

# Multimode Fused Couplers

High performance multimode couplers & taps in the range of 700nm to 1600nm



## 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.

## Multimode

Designed for operation in 850nm and 1310nm ranges these devices operate from 700nm to 1600nm, using graded index multimode fiber.

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SPECIFICATION:	Units	1x2 or 2x2 Port Couplers							
Wavelength <sup>1</sup>	nm	700 to 1600							
Excess Loss	dB	<0.6 (850nm)				<0.3 (1310nm)			
Splitting Ratio	%	<b>50/50</b>	<b>60/40</b>	<b>70/30</b>	<b>80/20</b>	<b>90/10</b>	<b>95/5</b>	<b>97/3</b>	<b>99/1</b>
Ratio Tolerance	%					0.2	0.2	0.3	0.4
Insertion Loss <sup>2</sup>	Typ.	3.6	2.8/4.7	2.1/6.0	1.7/7.8	1.3/12.0	0.8/15	0.7/18	0.6/21.5
	Max.	3.9	2.9/4.9	2.4/6.3	2.0/8.1	1.6/12.3	1.1/15.3	1.0/18.4	1.0/21.8
Thermal Stability <sup>3</sup>	dB	<0.1				<0.2			
Operating Temperature	°C	-40 to +70							
Storage Temperature	°C	-40 to +85							
Directivity	dB	>45							
Fiber <sup>4</sup>		62.5/125 graded index or 50/125 graded index							
Pigtails	mm	1000							

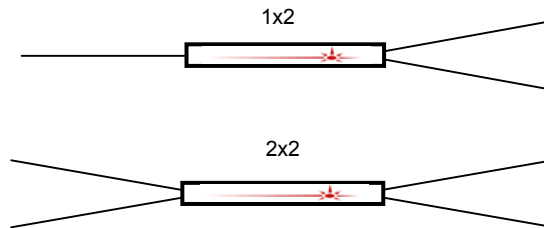
Lead Type	250µm	900µm loose tube	3mm cable
Package Dimensions	3mm dia. x48mm	3.5mm dia. x 66mm	90mmx16mmx9mm
		90mmx16mmx9mm	

Notes:

- 1 Center wavelength can be tailored to customer requirements
- 2 Insertion loss without connectors
- 3 Maximum variation of coupling ratio over full, specified temperature range
- 4 For other fiber types please contact our sales representative.

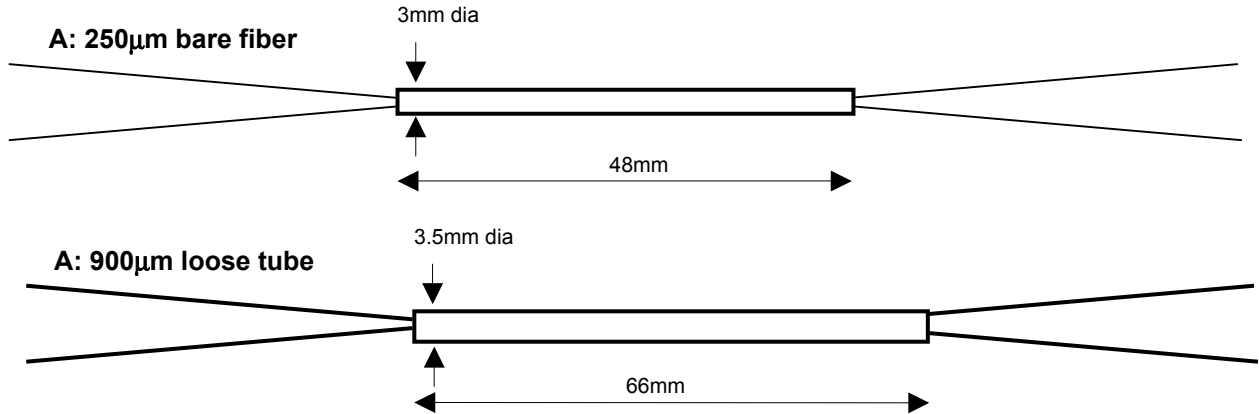
### CONFIGURATION:

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



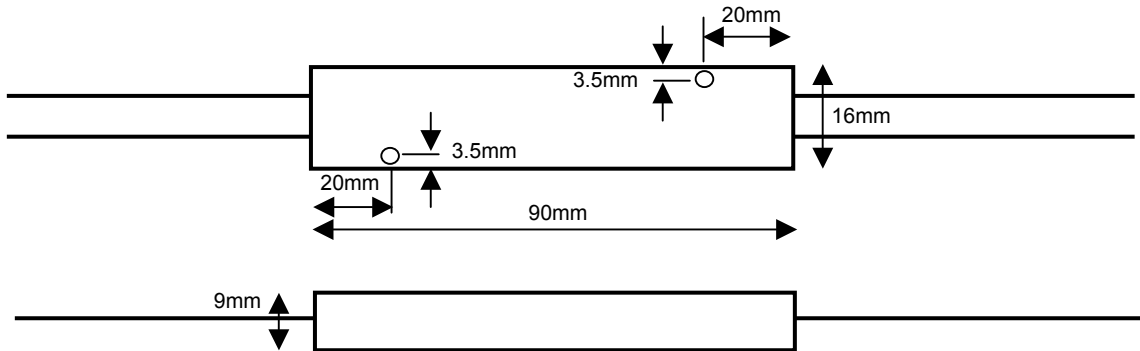
**PACKAGE STYLE:**

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.

<b>M</b>	<b>M</b>	<b>C</b>	-	<input type="text"/>	-	<input type="text"/>	<input type="text"/>	<input type="text"/>	-	<input type="text"/>	-	<input type="text"/>	-	<input type="text"/>
				<b>Configuration:</b>		<b>Wavelength:</b>		<b>Coupling ratio:</b>		<b>Cable type:</b>		<b>Package style:</b>		<b>Connectors:</b>
				1: 1x2 2: 2x2		850 1310		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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