



# 1100-2100nm OPTICAL ISOLATORS

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## DESCRIPTION

ISOWAVE offers a wide variety of isolators for the 1100-2100nm wavelength band. These models used rotators made using Liquid Phase Epitaxy (LPE). Standard clear aperture is 4mm, with 5mm available upon special request. Single and True Double (UHP) stage versions provide different isolation level options. A Faraday rotator with no polarizers is also available. The standard polarizer is an absorptive glass plate, but custom designs can include escape ports for rejected beam monitoring or beam injection.

## FEATURES

- Wide Tuning Range
- High Isolation
- Low Insertion Loss
- Injection Port Option

MODEL NUMBER	Clear Aperture	Tunable	Broad-band	Isolation Minimum / Typical	Ins Loss Typical / Maximum	Transmission Minimum / Typical	Power Handling	Diameter	Length
	mm	Yes/No	Yes/No	dB	dB	%	W/cm2	inch / mm	inch/mm
I-11B-4-FR	4	N	N	30	0.3	93	100	0.75 / 19	1.48 / 37.6
I-11B-4	4	Y	N	30 / 35	0.4 / 0.6	87 / 91	100	0.75 / 19	1.48 / 37.6
I-11T-4H	4	Y	N	30 / 35	0.5 / 0.7	85 / 89	100	1.375 / 34.9	4.92 / 125
I-12B-4-FR	4	N	N	30	0.1	97	100	0.75 / 19	1.48 / 37.6
I-12B-4	4	Y	N	35 / 40	0.2 / 0.4	91 / 95	100	0.75 / 19	1.48 / 37.6
I-12T-4H	4	Y	N	35 / 40	0.5 / 0.7	85 / 89	100	1.375 / 34.9	4.92 / 125
I-12UHP-4	4	N	N	60 / 65	0.5 / 1.0	79 / 89	100	0.75 / 19	1.67 / 42.3
I-13B-4-FR	4	N	N	35	0.1	97	300	0.75 / 19	1.48 / 37.6
I-13B-4	4	Y	N	38 / 43	0.2 / 0.4	91 / 95	300	0.75 / 19	1.48 / 37.6
I-13T-4H	4	Y	N	35 / 38	0.5 / 0.7	85 / 89	300	1.375 / 34.9	4.92 / 125
I-13UHP-4	4	N	N	63 / 75	0.4 / 0.8	83 / 91	300	0.75 / 19	1.67 / 42.3
I-14B-4-FR	4	N	N	35	0.1	97	300	0.75 / 19	1.48 / 37.6
I-14B-4	4	Y	N	38 / 43	0.2 / 0.4	91 / 95	300	0.75 / 19	1.48 / 37.6
I-14UHP-4	4	N	N	63 / 75	0.4 / 0.8	83 / 91	300	0.75 / 19	1.67 / 42.3
I-15B-4-FR	4	N	N	35	0.1	97	300	0.75 / 19	1.48 / 37.6
I-15B-4	4	Y	N	38 / 43	0.2 / 0.4	91 / 95	300	0.75 / 19	1.48 / 37.6
I-15T-4H	4	Y	N	38 / 43	0.5 / 0.7	85 / 89	300	0.75 / 19	1.48 / 37.6
I-15UHP-4	4	N	N	63 / 75	0.4 / 0.8	83 / 91	300	0.75 / 19	1.67 / 42.3
I-16B-4-FR	4	N	N	35	0.1	97	300	0.75 / 19	1.48 / 37.6
I-16B-4	4	Y	N	38 / 43	0.2 / 0.4	91 / 95	300	0.75 / 19	1.48 / 37.6
I-16UHP-4	4	N	N	63 / 75	0.4 / 0.8	83 / 91	300	0.75 / 19	1.67 / 42.3
I-17B-4-FR	4	N	N	28	0.25	97	100	0.75 / 19	1.48 / 37.6
I-17B-4	4	Y	N	30 / 35	0.4 / 0.6	87 / 91	100	0.75 / 19	1.48 / 37.6
I-21B-4-FR	4	N	N	28	0.5	89	25	0.75 / 19	1.48 / 37.6
I-21B-4	4	Y	N	30 / 35	1	79	25	0.75 / 19	1.48 / 37.6

### Part Number Options

**FR** = Faraday Rotator: No polarizers, 45+/-3 degrees rotation

**B** = Tunable Single Stage: Input polarizer may be rotated to maximize isolation

**UHP** = Ultra High Performance: Full double stage isolator, Non tunable

**H** = Input & Output polarizers have dual escape ports for monitoring rejected beams, or injecting new beams into beampath

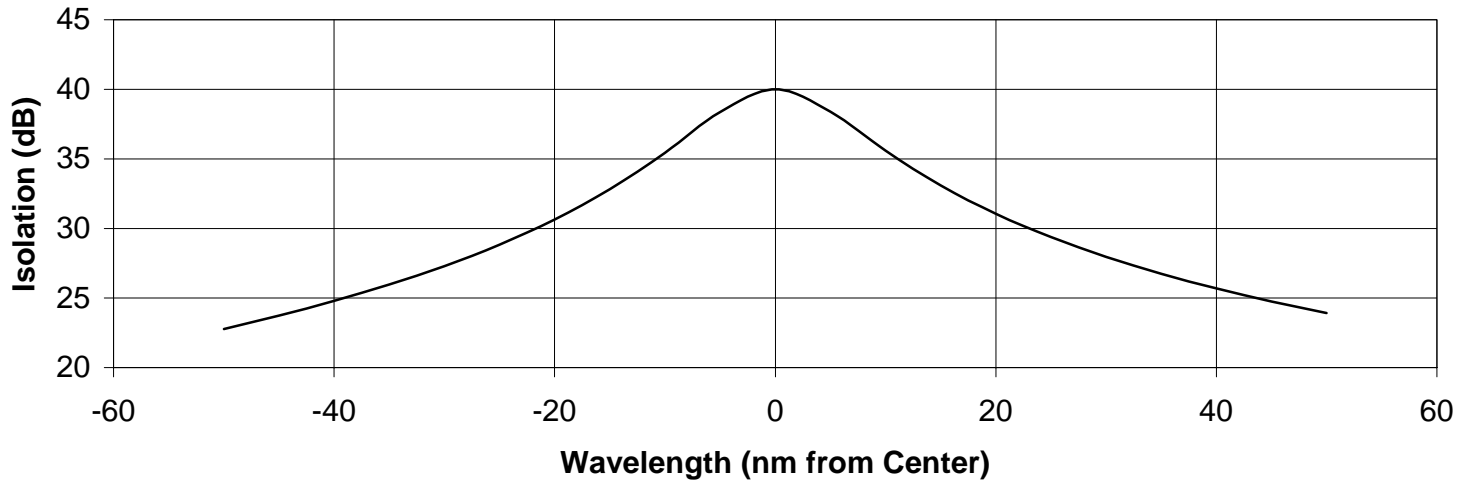
Model Number	WAVELENGTH	OPTIONS	
	Standard Center Wavelength	Tuning Range from Center	Range for Center Wavelength
I-11B	1170	+/-25nm	1150-1180
I-12B/UHP	1220	+/-40nm	1180-1280
I-13B/UHP	1310	+/-60nm	1280-1380
I-14B/UHP	1480	+/-70nm	1430-1510
I-15B/UHP	1550	+/-70nm	1510-1590
I-16B/UHP	1625	+/-75nm	1590-1650
I-17B	1750	+/-75nm	1700-1750
I-21B	2050	+/-50nm	2050-2100



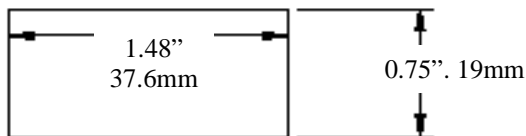
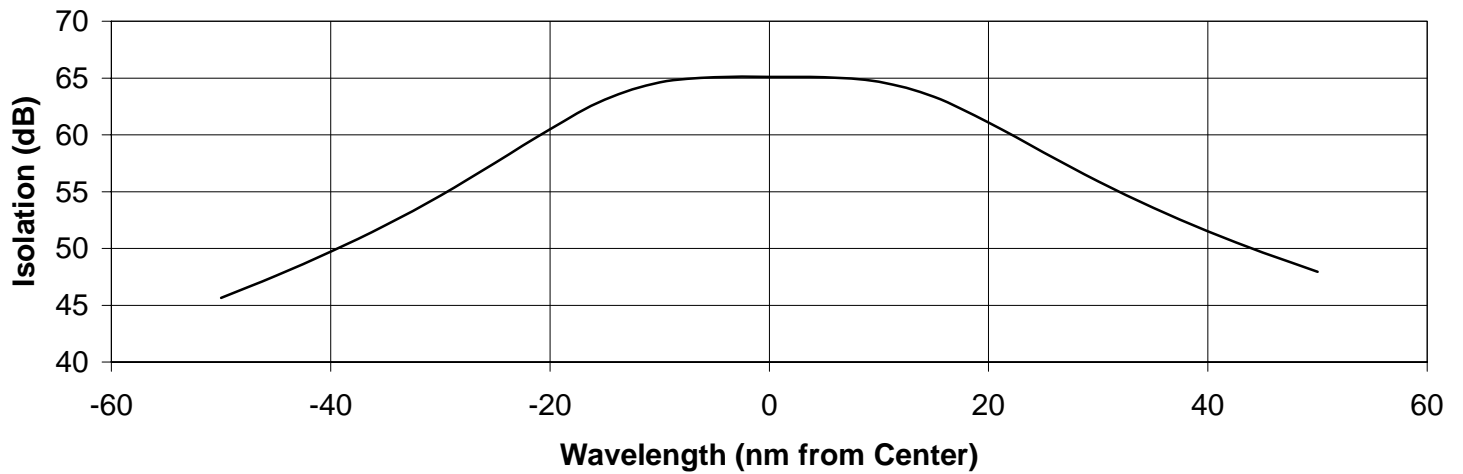
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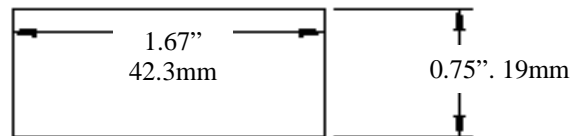
### Single Stage Isolator - Typical Isolation



### UHP - Double Stage Isolator - Typical Isolation



**I-##-4-FR**  
**I-##B-4**



**I-##UHP-4**