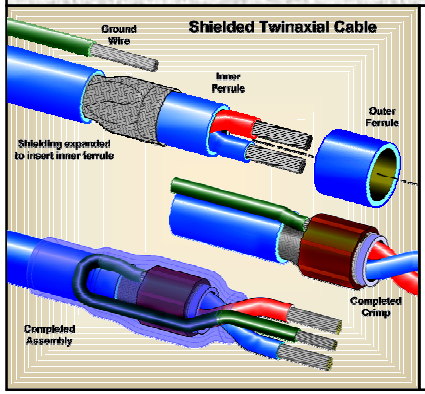


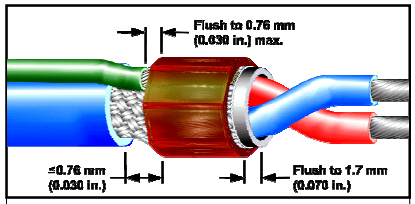
SHIELD CRIMPS

Shield Crimps are used to mechanically "finish" the end of individually shielded cables.

For ground shield terminations, the crimp assembly will have a grounding wire attachment, allowing the cable shield to be electrically terminated to ground.

For floating shield terminations, the crimp assembly will be completed without the ground wire attachment.

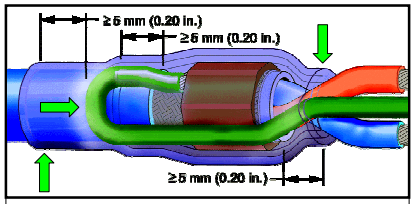
See Section 2.01 "Crimped Terminations – General Requirements" for common accept / reject criteria.



ACCEPTABLE
INTERIM ASSEMBLY VIEW

Outer crimp ring has been deformed only by tool indenters, with indents properly located and symmetrical. Inner crimp ring has not been deformed. No exposed base metal. Ground wire has proper insulation spacing, and end is visible.

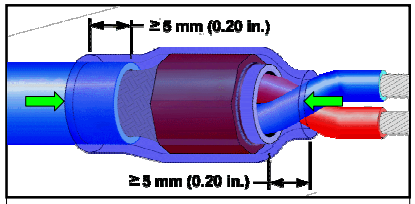
NASA-STD-8739.4 [11.5]



ACCEPTABLE
GROUND SHIELD TERMINATION

Heat shrink sections are properly installed, tightly shrunk, and the termination is visible. Overlaps meet minimum electrical spacing. Ground wire exhibits proper bend radius and strain relief.

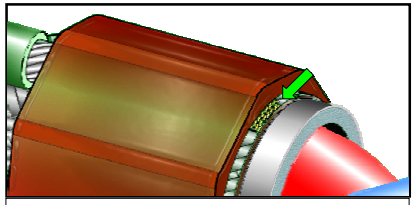
NASA-STD-8739.4 [7.3.22], [9.8.1], [9.9], [11.5], [19.6.1]



ACCEPTABLE
FLOATING SHIELD TERMINATION

Heat shrink tubing is properly installed, tightly shrunk, and the termination is visible. Overlaps are of sufficient length to meet minimum electrical spacing.

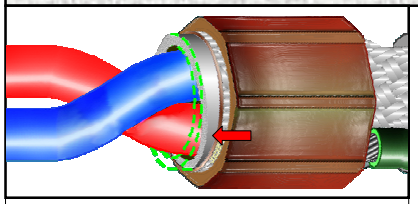
NASA-STD-8739.4 [9.8.1], [9.9], [11.5], [19.6.1]



MANDATORY
GROUND WIRE OVERHANG

The end of the ground wire shall be flush with the outer ferrule edge, but shall not overhang the inner ferrule edge.

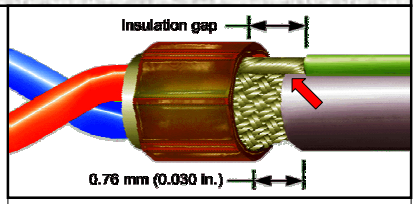
NASA-STD-8739.4 [11.5]



UNACCEPTABLE
IMPROPER ALIGNMENT

Improper alignment of the ferrules reduces the reliability of the termination and indicates the use of an incorrect crimp positioner, and/or improper insertion into the crimp tool.

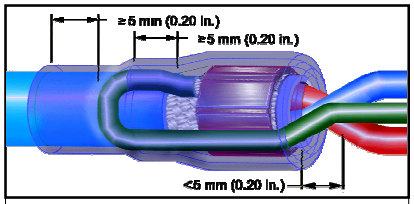
NASA-STD-8739.4 [19.6.2.b.4]



UNACCEPTABLE
IMPROPER GROUND WIRE INSULATION GAP

The ground wire insulation gap shall be ≤ 0.76 mm (0.030 in.). The minimum gap shall be flush with the edge of the outer crimp ring.

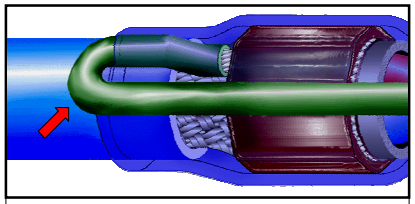
NASA-STD-8739.4 [11.5]



UNACCEPTABLE
IMPROPER HEAT SHRINK LENGTH

Heat shrink tubing conforms to crimp outline, but does not extend over the wire to provide any sealing or strain relief.

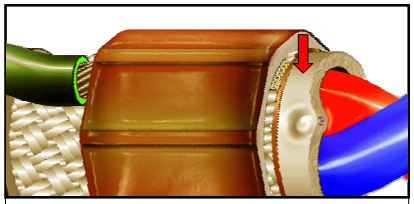
NASA-STD-8739.4 [9.8.1], [9.9], [19.6.2.b.8]



UNACCEPTABLE
IMPROPER STRAIN RELIEF / IMPROPER BENDS

Wiring must be properly dressed to ensure a reliable termination. Wire bends shall meet minimum radius bend requirements.

NASA-STD-8739.4 [7.3.22]



UNACCEPTABLE
INNER FERRULE DAMAGE / DISTORTION

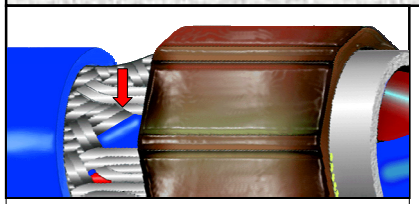
The inner ferrule shall be sized so that the inward distortion caused by the crimping process will not affect the insulated wires it surrounds.

NASA-STD-8739.4 [11.5]

UNACCEPTABLE
NICKED SHIELD STRANDS

Nicked shield strands shall not exceed 10% of the total number of strands.

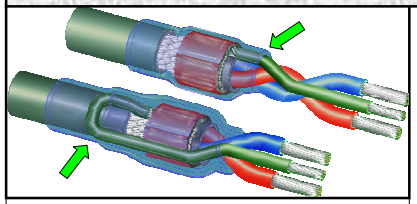
NASA-STD-8739.4 [19.6.2.b.2]



UNACCEPTABLE
UNEVEN SHIELD COVERAGE

The shield braid shall be dressed to provide uniform coverage and dispersion. Uneven coverage may result in electrical interference in sensitive circuits, and may interfere with the reliability of the crimp assembly.

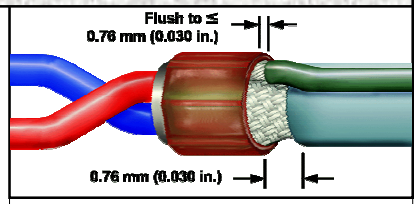
Best Workmanship Practice



PREFERRED
GROUND WIRE ORIENTATION

The ground wire should be dressed to the rear of the crimp termination, to allow the inclusion of a stress relief loop in the completed assembly. The ground wire may also dress forward, provided sufficient stress relief is provided.

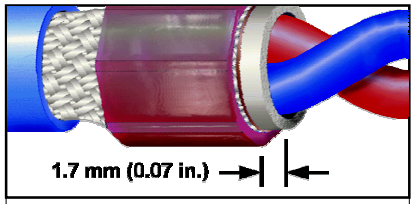
NASA-STD-8739.4 [11.5]



ACCEPTABLE
GROUND WIRE INSULATION GAP

The ground wire insulation gap shall be ≤ 0.76 mm (0.030 in.). The minimum gap shall be flush with the edge of the outer crimp ring.

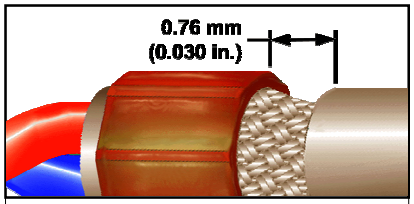
NASA-STD-8739.4 [11.5]



ACCEPTABLE
INNER / OUTER FERRULE SPACING

The inner ferrule may extend a minimum of flush with, and a maximum of 1.7 mm (0.07 in.) beyond, the front edge of the outer ferrule.

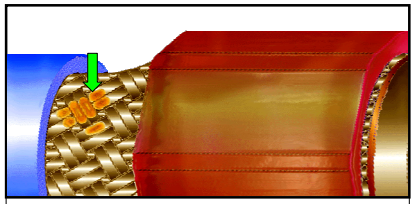
NASA-STD-8739.4 [11.5]



ACCEPTABLE
MIN. / MAX. SHIELD / BRAID GAP

Min.: The placement of the crimp rings shall be such that the dress of the shield stranding is not subjected to flexure stress or tensile load.
Max.: The maximum shield gap shall not exceed 0.76 mm (0.030 in.).

NASA-STD-8739.4 [11.5]



ACCEPTABLE
NICKED SHIELD STRANDS

Nicked shield strands shall not exceed 10% of the total number of strands.

NASA-STD-8739.4 [19.6.2.b.2]

UNACCEPTABLE
EXCESSIVE GROUND CONDUCTOR LENGTH

The ground wire end shall be flush with the outer ferrule edge, but shall not overhang the inner ferrule.

NASA-STD-8739.4 [11.5]