

# 1053nm Polarization Beam Combiner(Splitter)/Isolator Hybrid

#### **FEATURES**

- High Isolation
- Low Insertion Loss
- **Epoxy-Free Optical Path**
- High Reliability and Stability
- Low Profile Packaging

### **APPLICATIONS**

- Fiber Optic Amplifiers
- Fiber Optic Instruments
- **WDM Systems**
- Transmitters and Fiber Lasers
- **CATV Networks**



## **SPECIFICATIONS**

| Parameter                     |                            | Unit | Single Stage   | Dual Stage                |  |
|-------------------------------|----------------------------|------|--|---------------------------|--|
| Center Wavelength (λc)        |                            | nm   | 1053   |                           |  |
| Bandwidth                     |                            | nm   | +/-10  |                           |  |
| Peak Isolation (Typ.)         |                            | dB   | 30   | 55                        |  |
| Isolation (λc+/-10nm          | , 23°C, All SOP)           | dB   | ≥25  | ≥45                       |  |
| Typical Insertion Loss        | (λc, 23°C, All SOP)        | dB   | 2.2  | 3.6                       |  |
| Insertion Loss (λc, 0-        | 50°C, All SOP)             | dB   | ≤3.1   | ≤4.6                      |  |
| Optical Return Loss (         | Input/Output)              | dB   | 50/50  | 50/50                     |  |
| Extinction Ratio (for         | FHIS)                      | dB   | ≥20  |                           |  |
| Fiber Type of Port 3          | S Type                     | -    | Corresponding SM Fiber                                 |                           |  |
|                               | P Type                     | -    | Same Fiber to Port1&2, Slow axis align to Port 1       |                           |  |
|                               | Q Type                     | -    | Same Fiber to Port1&2, Slow axis is 45° to Port 1      |                           |  |
|                               |                            |      | PM980 Fiber, PM1060L Fiber (E) or PM1060L-FA Fiber (L) |                           |  |
| Fiber Type of Port 1 & Port 2 |                            | -    | 10/125um PMDC Fiber (O), 15/130um PMDC Fiber (W)       |                           |  |
|                               |                            |      | 20/130um PMDC Fiber (Q) o                              | r 25/250um PMDC Fiber (R) |  |
| Fiber Tensile Load            |                            | N    | 5  |                           |  |
| Maximum Optical Power (CW)    |                            | mW   | 200  |                           |  |
| Operating Temperature         |                            | °C   | 0~50   |                           |  |
| Storage Temperature           |                            | °C   | -40~85   |                           |  |
| Package Dimension             | Stainless Steel Tube (SST) | mm   | (Ø)5.5x35  |                           |  |
|                               | Metal Box                  | mm   | (L)120x(W)12x(H)10                                     |                           |  |

Note: 1. Specifications are for device without connectors; Specifications may change without notice.

- 2. To add connectors, IL is 0.5dB higher, RL is 5dB lower, ER is 2dB Lower, Connector key is aligned to slow axis.
- 3. Devices for higher optical power or with other type fiber or consigned fiber are also available; Devices can only work in the core of Double Cladding (DC) Fiber, Cladding Power must be stripped before connecting the device.

### ORDERING INFORMATION (PN) FHIC=PBC/Isolator Hybrid; FHIS=PBS/Isolator Hybrid.

| FHIC . | - NNNN -          | С               | C              | - ( <mark>C</mark> ) | C                           | С             | NN                    | - CC/CCC                |
|--------|-------------------|-----------------|----------------|----------------------|-----------------------------|---------------|-----------------------|-------------------------|
|        | Center Wavelength | Stage           | 3rd Port Fiber | Package              | Fiber Type                  | Fiber Sleeve  | Fiber Length          | Connector Type          |
|        | 1053=1053nm       | S= Single Stage | S=S Type       | M=Metal Box          | 2=PM980 Fiber               | B= Bare fiber | <mark>05=</mark> 0.5m | N=Without Connector     |
|        |                   | D= Dual Stage   | P=P Type       | <i>Blank</i> for SST | E=PM1060L Fiber             | L= Loose Tube | 10-1.0m               | FC/APC=FC/APC Connector |
|        |                   |                 | Q=Q Type       |                      | <b>Q=</b> 20/130 PMDC Fiber | 2= 2mm Cable  | 15=1.5m               | LC/PC=LC/PC Connector   |
|        |                   |                 |                |                      | R=25/250 PMDC Fiber         | 3= 3mm Cable  | 20=2.0m               | SC/UPC=SC/UPC Connector |





