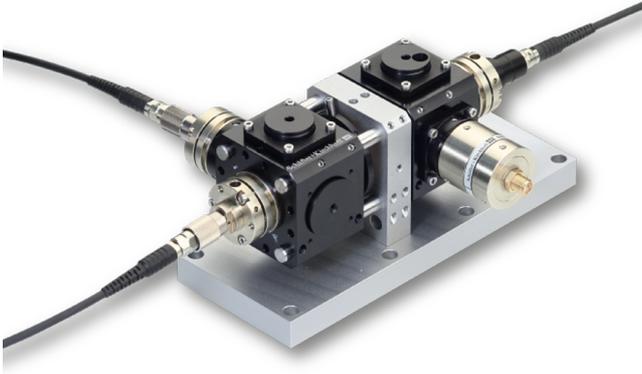


Fiber Port Cluster 1 → x

Compact, rugged and highly efficient opto-mechanical unit for splitting multiple ports



FEATURES

Fiber Port Cluster for one input source

- Configuration 1 → x
- Highly efficient coupling into polarization-maintaining fiber cables
- Adjustable splitting ratio
- Compact, rugged, transportable and sealed opto-mechanical units
- Fully fiber-coupled
- Very high long-term stability, efficiency and reproducibility

DESCRIPTION

These Fiber Port Clusters are compact opto-mechanical units that splits a fiber-coupled source into multiple output fiber cables with high efficiency and variable splitting ratio.

Optical Setup

The input port is fiber-coupled to [PM fiber cable](#). A polarizer defines the input polarization which is necessary for a long term stable splitting ratio.

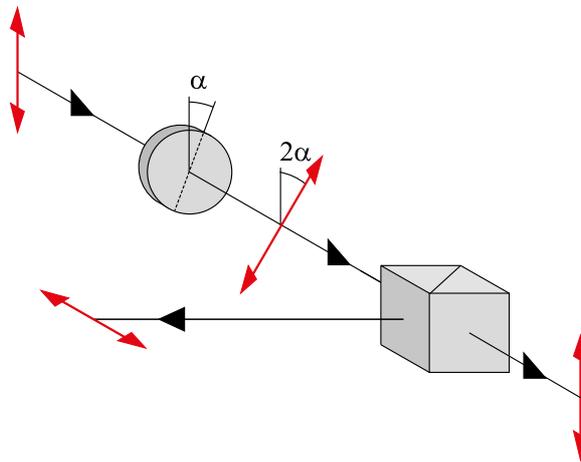
A photo diode right after the input port allows for a continuous monitoring of the radiation.

Subsequently, the radiation splitting is achieved by using a cascade of rotary half-wave plates in combination with polarization beam splitters. By use of the rotary half-wave plates, almost any desired splitting ratio can be achieved.

At the output ports further polarizers are placed in order to define the polarization at output of the system.

Fiber Couplers

A fundamental component of a Fiber Port Cluster is the [Laser Beam Coupler](#), which is the input into the opto-mechanical unit collimating the input radiation and, finally, couples the radiation back into the polarization-maintaining fiber cables. The stability of the total Fiber Port Cluster is determined by the [stability](#) of the laser beam coupler.



ORDER OPTIONS

Order Code	Configuration	Dichroic	Wavelengths	Special Feature
48-FPC-1-2-xxx	1 → 2	-	523, 767 and 780 nm (others on request)	
48-FPC-1-2-xxx Mod01	1 → 2	-	523, 767 and 780 nm (others on request)	El. shutters at the output ports
48-FPC-1-3-xxx	1 → 3	-	461, 689, 767, 780 and 852 nm (others on request)	
48-FPC-1-4-xxx	1 → 4	-	461, 532, 671, 780 and 852 nm (others on request)	
48-FPC-1-4-xxx-AT	1 → 4	-	461, 532, 671, 780 and 852 nm (others on request)	Mech. attenuators at the output ports
48-FPC-1-6-xxx	1 → 6	-	461, 556, 589, 626, 767, 780 and 852 nm (others on request)	
48-FPC-1-8-xxx	1 → 8	-	461, 556, 589, 626, 767, 780 and 852 nm (others on request)	

TECHNOTES

- [Article - Fiber Port Cluster](#)
[Rugged, modular and fiber coupled beam splitting and combining units](#)

DOWNLOADS



[Article_Cluster.pdf \(Technote\)](#)

This downloads section only includes general downloads for the complete series.

Please access the individual product pages (using the product configurator, the product list, order options or the search button if you have a complete order code). Here you will find specific downloads including technical drawings or stepfiles.

RELATED PRODUCTS

FIBER COLLIMATOR SERIES 60FC-SF

Fiber Collimator/Fiber Coupler with super-fine thread

FIBER COLLIMATOR 60FC-Q

Fiber Collimator for collimating large beam diameters and with integrated quarter-wave plate

POLARIZATION ANALYZER SK010PA

Measurement tool for coupling into polarization-maintaining fiber cables

FIBER PORT CLUSTER

This is a printout of the page <https://sukhamburg.com/products/fiberoptics/multicube/systems/cluster/1.html> from 6/24/2022

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