

## 1000m Nanosecond Fiber Optic Delay Line



- **Product Description**

Idealphotonics manufacturing compact and low-loss fiber optic coils requires attention, precision, and skill. Our F-TDC compact time delay coils feature a proprietary manufacturing process that provides extremely low insertion loss while meeting your budget and small space requirements.

- **Product features**

Compact size、 Low insertion loss、 Choose your own delay length、 Rugged construction、 Easy to use

## ● Part Number

MP-ODL-1000-SA

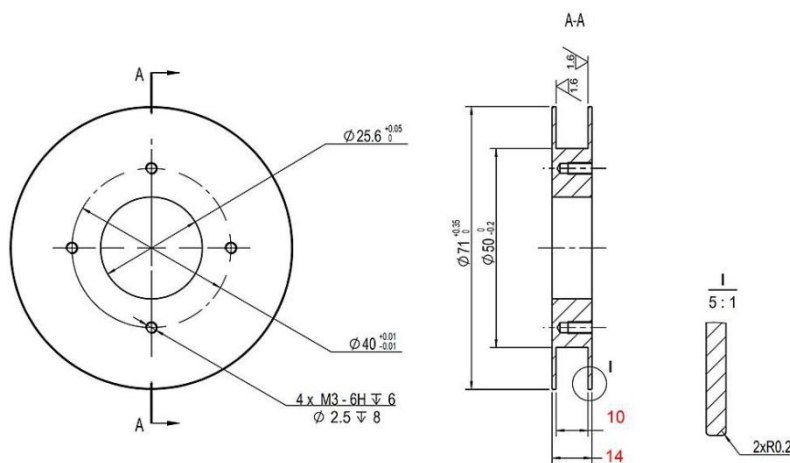
## ● Application area

Optical buffers for optical networks 、 Gyroscopes sensors and signal processing 、 Radar and instrument calibration 、 Laser spectroscopy 、 Time delay of optoelectronic oscillators Nonlinear fiber loops 、 Fiber network testing and analysis 、 Optical packet switching, buffering, routing and input/output synchronization

## ● Core parameters

| Operating wavelength | Fiber type |
|----------------------|------------|
| 1260~1700 nm         | FC/APC     |

## ● Dimension Drawing



## ● General Parameters

| Parameter             | Symbol    | Min. Value                      | Typ. Value | Max. Value | Unit  |
|-----------------------|-----------|---------------------------------|------------|------------|-------|
| Fiber length          | L         | 10                              | 500        | 5000       | m     |
| Typical loss          | IL        | 0.1                             | 0.2        | 0.3        | dB/km |
| Operating wavelength  | $\lambda$ | 1260                            | 1500       | 1700       | nm    |
| Operating temperature | T         | -40                             | 25         | 85         | °C    |
| Fiber type            |           | HI1060/SMF-28E/PM1550(Optional) |            |            |       |
| Operating power       | Pf        | 500                             | 1000       | 5000       | mW    |
| Frame size            |           | Customize                       |            |            |       |
| Connector type        |           | FC/APC or FC/PC                 |            |            |       |
| Fiber delay range     |           | Depends on fiber length *       |            |            |       |

### Note

\* Calculate the required delay length

To calculate the required fiber length to obtain a specific time delay, use the following formula:  $L = c \Delta t / n$ , where  $c$  is the speed of light in a vacuum,  $\Delta t$  represents the expected time delay,  $n$  represents the refractive index of fused silica at the relevant wavelength ( at 1310 nm At  $n = 1.4677$  at 1550 nm ,  $n = 1.4682$  ).



## Ordering Info

MP-ODL-L□□□□-XX

L□□□□ : Length

0010: 10m

0100:100m

1000:1000m

XX: Fiber and connector types

SN=SMF-28E Fiber + None

SA=SMF-28E Fiber + FC/APC

SP=SMF-28E Fiber + FC/PC

PP=PM Fiber Fiber + FC/PC

PA=PM Fiber Fiber + FC/APC