

## Multimode Fiber

### Application

High power laser transmission, laser medical, spectral analysis, laser welding, lighting, sensing element, energy transmission.

### Property

HCS silica, PCS silica, PMMA fiber

### Introduction

EGISMOS fiber optic cables can be made in different lengths up to several hundred meters. Different types of connectors, such as SMA905, ST or FC/PC connectors can be applied. Fibers are also available for different light sources like lasers or LEDs and for wide range of wavelengths like Deep UV fibers, UV/VIS fibers and VIS/NIR fibers. Different shielding for higher temperature and more custom solutions with custom optics can be used for many industrial and medical applications



### Multimode Fiber Key Features

Operating Wavelength  $\lambda = 250 \sim 1600$  nm

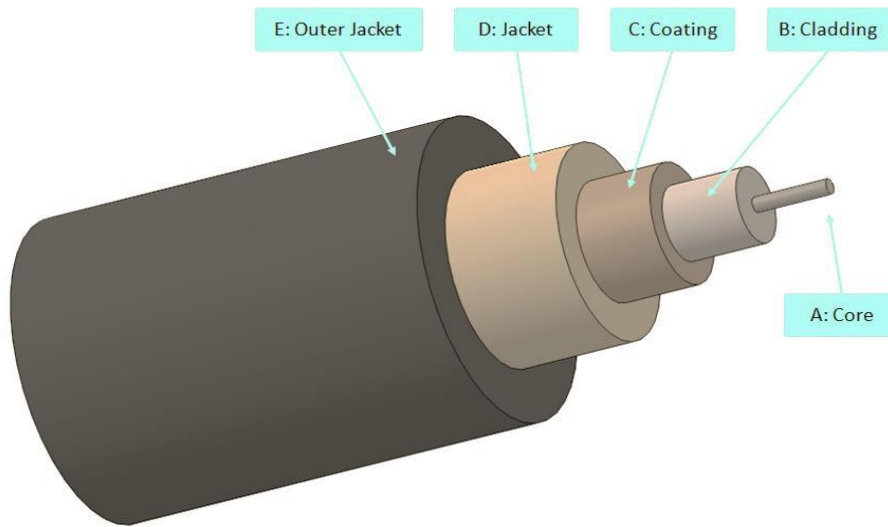
Core diameter = 100  $\mu\text{m}$ , 500  $\mu\text{m}$

Material = Silica, PMMA

#### Specifications [typical @ $t_c = 25^\circ\text{C}$ ]

Item	FB01H1MA	FB01S1MA	FB05P1MA	Unit	Condition
Fiber Type	Multimode				
Fiber Core Material	HCS Silica	PCS Silica	PMMA		
Operating Wavelength	250 ~ 1600			nm	
Maximum Attenuation			$\leq 200@570$ nm	dB/km	
Numerical Aperture	0.21~0.24	0.37~0.39	0.5		
Bandwidth				MHz.km	
Group Refractive Index					
Fiber Core Diameter	100 $\pm$ 5		500 $\pm$ 10	$\mu\text{m}$	*1. Can be customized
Core Non-Circularity	$\leq 5$			%	

Item	FB01H1MA	FB01S1MA	FB05P1MA	Unit	Condition
Core/Cladding Concentricity	$\leq 3$		$\leq 15$	um	
Cladding Diameter	140±3		650±10	um	
Cladding Non-Circularity	$\leq 2$			%	
Coating Diameter	250±15		800±30	um	
Cladding/Coating Concentricity	$\leq 12$		$\leq 50$	um	
Jacket Diameter	900		1800	um	
Cable Jacket	3			mm	PVC
Fiber Pigtail Length	1			m	can be customized (0.3~15)
Connector	SMA905				can be customized (FC,ST,SC...)
Operating Temp.	-40~+85			°C	
Storage Temp.	-40~+85			°C	
Storage Humidity	0~90			%	
Fiber Bend Radius	$\geq 100D$ (short time) $\geq 300D$ (long time)		$\geq 8D$	mm	D:core diameter
Proof Test	100			kpsi	
Mean Time Before Failure	2000			hr	



- (A) 100 um for FB01H1MA and FB01S1MA, 500 um for FB05P1MA
- (B) 140 um for FB01H1MA and FB01S1MA, 650 um for FB05P1MA
- (C) 250 um for FB01H1MA and FB01S1MA, 800 um for FB05P1MA
- (D) 900 um for FB01H1MA and FB01S1MA, 1800 um for FB05P1MA
- (E) 3 mm

Specifications are subject to change without notice.

