

1030nm Inline Faraday Rotator with Phase Bias for Pulse Power

FEATURES

- High Isolation
- Low Insertion Loss
- Epoxy-Free Optical Path

APPLICATIONS

- Fiber Optic Amplifiers
- Sensing Systems
- Telecommunication Networks

SPECIFICATIONS

Parameter	Unit	Value	
Center Wavelength (CW)	nm	1030	
Bandwidth	nm	+/-5	
Insertion Loss	dB	≤3.4 (Type B), ≤6.5 (Type A)	
Rotate Angle (Single Transmission)	A: FR+WP+FR B: WP+FR	deg deg	90 (Backward Signal to Slow axis of Input Fiber) 45 (Backward Signal to Fast axis of Input Fiber)
Rotation Angle Tolerance (CW. 23°C)	Deg	≤+/-6	
Phase Bias between Forward and Backward	-	π , $\pi/2$, $\pi/4$ or specify	
Return Loss	dB	≥50	
PDL (for SM Fiber Type)	dB	≤0.25	
Extinction Ratio (for PM Fiber Type)	Standard High ER Type	dB dB	≥18 ≥20 (Can only work in Slow Axis)
Fiber Type	SM Fiber Type PM Fiber Type	- -	HI1060 Fiber or 10/125um SC Fiber (E) 10/125um DC Fiber (O), 15/130um DC Fiber (W) 20/130um DC Fiber (Q) or 25/250um DC Fiber (R) PM980 Fiber, PM1060L Fiber (E) or PM1060L-FA Fiber (L) 10/125um PMDC Fiber (O), 15/130um PMDC Fiber (W) 20/130um PMDC Fiber (Q) or 25/250um PMDC Fiber (R)
Fiber Tensile Load	N	5	
Max. Average Power (Forward+Backward)	mW	50	
Max. Peak Power for pulse	kW	0.1, 1, 2, 3, 5, 10, 15, 20	
Operating Temperature	°C	0~50	
Storage Temperature	°C	-40~85	
Package Dimension	Stainless Steel Tube (SST) Metal Box	mm mm	(Ø)5.5x35 (L)120x(W)12x(H)10

- Note:**
- Specifications are for device without connectors; Specifications may change without notice.
 - To add connectors, IL is 0.5dB higher, RL is 5dB lower, ER is 2dB Lower, Connector key is aligned to slow axis.
 - Only guarantee 1W continuous wave (CW) power thru testing for connectors added.
 - Forward/backward signals transmit through fast axis/slow axis of a waveplate induces the phase bias.
 - 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)

FRPB-NNNN	-	C	N	(C)	C	C-H005PNN	-(C)	(C)	C	NN	-CC/CCC
<i>Center Wavelength</i>	<i>Rotate Angle</i>	<i>Phase Bias</i>	<i>Type</i>	<i>Input Fiber</i>	<i>Output Fiber</i>	<i>Peak Power</i>	<i>Package</i>	<i>Fiber Type</i>	<i>Fiber Sleeve</i>	<i>Fiber Length</i>	<i>Connector Type</i>
1030=1030nm	A=90	1=π	R=High ER	S=SM Fiber	S=SM Fiber	01=100W	M=Metal Box	E=10/125 SC or PM1060L Fiber	B= Bare Fiber	05=0.5m	N=Without Connector
	B=45	2=π/2	Blank for	P= PM Fiber	P= PM Fiber	1= 1kW	Blank for SST	Q=20/130 DC or PMDC Fiber	L= Loose Tube	10=1.0m	FC/APC=FC/APC Connector
		4=π/4	Standard			5= 5kW		R=25/250 DC or PMDC Fiber	2= 2mm Cable	15=1.5m	LC/PC=LC/PC Connector
						10=10kW		Blank for HI1060 or PM980 Fiber	3= 3mm Cable	20=2.0m	SC/UPC=SC/UPC Connector