

## 2000nm Inline Faraday Rotator with Phase Bias

### FEATURES

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

### APPLICATIONS

- Fiber Optic Amplifiers
- Fiber Optic Instruments
- WDM Systems
- Transmitters and Fiber Lasers

### SPECIFICATIONS

Parameter	Unit	Value	
Center Wavelength ( $\lambda_c$ )	nm	1900, 1950, 2000, 2050	
Operating Wavelength Range	nm	+/-15	
Typical Insertion Loss	dB	0.8	
Max. Insertion Loss	dB	1.6	
Faraday 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)
Phase Bias between Forward and Backward	-	-	$\pi$ , $\pi/2$ , $\pi/4$ or specify
Optical Return Loss (Input/Output)	dB	50/50	
PDL (For SM Fiber)	dB	$\leq 0.15$	
Extinction Ratio (For PM Fiber)	Standard High ER Type	dB dB	$\geq 20$ $\geq 22$ (Can only work in Slow Axis)
Fiber Type	SM Fiber Type PM Fiber Type	- -	SMF-28 Fiber or SM1950 Fiber (V) 10/130um DC Fiber (O) or 25/250um DC Fiber (R) PM1550 Panda Fiber or PM1950 Fiber (V) 10/130um PMDC Fiber (O) or 25/250um PMDC Fiber (R)
Fiber Tensile Load	N	5	
Max. Optical Power (CW)	mW	300	
Operating Temperature	$^{\circ}\text{C}$	0~50	
Storage Temperature	$^{\circ}\text{C}$	-40~85	
Package	Stainless Steel Tube (SST)	mm	( $\varnothing$ )5.5x35
Dimension	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 0.3dB higher, RL is 5dB lower, ER is 2dB Lower, Connector key is aligned to slow axis.
  3. Forward/backward signals transmit through fast axis/slow axis of a waveplate (WP) induces the phase bias.
  4. 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	-(C)	(C)	C	NN	-CC/CCC
Center Wavelength	Rotate Angle	Phase Bias	Type	Input Fiber	Output Fiber	Package	Fiber Type	Fiber Sleeve	Fiber Length	Connector Type
1900-1900nm	A=90	1= $\pi$	R=High ER	S=SM Fiber	S=SM Fiber	M=Metal Box	V=SM1950 or PM1950 Fiber	B=Bare Fiber	05=0.5m	N=Without Connector
1950-1950nm	B=45	2= $\pi/2$	Blank for	P=PM Fiber	P=PM Fiber	Blank for SST	O=10/130 DC or PMDC Fiber	L=Loose Tube	10=1.0m	FC/APC=FC/APC Connector
2000-2000nm		4= $\pi/4$	Standard			or >10W	R=25/250 DC or PMDC Fiber	2=2mm Cable	15=1.5m	LC/PC=LC/PC Connector
2050-2050nm							Blank for SMF-28 Fiber or PM1550 Fiber	3=3mm Cable	20=2.0m	SC/UFC=SC/UFC Connector