



# Advanced Conduit System (ACS)

## Including Advanced Conduit Locking System (ACL)

### Features

- PTFE or ETFE Convoluted conduit
- Operating Temperature: -75°C to +260°C
- Compact, quick assembly, standard and customer made termination and transitions
- Thermo-chromic paint
- Stainless Steel Option
- External Protective Jackets
- High Performance Screening Braids

The Advanced Conduit System & Advanced Conduit Locking System are high performance conduit systems for use on a wide range of applications including engine harnesses, landing gear, aircraft wings, weapons rails and military vehicles.

- Convoluted tube made from PTFE provides a lightweight conduit with excellent mechanical protection and a tight bend radius capability.
- The PTFE is non-toxic and fire retardant, unaffected by UV light and offers exceptional resistance to aviation and ground vehicle fluids.
- The convoluted structure offers flexibility and strength, and allows axial radial compression to facilitate re-entry behind connectors.
- Tinel-Lock™ shape memory metal braid clamps allow a quick self-assembly termination with extremely low DC resistance, avoiding the inherent limitations of conventional swaging.
- Thermo-chromic paint provides an easily visible quality control check on installation, which typically takes less than 10 seconds per adaptor using the universal application tool.

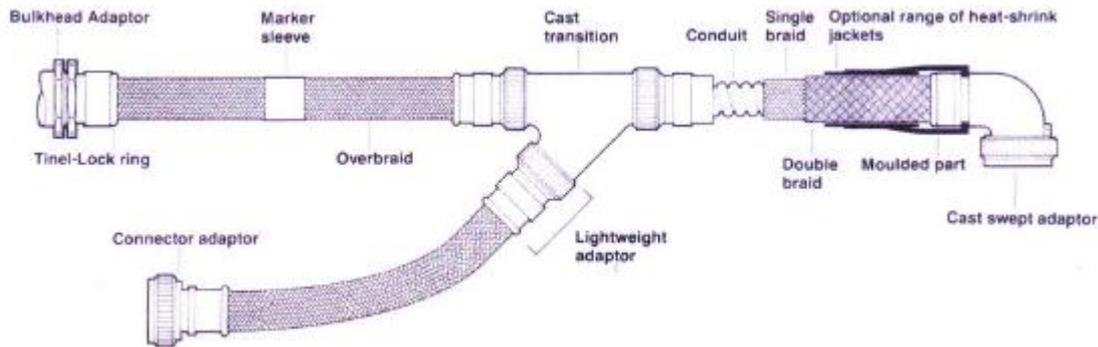
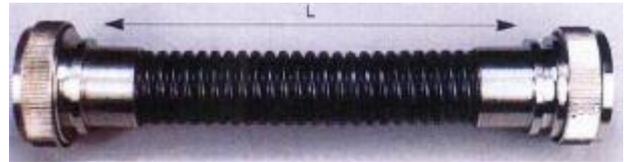


# Conduit Options

## Custom Designs

Ultra Electronics PALS custom designed adaptors and transitions maintain maximum inside diameter throughout the system. All metal work has been designed to minimize weight and to facilitate re-entry throughout the system. Metal work has been custom designed to meet exacting requirements. Drainage holes can be provided as an option.

A Stainless Steel option (ACSD) has been developed for use in high corrosion environments (e.g. landing gears) where 500+hrs salt spray resistance is needed.



A range of heat-shrink jackets or braids provide excellent mechanical and environment protection.

Integral braids can be used to provide exceptional screening performance at minimum weight and maximum flexibility.



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## Typical Harness Construction

The construction of Advanced Conduit System components to form a harness is straight forward. The assembly procedure is outlined in the support Installation Guide. Each branch comprises a length of conduit, usually covered in an over-braid, with two Tinel-Lock™ adaptors which locate and fix onto each end. These adaptors mate with either a range of connectors, or transitions.

The Tinel-Lock™ rings are installed until the blue/green thermochromics paint changes colour to black (as can be seen in figure to the left).

A variety of options are available to shield and cover the harness.

Ultra Electronics reserves the right to vary these specifications without notice.

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Printed in England

cs/110713/4