

## 1020-1120nm High Power Inline Faraday Rotator with Phase Bias

### FEATURES

- High Optical Power
- Low Insertion Loss
- Epoxy-Free Optical Path
- Low Polarization Sensitivity
- Compact Size

### APPLICATIONS

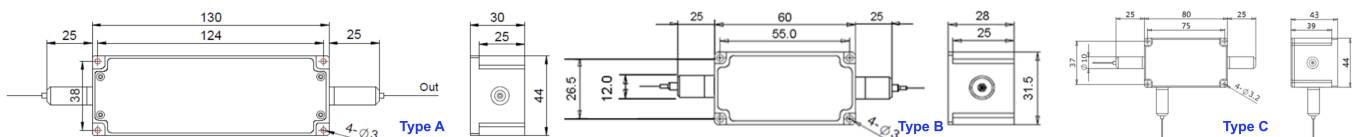
- Fiber Optic Amplifiers
- Sensing Systems
- Telecommunication Networks
- Laser Systems
- Research Labs

### SPECIFICATIONS

Parameter	Unit	Value	
Center Wavelength (CW)	nm	1020, 1030, 1040, 1053, 1064 1070, 1080, 1092, 1103, 1120	
Bandwidth	nm	+/-10	
Insertion Loss (Typ.)	dB	0.8	
Insertion Loss (Max.)	dB	1.5	
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)
	C: PBS+FR+WP+MR	deg	90 (Backward Signal to Slow axis of Input Fiber)
Phase Bias between Forward and Backward	-	$\pi$ , $\pi/2$ , $\pi/4$ or specify	
Return Loss	dB	$\geq 50$	
PDL (for SM Fiber Type)	dB	$\leq 0.20$	
Extinction Ratio (for PM Fiber Type)	Standard	dB	$\geq 18$
	High ER Type	dB	$\geq 20$ (Can only work in Slow Axis)
Fiber Type	SM Fiber Type	-	H11060 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)
	PM Fiber Type	-	PM980 Fiber, PM1060L Fiber (E) or PM1060L-FA Fiber (L)
-		10/125um PMDC Fiber (O) or 15/130um PMDC Fiber (W)	
-		20/130um PMDC Fiber (Q) or 25/250um PMDC Fiber (R)	
Fiber Tensile Load	N	5	
Max. Optical Power (CW, Forward+Backward)	W	0.5, 1, 2, 3, 5, 10, 15, 20, 30, 40, 50	
Operating Temperature	°C	0~50	
Storage Temperature	°C	-20~75	

- 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.
  - Package size may be different for different fiber type, configuration and optical power.

### DIMENSION DRAWING



### ORDERING INFORMATION (PN)

FRPB-NNNN-	C	N	(C)	C	C	-HP NN	-(C)	C	NN	-CC/CCC
Center Wavelength	Rotate Angle	Phase Bias	Type	Input Fiber	Output Fiber	Optical Power	Fiber Type	Fiber Sleeve	Fiber Length	Connector Type
1030=1030nm	A=90	1= $\pi$	R=High ER	S=SM Fiber	S=SM Fiber	1=1W	E=10/125 SC or PM1060L Fiber	B= Bare Fiber	05=0.5m	N=Without Connector
1064=1064nm	B=45	2= $\pi/2$	Blank for	P= PM Fiber	P= PM Fiber	5=5W	Q=20/130 DC or PMDC Fiber	L= Loose Tube	10=1.0m	FC/APC=FC/APC Connector
1092=1092nm	C=90	4= $\pi/4$	Standard			10=10W	R=25/250 DC or PMDC Fiber	2= 2mm Cable	15=1.5m	LC/PC=LC/PC Connector
1120=1120nm						50=50W	Blank for H11060 or PM980 Fiber	3= 3mm Cable	20=2.0m	SC/APC=SC/APC Connector