

# USB 3.0 Hybrid Active Optical

## Industrial High Flex Hybrid AO USB 3.0 - F-AOC-B3PMBT-xx-PA

### Product Outline

USB 3.0 technology allows for high data rates, but it is quite limited in its effective cable length. Intercon's new Hybrid Active Optical (AO) assembly breaks through the cable length barrier and provides a rugged, high flex solution for those applications where a high flex, long distance solution is needed.

Also unique to our product is the inclusion of a copper conductor to provide power to the device. Traditional AO cables consist only of glass or plastic fibers. The Intercon AO cable is a hybrid that contains both copper and fiber allowing for both power and data transmission over extended distances. In addition, this AO solution is designed for high flex robotic applications, specifically rolling (C-Track) applications. It's unique design utilizes specialized materials developed for the most demanding applications. The thumbscrew locking feature insures a secure robust connection to the device.



### Main Product Specifications

#### Features

- Supports high data rate transfers up to 5 Gbps
- Robotic Grade – High Flex
- Thumbscrew locking
- EMI resistant
- No separate power required

#### Cable Specifications

Overall Diameter	4.8 mm
Operating / Storage Temperature	0°C to 50°C / -20°C to 70°C
Jacket Color	Black
Minimum Bend Radius (Dynamic/Static)	50 mm / 20 mm
Device side voltage	Max 5 volts
Device side current	900 mA (05m / 10m /15m) / 600 mA (20 m)

#### Flex Test Parameters

Bend Radius	50 mm
Travel Distance	2000 mm
Cycles per minute	6 (back and forth = 1 cycle)
Cycles achieved	5 million +

#### Primary Components

Cable	Hybrid (Combination of Fiber and Copper)
Connector A	USB 3.0 Type Micro B Plug w / Thumbscrews
Connector B	USB 3.0 Type A Plug

### Ordering Information

Part Number	Length		Description
	Meters	Feet	
F-AOC-B3PMBT-5.0-PA	5	16.4	USB 3.0 Micro B w/Thumbscrews to 3.0 A
F-AOC-B3PMBT-10-PA	10	32.8	USB 3.0 Micro B w/Thumbscrews to 3.0 A
F-AOC-B3PMBT-15-PA	15	49.2	USB 3.0 Micro B w/Thumbscrews to 3.0 A
F-AOC-B3PMBT-20-PA	20	64.8	USB 3.0 Micro B w/Thumbscrews to 3.0 A

\*Note: Cable assembly is not backwards compatible to USB 2.0

**Custom variations available. Please contact customer service for additional information.**

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