

## Fused Coupler, Visible Light



### Key Features

- Visible wavelength operation
- All fiber — no lens alignment
- No unwanted reflections
- Low light loss
- High power handling

### Applications

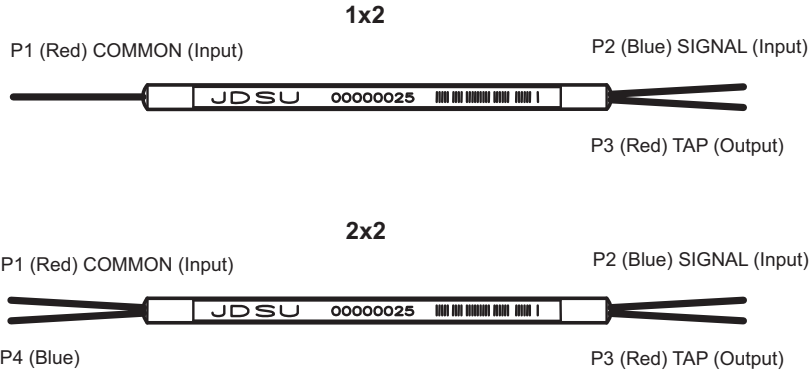
- Visible and display systems
- Sensors
- Biomedical equipment
- Research

The JDSU visible light fused fiber coupler is a compact, low loss, fused component (1x2, 2x2) that is bidirectional and splits or combines visible optical signals. It is designed for use in display systems, test equipment, fiberoptic research, and fiber sensors. The coupler uses advanced fused fiber technology to provide optimum performance at wavelengths within the visible light spectrum. No light leaves the fiber and therefore no alignment is required; and there are no unwanted reflections. Furthermore the output fiber pigtails may be directly integrated into beam delivery systems.

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**Configuration**

(Note: 1x2 couplers for blue wavelengths (i.e. <500 nm) are supplied as 2x2 with an external termination on port P4.)



**Insertion Loss**

Coupling Ratio <sup>1</sup>	Grade <sup>2</sup>	Available Housing Option	Available Wavelength(s)	Coupling Ratio Tolerance	Excess Loss <sup>3</sup>
10%	A	3, 4, 5, 6	90/10	±2%	0.3 dB
10%	B	3, 4, 5, 6	90/10	±3%	0.5 dB
20%	A	3, 4, 5, 6	80/20	±3%	0.3 dB
20%	B	3, 4, 5, 6	80/20	±4%	0.5 dB
30%	A	3, 4, 5, 6	70/30	±3%	0.3 dB
30%	B	3, 4, 5, 6	70/30	±4%	0.5 dB
40%	A	3, 4, 5, 6	60/40	±4%	0.3 dB
40%	B	3, 4, 5, 6	60/40	±5%	0.5 dB
50%	A	3, 4, 5, 6	50/50	±5%	0.3 dB
50%	B	3, 4, 5, 6	50/50	±6%	0.5 dB

1. Other coupling ratio are available. Please contact JDSU for specifications of coupling ratios not listed.  
 2. In 2x2 couplers performance is not specified for launch through second input port P4 (colored blue)  
 3. Includes fiber losses for up to 1 m pigtail length. Does not include connector losses.

**Housing Option**

Housing Code	Description	1x2, 2x2 Dimensions (mm)	Pigtail
3	Regular	3.0 (Ø) x 55 (L)	Primary coated fiber
4	Ø 0.9 mm slim	3.0 (Ø) x 76 (L)	0.9 mm loose tube
5	Ø 0.9 mm semi-ruggedized	5.0 (Ø) x 85 (L)	Ø 0.9 mm loose-tube
5	Ø 3.0 mm fully-ruggedised	80 (L) x 10 (W) x 8 (H)	3.0 mm fan-out sleeving

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## Specifications

### Parameter

### Specification

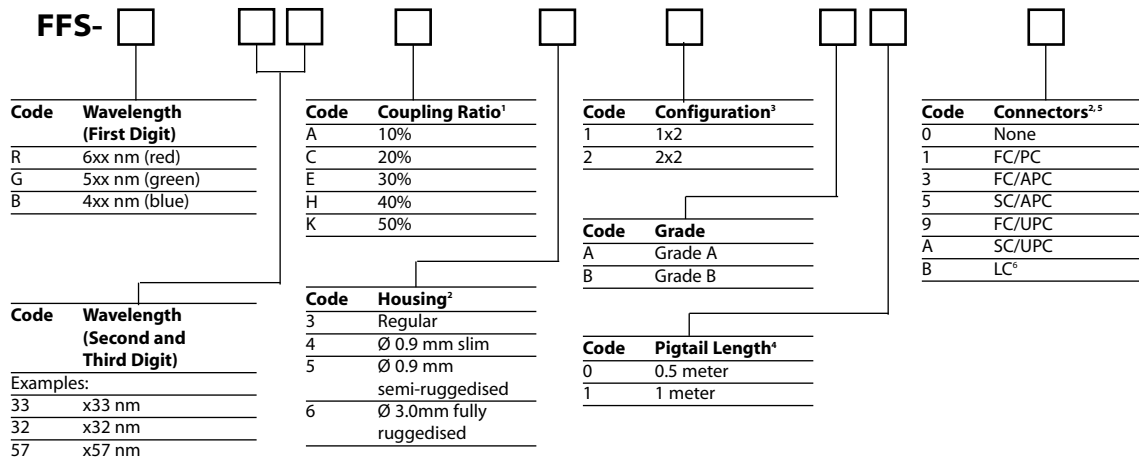
Operating wavelength range	Specified wavelength within the range of 450 to 700 nm
Operating temperature range <sup>1</sup>	-40 to 75 °C
Storage temperature range	-40 to 85 °C
Fiber type	Short wavelength speciality fiber

1. For connectorised component, operating temperature range is -5 to 75 °C.

## Ordering Information

For more information on this or other products and their availability, please contact your local JDSU account manager or JDSU directly at 1-800-498-JDSU (5378) in North America and +800-5378-JDSU worldwide or via e-mail at [customer.service@jdsu.com](mailto:customer.service@jdsu.com).

**Sample: FFS-G32K31A10 (Fused Fiber Speciality Coupler, 532 nm, 50/50 coupling ratio, regular housing, 1x2, A grade, 1 m pigtailed, no connectors)**



- Other coupling ratio are available. Please contact JDSU for ordering codes of coupling ratios not listed.
- Connectors may be fitted to housing types 4, 5 and 6. For connectorisation of housing type 3, please contact JDSU sales office.
- 1x2 couplers for blue wavelengths (i.e. <500 nm) are supplied as a 2x2 with an external termination on port P4.
- Minimum pigtail length. Other pigtail lengths are available on request. When the pigtail has been modified to include a connector, pigtail length measurement includes the connector end face.
- Excess loss in specification table does not include connector losses.
- LC connector is not available for housing code 6, fully ruggedised housing.

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