

OneReach Cable Assembly

LC & M8 Preconnectorized Composite 2 Fiber OM1 with Two 18 AWG Stranded Conductors, Riser

Part Number: BHCR02CAA0N4NFM8Pxxx

The OneReach Cable Assembly (OCA) combines optical fiber and copper conductors in a single assembly that easily attaches with standard LC or MPO and M8 connectors to reach distances up to 3,850 feet.

Description

Speed, simplicity and performance. You find them all in the OCA of the OneReach System. Power and data transmission are supported within a single jacket through the use of Berk-Tek CL3R-OF or CL3P-OF rated composite copper/fiber cable. These cables combine 12 AWG or 18 AWG stranded conductors with either tight-buffered or loose tube optical fiber cable designs to support 1- or 4-port remote devices.

Building upon the strength of the innovative cable design, assemblies are built to the specific length requirements of each project, and arrive on-site with pre-tested optical fiber connectors and an M8 connector for power on the remote device end, ready to install. The local end of the assembly attaches effortlessly to the local media module or power injector chassis with standard LC connectors and easy to use screw terminals. Single end termination and field termination options are also available.

Rapid and reliable installation is the norm with OneReach, which lets you take PoE to new distances. The stranded conductors provide enough power to support PoE to distances well beyond the 100 meters supported through traditional twisted pair cabling.

Benefits

- Simple, single pull installation
- Combines control and communication in industrial pathways
- Provides common pathway for fiber backbone and Class 3 power supply
- Can be used in wet or dry locations
- Designs for indoor, outdoor and indoor/outdoor environments
- Able to support distances beyond 2,500 feet



Standards

International EN 50173; ISO/IEC 11801

National ANSI/ICEA S-104-696; UL 13

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Characteristics

Construction characteristics	
Fiber optic type	OM1 62.5/125
Type of cable	Tight buffer
Outer sheath	Fire-retardant PVC
Sheath colour	Black
Conductor material	Bare copper
Number of conductors	2
Connector type	LC Duplex & M8
Dimensional characteristics	
Tube diameter	2 mm
Number of optical fibres	2
Nominal outer diameter	0.32 in
Nominal outer diameter	8.1 mm
Approximate weight	49 lb/kft
Approximate weight	72 kg/km
Conductor cross-section (AWG)	18
Electrical characteristics	
Max. DC resistance of the conductor at 20°C	6.66 Ohm/kft
Max. DC resistance of the conductor at 20°C	21.90 Ohm/km
Transmission characteristics	
Optical performance	CB (62.5/125 Standard, OM1)
Attenuation, max. 850 nm (cabled)	3.5 dB/km
Attenuation, max. 1300 nm (cabled)	1.0 dB/km
Mechanical characteristics	
Maximum installation tension	150 lb
Maximum installation tension	668 N
Max. Load. Long Term (lbs)	45.0 lb
Max. Load. Long Term	200.0 N
Impacts per TIA/EIA FOTP-25	2 at 5.88 N-m
Crush resistance per TIA/EIA FOTP-41	220 N/cm
Cable flexibility per TIA/EIA FOTP-104	500 cycles
Usage characteristics	
Minimum Bending Radius - Install	4.8 in
Minimum Bend Radius - Install	12.2 cm
Minimum Bending Radius - LongTerm	3.2 in
Minimum Bending Radius - LongTerm	8.1 cm
Operating temperature, range	-40 .. 85 °C
Ambient installation temperature, range	-10 .. 70 °C
Storage temperature, range	-40 .. 85 °C
Field of application	Indoor, Outdoor

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OneReach Cable Assemblies

Number of Conductors	Conductor Gauge Size	Fiber Type	# of Fibers	Cable Part Number	Application	Supported Distance to RPP: PoE		Flame Rating	Max. Assembly OD (in.)
						ft.	m		in.
2	18, 18	OM3	2	BHCP02EAA044FFNM8Pxxx	1-port assembly	1000	305	Plenum	0.75
2	12, 12	OM3	2	BHCP02EDD044FFNM8Pxxx	1-port assembly	3850	1175	Plenum	0.75
2	18, 18	OM3	2	BHCR02EAA044FFNM8Pxxx	1-port assembly	1000	305	Riser	0.75
2	12, 12	OM3	2	BHCR02EDD044FFNM8Pxxx	1-port assembly	3850	1175	Riser	0.75
3	12, 12, 18	OM3	12	BACP12EADD77NNNM8Pxxx	4-port assembly	960	290	Plenum	0.85
3	12, 12, 18	OM3	12	BACR12EADD77NNNM8Pxxx	4-port assembly	960	290	Riser	0.85
3	12, 12, 18	OM1	8	BACR08CADD77NNNM8Pxxx	4-port assembly	960	290	Riser	0.85

Manufacturing Release

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