

2000nm High Power 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 (λ_c)	nm	1900, 1950, 2000, 2050	
Operating Wavelength Range	nm	+/-15	
Typical Insertion Loss	dB	0.8	
Max. Insertion Loss	dB	1.6	
Rotate Angle	A: FR+WP+FR	deg	90 (Backward Signal to Slow axis of Input Fiber)
(Single Transmission)	B: WP+FR	deg	45 (Backward Signal to Fast axis of Input Fiber)
Phase Bias between Forward and Backward	-	-	π , $\pi/2$, $\pi/4$ or specify
Optical Return Loss (Input/Output)	dB	50/50	
PDL (For SM Fiber)	dB	≤ 0.15	
Extinction Ratio	Standard	dB	≥ 18
(For PM Fiber)	High ER Type	dB	≥ 20 (Can only work in Slow Axis)
Fiber Type	SM Fiber Type	-	SMF-28 Fiber or SM1950 Fiber (V) 10/130um DC Fiber (O) or 25/250um DC Fiber (R)
	PM Fiber Type	-	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)	W	0.3, 0.5, 1, 2, 3, 5, 10, 15, 20	
Operating Temperature	$^{\circ}\text{C}$	0~50	
Storage Temperature	$^{\circ}\text{C}$	-40~85	
Package	Stainless Steel Tube (SST)	mm	(\varnothing)5.5x35 ($\leq 5\text{W}$); (\varnothing)6.0x48 (5~10W)
Dimension	Metal Box	mm	(L)90x(W)12x(H)10 (>10W); (L)120x(W)12x(H)10 ($\leq 10\text{W}$)

- 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. Only guarantee 1W continuous wave (CW) power thru testing for connectors added.
 4. Forward/backward signals transmit through fast axis/slow axis of a waveplate induces the phase bias.
 5. 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	-HPNN	-(C)	(C)	C	NN	- CC/CCC
Center Wavelength	Rotate Angle	Phase Bias	Type	Input Fiber	Output Fiber	Optical Power	Package	Fiber Type	Fiber Sleeve	Fiber Length	Connector Type
1900-1900nm	A=90	1= π	R=High ER	S=SM Fiber	S=SM Fiber	1= 1W	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	5=5W	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			10= 10W	or >10W	R=25/250 DC or PMDC Fiber	2= 2mm Cable	15=1.5m	LC/PC=LC/PC Connector
2050-2050nm						20=20W		Blank for SMF-28 Fiber	3= 3mm Cable	20=2.0m	SC/UPC=SC/UPC Connector
								or PM1550 Fiber			