



### **Features**

- Available from 1 core to 24 cores
- Multimode and Singlemode OM1, OM2, OM3, OM4, OS2
- Supplied with protective tubes and pulling eye
- e 25 Year System Warranty

X 1 core to 24 cores

- X 2mm or 3mm Fanout Construction
- X SM & MM OS2, OM1, OM2, OM3, OM4
- X LC, SC and ST & FC connectivity (PC & APC)
- X Supplied on plywood drums or in coils
- X Tight Buffered and Loose Tube cable options
- X Internal/External cables CPR compliant
- $\mathbf{X}$  Fitted with pulling protection tubes
  - 2mm or 3mm Ruggedised Fanout Construction
  - LC, SC, ST & FC connectivity (PC & APC)
  - Excel LSOH/CPR compliant cable
  - Alternative core counts, connectivity, and sheath colours on request
  - Fully inspected and tested Certificate Included

### **Product Overview**

Excel pre-terminated cable assemblies with ruggedised fan-outs are constructed from multi-core 900-micron, tight buffered or loose-tube 250-micron cables as required to best suit the application. Many options are available to meet most requirements and include choices of multimode and singlemode fibres, core counts and connector styles.

The assemblies can be made with 2mm/3mm ruggedised fan-outs at both ends, or as a 'hybrid' with ruggedised fanouts on one end and 900 micron buffered fan-outs on the other end – particularly suitable as a harness link from Panel to switch.

All cables are fully CPR compliant with CPR information included.

These pre-terminated cables are supplied on plywood cable drums or coils depending on length and are fitted on both ends with a protective tube. The pulling end also has a pulling eye attached.

The cables can be terminated at both ends or single-ended. The 'fan out' assembly is staggered at approx. 50mm intervals to fit into the pulling tubes. Unless specified otherwise the longest fan out will measure approximately 1 metre from the

gland/manifold assembly to the tip of connector, but the fanouts can be made to any length up to 2m.

All cable assembly lengths are measured from tip to tip of connectors. Where fan outs are staggered, this length is measured from longest fan out to longest fanout.

The cables are fitted with strain relief cable glands to offer cable bend protection as it enters the gland. The standard protective tube diameter is 32mm, but a 25mm tube can be fitted on the smaller core-counts if required. A cable identification label is affixed to each end of the assembly, just behind the gland. Customer specific ID's can be applied on request.

Excel Pre-Terminated Ruggedised cables are extremely robust yet compact and flexible in design. This, together with the range of cable options, core counts, and connectivity make them ideal for use as links from a patch panel to a switch, panel to consolidation points, or rack to rack links.

Also available are fibre pre-terminated assemblies on re-deployable cable drums. These are designed to be used in temporary deployments, such as broadcast or disaster recovery, where a temporary link may be required. See alternative specifiction sheet for this type of assembly.

# Packaging

The Excel Pre-terminated Ruggedised Fibre Optic Cable Assemblies are supplied on cable reels or in coils depending on the length of the cable, with the pulling tubes fitted for the protection of the breakouts. Both ends of the cable are accessible.

All assemblies are fully tested for insertion loss and a test certificate is supplied with each assembly.

All assemblies include the product label, which includes the batch number and the CE/CPR label specifying the CPR class that the cable complies to.

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#### **Cable Drum Details**

- Drum Diameter (typical) 450mm
- Drum Height (typical) 225mm
- Drum Centre Hole Diameter 55mm

#### Pulling Tube Details

- Pulling Tube Diameter (typical) 32mm. (25mm option)
- Pulling Eye Inside Diameter 10mm

#### Cable/Gland Details

- Cable Diameter 6mm to 8.5mm (depending on cable type)
- Fibre Breakout length (typical) 1m max. (Customer defined option)
- Gland Size M20
- Gland Strain Relief Boot Length 90mm

## **Specifications**

Fibre Attenuation	OM3	OM4	OS2
Maximum cable attenuation @ 850nm	3.5dB/km	3.5dB/km	n/a
Maximum cable attenuation @ 1300nm	1.5dB/km	1.5dB/km	n/a
Maximum cable attenuation @ 1310nm	n/a	n/a	0.4dB/km
Maximum cable attenuation @ 1550nm	n/a	n/a	0.3dB/km
Bandwidth			
Minimum Bandwidth @ 850nm	1500	3500	n/a
Overfilled (OFL) Modal Bandwidth @ 1300nm	500	500	n/a
Minimum Bandwidth Laser Effective @ 850nm	2000	4700	n/a
Complies with specification standard	IEC 60794-1-1	IEC 60794-1	-1 IEC 60794-1-1
Connector Performance Characteristics	SC	LC	
Insertion Loss (dB)	<0.3	<0.3	
Return Loss - MM/SM/APC (dB)	-30/-50/-60	-30/-50/-60	
Ferrule	2.5mm ceramic	1.25mm ceramic	
Connector Design	IEC 61754-4	IEC 61754-2	

## **Part Number Information**

Part No.	Description
209-a2-bbb-ccc-ddd-BK-xxxx	Excel 2-core Pre-terminated Ruggedised Cable Assembly
209-a4-bbb-ccc-ddd-BK-xxxx	Excel 4-core Pre-terminated Ruggedised Cable Assembly
209-a6-bbb-ccc-ddd-BK-xxxx	Excel 6-core Pre-terminated Ruggedised Cable Assembly
209-a8-bbb-ccc-ddd-BK-xxxx	Excel 8-core Pre-terminated Ruggedised Cable Assembly
209-a12-bbb-ccc-ddd-BK-xxxx	Excel 12-core Pre-terminated Ruggedised Cable Assembly
209-a16-bbb-ccc-ddd-BK-xxxx	Excel 16-core Pre-terminated Ruggedised Cable Assembly
209-a24-bbb-ccc-ddd-BK-xxxx	Excel 24-core Pre-terminated Ruggedised Cable Assembly

#### Key

a = Cable Type (D–Tight Buffered, L–Loose Tube), bbb = Fibre Type (OM1, OM2, OM3, OM4, OS2) ccc = Connector A (2LC = 2mm LC, 3SC = 3mm SC, 3ST = 3mm ST, 3FC = 3mm FC etc.) ddd = Connector B (2LC = 2mm LC, 3SC = 3mm SC, 3ST = 3mm ST, 3FC = 3mm FC etc.) xxxx = Length in cm (eg: 100m = 10000)



