

# Polarization Beam Combiner

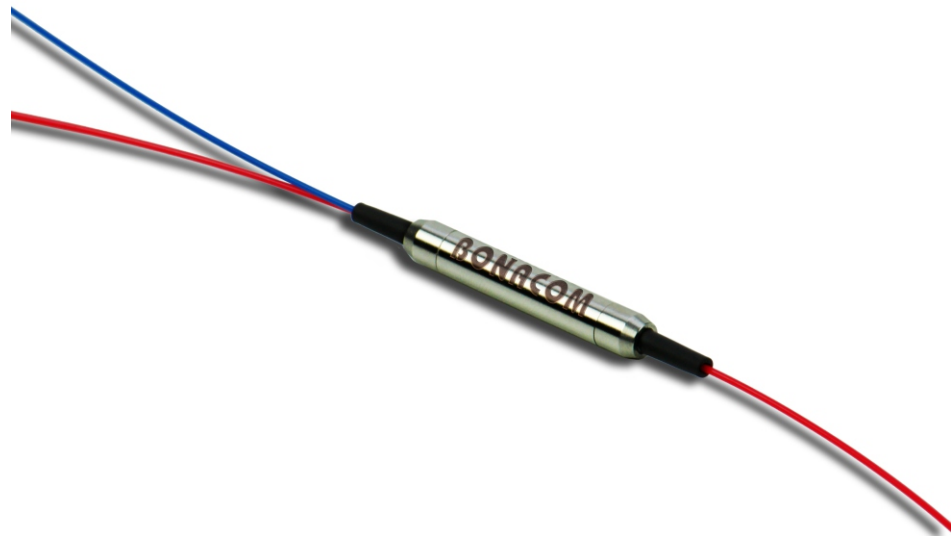
## (1310nm,1550nm,1064nm,980nm)

### Features

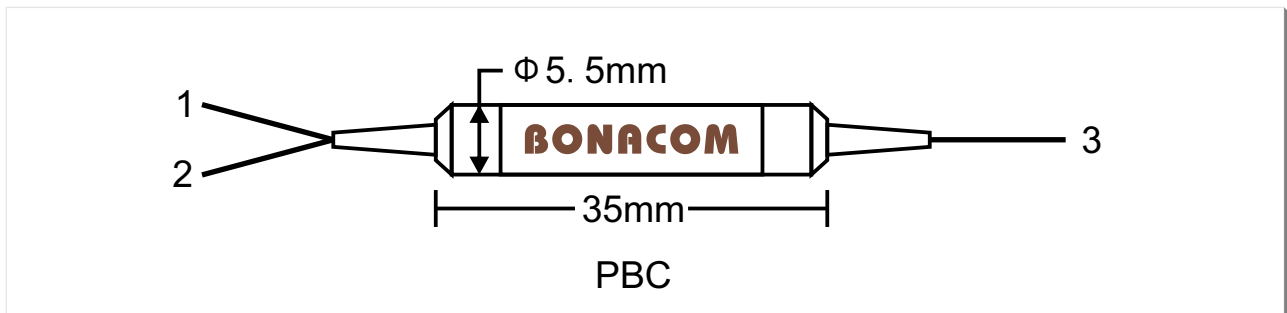
- Low Insertion Loss
- High Return Loss
- High Extinction Ratio
- High Reliability
- High Stability

### Applications

- Fiber Optical Current Transducer
- Fiber Sensor
- Optical Fiber Gyro
- Coherent Telecommunication Systems



### ◆ Package Dimensions



**Routing path is from port 1, 2 to 3, Here are three options of polarized state from Port 1, 2 to Port 3:**

**Option 1: PM to SM,**

Port 1: 50%, Linear polarized light in, through slow axis, Port 2: 50%, Linear polarized light in, through slow axis  
Port 3, 100%, Circularly polarized light Out,

**Option 2: PM to PM, port 1 is slow axis 0° aligned to port 3**

Port 1, 2, only work through slow axis, blocked the fast,  
The slow axis of port 1 is aligned to the slow axis of port 3,  
The slow axis of port 2 is aligned to the fast axis of port 3,

**Option 3: PM to PM, port 1 is slow axis 45° aligned to port 3**

Port 1, 2, only work through slow axis, blocked the fast,  
Port 1 or 2, 100%, Linear polarized light in, through slow axis,  
Port 3, 25% linear polarized light out, through slow axis, and 25% by the fast,

## ◆ Specifications

Parameter	Unit	Value			
Grade	-	P	A	P	A
Center Wavelength	nm	1310,1550		1064,980	
Operating Wavelength Range	nm	±40		±20	
Typ. Insertion Loss at 23°C	dB	0.4	0.5	0.6	0.7
Max. Insertion Loss at 23°C	dB	0.6	0.7	0.8	0.9
Min. Extinction Ratio at 23°C	dB	22	20	22	20
Min. Directivity	dB	50			
Min. Return Loss	dB	50			
Max. Optical Power(CW)	mW	300			
Max. Tensile Load	N	5			
Fiber Type	Port 1 & 2	-	PM Panda fiber		
	Port 3	-	SMF-28E, Hi1060 or PM Panda fiber		
Operating temperature	°C	-5~+70			
Storage temperature	°C	-40~+85			

For device with connector, IL is 0.3dB higher, RL is 5dB lower, ER is 2dB lower.  
The default connector key is aligned to slow axis.

## ◆ Ordering Information

PBC-1111-23-444-555-678-999

1111	-Center Wavelength:	1550=1550nm,1310=1310nm,.....,0850=850nm
2	-Grade:	P=Perfect grade, A=A grade
3	-Option for Port 3 to 1,2:	1=Option 1, 2=Option 2, 3=Option 3
444	-Fiber Type for Port 3:	001=PM1550, 002=PM1310, 003=PM980, 004=Hi1060, 008=SMF-28E
555	-Fiber Type for Port 1,2:	001=PM1550, 002=PM1310, 003=PM980, 004=Hi1060, 008=SMF-28E
6	-Package Dimension:	0=φ5.5x35mm, 1=φ5.5x50mm, S=Specified
7	-Pigtail Type:	0=250μm bare fiber, 1=900μm loose tube
8	-Fiber Length:	0=0.8m,1=1m
999	-Connector for Port 1,2,3:	0=FC/UPC,1=FC/APC,2=SC/UPC,3=SC/APC,4=LC/UPC,5=LC/APC, N=None