



488 - 2100 nm Polarization Maintaining Fused Coupler (GK-PMC Series)

● Key Features

- Wavelength 488 - 2100 nm Available
- Coupling Ratio from 0.01/99.99 to 50/50 Available
- Operating on both Fast and Slow Axes
- Low excess Loss
- High Power Handling
- High Stability and Reliability

● Applications

Power Monitoring	Fiber Amplifier	Fiber Gyroscope	Coherent Communication
Fiber Laser	Test Equipment		

● Specifications

Parameter	Unit	Value
Center Wavelength (λ_c)	nm	488, 532, 635 780,830 980,1064 1310, 1480, 1550 1700, 2000
Operating Wavelength	nm	$\lambda_c \pm 5$ $\lambda_c \pm 10$ $\lambda_c \pm 10$ $\lambda_c \pm 20$ $\lambda_c \pm 20$
Typ. Excess Loss	dB	0.8 0.5 0.4 0.2 0.5
Max. Excess Loss	dB	1.2 0.8 0.6 0.4 0.8
Min. ER ¹	dB	18 18 20 ² 20 20
Max. Excess Loss for each Connector	dB	1.5 0.7 0.5 0.3 0.3
Max. Optical Power (Continuous Wave)	W	2
Thermal Stability	dB/°C	≤ 0.005
Min. Return Loss	dB	50
Min. Directivity	dB	50
Fiber Type for Signal Port	-	PM Fiber
Fiber Type for Tap Port	-	PM Fiber, or Singlemode Fiber
Operating Temperature	°C	- 5 to + 70
Storage Temperature	°C	- 40 to + 85

Coupling Ratio & Its Tolerance		
Coupling Ratio	%	1/99 , 2/98, 5/95, 10/90, 20/80,30/70 40/60, 50/50
Max. Coupling Ratio Tolerance, λ_c	%	± 0.3 ± 0.5 ± 0.7 ± 1.0 ± 2.0 ± 2.0 ± 2.5 ± 3.0
Coupling Ratio	%	0.1/99.9 0.01/99.99
Tap Ratio Tolerance, λ_c	dB	30 ± 3 40 ± 4

¹ER data listed in the table are for the ports with coupling ratio greater than 10%.

It will be 2 dB lower for a tap port with coupling ratio between 1-10%. For 1% tap port, ER is not considered.

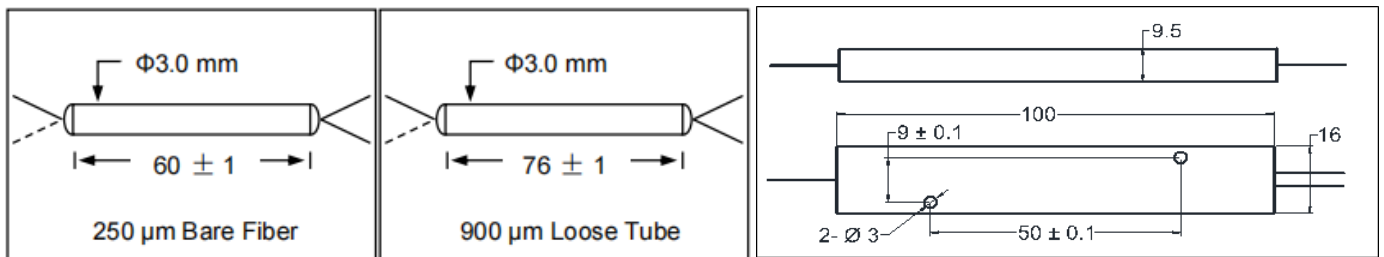
²ER will be 2 dB lower for Nufern FUD-3460 fiber and Nufern PM 1950.

³RL is 5 dB lower, ER is 2 dB lower for each connector added. Connector key is aligned to slow axis.

⁴The Optical Power is 1 W only for connector added. For visible wavelength, the limit is 50 mW.

⁵Data tested at central wavelength only.

● Package Dimensions



● Ordering Information

GK-SMC-①-②-③-④-⑤-⑥-⑦-⑧

①: Configuration

1 - 1 × 2
2 - 2 × 2

②: Wavelength

488 - 488 nm 064- 1064 nm
532 - 532 nm 1310 - 1310 nm
635 - 635 nm 1480 - 1480 nm
780 - 780 nm 1550 - 1550 nm
830 - 830 nm 1700 - 1700 nm
980 - 980 nm 2000 - 2000 nm
SSSS - Specify

③: Coupling Ratio

01 - 01/99 40 - 40/60
02 - 02/98 50 - 50/50
05 - 05/95 0.1 - 0.1/99.9
10 - 10/90 0.01 - 0.01/99.99
20 - 20/80 SS - Specify
30 - 30/70

④: Fiber Type for Tap Por

P - PM Fiber
S - Singlemode Fiber

⑤: Connector Type

1 - FC/UPC
2 - FC/APC
3 - SC/UPC
4 - SC/APC
N - None
S - Specify

⑥: Fiber Jacket

B - 250 μm Bare Fiber
L - 900 μm Loose
3 - 3 mm Cable
S - Specify

⑦: Fiber Length

H - 0.5 m

Q - 0.75 m

S - Specify

⑧: Fiber Type

1 - Nufern PM 460-HP

2 - Nufern PM 630-HP

3 - Corning Panda PM 850

4 - Corning Panda PM 980

5 - Corning Panda PM 1310

6 - Corning Panda PM 1550

7 - Nufern PM 1950

8 - Nufern FUD-3460

S - Specify