## Beam Splitter $1 \rightarrow 2$ , dichroic, 48MCS-011

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



## FEATURES

Beam Splitter 48MCS-011

- Configuration 1 → 2, dichroic
- Highly efficient coupling into polarizationmaintaining fiber cables
- Splitting of two wavelength ranges
- Compact, rugged, transportable and sealed optomechanical unit
- Fully fiber-coupled
- Very high long-term stability, efficiency and reproducability

# DESCRIPTION

This fiber-coupled Beam Splitter  $1 \rightarrow 2$ , dichroic is a compact opto-mechanical unit that splits a fiber-coupled broadband source or two superimposed narrow-band sources into 2 wavelength ranges. These two wavelength ranges then are coupled into a output fiber cable, respectively, with high efficiency.

## **Optical Setup**

The input port is fiber-coupled to a <u>PM fiber cable</u>, or <u>SM fiber cable</u>. The radiation is split using a <u>dichroic beam splitter</u> (long pass or short pass).

## **Fiber Couplers**

A fundamental component of fiber-coupled Beam Splitters are the <u>Laser Beam Couplers</u>, which are the inputs into the opto-mechanical unit collimating the input radiation and, finally, couple the radiation back into the common polarization-maintaining fiber cable. The stability of the total Beam Splitter is determined by the <u>stability</u> of the Laser Beam Coupler.

## How to order

For a detailed quotation please additionally specify

- Wavelength (range) transmission
- Wavelength (range) reflection
- Receptacle type

If you need a system with fiber cables, please additionally specify



- Fiber type
- Cable lengths
- Connector types



# **TECHNICAL DATA**

Beam Splitter  $1 \rightarrow 2$ , dichroic, 48MCS-011

Order code	48-MCS-011
Configuration	$1 \rightarrow 2$ , dichroic
Splitting	Long pass or Short pass
Available wavelengths	400 - 1700 nm
Fiber type	polarization-maintaining or single-mode
Connector type	FC APC (standard)
Cable lengths	Customer-specific
Transmission	≥ 70 % @ 780 nm
Polarization Extinction Ratio	≥ 23 dB @ 780 nm

# FAQ

## Compatability of the multicube system

# Is my system compatible to established 30 mm cage systems or microbench systems?

The multicube components of series 48 have a rod hole distance of 30 mm. You can attach systems based on those components easily to a 30 mm cage systems or microbench system. More informaion can be found <u>here</u>.

If you are working with a system based on series 68, there are adapters available, so that they can be used with 30 mm cage systems as well.



#### Is my system compatible to established 60 mm cage systems?

The multicube components of series 68 have a rod hole distance of 60 mm. You can attach systems based on those components easily to a 60 mm cage systems or microbench system. More information can be found <u>here</u>.

If you are working with a system based on series 48, there are adapters available, so that they can be used with 60 mm cage systems as well.

## **DOWNLOADS**



980129090600.pdf (Dimensional drawing)

# **RELATED PRODUCTS**

FIBER PORT CLUSTER	Compact, rugged and highly efficient opto-
$2 \rightarrow X$ DICHROIC	mechanical unit for splitting/combining multiple ports

This is a printout of the page https://sukhamburg.com/products/details/48-MCS-011 from 5/6/2024

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