Type:	FPLC Gold splitters family	18.07.2016
		REV: 1.1
		MD
Product number:	FPLC-, cf. reference system at the bottom	

FIBRAIN®
Fiber Optic Solutions

Passive Optical Networks

FPLC optical splitters, GOLD series
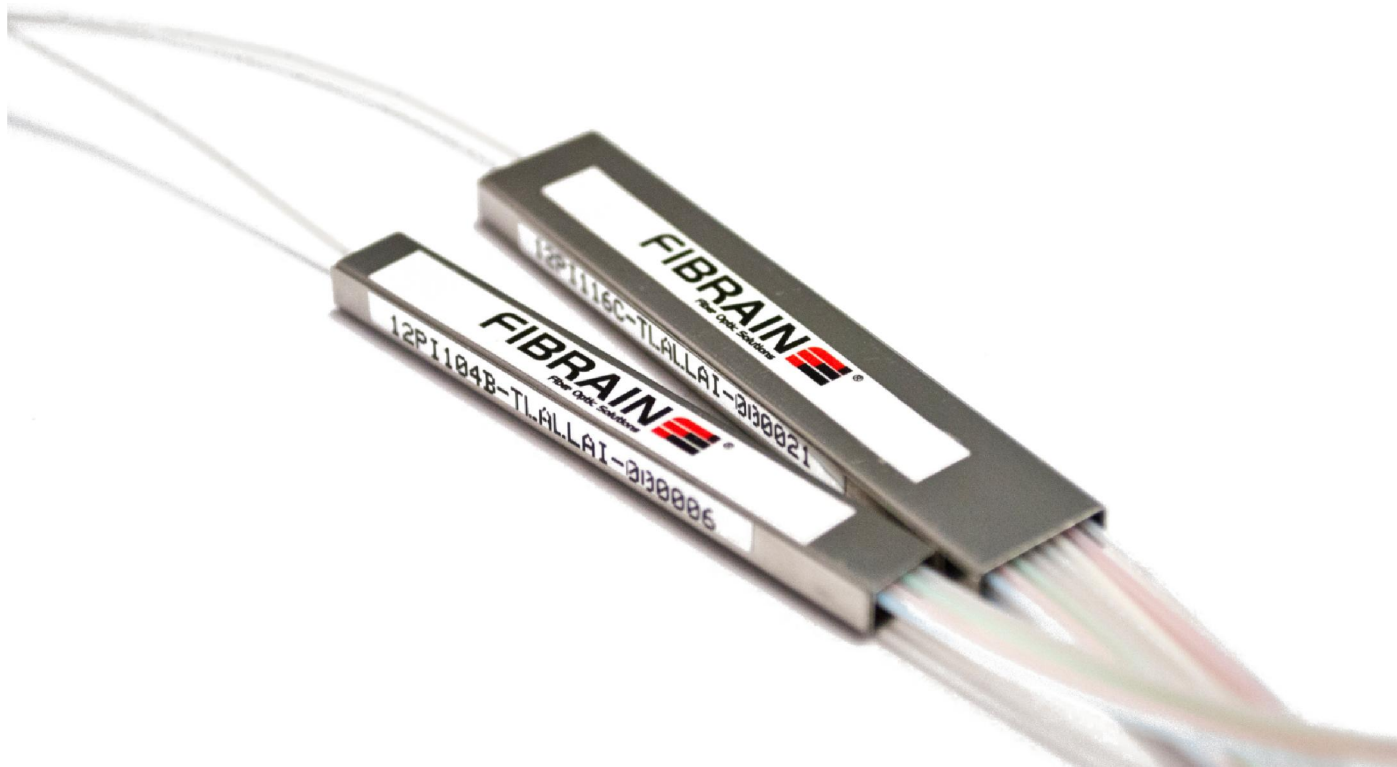
INTRODUCTION:

Fibrain FPLC optical splitters divide (split) optical power transmitted in the fiber link into a number of output ports. Thanks to capabilities of the planar technology, FPLC splitters offer very large port counts in compact housings. Fibrain FPLC 1x2N splitters are available with output port counts ranging from 1x2 up to 1x64. Fibrain FPLC splitters guarantee very good insertion loss stability in the whole 1260-1650 nm spectral range, as well as excellent thermal stability, being fully qualified to work in the outdoor -40/+85 °C temperature range. An important advantage from the network design point of view (as well as the subsequent ease of operation and maintenance) is an exceptional loss uniformity offered by the FPLC Gold-series splitters. Fibrain FPLC splitters are available in versions without connectors, as well as with any type of optical fiber connectors, including the E2000 connectors.

APPLICATIONS:

FTTC/H access optical networks
HFC and cable networks
Other optical telecommunication networks

FEATURES AND ADVANTAGES:

1260-1650 nm spectra range
-40/+85 °C temperature working range
Very low insertion loss
Very good loss uniformity
G.657.A2, reduced bending radius fiber
Available housings: minibox SUS, ABS blackbox
Output cables: ribbon, 900 µm tube, 2.0 mm cable with customized length
Available with any fiber connector type

Fibrain Sp. z o.o., Zaczernie 190F, 36-062 Zaczernie, Poland   tel:+48 17 866 08 00;   email:info@fibrain.com; web: www.fibrain.com

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TECHNICAL SPECIFICATION:

1x2N SERIES:

Parameter	Unit	Value						Remarks
		1x2	1x4	1x8	1x16	1x32	1x64	
Max. insertion loss[1]	dB	3.6	6.9	10.0	13.3	16.5	20.1	w/o conns
Max. loss uniformity[2]	dB	0.25	0.45	0.60	0.80	1.00	1.50	w/o conns
Max. PDL	dB	0.20	0.20	0.20	0.20	0.30	0.30	
Min. reflection loss	dB	55						
Min. directivity	dB	55						
Spectral working range	nm	1260-1650						
Temperature working range	°C	-40/+85						
Fiber type		G.657.A2						Customized

1x3N SERIES:

Parameter	Unit	Value				Remarks
		1x3	1x6	1x12	1x24	
Max. insertion loss[1]	dB	6.2	9.3	12.2	16.0	w/o conns
Max. loss uniformity[2]	dB	0.45	0.60	0.80	1.00	w/o conns
Max. PDL	dB	0.20	0.20	0.20	0.30	
Min. reflection loss	dB	55				
Min. directivity	dB	55				
Spectral working range	nm	1260-1650				
Temperature working range	°C	-40/+85				
Fiber type		G.657.A2				Customized

2x2N SERIES:

Parameter	Unit	Value						Remarks
		2x2	2x4	2x8	2x16	2x32	2x64	
Max. insertion loss[1]	dB	4.3	7.6	11.0	14.3	17.5	21.5	w/o conns
Max. loss uniformity[2]	dB	0.8	1.0	1.2	1.7	1.9	2.5	w/o conns
Max. PDL	dB	0.2	0.2	0.2	0.2	0.3	0.3	
Min. reflection loss	dB	55						
Min. directivity	dB	55						
Spectral working range	nm	1260-1650						
Temperature working range	°C	-40/+85						
Fiber type		G.657.A2						Customized

[1] Additional insertion loss for splitters with connectors: +0.4 dB
[2] Loss uniformity increased by 0.1 dB for splitters with connectors

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AVAILABLE HOUSINGS:

1x2N SERIES:

Output type	Housing type	Housing size					
		1x2	**1x4**	**1x8**	**1x16**	**1x32**	**1x64**
Ribbon	Minibox SUS, blockless	55x7x4	55x7x4	55x7x4	55x7x4	60x12x4	80x20x6
Tube 900 μm	Minibox SUS, blockless	55x7x4	55x7x4	55x7x4	60x12x4	80x20x6	100x40x6
Cable 2.0 mm	ABS Blackbox	100X80x10	100X80x10	100X80x10	100X80x10	120x80x18	120x80x18

1x3N SERIS:

Output type	Housing type	Housing size			
		1x3	**1x6**	**1x12**	**1x24**
Ribbon	Minibox SUS, blockless	55x7x4	55x7x4	55x7x4	60x12x4
Tube 900 μm	Minibox SUS, blockless	55x7x4	55x7x4	60x12x4	80x20x6
Cable 2.0 mm	ABS Blackbox	100X80x10	100X80x10	100X80x10	120X80x18

2x2N SERIES:

Output type	Housing type	Housing size					
		2x2	**2x4**	**2x8**	**2x16**	**2x32**	**2x64**
Ribbon	Minibox SUS, blockless	55x7x4	55x7x4	55x7x4	55x7x4	60x12x4	80x20x6
Tube 900 μm	Minibox SUS, blockless	55x7x4	55x7x4	55x7x4	60x12x4	80x20x6	100x40x6
Cable 2.0 mm	ABS Blackbox	100X80x10	100X80x10	100X80x10	100X80x10	120x80x18	120x80x18

HOUSING SCHEMATIC VIEW:

SUS minibox:
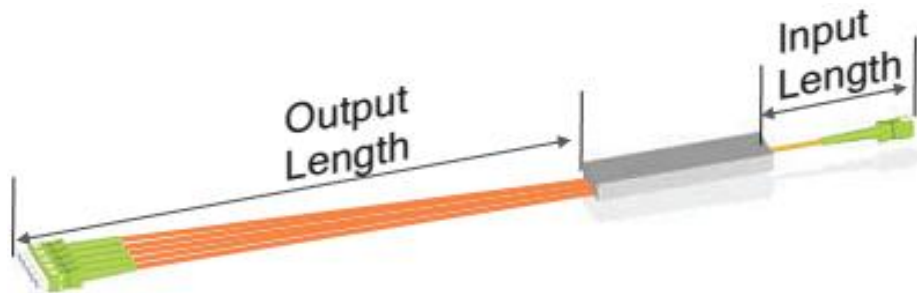
ABS blackbox:
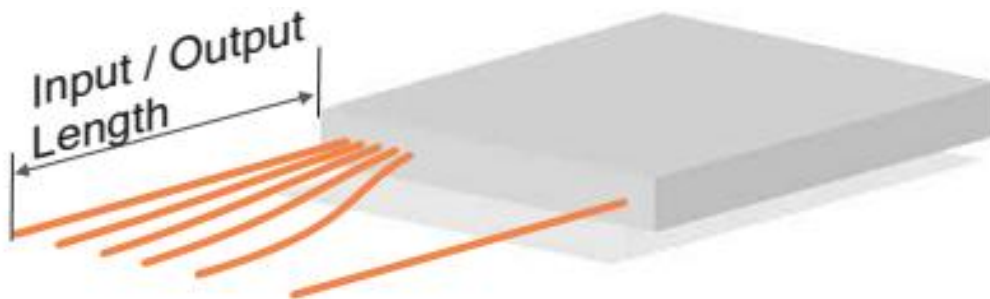
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REFERENCE SYSTEM:

Cat.	Finish	Fiber type	Split	Input fiber	Input length	Output fiber	Output length	Housing	Input connector	Output connectors
FPLC	GE	2 – G.657A2	12 – 1x2	20 – 2.0 mm	0 – 0.5 m	1 – ribbon 250 um	x0 – 0.5 m	2 – 55x7x4 mm	ST	ST
			14 – 1x4	25 – 250 um	1 – 1.0 m	2 – tube 900 um	x1 – 1.0 m	3 – 60x12x4 mm	SC	SC
			18 – 1x8	90 – 900 um	2 – 2.0 m	3 – cable 2.0 mm	x2 – 2.0 m	4 – 80x20x6 mm	SCA	SCA
			116 – 1x16					5 – 100x40x6 mm	FC	FC
			132 – 1x32					7 – 100x80x10 mm	FCA	FCA
			164 – 1x64					8 – 120x80x18 mm	LC	LC
			13 – 1x3						LCA	LCA
			16 – 1x6						E20	E20
			112 – 1x12						E2A	E2A
			124 – 1x24						XX – n/c	XX – n/c
			22 – 2x2							
			24 – 2x4							
			28 – 2x8							
			216 – 2x16							
			232 – 2x32							
			264 – 2x64							

Ordering example: FPLC-GE-2-13-20-1-3-X1-7-SCA-SCA – PLC 1x3 splitter, GOLD finish, 2.0 mm 1 m input and output cables, G.657A2 fiber, ABS blackbox 100x80x10 mm housing, SC/APC input and output connectors