

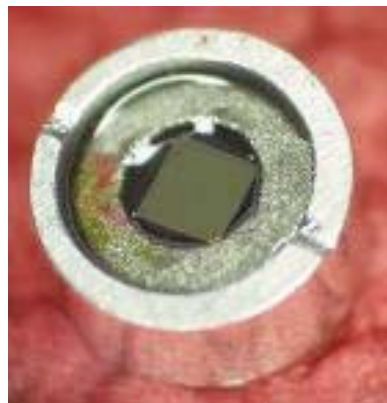
FEATURES:

- High reliability
- Low insertion loss
- High isolation
- Optimized for 1310nm, 1490nm and 1550nm wavelengths
- Wide operating temperature range
- Clear apertures of 0.45mm to 1.1mm available as standard.
- Packaging options include round, open and U shaped housings.

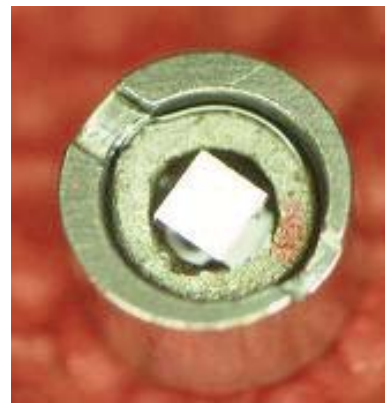
Finisar free space isolators are used in various laser assemblies which require isolation to prevent optical feedback. The isolators offer excellent performance with low insertion loss and high isolation.

Our proprietary bonding process, and years of volume manufacturing experience, result in a high reliability record. Bare isolator chips survive more than 5,000hrs of damp heat testing without delamination.

Available in single stage or semi-double stage options centered at 1310nm, 1490, or 1550nm, the isolators are offered with a range of clear aperture diameters from 0.45mm to 1.1mm as standard. Packaging options include round, open or U shaped housings, see the product selection guide below for further ordering information.



Single stage isolator, round housing.



Semi-double stage isolator, round housing.

SPECIFICATIONS

Single Stage Free Space Isolator

Parameter	Units	Specification		
CWL	nm	1310	1550	1490
Operating Wavelength	nm	1290-1330	1530-1570	1470-1510
Insertion Loss	dB	<0.3		
Minimum Isolation*	dB	>20		
Isolation at Centre Wavelength	dB	>33dB @ 23°C		
Clear Aperture	mm	0.5~1.1 diameter		
Tilt Angle	Degrees	6 +/-1		
Operating Temperature	°C	-40 to 85		
Storage Temperature	°C	-40 to +100		

*Note: Over all wavelengths and temperatures.

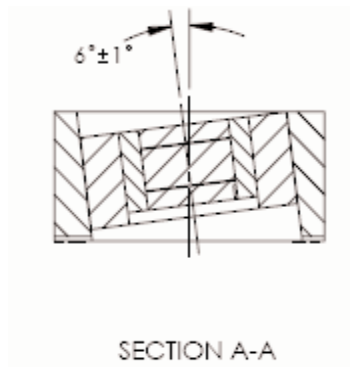
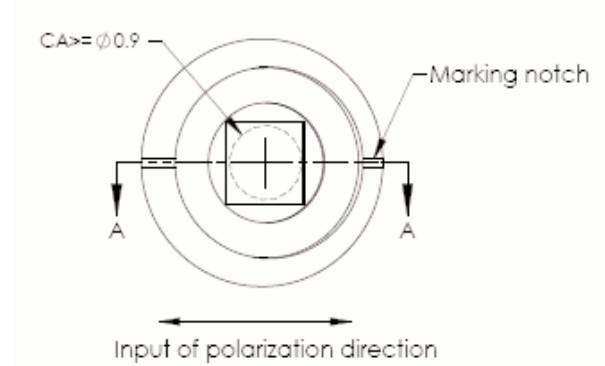
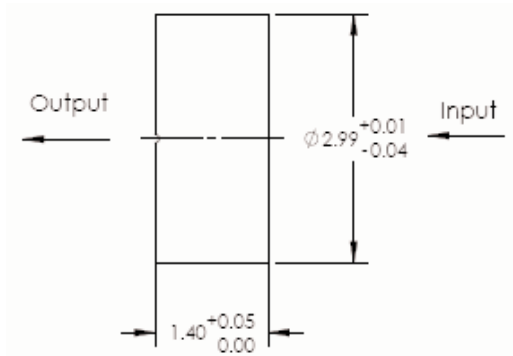
Semi-Double Stage Free Space Isolator

Parameter	Units	Specification			
CWL	nm	1480	1520	1560	1600
Operating Wavelength	nm	1465-1600	1500-1540	1540-1580	1580-1620
Insertion Loss	dB	<0.6			
Minimum Isolation*	dB	>40			
Isolation at Centre Wavelength	dB	>45dB @ 23°C			
Clear Aperture	mm	0.5~1.1 diameter			
Tilt Angle	Degrees	6 +/-1			
Operating Temperature	°C	-40 to 85			
Storage Temperature	°C	-40 to +100			

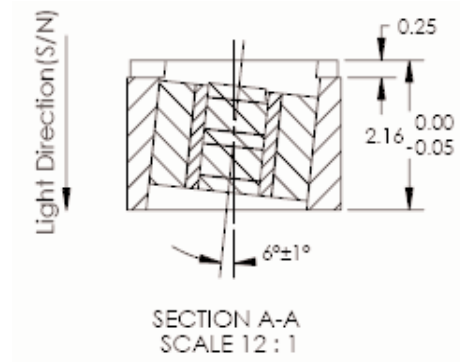
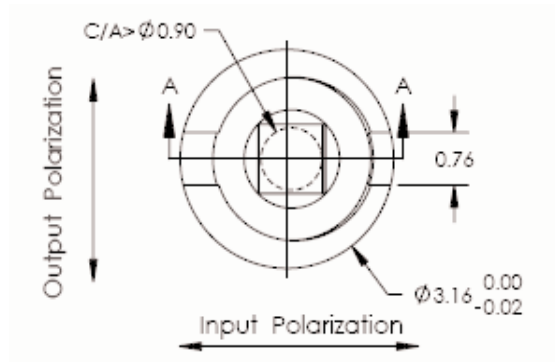
*Note: Over all wavelengths and temperatures.

MECHANICAL DIMENSIONS – IN MM

Single Stage Free Space Isolator - Round Housing

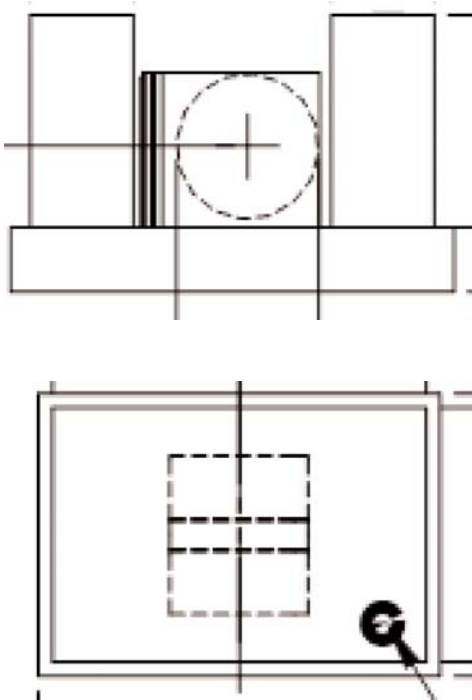


Semi-Double Stage Free Space Isolator - Round Housing

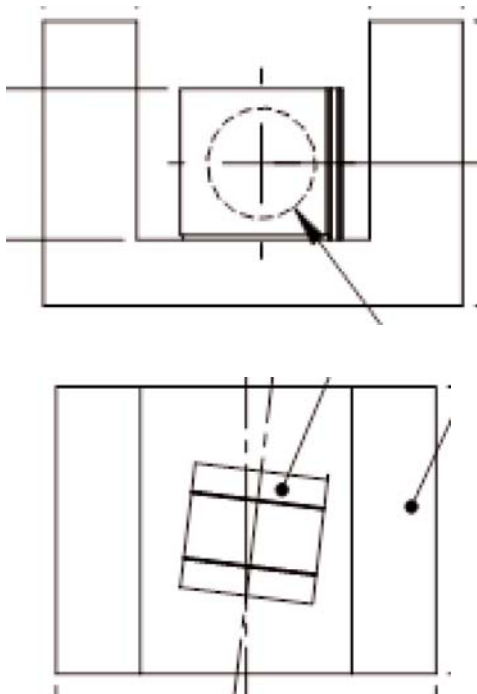


MECHANICAL DIMENSIONS

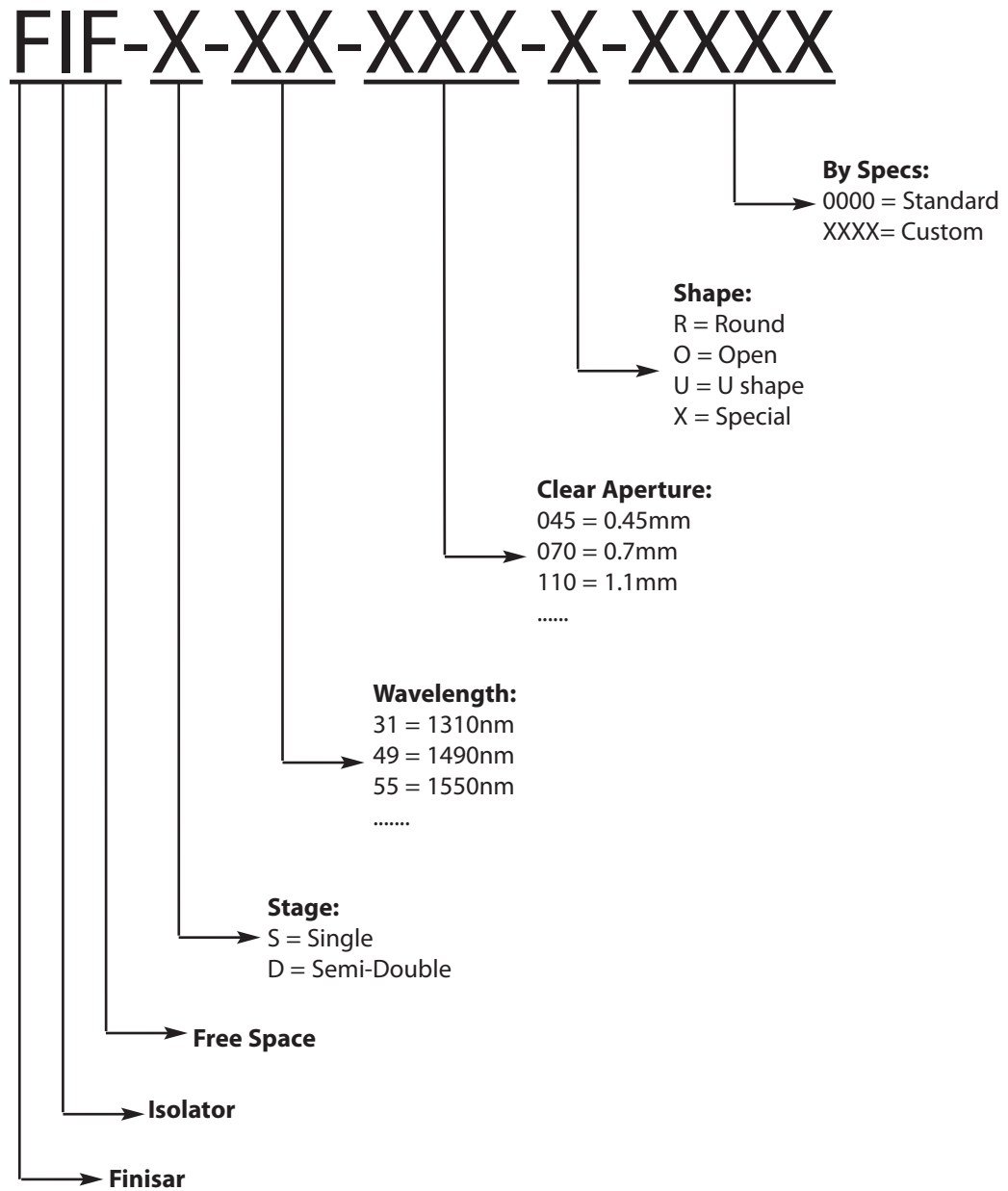
Single Stage Free Space Isolator - Open Housing



Single Stage Free Space Isolator - U Shape Housing



PRODUCT SELECTION



Examples:

- FIF-S-49-090-R-0000** Standard free space isolator, 1490nm, single stage, CA 0.9mm, round
- FIF-D-48-090-R-0000** Standard free space isolator, 1480nm, semi-double stage, CA 0.9mm, round

ADVANCED OPTICAL COMPONENTS

Finisar's ADVANCED OPTICAL COMPONENTS division was formed through strategic acquisition of key optical component suppliers. The company has led the industry in high volume Vertical Cavity Surface Emitting Laser (VCSEL) and associated detector technology since 1996. VCSELs have become the primary laser source for optical data communication, and are rapidly expanding into a wide variety of sensor applications. VCSELs' superior reliability, low drive current, high coupled power, narrow and circularly symmetric beam and versatile packaging options (including arrays) are enabling solutions not possible with other optical technologies. ADVANCED OPTICAL COMPONENTS is also a key supplier of Fabry-Perot (FP) and Distributed Feedback (DFB) Lasers, and Optical Isolators (OI) for use in single mode fiber data and telecommunications networks

LOCATION

- Allen, TX - Business unit headquarters, VCSEL wafer growth, wafer fabrication and TO package assembly.
- Fremont, CA – Wafer growth and fabrication of 1310 to 1550nm FP and DFB lasers.
- Shanghai, PRC – Optical passives assembly, including optical isolators and splitters.

SALES AND SERVICE

Finisar's ADVANCED OPTICAL COMPONENTS division serves its customers through a worldwide network of sales offices and distributors. For application assistance, current specifications, pricing or name of the nearest Authorized Distributor, contact a nearby sales office or call the number listed below.

Finisar
Advanced Optical Components Division

Phone: 1-866-MY-VCSEL USA (toll free)
1-214-509-2700 USA (Direct dial)
44 (0) 174 336 5533 Europe
886-935-409898 China & Taiwan
81-90-4437-1130 Japan
82-11-220-6153 Asia Pacific & Korea

Fax: 1-214-509-3709 USA

Email: salesAOCD@finisar.com
WEB: www.finisar.com/aoc.php

AOC CAPABILITIES

ADVANCED OPTICAL COMPONENTS' advanced capabilities include:

- 1, 2, 4, 8, and 10Gbps serial VCSEL solutions
- 1, 2, 4, 8, and 10Gbps serial SW DETECTOR solutions
- VCSEL and detector arrays
- 1, 2, 4, 8, and 10Gbps FP and DFB solutions at 1310 and 1550nm
- 1, 2, 4, 8, and 10Gbps serial LW DETECTOR solutions
- Optical Isolators from 1260 to 1600nm range
- Laser packaging in TO46, TO56, and Optical subassemblies with SC, LC, and MU interfaces for communication networks
- VCSELs operating at 670nm, 780nm, 980nm, and 1310nm in development
- Sensor packages include surface mount, various plastics, chip on board, chip scale packages, etc.
- Custom packaging options