

Singlemode Standard Coupler (SMC Series)

Rev 11

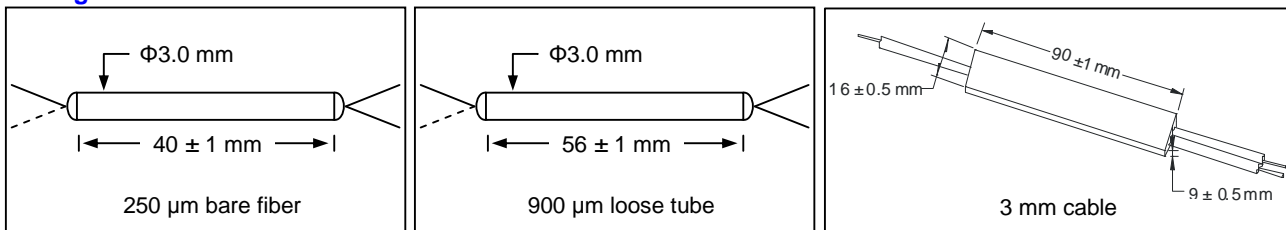
The SMC Singlemode Standard Couplers offer very low insertion loss, low polarization dependence and excellent environmental stability. Accurate coupling ratio from 50/50 to 1/99 are available with very good uniformity in a wide wavelength range of both 1310 nm and 1550 nm windows. These components find extensively applications to perform power splitting and monitoring functions in all kinds of optical communication systems.

Specifications

| Parameter | Unit | Value | | | | | | | |
|-----------------------------------|-------|---|-----------|----------|----------|-----------|----------|---------|--|
| Center Wavelength (λ_c) | nm | 1310 or 1550 or Specify | | | | | | | |
| Operating Wavelength | nm | $\lambda_c \pm 20$ | | | | | | | |
| Coupling Ratio | % | 01/99 | 02/98 | 03/97 | 05/95 | 10/90 | 15/85 | 20/80 | |
| Max. Insertion Loss | dB | 21.4/0.2 | 18.5/0.25 | 17.4/0.3 | 14.5/0.4 | 10.8/0.65 | 8.8/0.95 | 7.5/1.2 | |
| Coupling Ratio | % | 25/75 | 30/70 | 35/65 | 40/60 | 45/55 | 50/50 | | |
| Max. Insertion Loss | dB | 6.5/1.55 | 5.6/1.8 | 5/2.25 | 4.4/2.5 | 3.85/2.98 | 3.4 | | |
| Max. PDL (Tap/Through Port) | dB | 0.10 | | | | | | | |
| Max. Excess Loss | dB | 0.10 | | | | | | | |
| Thermal Stability | dB/°C | ≤ 0.002 over -5°C to $+70^\circ\text{C}$ | | | | | | | |
| Min. Return Loss | dB | 50 | | | | | | | |
| Directivity | dB | 55 | | | | | | | |
| 1 × 2 | dB | 55 | | | | | | | |
| 2 × 2 | dB | 60 | | | | | | | |
| Max. Optical Power (CW) | mW | 300 | | | | | | | |
| Fiber Type | | SMF-28 fiber | | | | | | | |
| Operating Temperature | °C | -5 to $+70$ | | | | | | | |
| Storage Temperature | °C | -40 to $+85$ | | | | | | | |

*IL is 0.3 dB higher, RL is 5 dB lower for each connector added.

Package Dimensions



Ordering Information

SMC-①-②②-③③-④-⑤-⑥

| ①: Configuration | ②②: Wavelength | ③③: Coupling Ratio | | | ④: Connector Type |
|------------------|----------------|--------------------|------------|------------|-------------------|
| 1 - 1 × 2 | 31 - 1310 nm | 01 - 01/99 | 15 - 15/85 | 40 - 40/60 | 1 - FC/UPC |
| 2 - 2 × 2 | 55 - 1550 nm | 02 - 02/98 | 20 - 20/80 | 45 - 45/55 | 2 - FC/APC |
| | SS - Specify | 03 - 03/97 | 25 - 25/75 | 50 - 50/50 | 3 - SC/UPC |
| | | 05 - 05/95 | 30 - 30/70 | | 4 - SC/APC |
| | | 10 - 10/90 | 35 - 35/65 | | N - None |
| | | | | | S - Specify |

⑤: Fiber Type ⑥: Fiber Length

B - 250 μm bare fiber
L - 900 μm loose tube
3 - 3 mm cable
S - Specify

1 - 1 m

S - Specify