#### fibreFlow

### **Pre-connectorised Fibre Unit**



# **Product Description**

Emtelle fibre unit terminated with optical connectors at one end, and wound onto reels allowing shipping and dispensing from an un-powered spindle

## Application

Fibre Optic Systems, FTTH, FTTX. Designed for dispensing Emtelle Fibre Unit when fitted to a free turning, un-powered spindle.

## **Available Products**

Standard finished product with associated codes are given in Table , including the relevant fibre and fibre unit specification. For alternative lengths, fibre, and connector types please check with your Emtelle representative for availability.

Table 1										
Fibre Type				Singlemode G652D						
Emtelle Fibre Unit Specification				MHT1201						
Length	2	2 Fibre with	1 Connecto	r	2 Fibre with 2 Connectors					
(m)	SC/UPC	SC/APC	LC/UPC	LC/APC	SC/UPC	SC/APC	LC/UPC	LC/APC		
30	9430	9437	9444	9451	9360	9367	9374	9381		
50	9431	9438	9445	9452	9361	9368	9375	9382		
70	9432	9439	9446	9453	9362	9369	9376	9383		
100	9433	9440	9447	9454	9363	9370	9377	9384		
150	9434	9441	9448	9455	9364	9371	9378	9385		
200	9435	9442	9449	9456	9365	9372	9379	9386		
250	9436	9443	9450	9457	9366	9373	9380	9387		
Length	4	Fibre with 4	Connector	s	COMBI - 2 Fibre with 2 Connectors					
(m)	SC/UPC	SC/APC	LC/UPC	LC/APC	1xSC/UPC					
					1xSC/APC					
30	9388	9395	9402	9409	70339					
50	9389	9396	9403	9410	70340					
70	9390	9397	9404	9411	70341					
100	9391	9398	9405	9412	70342					
150	9392	9399	9406	9413						
200	9393	9400	9407	9414						
250	9394	9401	9408	9415						

	Fibre Typ	е		Singlemode G657A1					
Emtelle Fibre Unit Specification				MHT2185					
Length	2 Fibre with 2 Connector								
(m)	SC/UPC	SC/APC	LC/UPC	LC/APC					
30		9437A1							
50		9438A1							
70		9439A1							
100		9440A1							
150		9441A1							
200		9442A1							
250		9443A1							
400		9437A1							

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4th Issue, 17th December 2013, Page 2 of 4

Fibre Type				Singlemode G657A2				
Emtelle Fibre Unit Specification				MHT2185				
Length	2 Fibre with 2 Connector							
(m)	SC/UPC	SC/APC	LC/UPC	LC/APC				
30								
50								
70								
100								
150								
200								
250								
400		71744						

## **General Installation Instructions**

Installation instructions will be specific to the type of termination point used. The user must however consider:

- Equipment for paying off
- The sequence of fitting reel, blowing head, any connectors or Lock-and-Block stems needs careful thought before installation
- Storage of fibre unit and fan-out inside the closure must meet with Emtelle's approval

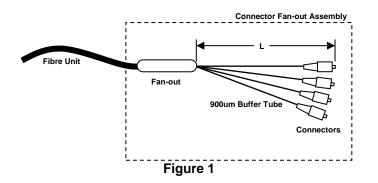
If for the user's specific installation conditions Emtelle Instructions are not available, the user should seek advice from Emtelle.

## **Connector Fan-out Assembly**

A diagram of the connector fan-out assembly is shown in Figure 1.

The 250 micron fibres from the fibre unit are individually broken out and fed through standard 900 micron PTFE buffer tubes. The fibres are terminated with connectors at the end of the buffer tube.

- The connector fan-out assembly contains no fibre joints
- PTFE 900μm Buffer Tube (transparent) for installation of 250μm optical fibre
- Fanned out length (L) = 0.5m
- The fan-out has dimensions not exceeding 70mm (length) and 3mm (diameter)
- The terminated connectors and fan-out meet the specification given in Table 1



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4th Issue, 17th December 2013, Page 3 of 4

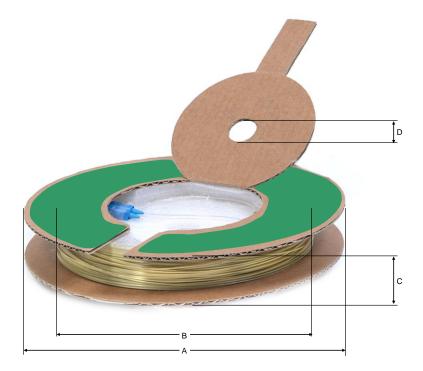
Table 1						
Parametert		Requir	Applies to			
	SC/UPC	SC/APC 8º	LC/PC	LC/APC 8°	Connector	Fan-out
Specification	IEC 60874	IEC 60874	IEC 61754	IEC 61754	•	
Test Methods	IEC 61300	IEC 61300	IEC 61300	IEC 61300	•	
Connector Body Colour	Blue	Green	Blue	Green	•	
Connector Boot Colour	Blue	Green	Blue	Green	•	
Insertion Loss, typical (dB)	0,20	0.30	0.20	0.20	•	
Insertion Loss, maximum (dB)	0,30	0.40	0.30	0.30	•	
Return Loss, typical (dB)	52	62	52	62	•	
Return Loss, minimum (dB)	50	60	50	60	•	
Temperature, in operation (°C)		-40 ~	- +75	•	•	•
Temperature, storage (°C)	storage (°C) -55 ~ +85					•

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#### Reel

The foam barrel incorporates a recess designed for fibre unit routing and storage of the fan-out assembly. A foam retainer placed under the reel's lid is used to protect the fan-out assembly. See Figure 2 for the reel's design and dimensions.



Part	Description	Dimension (nominal)		
Α	Flange diameter	265mm		
В	Barrel diameter	201mm		
С	Barrel width (outside / inside)	45mm / 38mm		
D	Central hole diameter	25.5mm		

#### Figure 2

### **Packaging and Labelling**

Connectors are individually identifiable and are capped (sealed) against dust and damage to the ferrule. The connectors and fan-out are contained in the reel's cavity and secured with tape. The fibre unit is then fed through the gap in the flange and wound onto the reel.

The reels should be stored and shipped with their axis horizontal i.e. with each reel standing on the flange rims.

The completed reel with pre-connectorised fibre unit is shipped in a protective box (8 reels per box) whilst maintaining correct orientation. The reels are labelled with product description, product code, and test results.

Change History						
2007	JT	Initial release				
7 <sup>th</sup> May 2012	JT	Layout updated				

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