

FALCON™ JUNIOR PLUG

JUNIOR-SIZE EXPANDED BEAM PLUG



The FALCON Junior Plug is the only junior-size expanded beam plug in the world available with 1–12 fiber channels and a beam size approved according to MIL-DTL-83526/20C. The plug is designed for heavy-duty tactical applications.

This plug delivers unmatched data rates, tripling density within a standard military footprint. It mates directly with tactical fiber-optic cables fitted with other junior-size expanded beam bulkhead receptacles. It is equipped with high-performance strain relief and a protective boot, providing the robustness required for demanding field deployments.

The FALCON Junior Plug can be daisy-chained into long overall cable lengths suitable for temporary tactical communications, and its rugged design makes it durable even in harsh conditions. The plug is often supplied on a cable reel or backpack system with fiber-optic cable spooled on a drum.

The FALCON Junior Plug's unique combination of 12 independent channels and 40 Gbit/s bandwidth per channel enables efficient data separation, massive multi-sensor data streams, and uncompressed high-definition video within a single rugged tactical connector footprint. It is also ideal for communications in industrial, shipping, and offshore applications with exposed outdoor connector points.

FEATURES

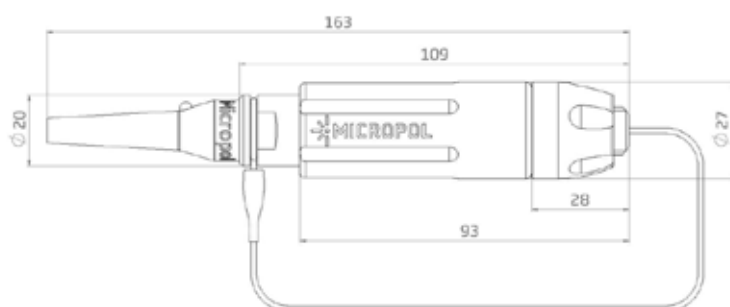
- Designed in accordance with MIL-DTL-83526/20C*
- Up to 40 Gbit/s per channel
- Advanced expanded beam technology
- Compact connector design
- Hermaphroditic interconnection
- 1–12 fiber channels, single-mode, multi-mode or mixed mode
- No adapters required
- Low-downtime field maintenance
- Easy cleaning, no special tools required

* Excludes the 12-channel configuration

COMPATIBLE WITH*

- FIBRECO Junior
- QPC Q - Mini
- TE PRO-BEAM - Junior
- Amphenol TacBeam
- Stratos HMA

* Excludes the 12-channel configuration



STANDARD CONFIGURATIONS

FALCON™ Junior	1 to 12 channels
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OPTICAL

Type	Single-mode (SM), multi-mode (MM), or mixed mode
Bandwidth	Up to 40 Gbit/s
Insertion loss (SM)	Typical: -0.8 dB (1,310 nm) Maximum: -1.2 dB (1,310 nm)
Insertion loss (MM)	Typical: -0.8 dB (1,300 nm) Maximum: -1.0 dB (1,300 nm)
Return loss (PDL)	> 35 dB at 1,310 nm or 1,550 nm Polarization dependent loss < 0.35 dB

MECHANICAL

Coupling type	Hermaphroditic
Compliance	ROHS & REACH
Material	Hard-anodized aluminum (MIL-A-8625 TYPE III CLASS 2)
Optional material	Marine bronze, stainless steel or titanium
Color	Gray
Durability	3,000 mating cycles (MIL-DTL-83526)
Free fall	500 drops from 1.2 m (IEC 68-2-32-P II)
Vibration	5-500 Hz, 0.75 mm amplitude at 10 g (IEC 68-2-6-Fc)
Mechanical shock	3 x 4,000 cycles at 390 m/s² (IEC 68-2-29-Eb)
Shock pulse	11 ms half-sine at 35 g, 3 axes (x, y, z) (IEC 68-2-29-Eb)

ENVIRONMENTAL

Operating temperature	-57 °C to +85 °C, +100 °C optional
Ingress protection	IPX7
Air pressure	< 25 kPa -55 °C for 4 hours (IEC 68-2-13, test M)
Corrosion resistance	500 h salt spray (IEC 68-2-11 ka)
Flammability	DOD-STD-1678, method 5010

V6.3, 2026-06-29



MORE INFORMATION