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Glossary of Electrical Connection Terms

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ADAPTER:

An intermediate device to provide for connector attachments such as special accessories, special mounting means or special inter-connection means to an electrical termination.

AMBIENT TEMPERATURE:

The temperature of the surrounding environment, usually air.

ANTI-ROTATION, CONNECTOR:

Connector design which provides keying or locking provisions to maintain positive orientation for accessory hardware.

AXIAL DISPLACEMENT:

The incremental difference between an initial position and a final position resulting from a force applied along the axis of a component.

BACK MOUNTED:

A connector installed with its mounting flange positioned behind the mounting surface when looking at the mating face or front side of the connector.

BACKSHELL:

A connector accessory or component, which may or may not be supplied with the connector, to provide for strain relief, tighter harness routing in restricted space, shielding from electrical interferences or positive moisture.

BARREL CHAMFER:

The flared entrance or internal bevel at the wire entry end of the termination device intended to facilitate entry of the conductor.

BARREL, CONDUCTOR:

The section of the contact, splice or terminal that accommodates the stripped cable conductor. In the case of insulation displacing barrels the cable need not be stripped.

BARREL, INSULATION:

The portion of a contact, terminal or splice which accommodates the wire insulation.

BARREL, WIRE:

(See BARREL CONDUCTOR)

BARRIER:

Dielectric material used to insulate electrical circuits from each other or from ground.

BARRIER STRIP:

A continuous section of dielectric material which insulates electrical circuits from each other or from ground.

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BASIS METAL:

The metal from which a connector, contact, terminal or splice is made.

BAYONET COUPLING, CYLINDRICAL:

(See COUPLING, BAYONET)

BELLED MOUTH (BELLMOUTH):

(See BARREL CHAMFER)

BIFURCATED CONTACT:

A spring-type contact with a lengthwise slot to provide two segments which apply contact force in the same direction.

BINDING POST:

A fixed support, generally screw-type, to which conductors are connected.

BODY, CONNECTOR:

The main portion of a connector consisting of the housing and insert assembly to which contacts and accessories are attached.

BONDING CONDUCTOR:

A device used to connect exposed metal to ground. It normally carries no current but is used as a current path to eliminate shock or spark hazards and insures the operation of circuit protective devices in cases of insulation breakdown.

BOOT:

A connector accessory, usually made from a flexible or semi-rigid insulating material, designed to house wire/cable terminations as a protective device, provide harness direction, moisture seal when bonded or used as a potting form.

BRAID:

A woven or braided sheath made from conductive or nonconductive material.

BUNDLE:

A group of wires fastened or held together by auxiliary means such as straps, ties, clamps, lacing tape/twine or flexible wrappings (jackets) or sheaths. Also called "cable".

BUSING:

The joining of two or more circuits to provide a common electrical connection.

BUTT SPLICE:

A device for joining conductors end-to-end with their axis in line and not overlapping. (See SPLICE).

BUTTING DIES:

Crimping dies so designed that the opposing die faces touch at the closed condition of the crimping cycle. Also called "bottoming dies".

CABLE CLAMP:

A connector accessory or portion of a component which is designed to grip the wire or cable to provide strain relief and absorb mechanical stress which would otherwise be transmitted to the termination.

CABLE SHIELDING CLAMP:

A connector accessory device consisting of a sealing member and cable support designed to terminate the shield of the electrical cable at the connector.

CAPTIVE DEVICE:

A multi-part fastener, usually screw-type, whose components are retained without separation when loosened from its base assembly.

CAPTIVE DEVICE - FASTENER:

A fastener, usually screw-type, whose components are retained without separation when loosened from its base assembly.

CIRCUMFERENTIAL CRIMP:

A type of crimp where the crimping dies completely surround a barrel resulting in a symmetrical reshaping of the barrel. Some circumferential crimps are oval, hexonical, circular, etc.

CLOCKING:

(See POLARIZATION)

CLOSED END SPLICE:

A splice, open at one end only, designed to terminate two or more conductors. (See SPLICE)

CLOSED ENTRY:

A socket contact or insert cavity design feature which prevents the entry of over-size pin contacts, test probes or other insertable components.

COLOR CODING:

A system for the identification of components, materials, tools and related devices by means of color.

COMPRESSION RING:

A separate ring, within the backshell assembly, that is chamfered to provide an environmental seal by compressing the rear grommet.

CONDUCTOR:

An electric current-carrying material; the conductive element in an electrical wire.

CONDUCTOR STOP:

A device or design feature on a terminal, splice, contact or tool which correctly positions the conductor in the conductor barrel.

CONNECTOR, CARD EDGE:

A rectangular connector into which the edge of a printed wiring board is inserted so as to make electrical contact with conductive traces located on the circuit board.

CONNECTOR, ELECTRICAL:

A conductor terminating device which allows for the separation of one or more electrical circuits to facilitate servicing.

CONNECTOR, HERMAPHRODITIC:

A connector which has features enabling it to be mated with an identical connector.

CONNECTOR, PLUG:

An electrical connector, intended to be attached to the free end of a conductor, wire, cable or bundle, which couples or mates to a receptacle connector.

CONNECTOR, RECEPTACLE:

An electrical connector, intended to be mounted or installed onto a fixed structure such as a panel, electrical case or chassis, which couples or mates to a plug connector.

CONNECTOR, RIGHT ANGLE:

A rectangular connector which is generally mounted onto a printed wiring board whose contacts are inserted into a matching pattern or plated through holes in the circuit board and soldered in place.

CONNECTOR SET, ELECTRICAL:

Two or more separate plug and receptacle connectors designed to be mated together. The set may include mixed connectors mated together, such as one plug connector and one dummy receptacle connector or one receptacle connector and one dummy plug connector.

CONNECTOR, UNBILICAL:

An electrical connector, used to connect a cable to a vehicle such as an aircraft or rocket, which is unmated prior to or during initial movement or launching of the vehicle.

CONTACT AREA:

The area in contact between two conductive elements through which current flow can take place.

CONTACT ARRANGEMENT:

The position and layout pattern of contacts in a connector.

CONTACT BACK WIPE:

Usually refers to an actuated contact surface where a contact travels on the surface of its mating contact during the actuation cycle then moves back to a clean wiped surface at the completion of the actuation or engagement cycle.

CONTACT, ELECTRICAL:

The conductive element in a connector or other device which mates with a corresponding element to provide an electrical path or circuit.

CONTACT, FEMALE:

(See CONTACT, SOCKET)

CONTACT FLOAT:

The allowable, free axial, lateral or angular movement of a contact in a connector.

CONTACT, HERMAPHRODITIC:

An electrical contact which has features that enable it to be mated with an identical contact.

CONTACT, MALE:

(See CONTACT, PIN)

CONTACT, PIN:

A contact intended to make electrical contact on its outer surface upon engagement with a socket contact.

CONTACT RESISTANCE:

The electrical resistance through a pair of engaged contacts or terminals. Resistance may be measured in ohms or millivolt drop at a specified test current. This resistance measurement does not include the resistance of the terminating conductor joint or the conductor.

CONTACT RETAINER:

A device either on the contact or in the connector insert whose purpose is to retain the contact in the insert.

CONTACT RETENTION:

The provision or means in an electrical connector by which the contacts are retained; the ability of a connector to retain contacts. (See FORCE, CONTACT RETENTION)

CONTACT SIZE:

Either a single number designator based on the AWG size number most closely corresponding in circular mil area (CMA) to the CMA of the pin contact of a given contact set, or a double number designator, similarly based, whereby the first number corresponds to the CMA of the pin contact, and the second number corresponds to the max wire size accommodated by the contacts conductor barrel.

CONTACT, SOCKET:

A contact having an engagement end that will accept entry of a pin contact with the point of electrical contact on the inside diameter of contacting surface.

CONTACT WIPE:

The distance a contact travels on the surface of its mating contact during engagement or separation.

COUPLING, BAYONET, CYLINDRICAL:

A coupling mechanism utilizing spiral ramps in one cylindrical connector half to engage projections in the mating half so as to provide jacking and locking together of the mating halves through limited rotation of the coupling ring.