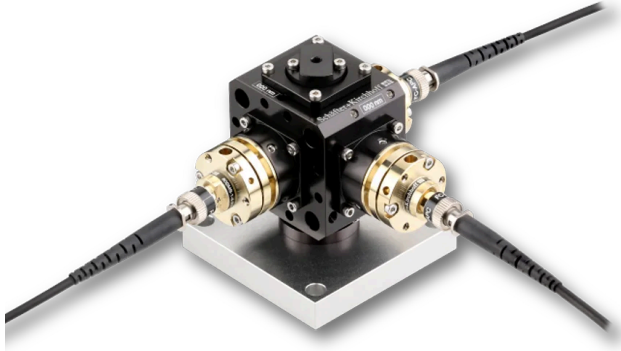


Dichroic Beam Combiner 2 → 1, PM, 48-MCS-043

Compact, rugged and highly efficient opto-mechanical unit with dichroic beam combining plate



FEATURES

Beam Combiner 48-MCS-043

- Configuration 2 → 1, dichroic
- Highly efficient coupling into polarization-maintaining fiber cables
- Superposition of two different wavelengths or wavelengths ranges
- Polarizer in common output port
- Compact, rugged, transportable and sealed opto-mechanical units
- Fully fiber-coupled
- Very high long-term stability, efficiency and reproducibility

DESCRIPTION

This fiber-coupled Beam Combiner 2 → 1 is a compact opto-mechanical unit that combines 2 fiber-coupled sources with different wavelength or wavelength ranges into 1 output fiber cable with high efficiency.

Please note, that this configuration can be used when the difference in wavelength is > 10 nm.

In case of a smaller difference in wavelength (< 10 nm) the configuration [48-MCS-028](#) is to be preferred.

Optical Setup

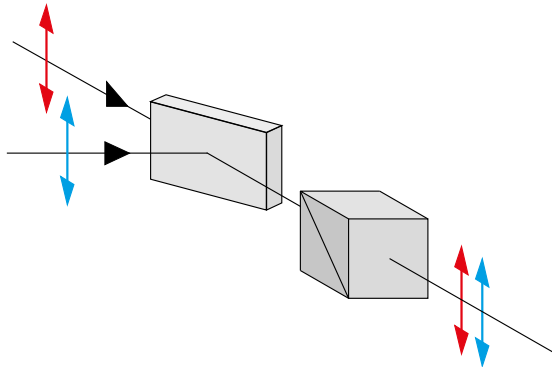
The input ports are each fiber-coupled to [PM fiber cables](#).

The radiation is superimposed by means of a dichroic beam splitter.

A polarizer increases the polarization extinction ratio in the common output port.

Fiber Couplers

A fundamental component of a fiber-coupled Beam Splitter are the [Laser Beam Couplers](#), which are the inputs into the opto-mechanical unit collimating the input radiation and, finally, couples the radiation back into the common polarization-maintaining fiber cable. The stability of the total Beam Splitter is determined by the [stability](#) of the laser beam coupler.



TECHNICAL DATA

Dichroic Beam Combiner 2 → 1, PM, 48-MCS-043

Order code	48-MCS-043
Configuration	2 → 1, dichroic
	Long pass or Short pass
Available wavelengths	400 - 1700 nm
Fiber type	polarization-maintaining
Connector type	FC APC (standard)
Cable lengths	Customer-specific
Transmission	≥ 70 % @ 780 nm
Polarization Extinction Ratio	≥ 23 dB @ 780 nm

DOWNLOADS



[980129090649_kuz.pdf \(Dimensional drawing\)](#).

RELATED PRODUCTS

DICHROIC RGB BEAM COMBINER	Compact, rugged and highly efficient opto-mechanical unit for combining several wavelengths
BEAM COMBINERS	Compact, rugged and highly efficient opto-mechanical unit for combining fiber-coupled radiation
RGB FIBER COLLIMATOR SERIES 60FC	for collimating radiation exiting an optical fiber or as an incoupler
RGB LASER BEAM COUPLERS SERIES 60SMS	for coupling into single-mode and polarization-maintaining fiber cables
BEAM COMBINER 2 → 1, DICHROIC	Compact, rugged and highly efficient opto-mechanical unit with dichroic beam combining plate

This is a printout of the page <https://sukhamburg.com/products/details/48-MCS-043> from 5/5/2024

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