

HEC-DC™ Hardened Fiber Optic Cable Assemblies

Overview

The HEC-DC is a compact, hardened fiber optic connector from US Conec, purpose-built for outside plant (OSP) and other harsh-environment deployments. Its DirectConec™ push-pull boot design enables fast, tool-free installation with a simple push until it clicks securely into place. Removal is just as easy—simply twist the boot 40° and pull to disconnect. Built-in blind-mating features protect the ferrule from damage and contamination during mating and de-mating.

At just 19mm in housing diameter, the HEC-DC allows tighter connector spacing than traditional hardened connectors, enabling smaller closures, terminals, and wall boxes without sacrificing performance.

The connector is IP68-rated and compliant with Telcordia GR-3120 and GR-3152. It also meets IEC 61753-1 OP+ Category A, G, S, supporting outdoor aerial, ground, and subterranean applications. It's rated to withstand 450N/100lbf of pull force and accepts round cables from 4.0mm to 6.5mm O.D. as well as flat drop cable.

Fibertronics, as an approved assembly partner, offers custom HEC-DC cable assemblies in SC simplex, LC duplex, and MTP®/MPO 12-fiber configurations for singlemode and multimode applications.

Features

- Simple push and click installation with no tools required
- Connector removal is a simple 40° twist of the boot and pull
- Blind mating features protect ferrule from damage and contamination during installation and removal
- Novel mating technology and 19mm housing allow for tight connector spacing
- MTP® connector version utilizes proven 12F MT Elite® ferrules and are compatible with traditional MPO connectors
- LC connector version mates with industry standard duplex LC connectors
- SC available in UPC or APC
- All versions compliant with GR-3120 and GR-3152 as well as IEC 61753-1 OP+ Category A, G, S
- Supports 4.0mm to 6.5mm round cables and flat drop
- Withstands 100lbf/450N pull force

Applications

- Fiber to the Home (FTTH)
- Fiber to the Antenna (FTTA)
- Distributed Access Architecture (DAA)
- Industrial
- Broadcast
- Military and defense systems
- Long Haul Security



Connector Options

Fibertronics offers custom HEC-DC cable assemblies configured with your choice of connector interface, including:



MTP®/MPO



LC Duplex



SC Simplex



Cable Options

HEC-DC connector kits currently support round cable with 4.0mm–6.5mm outer diameter. Kits for flat drop cable in traditional (8.1mm × 4.5mm) and small (5.4mm × 3.0mm) profiles will be available Q4 2026. Assemblies are built to your required length and fiber type (singlemode or multimode) to meet your project specifications.



Round Cable



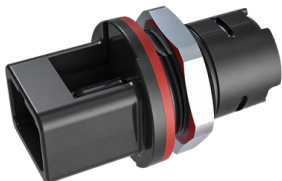
Flat Drop Cable

Adapter Options

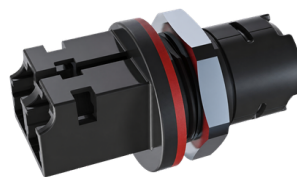
Bulkhead and inline adapters have been developed to provide maximum deployment flexibility for HEC-DC assemblies.

Bulkhead adapters, available for SC simplex, LC duplex, and MTP®/MPO interfaces, connect HEC-DC assemblies to standard indoor fiber connectors and are ideal for wall boxes, terminals, closures, and equipment enclosures.

Inline adapters join two HEC-DC assemblies directly together, rather than requiring separate male and female connector versions, maintaining a fully sealed, IP68-rated connection that's well suited for extending cable runs or connecting pre-terminated assemblies in the field.



HEC Bulkhead Adapter, SC



HEC Bulkhead Adapter, LC



HEC Bulkhead Adapter, MTP®



HEC Inline Adapter, SC



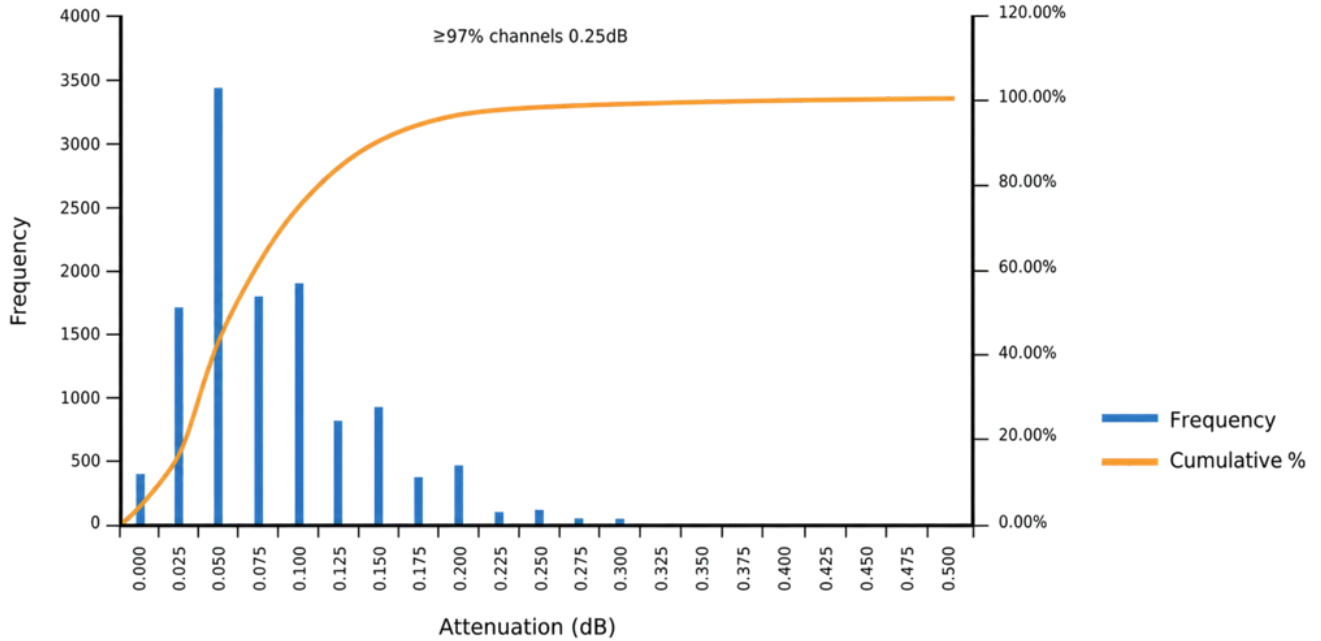
HEC Inline Adapter, LC



HEC Inline Adapter, MTP®

12 SM MT Elite® Optical Performance

Random mate performance testing of 12-fiber singlemode MT Elite® ferrules shows 97% or more of channels achieving insertion loss at or below 0.25dB, demonstrating the consistency and reliability of HEC-DC assemblies.



HEC-DC Enables Smaller Solutions

Harsh environment applications are demanding more compact solutions. Fibertronics HEC-DC assemblies enable a reduction in the size of wallboxes, enclosures, and terminals by up to fifty percent, without compromising strength, ease of use, reliability, or optical performance.



Legacy HFOC



HEC-DC

HEC-DC Closures

Closures pre-engineered for the HEC-DC connector line will be available by the end of 2026.

