

Custom Terminal Lugs & Splices



Custom Capabilities Examples Shown from Left to Right: 2-Hole Narrow Tongue Terminal Lug; Bent Tongue; Splice; 1-Hole Tongue; Flag-Style Terminal Lug; Transition Splice

INTRODUCTION

Amphenol CIT engineers connectors, installation tooling, and cable assembly systems that meet the most demanding of specifications. Amphenol CIT qualifies products to those specifications and manufactures to meet uncompromising delivery schedules.

By leveraging broad experience in terminal lug and splice design, Amphenol CIT meets the challenges of the aerospace industry, including solutions to problems such as weight reduction, installation efficiency, and connection reliability.

Whether your need is for power or grounding, Amphenol CIT has the capability to meet your project objectives.

MATERIALS

Connector Body	Tin Plating	Nickel Plating
Aluminum	150 °C	175 °C
Copper	150 °C	260 °C

Solid nickel connector designs are also available for high-vibration environments such as engine harnesses.

FEATURES

- » Typical applications range in gauge size from #10 AWG to 4/0
- » Crimp dies designed to work with industry-standard 22 and 33-ton tools, allowing customers to leverage their existing tooling investment
- » 1-hole and 2-hole tongues can be produced at any angle to the barrel or configured as required to meet custom application requirements
- » Terminal lug and splice designs are compatible with popular cable specifications, including:
 - BMS13-60
 - BMS13-78
 - ABS0949 (AD)
 - ASNE0438 (YV)
 - MIL-SPEC

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WEIGHT SAVINGS

Amphenol CIT offers aluminum terminal lugs and splices, among other materials. The aluminum version is 65% lighter than copper equivalents.



INSTALLATION EFFICIENCY

Hex Crimp: The Amphenol CIT-modified hex crimp produces an environmentally sealed termination with a single crimp operation. The hex crimp eliminates any sharp edges (flashing) and there is no risk of exposing the base metal to corrosion. To achieve this hex-style crimp, Amphenol CIT developed a shank-style die set that is used with industry standard hydraulic crimp heads which produce between 22 and 33-tons of compressive force, allowing you to leverage your existing tooling investment.



Crimp Indicators: Crimp indicators are embossed during the crimping operation, providing a visual indication of full wire insertion and proper connector installation.

Fully-formed crimp indicator:  "Good" connection

Malformed crimp indicator:   "Bad" connection. Re-terminate.



Note: Crimp indicators vary with gauge size.

RELIABILITY

Amphenol CIT's environmentally-sealed connectors meet the toughest certification requirements to provide maximum reliability. Certifications include:

- » EN 3373-001, Aerospace Series—Terminal Lugs and In-Line Splices for Crimping on Electric Conductors, which specifies series tests that include:
 - 500-hour salt fog with negligible degradation as measured by the millivolt drop test of EN 3373-001
 - 1,500 repeating thermal cycles from 30 °C to 180 °C
 - Four hours of random vibration in each of the three axes with frequencies ranging from 10 – 2,000 Hz, under a current that maintains a 180 °C temperature, as per EN 2591-403 Method B Table 2, Level G
 - Tensile strength, as per EN 2591-102
 - Barrel seal to cable insulation up to 2 atmospheres