

Dual Window Fused Couplers

High performance couplers & taps, $\pm 50\text{nm}$ bandwidth at 1300nm & 1550nm



FEATURES:

- Low excess loss
- High directivity
- Low PDL
- Good environmental stability
- High return loss
- Telcordia GR-1221-CORE

APPLICATIONS:

- Power splitting
- Power monitoring
- Optical fiber sensors
- Optical fiber networks
- CATV

The Phoenix Photonics range of fused fiber couplers has been developed to offer the designer flexibility in optimizing system performance. The proven FBT technology base has been utilized to optimize specific device parameters, reflected in the specific product categorization. Parameters that can be selected through the choice of appropriate device are; coupling ratio, insertion loss, wavelength flatness, polarization stability and center wavelength.

All of the coupler options offer very low excess loss and PDL performance, are available in a range of coupling ratios from 1% to 50% and have 1x2 or 2x2 configuration.

Dual Window

Dual window couplers offer similar polarization performance to single window option with $\pm 40\text{nm}$ bandwidth centered at 1310nm and 1550nm.

SPECIFICATION:	Units	1x2 or 2x2 Port Couplers						
Wavelength ¹	nm	1300 and C-band or L-band						
Bandwidth	nm	+50						
Excess Loss	dB	0.05(typ.), 0.08 (max.)						
Splitting Ratio ²	%	50/50	60/40	70/30	80/20	90/10	95/5	97/3
Ratio Tolerance	%					+2.0	+1.5	+1.0
Insertion Loss ³	Typ.	3.06	2.3/4.1	1.6/5.3	1.0/7.1			
	Max.	3.6	2.7/4.7	1.9/6.0	1.2/7.0			
WDL (tap port)	dB					+0.1	+0.15	+0.2
PDL (through port)	dB	0.1	0.1	0.1	0.1			
PDL (tap port)	dB	0.1	0.1	0.15	0.15	<0.15		
Thermal Stability ⁴	dB	<0.1				<0.2		
Operating Temperature	°C	-40 to +85						
Directivity ⁵	1x2	>50						
	2x2	>65						
Pigtails	mm	1000						

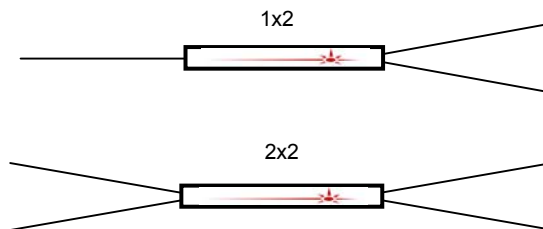
Lead Type	250µm	900µm loose tube	3mm cable
Package Dimensions	3mm dia. x48mm	3.5mm dia. x 66mm	90mmx16mmx9mm
		90mmx16mmx9mm	

Notes:

- 1 Center wavelength can be tailored to customer requirements
- 2 Other splitting ratios can be provided, please contact our sales representative for further information.
- 3 Insertion loss without connectors
- 4 Maximum variation of coupling ratio over full, specified temperature range
- 5 Directivity of 60dB can be supplied on request

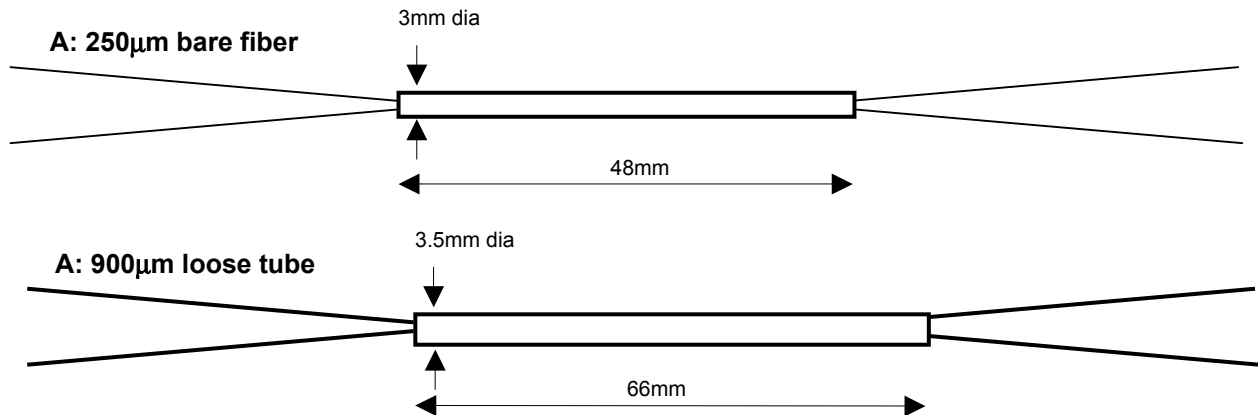
CONFIGURATION:

All couplers are available with single input fiber and two output fibers (1x2) or two input fibers and two output fibers (2x2).



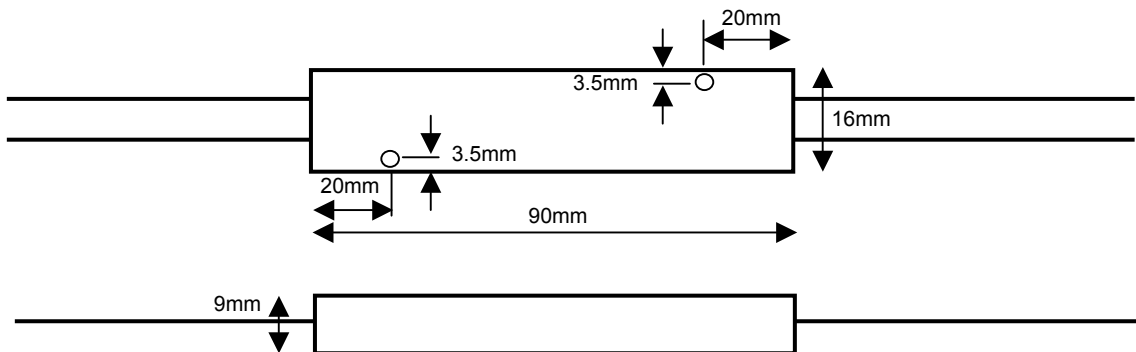
PACKAGE STYLE:

Package style A, stainless steel tubing



Package style B, rectangular cross section plastic package with throughput fibres.

B: 900µm loose tube or 3mm cable



PRODUCT ORDERING INFORMATION:

Note: Not all options below may not be available in all coupler types, please check with our sales representative, to ensure your specific requirements can be met.

W	F	C	-		-		-		-		-		-				
Configuration:				Wavelength:				Coupling ratio:				Cable type:		Package style:		Connectors:	
1: 1x2 2: 2x2				1300 1550 1590				5050 6040 7030 8020 9010 9307 9505 9901				0 - none 1 - 900µm loose tube 2 - 3mm cable		A B C		0 - none 1 - FC/SPC 2 - FC/APC 3 - SC/SPC 4 - SC/APC 5 - ST/PC 6 - LC/PC 7 - MU/PC 8 - other	

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