

Wavelength Division Multiplexer and Demultiplexer Products**Singlemode and Multimode Lensed WDM's****Features**

- High isolation
- Wide bandpass
- Excellent reflectance
- Small footprint

Applications

- Two-way, single-fiber video links
- Instrumentation

Available Collateral

- Customer Drawings

Customizable Features

- Lead Lengths
- Connector Type
- Labels
- Optical Specifications



Tyco Electronics' Multiplexers allow use of a single fiber for simultaneous transmission of two signals of different wavelengths.

Tyco Electronics' Demultiplexers separate the combined wavelengths from the single fiber into individual fibers. The universal MUX/DEMUX's are available for multimode as well as singlemode applications.

Through the use of high-quality dichroic coatings, which act as bandpass filters, numerous wavelength combinations from 400-1600 nm can be accommodated.

Unlike the narrow bandpass of fused multiplexers, the minimum bandpass of these devices around the central wavelength is ± 50 nm. This feature makes these multiplexers ideal for use in broadband communications applications.

These devices are unique in that their optical performance is independent of polarization effects of the light source.

The 7/16 inch [11.9 mm] thick encapsulated devices with monolithic lens structures tolerate vibration and shock; their low profile permits easy printed circuit board mounting.

Specifications — Multimode**Insertion Loss (per FOTP-34, Method A2) —**

Typical	Maximum
0.9 dB	1.3 dB

Directivity (50/125, 62.5/125 only) —

Typical: >55 dB
Minimum: >45 dB

Wavelength Bandpass (nm) —

Typical: 120 nm
Minimum: 100 nm

Return Loss (Reflectance) —

Port 1	≤ -13 dB
Port 2	≤ -15 dB
Port 3	≤ -35 dB

Without connectors

Isolation —

35 dB Minimum (Typical 42 dB)

Fiber Types — 50/125 and 62.5/125

Specifications — Singlemode**Insertion Loss (per FOTP-180) —**

Typical	Maximum
0.9 dB	1.3 dB

Directivity —

Typical: >65 dB
Minimum: >55 dB

Wavelength Bandpass (nm) —

Typical: 120 nm
Minimum: 100 nm

Return Loss (Reflectance) —

Port 1	≤ -40 dB
Port 2	≤ -55 dB
Port 3	≤ -55 dB

Without connectors

Isolation —

35 dB Minimum (Typical 42 dB)

Polarization Sensitivity — <0.1 dB

Fiber Types — (Corning SMF-28)

Temperature**Multimode —**

-40°C to $+65^{\circ}\text{C}$ (Operating)
-40°C to $+75^{\circ}\text{C}$ (Storage)

Singlemode —

-20°C to $+60^{\circ}\text{C}$ (Operating)
-20°C to $+60^{\circ}\text{C}$ (Storage)

Weight — 1.5 oz. [42 grams]

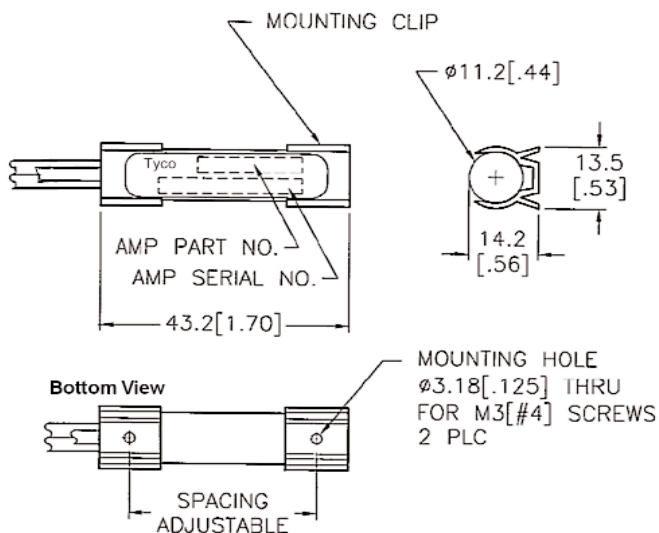
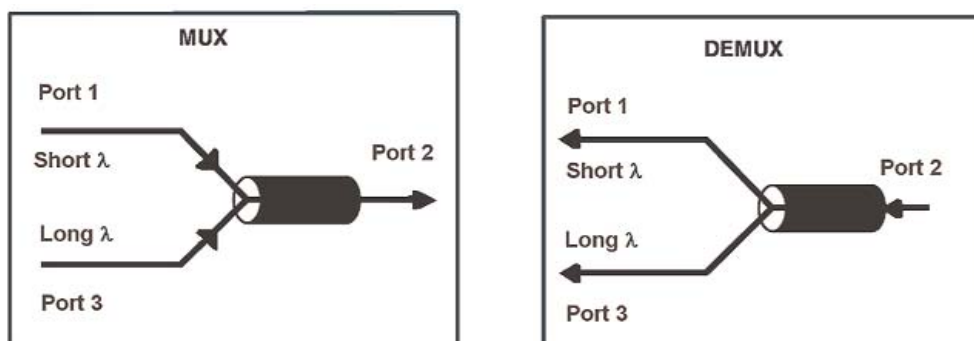
Pigtail — 0.5 meter, [3mm] OD cable, 900 μm OD cable.

Terminations and connectors available on request.

Wavelength Division Multiplexer and Demultiplexer Products (Continued)**Singlemode and Multimode
Lensed WDM's (Continued)****Part Numbers**

Fiber	.5m Cable Length	Connector	850/1310 nm	1310/1550 nm
50/125 Multimode	3mm	ST	99102-2	99105-2
	3mm	None	99108-1	—
	900 μ m	ST	9-99102-2	—
	900 μ m	None	9-99108-1	9-99111-1
62.5/125 Multimode	3mm	ST	99102-3	99105-3
	3mm	None	99108-2	—
	900 μ m	ST	9-99102-3	9-99105-3
	900 μ m	None	9-99108-2	9-99111-2
Singlemode	3mm	FC/APC	—	99717-4
	3mm	None	—	99717-5
	3mm	FC/UPC	—	99717-6
	3mm	ST/UPC	—	99717-7
	3mm	SC/UPC	—	99717-8
	900 μ m	FC/APC	—	9-99717-4
	900 μ m	None	—	9-99717-5
	900 μ m	FC/UPC	—	9-99717-6
	900 μ m	ST/UPC	—	9-99717-7
	900 μ m	SC/UPC	—	9-99717-8

Note: Mux specific versions available when higher return loss required. Contact your local Tyco Electronics Sales Office.

**Application**

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For drawings, technical data or samples, contact your Tyco Electronics sales engineer, call 1-800-522-6752, or visit our Website at: <http://www.amp.com/fiberoptics>. Specifications subject to change. Consult Tyco Electronics for latest specifications.