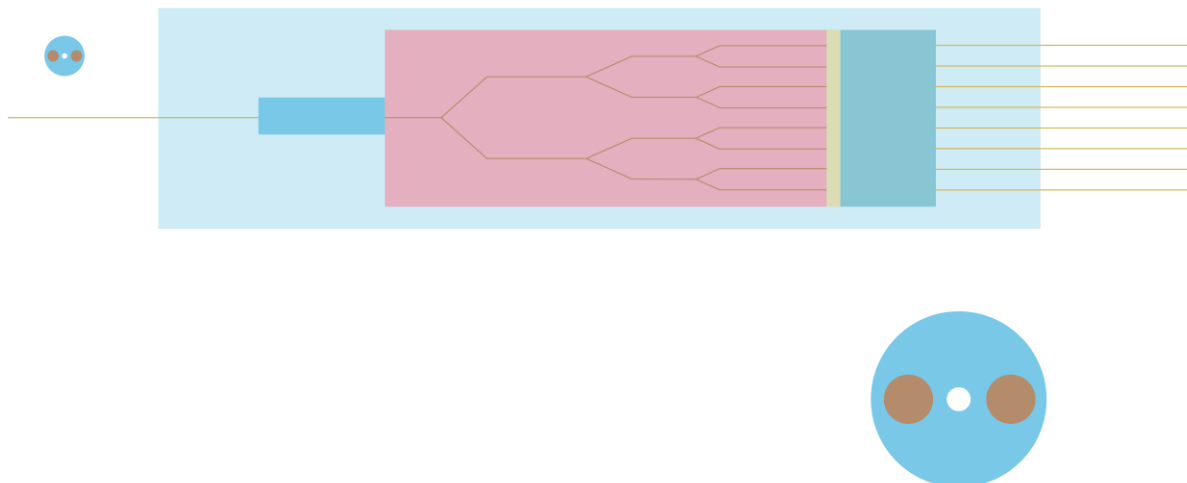


Type:	Polarization Maintaining Splitters PMPLC	REV: 1.0
Date:	20/10/2025	PK
Modified:		

Polarization Maintaining Splitters PMPLC

FIBRAIN offers polarization-maintaining (PM) splitters manufactured using PLC technology, ideal for applications requiring precise polarization management of light. FIBRAIN's PMPLC splitters are characterized by low insertion loss (IL), high reliability, and excellent polarization extinction ratio (PER), making them suitable for use in measurement laboratories, optical sensors, PM-type light sources, fiber optic gyroscopes, and many other applications where signal polarization is critical. As an experienced manufacturer of a wide range of fiber optic components, FIBRAIN can deliver products tailored to individual needs. PMPLC splitters are available with different types of PM fibers and ensure broad and customizable spectral operating range. Thanks to the use of automated PLC splitter production stations located in a cleanroom environment, we ensure the reliability and excellent repeatability of our products and satisfactory optical parameters. Precise control of mechanical stress in the components of the PM splitter enables a high polarization extinction ratio (PER). FIBRAIN products are manufactured in Poland and have an EU Certificate of Origin.



APPLICATION FIELDS:

- ✓ Signal detection
- ✓ R&D Laboratories
- ✓ Fiber optic sensing
- ✓ PM light sources
- ✓ Fiber optic gyroscopes

FEATURES AND ADVANTAGES:

- ✓ Low insertion loss
- ✓ High polarization extinction ratio
- ✓ High reliability and repeatability
- ✓ Can be fully customized and tailored to your specific needs

Photonics

TECHNICAL SPECIFICATIONS:

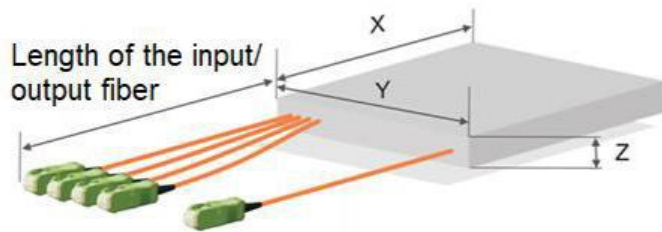
Parameter	Unit	Value					Comments
		1x2	1x3	1x4	1x6	1x8	
Max. insertion loss ¹	dB	3.6	6.2	6.9	9.3	10.0	No connectors
Max. attenuation nonuniformity ²	dB	0.30	0.50	0.50	0.60	0.60	No connectors
Min. polarization extinction ratio PER ³	dB	18					No connectors
Min. return loss	dB	55					
Min. directivity	dB	55					
Spectral operating range	nm	1270-1625 / 1440-1625					Depending on the chosen fiber type
Fiber type		PM1310 / PM1550					
Temperature operating range	°C	-40/+85					
Packaging		Fiber coating <ul style="list-style-type: none"> • 900 µm tube • 2.0 mm tube Housing <ul style="list-style-type: none"> • ABS blackbox 100x80x10 mm, tubes: 900 µm / 2.0 mm • Alubox 55x7x4 mm, tubes: 900 µm Connectors <ul style="list-style-type: none"> • LC/LCA/FC/FCA/none 					

¹ Additional insertion loss for PLC splitters with connectors: +0.4 dB

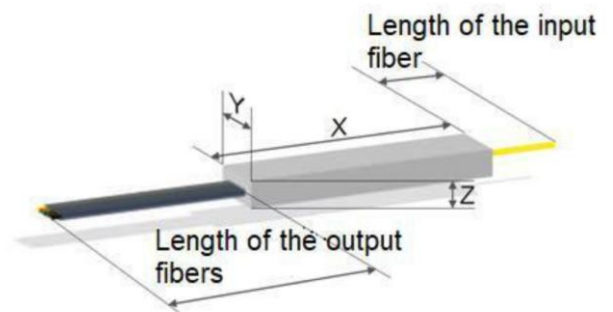
² Nonuniformity increased by 0.2 dB for PMPLC splitters with connectors

³ PER reduced by 2 dB for PMPLC splitters with connectors

ABS blackbox:



Alubox:



ORDERING INFORMATION:

Series	Quality	Fiber type	Split ratio	Input fiber	Input length	Output fiber	Output length	Housing type	Input connector	Output connector
PMPLC	G0	0 - PM1310	2 - 1x2	20 - 2.0 mm	05 - 0.5 m	20 - 2.0 mm	05 - 0.5 m	2 - 55x7x4 mm	LC	LC
		1 - PM1550	3 - 1x3	90 - 900 µm	10 - 1 m	90 - 900 µm	10 - 1 m	7 - 100x80x10 mm	LCA	LCA
			4 - 1x4		20 - 2 m		20 - 2 m		FC	FC
			6 - 1x6						FCA	FCA
			8 - 1x8						XX - none	XX - none

Example reference: **PMPLC-G0-0-4-20-10-20-05-7-LC-LCA** 1x4 PMPLC splitter with PM1310 fibers; input fiber 2.0 mm tube, length 1 m, LC connector; output fiber 2.0 mm tube, length 0.5 m, LCA connector; 100x80x10 mm ABS blackbox housing.