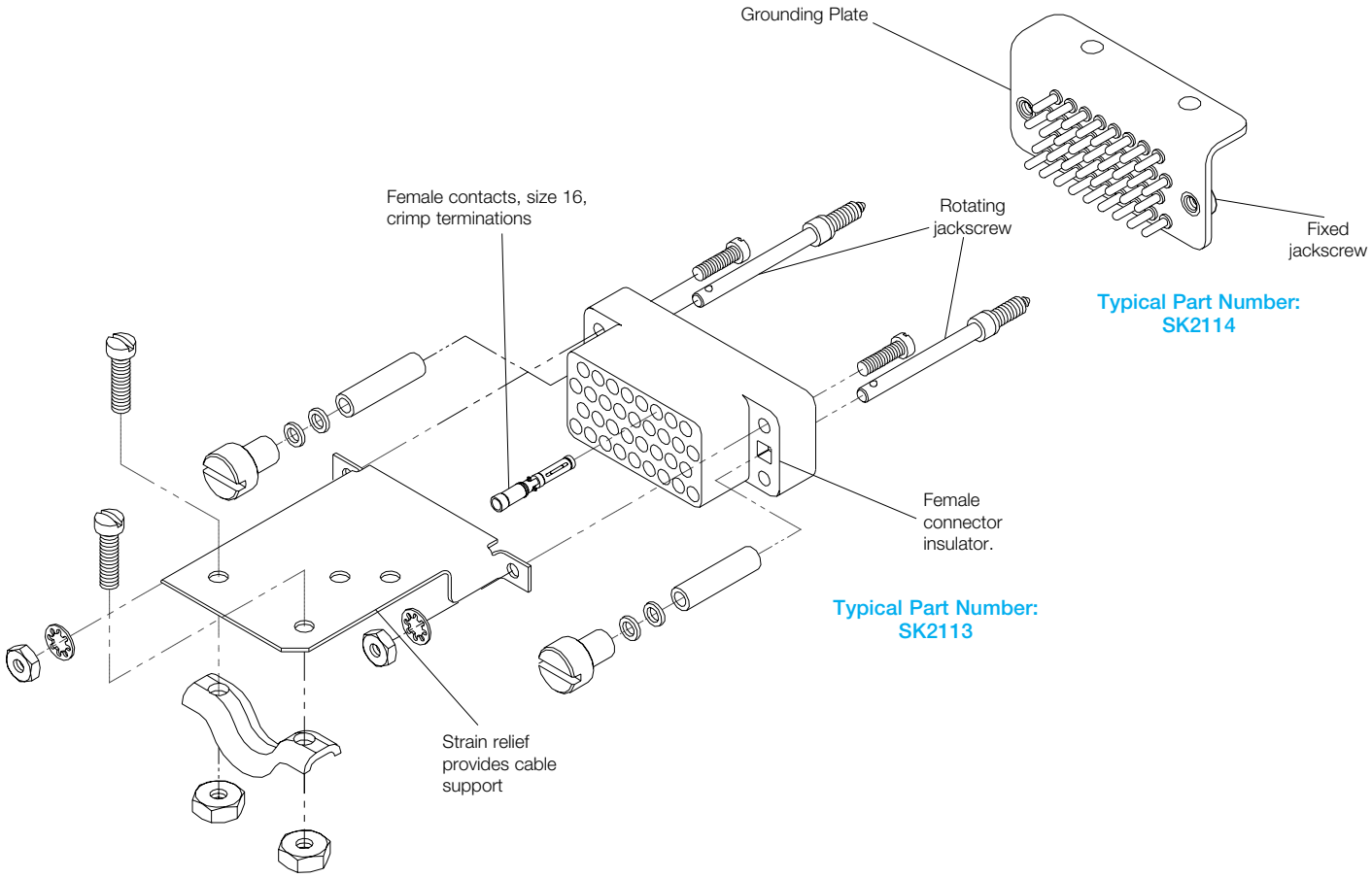
EXPLODED VIEW



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