

1310~1590nm High Power Inline Faraday Rotator with Phase Bias

FEATURES

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

APPLICATIONS

- Fiber Optic Amplifiers
- Fiber Optic Instruments
- WDM Systems

SPECIFICATIONS

Parameter	Unit	Value	
Center Wavelength (λ_c)	nm	1310, 1480, 1550, 1590	
Operating Wavelength Range	nm	+/-15	
Typical Insertion Loss	dB	0.6	
Max. Insertion Loss	dB	1.0	
Rotate Angle (Single Transmission)	A: FR+WP+FR	deg	90 (Backward Signal to Slow axis of Input Fiber)
	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 (For PM Fiber)	Standard	dB	≥ 18
	High ER Type	dB	≥ 20 (Can only work in Slow Axis)
Fiber Type	SM Fiber Type	-	SMF-28 Fiber or 10/130um DC Fiber (O) 12/130um DC Fiber (T) or 20/130um DC Fiber (Q) 25/250um DC Fiber (R) or 25/300um DC Fiber (G)
	PM Fiber Type	-	PM1310/1550 Panda Fiber or 10/125um PMDC Fiber (O) 12/130um PMDC Fiber (T), 20/130um PMDC Fiber (Q) 25/250um PMDC Fiber (R) or 25/300um PMDC Fiber (G)
Fiber Tensile Load	N	5	
Max. Optical Power (CW)	W	0.3, 0.5, 1, 2, 3, 5, 10, 15, 20	
Operating Temperature	$^{\circ}\text{C}$	0~70	
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	-HP	NN	-(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	
1310~1310nm	A=90	1= π	R=High ER	S=SM Fiber	S=SM Fiber	1= 1W	M= Metal Box	O=10/130DC Fiber	B= Bare Fiber	05=0.5m	N= Without Connector	
1480~1480nm	B=45	2= $\pi/2$	Blank for	P= PM Fiber	P= PM Fiber	5=5W	Blank for SST	T=12/130DC Fiber	L= Loose Tube	10=1.0m	FC/APC=FC/APC Connector	
1550~1550nm		4= $\pi/4$	Standard			10= 10W	or >10W	G=25/300 DC Fiber	2= 2mm Cable	15=1.5m	LC/PC=LC/PC Connector	
1590~1590nm						20=20W		Blank for SMF-28 Fiber	3= 3mm Cable	20=2.0m	SC/UPC=SC/UPC Connector	

or PM1310/1550 Fiber

