

In-Line Isolators

Optical isolation devices integrated through fiber optic coupling

In-line isolators can be divided into two categories according to the fiber types: non-polarization-maintaining and polarization-maintaining in-line isolators.

The non-polarization-maintaining type consists of birefringent crystals, Faraday rotator, half-wave plate or polarimeter, and collimators.

The polarization-maintaining type can achieve the steady transmittance of linear polarized light and remain the polarization state unchanged. It consists of input polarizer, Faraday rotator, half-wave plate, analyzer, and collimators.

CASTECH produces in-line isolators with high isolation, high power handling, high return loss, low insertion loss, excellent environmental stability and high reliability, operating in the wavelength range of 850~2000nm and withstand power can reach up to 500 W. The connection types of the fiber tail can be bare fiber or FC/APC.



Applications

- EDFA
- DWDM Systems
- Optical coherence detection
- Laser sensing
- Fiber communication

CASTECH's products are produced independently throughout the entire process and can be customized according to customer needs. Refer to the following list for standard products.

Non-Polarization-Maintaining Type Model Number: HPISO-t-p-f-λ-e-b-s-d-h

Type(t)	Power(p)	Fiber Type(f)	Wavelength (λ)	Pigtail Diameter(e)	Fiber Length(l)	Filter(b)	Housing (h)
IL (Common)	0.3-500 W	1	980-1940 nm	L	1 (1 m)	C	A03
ID (Dual stage)		(HI1060)		(900 μm Loose Tube)	2 (1.5 m)	(Contained)	A08
		B	...	N (Not Contained)	...
				(3 mm Loose Tube)			

Typical Specification

Withstand Power	Insertion Loss	Peak Isolation
5 W	<0.6 dB *, <0.8 dB **	>33 dB *, >50 dB **
100 W	<0.6 dB	>33 dB
500 W	<0.6 dB	>33 dB

* Only applicable to single-stage isolator

**Only applicable to dual-stage isolator

Housing dimensions(mm):

