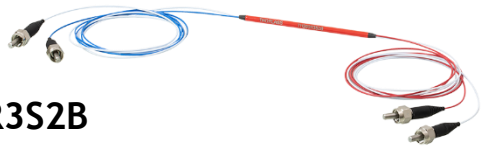
Multimode Fiber Optic Coupler 400 - 2200 nm, 75:25 Ratio



TH200R3S2B

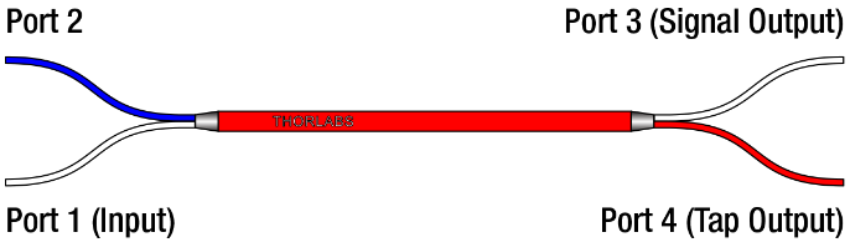
Description

Thorlabs' TH200R3S2B multimode coupler uses Ø200 µm core, 0.50 NA multimode fiber and has a 400 - 2200 nm wavelength range. It has a very flat wavelength response and low excess loss over the specified operating range.

Specifications

TH200R3S2B Specifications	
Wavelength Range	400 - 2200 nm
Coupling Ratio[a]	75:25
Coupling Ratio Tolerance[a]	±3.0%
Excess Loss[a]	≤0.5 dB (Typ.)
Insertion Loss[a]	≤1.9 dB / ≤7.1 dB
Optical Return Loss (ORL) / Directivity[a]	≥30.0 dB
Max Power Level[b]	5 W (with Connectors or Bare Fiber) 10 W (Spliced)
Port Configuration	2x2
Fiber Lead Length and Tolerance	0.8 m +0.075 m/-0.0 m
Connectors	SMA905
Package Size	Ø0.12" x 2.76" (Ø3.2 mm x 70.0 mm)
Jacket	Ø900 µm Hytrel® Loose Tube
Pigtail Tensile Load	10 N
Operating Temperature Range	-40 to 85 °C
Storage Temperature Range	-40 to 85 °C

a. Specified at 650 nm and room temperature without connectors through the white input port as indicated below. The coupler can be used across its wavelength range, but performance may vary.
b. Specifies the total maximum power allowed through the component. Coupler performance and reliability under high-power conditions must be determined within the user's setup. See Usage Tips for safety and handling information.



Fiber Specifications[a]	
Core Diameter	200 µm
Cladding Diameter	225 µm
NA	0.5
Hydroxyl Content	Low OH
Core Material	Pure Silica
Cladding Material	TECS Hard Cladding
Coating Material	Tefzel®

a. The fiber used in this coupler is compatible with patch cables using Thorlabs' FP200ERT fiber. Other fiber types may be available upon request. Please contact techsupport@thorlabs.com with inquiries.

Usage Tips

1) Before connecting a component to a system, make sure the light source is turned off. Inspect both the input and output fiber ends; debris or contamination on the end face can lead to fiber damage when operated at high powers.

2) After connecting the component, the system should be tested and aligned using a light source at low power. The system power can be ramped up slowly to the desired output power while periodically verifying all components are properly aligned and that coupling efficiency is not changing with respect to optical launch power.

3) Optical connectors can be removed and the device can be spliced into a setup for operation at higher optical powers. Fiber ends should always be cleaned and cleaved prior to splicing.