

For current pricing,
please see our website.

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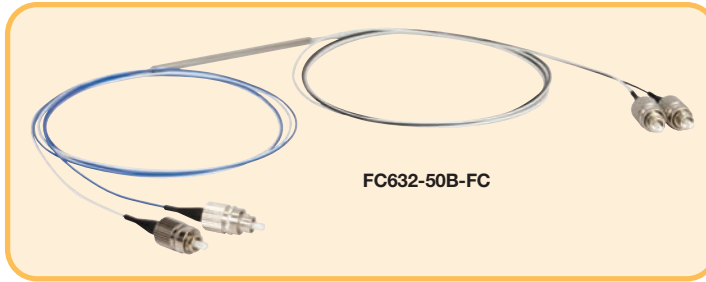
Mating Sleeves

Terminating Connectors

Termination

2 x 2 Single Mode Fiber Couplers and Taps (Page 1 of 2)

NEW
versions



FC632-50B-FC

Thorlabs offers single mode 2 x 2 fiber couplers with center wavelengths from 488 nm to 1550 nm. Split ratios of 50:50, 90:10, and 99:1 are available, with the 99:1 versions typically referred to as fiber optic taps. All fiber leads are 0.8 m long (1 m for 10202A) and have a Ø900 µm Hytrel jacket. All specifications below are valid for couplers without connectors.

Feature

- Three Split Ratios Offered
 - 50:50
 - 90:10
 - 99:1
- Center Wavelengths from 488 to 1550 nm
- Termination Options: FC/PC, FC/APC, or Unconnectorized
- FC Connectors Feature 2.0 mm Narrow Keys
- Polarization Insensitive
- High Directivity
- Bidirectional
- 0.8 m Fiber Leads (1 m for 10202A)
- Dual-Wavelength Model for 1310 & 1550 nm
- Custom Connectors Available

Specifications Provided for Unconnectorized Couplers

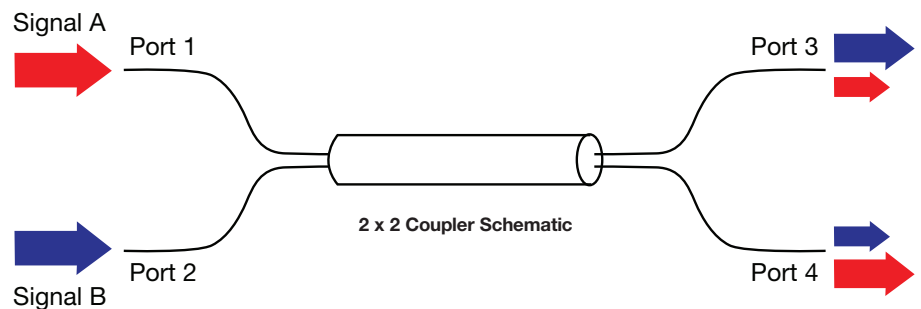
SERIES	FC488	FC532	FC632	FC780
Center Wavelength	488 nm	532 nm	632 nm	780 nm
Bandwidth	±15 nm	±15 nm	±15 nm	±15 nm
Coupling Ratio	50:50 90:10 99:1	50:50 90:10 99:1	50:50 90:10 99:1	50:50 90:10 99:1
Insertion Loss (Coupling Ratio + Excess Loss)	4.0/4.0 dB (50:50) 1.2/11 dB (90:10) 21/0.7 dB (99:1)	4.0/4.0 dB (50:50) 1.2/11 dB (90:10) 21/0.7 dB (99:1)	3.7/3.7 dB (50:50) 11/1.0 dB (90:10) 21/0.6 dB (99:1)	3.6/3.6 dB (50:50) 11/0.8 dB (90:10) 21/0.4 dB (99:1)
Excess Loss (Typical)	1.0 dB	1.0 dB	≤0.3 dB	0.3 dB
PDL	0.2/0.2 dB (50:50) 0.1/0.2 dB (90:10) 0.05/0.22 dB (99:1)	0.2/0.2 dB (50:50) 0.1/0.2 dB (90:10) 0.05/0.22 dB (99:1)	0.2/0.2 dB (50:50) 0.1/0.2 dB (90:10) 0.05/0.22 dB (99:1)	0.2/0.2 dB (50:50) 0.1/0.2 dB (90:10) 0.05/0.22 dB (99:1)
Directivity	≥50 dB	≥50 dB	>55 dB	≥50 dB
Operating Temperature	-40 to 85 °C	-40 to 85 °C	-40 to 85 °C	-40 to 85 °C
Fiber Type*	460-HP or Equivalent	460-HP or Equivalent	SM600	HI780C

* Equivalent fiber types may be substituted.

SERIES	FC830	FC980	FC1064	10202A
Center Wavelength	830 nm	980 nm	1064 nm	1310 and 1550 nm
Bandwidth	±15 nm	±15 nm	±15 nm	±40 nm
Coupling Ratio	50:50 90:10 99:1	50:50 90:10 99:1	50:50 90:10 99:1	50:50 90:10 99:1
Insertion Loss (Coupling Ratio + Excess Loss)	3.1 - 3.5/3.1 - 3.5 dB (50:50) 9.5 - 10.5/0.4 - 0.7 dB (90:10) 20 - 22/0.15-0.35 dB (99:1)	3.1 - 3.5/3.1 - 3.5 dB (50:50) 9.5 - 10.5/0.4 - 0.7 dB (90:10) 20 - 22/0.15-0.35 dB (99:1)	3.1 - 3.5/3.1 - 3.5 dB (50:50) 9.5 - 10.5/0.4 - 0.7 dB (90:10) 20 - 22/0.15-0.35 dB (99:1)	3.8/3.8 dB (50:50) 12.7/0.8 dB (90:10) 21.6/0.4 dB (99:1)
Excess Loss (Typical)	0.15 dB	0.12 dB	0.12 dB	0.2 dB
PDL	<0.2 dB	<0.15 dB	<0.2 dB	<0.15 dB
Directivity	>55 dB	>55 dB	>55 dB	>60 dB
Operating Temperature	-40 to 85 °C	-40 to 85 °C	-40 to 85 °C	-40 to 85 °C
Fiber Type*	SM800	HI1060FLEX	HI1060FLEX	SMF-28e+

* Equivalent fiber types may be substituted.

Note: Thorlabs uses both narrow (2.0 mm) and wide (2.14 mm) key FC connectors in its product line. Narrow key connectors are used on connectorized fiber, while wide key connectors are used on fiber bulkheads (with few exceptions). This ensures that our connectorized fibers are compatible with all of our mating components.



2 x 2 Single Mode Fiber Couplers and Taps (Page 2 of 2)

NEW
versions

ITEM #	CENTER WAVELENGTH	COUPLING RATIO	CONNECTORS	\$	£	€	RMB
FC488-50B-FC	488 nm	50:50	FC/PC	\$ 360.00	£ 259.20	€ 313.20	¥ 2,869.20
FC488-50B-APC	488 nm	50:50	FC/APC	\$ 400.00	£ 288.00	€ 348.00	¥ 3,188.00
FC488-90B-FC	488 nm	90:10	FC/PC	\$ 360.00	£ 259.20	€ 313.20	¥ 2,869.20
FC488-90B-APC	488 nm	90:10	FC/APC	\$ 400.00	£ 288.00	€ 348.00	¥ 3,188.00
FC488-99B-FC	488 nm	99:1	FC/PC	\$ 360.00	£ 259.20	€ 313.20	¥ 2,869.20
FC488-99B-APC	488 nm	99:1	FC/APC	\$ 400.00	£ 288.00	€ 348.00	¥ 3,188.00
FC532-50B-FC	532 nm	50:50	FC/PC	\$ 330.00	£ 237.60	€ 287.10	¥ 2,630.10
FC532-50B-APC	532 nm	50:50	FC/APC	\$ 370.00	£ 266.40	€ 321.90	¥ 2,948.90
FC532-90B-FC	532 nm	90:10	FC/PC	\$ 330.00	£ 237.60	€ 287.10	¥ 2,630.10
FC532-90B-APC	532 nm	90:10	FC/APC	\$ 370.00	£ 266.40	€ 321.90	¥ 2,948.90
FC532-99B-FC	532 nm	99:1	FC/PC	\$ 330.00	£ 237.60	€ 287.10	¥ 2,630.10
FC532-99B-APC	532 nm	99:1	FC/APC	\$ 370.00	£ 266.40	€ 321.90	¥ 2,948.90
FC632-50B	632 nm	50:50	None	\$ 150.00	£ 108.00	€ 130.50	¥ 1,195.50
FC632-50B-FC	632 nm	50:50	FC/PC	\$ 190.00	£ 136.80	€ 165.30	¥ 1,514.30
FC632-50B-APC	632 nm	50:50	FC/APC	\$ 230.00	£ 165.60	€ 200.10	¥ 1,833.10
FC632-90B	632 nm	90:10	None	\$ 150.00	£ 108.00	€ 130.50	¥ 1,195.50
FC632-90B-FC	632 nm	90:10	FC/PC	\$ 190.00	£ 136.80	€ 165.30	¥ 1,514.30
FC632-90B-APC	632 nm	90:10	FC/APC	\$ 230.00	£ 165.60	€ 200.10	¥ 1,833.10
FC632-99B	632 nm	99:1	None	\$ 150.00	£ 108.00	€ 130.50	¥ 1,195.50
FC632-99B-FC	632 nm	99:1	FC/PC	\$ 190.00	£ 136.80	€ 165.30	¥ 1,514.30
FC632-99B-APC	632 nm	99:1	FC/APC	\$ 230.00	£ 165.60	€ 200.10	¥ 1,833.10
FC780-50B-FC	780 nm	50:50	FC/PC	\$ 190.00	£ 136.80	€ 165.30	¥ 1,514.30
FC780-50B-APC	780 nm	50:50	FC/APC	\$ 230.00	£ 165.60	€ 200.10	¥ 1,833.10
FC780-90B-FC	780 nm	90:10	FC/PC	\$ 190.00	£ 136.80	€ 165.30	¥ 1,514.30
FC780-90B-APC	780 nm	90:10	FC/APC	\$ 230.00	£ 165.60	€ 200.10	¥ 1,833.10
FC780-99B-FC	780 nm	99:1	FC/PC	\$ 190.00	£ 136.80	€ 165.30	¥ 1,514.30
FC780-99B-APC	780 nm	99:1	FC/APC	\$ 230.00	£ 165.60	€ 200.10	¥ 1,833.10
FC830-50B	830 nm	50:50	None	\$ 150.00	£ 108.00	€ 130.50	¥ 1,195.50
FC830-50B-FC	830 nm	50:50	FC/PC	\$ 190.00	£ 136.80	€ 165.30	¥ 1,514.30
FC830-50B-APC	830 nm	50:50	FC/APC	\$ 230.00	£ 165.60	€ 200.10	¥ 1,833.10
FC830-90B	830 nm	90:10	None	\$ 150.00	£ 108.00	€ 130.50	¥ 1,195.50
FC830-90B-FC	830 nm	90:10	FC/PC	\$ 190.00	£ 136.80	€ 165.30	¥ 1,514.30
FC830-90B-APC	830 nm	90:10	FC/APC	\$ 230.00	£ 165.60	€ 200.10	¥ 1,833.10
FC830-99B	830 nm	99:1	None	\$ 150.00	£ 108.00	€ 130.50	¥ 1,195.50
FC830-99B-FC	830 nm	99:1	FC/PC	\$ 190.00	£ 136.80	€ 165.30	¥ 1,514.30
FC830-99B-APC	830 nm	99:1	FC/APC	\$ 230.00	£ 165.60	€ 200.10	¥ 1,833.10
FC980-50B	980 nm	50:50	None	\$ 150.00	£ 108.00	€ 130.50	¥ 1,195.50
FC980-50B-FC	980 nm	50:50	FC/PC	\$ 190.00	£ 136.80	€ 165.30	¥ 1,514.30
FC980-50B-APC	980 nm	50:50	FC/APC	\$ 230.00	£ 165.60	€ 200.10	¥ 1,833.10
FC980-90B	980 nm	90:10	None	\$ 150.00	£ 108.00	€ 130.50	¥ 1,195.50
FC980-90B-FC	980 nm	90:10	FC/PC	\$ 190.00	£ 136.80	€ 165.30	¥ 1,514.30
FC980-90B-APC	980 nm	90:10	FC/APC	\$ 230.00	£ 165.60	€ 200.10	¥ 1,833.10
FC980-99B	980 nm	99:1	None	\$ 150.00	£ 108.00	€ 130.50	¥ 1,195.50
FC980-99B-FC	980 nm	99:1	FC/PC	\$ 190.00	£ 136.80	€ 165.30	¥ 1,514.30
FC980-99B-APC	980 nm	99:1	FC/APC	\$ 230.00	£ 165.60	€ 200.10	¥ 1,833.10
FC1064-50B	1064 nm	50:50	None	\$ 150.00	£ 108.00	€ 130.50	¥ 1,195.50
FC1064-50B-FC	1064 nm	50:50	FC/PC	\$ 190.00	£ 136.80	€ 165.30	¥ 1,514.30
FC1064-50B-APC	1064 nm	50:50	FC/APC	\$ 230.00	£ 165.60	€ 200.10	¥ 1,833.10
FC1064-90B	1064 nm	90:10	None	\$ 150.00	£ 108.00	€ 130.50	¥ 1,195.50
FC1064-90B-FC	1064 nm	90:10	FC/PC	\$ 190.00	£ 136.80	€ 165.30	¥ 1,514.30
FC1064-90B-APC	1064 nm	90:10	FC/APC	\$ 230.00	£ 165.60	€ 200.10	¥ 1,833.10
FC1064-99B	1064 nm	99:1	None	\$ 150.00	£ 108.00	€ 130.50	¥ 1,195.50
FC1064-99B-FC	1064 nm	99:1	FC/PC	\$ 190.00	£ 136.80	€ 165.30	¥ 1,514.30
FC1064-99B-APC	1064 nm	99:1	FC/APC	\$ 230.00	£ 165.60	€ 200.10	¥ 1,833.10
10202A-50	1310 nm & 1550 nm	50:50	None	\$ 96.80	£ 69.70	€ 84.22	¥ 771.50
10202A-50-FC	1310 nm & 1550 nm	50:50	FC/PC	\$ 136.80	£ 98.50	€ 119.02	¥ 1,090.30
10202A-50-APC	1310 nm & 1550 nm	50:50	FC/APC	\$ 176.80	£ 127.30	€ 153.82	¥ 1,409.10
10202A-90	1310 nm & 1550 nm	90:10	None	\$ 80.50	£ 57.96	€ 70.04	¥ 641.59
10202A-90-FC	1310 nm & 1550 nm	90:10	FC/PC	\$ 120.50	£ 86.76	€ 104.84	¥ 960.39
10202A-90-APC	1310 nm & 1550 nm	90:10	FC/APC	\$ 160.50	£ 115.56	€ 139.64	¥ 1,279.19
10202A-99	1310 nm & 1550 nm	99:1	None	\$ 100.90	£ 72.65	€ 87.78	¥ 804.17
10202A-99-FC	1310 nm & 1550 nm	99:1	FC/PC	\$ 140.90	£ 101.45	€ 122.58	¥ 1,122.97
10202A-99-APC	1310 nm & 1550 nm	99:1	FC/APC	\$ 180.90	£ 130.25	€ 157.38	¥ 1,441.77

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Termination

Have you
seen our...Broadband
2 x 2
Couplers850 ± 40 nm
1310 ± 70 nmSee page
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