

FALCON™ JUNIOR SQUARE



JUNIOR-SIZE EXPANDED BEAM BULKHEAD RECEPTACLE



The FALCON Junior Square is the only junior-size expanded beam bulkhead receptacle in the world available with 1–12 fiber channels and a beam size approved according to MIL-DTL-83526/21*. The receptacle is designed for heavy-duty tactical applications.

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

The FALCON Junior Square is mounted on panels inside ODF boxes. The receptacle features a small installation footprint, enabling compact ODF integration. Compared with the Junior D-hole series, it features a square profile with a simpler mounting pattern secured by four screws. The customer can choose whether the nuts are mounted on the inside or outside of the panel.

The FALCON Junior Square is used in military command and control centers, containers, converters, and switches, and in integrated ODF enclosures across various types of defense vehicles, air-defense units, and other space-constrained applications.

FEATURES

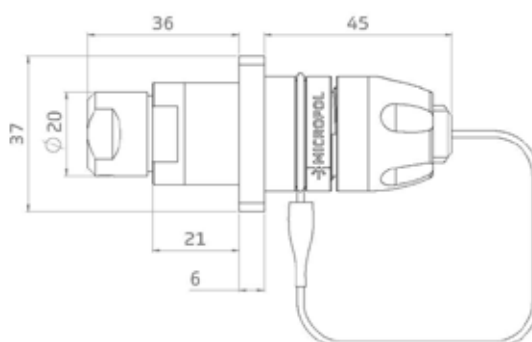
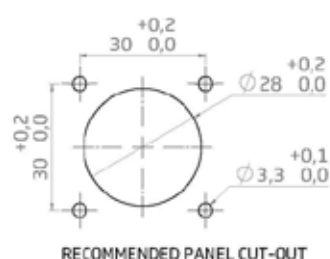
- Designed in accordance with MIL-DTL-83526/21*
- Up to 40 Gbit/s per channel
- Advanced expanded beam technology
- Compact connector design
- Hermaphroditic interconnection
- 1–12 fiber channels, single-mode, multi-mode or mixed mode
- No adapters required
- Low-downtime field maintenance
- Easy cleaning, 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 40Gbit/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)
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)
Recommended wall thickness	2-3 mm

ENVIRONMENTAL

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

V7.3, 2026-06-29



MORE INFORMATION