



## 850nm Single Mode Single Fiber Collimator

### Key Features

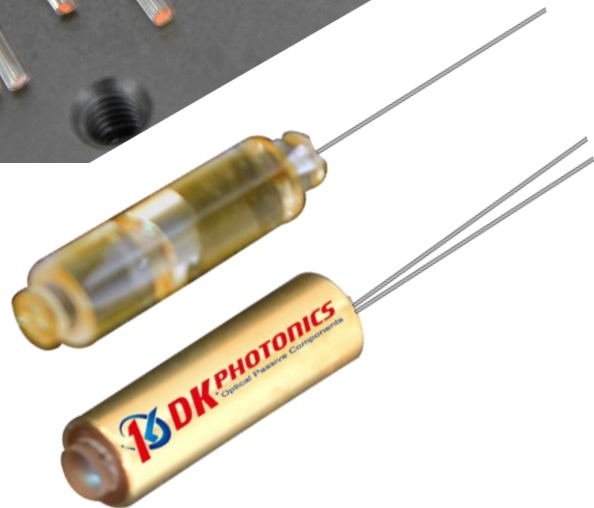
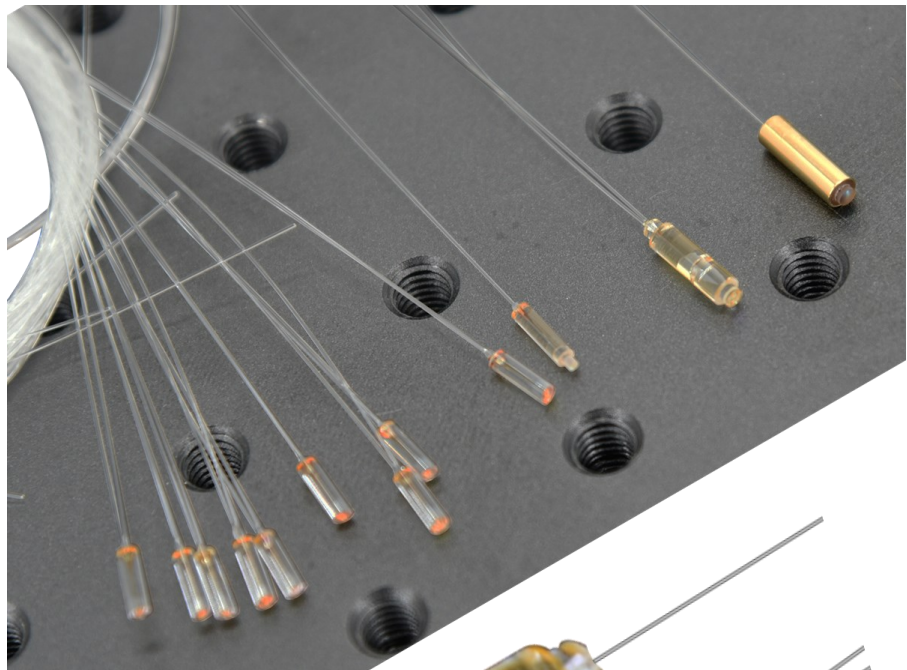
- Low Insertion Loss
- Low PDL
- Compact Design
- Wide Operating Wavelength
- High Reliability and Stability

The SM Single Mode Fiber Collimator is the basic element for in-line fiber optics components, such as optical isolator and optical WDM. It has high low insertion and high return loss. The unique processing and high quality AR coating also enable this collimator to handle high power.

If you do not see a standard Fiber Collimator that meets your needs, we welcome the opportunity to review your desired specification and quote a custom Fiber Collimator. Requests for custom fiber pigtailed, different wavelengths and handling power of operation or other specific needs will be readily addressed.

### Applications

- Isolators
- Circulators
- Switches
- WDM
- Signal Processing



## For more Info

### Please contact us at:

Tel: +86-755-23736280

Fax: +86-755-26746512

E-mail: [sales@dkphotonics.com](mailto:sales@dkphotonics.com)

<https://www.dkphotonics.com>

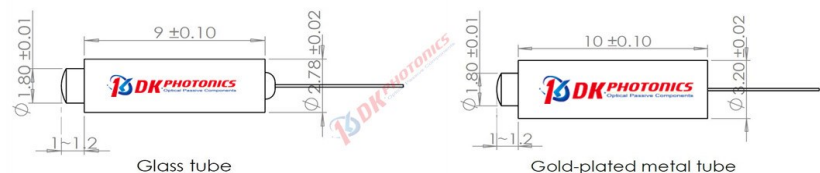
Add.:

4F, Bldg. 18, Qinghu Industrial Park,

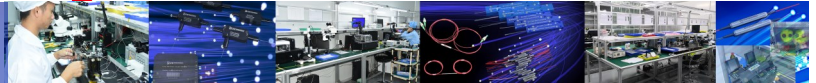
Dahe Road, Longhua Dis.,

Shenzhen, China 518109

### Package Dimension



\*Due to ongoing design improvements, the package size is subject to change. Please contact DK Photonics for confirmation if you have special requirements.

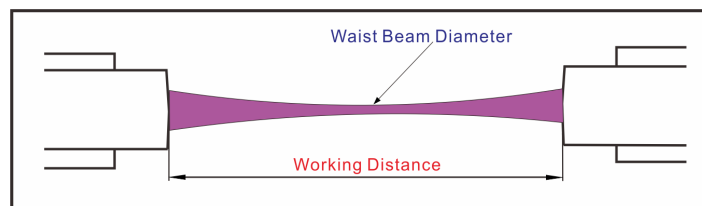


## 850nm Single Mode Single Fiber Collimator

### Performance Specifications

| Parameter                            | Unit               | Value  |                       |       |
|--------------------------------------|--------------------|--|-----------------------|-------|
| Type                                 | -                  | Standard   | Long working distance |       |
| Operating wavelength ( $\lambda_c$ ) | nm                 | 780,850  |                       |       |
| Operating wavelength range           | nm                 | $\pm 30$   |                       |       |
| Max. Working Distance                | mm                 | 20   | 50~100(C-lens)        |       |
| Grade                                | -                  | P  | A                     | A     |
| Max. Insertion Loss ( $\lambda_c$ )  | dB                 | 0.25   | 0.30                  | 0.35  |
| Waist Beam Diameter                  | mm                 | ~0.35  |                       | ~0.45 |
| Min. Return Loss                     | dB                 | 60   | 55                    | 55    |
| Fiber Type                           | -                  | 780-HP   |                       |       |
| Max. Power Handling                  | W                  | 0.5, 1, 3, 5, 10   |                       |       |
| Operating temperature                | $^{\circ}\text{C}$ | -5~+70   |                       |       |
| Storage temperature                  | $^{\circ}\text{C}$ | -40~+85  |                       |       |
| Dimension                            | mm                 | $\Phi 2.78 \times 19$ (Glass tube)                         |                       |       |
|                                      | mm                 | $\Phi 3.2 \times 10$ (Metal), $\Phi 1.4 \times 16$ (Metal) |                       |       |

1. The specifications are w/o connector. Other lens sizes can also be customized according to requirements.
2. For devices with connectors, IL will be 0.3dB higher, RL will be 5dB lower. Power transmits through the connector less than 2W. Measured at the alignment wavelength at 1/2 working distance.
3. Waist Beam Diameter is measured at the alignment wavelength at 1/2 working distance.
4. When purchasing the collimator, please inform us whether it is used alone or in pairing. If paired, we will pack and ship the paired ones together.



### Order information P/N: COLL-S-①-②-③-④-⑤-⑥-⑦-⑧ (S: single fiber )

When you inquire, please provide the correct P/N number according to our ordering information and attach the appropriate description would be better. If need any connector, we do not recommend choosing a 250 $\mu\text{m}$  bare fiber pigtail.

| ①          | ②                | ③              | ④         | ⑤                                | ⑥                                | ⑦  | ⑧         |
|------------|------------------|----------------|-----------|----------------------------------|----------------------------------|--|-----------|
| Wavelength | Working Distance | Power Handling | Lens Type | Pigtails Diameter                | Fiber Length                     | Connectors   | Dimension |
| 78:780nm   | 0: 0mm           | L:<0.5W        | C: C-lens | 25:250 $\mu\text{m}$ bare fiber  | 10:1.0m                          | 00: None   | 3.2x10    |
| 85:850nm   | 5: 5mm           | 1:1W           | G: G-lens | 90:900 $\mu\text{m}$ Loose Fiber | 13:1.3m                          | FP: FC/PC  | 2.78x9    |
| XX: Others | 10:10mm          | 3:3W<br>5:5W   |           | XX: Others                       | 15:1.5m<br>20:2.0m<br>XX: Others | FA: FC/APC<br>SA: SC/APC<br>LA: LC/APC<br>XX: Others |           |

**Part Number Example:** COLL-S-85-5-L-C-25-10-00-2.78X9

**Description:** 850nm SM Single Fiber Collimator, 5mm working distance ,0.5W handling power, C lens, 780-HP fiber, bare fiber, 1.0m fiber length, and no connector, package dimension:2.78x9mm. Used alone.

### Ordering Information for Custom Parts

If you need to customize other specifications, please provide detailed description for your requirement.