

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 800-1600 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-180) —

	Maximum
Without connectors	1.3 dB
With 2 connectors	2.3 dB

Change in Transmission over operating temperatures +/- 0.5dB

Directivity (50/125, 62.5/125 only) —
Minimum: >45 dB

Wavelength Bandpass (nm) —
Minimum: 100 nm

Isolation —
35 dB Minimum

Fiber Types — 50/125 and 62.5/125

Specifications — Singlemode

Insertion Loss (per FOTP-180) —

	Maximum
Without connectors	1.3 dB
With 2 connectors	2.3 dB

Change in Transmission over operating temperatures +/- 0.5dB

Directivity —
Minimum: >55 dB

Wavelength Bandpass (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

Polarization Sensitivity — <0.1 dB

Fiber Types — (Corning SMF-28)

Temperature

Multimode —
-40°C to +65°C (Operating)
-40°C to +75°C (Storage)

Singlemode —
-20°C to +60°C (Operating)
-20°C to +60°C (Storage)

Weight — 1.5 oz. [42 grams]

Pigtail — 0.5 meter, [3mm] OD cable, 900 μ m OD cable.
Terminations and connectors available on request.

Wavelength Division Multiplexer and Demultiplexer Products (Continued)

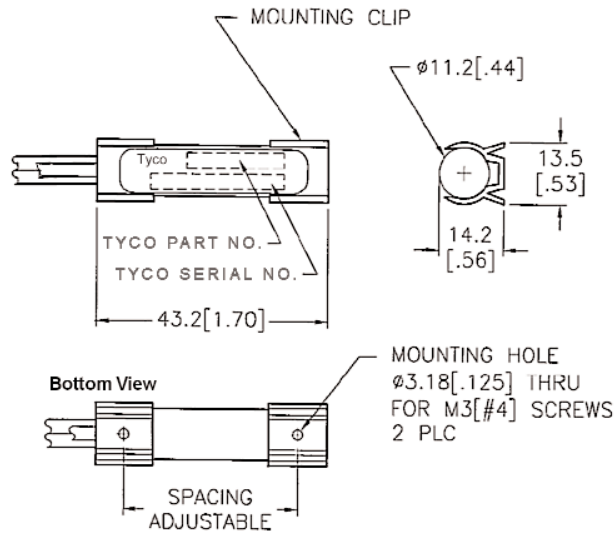
Singlemode and Multimode Lensed WDM's (Continued)

Part Numbers

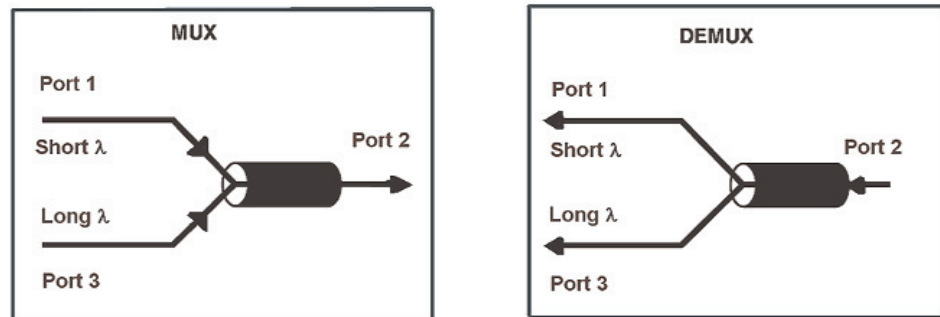
Fiber	.5m Cable Length	Connector	850/1310 nm	1310/1550 nm
50/125 Multimode	3mm	ST	99102-2	99105-2
	3mm	None	99108-1	—
	900µm	ST	9-99102-2	—
62.5/125 Multimode	900µm	None	9-99108-1	9-99111-1
	3mm	ST	99102-3	99105-3
	3mm	None	99108-2	—
	900µm	ST	9-99102-3	9-99105-3
Singlemode	900µm	None	9-99108-2	9-99111-2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

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

For custom mounting options, please contact your local Tyco Electronics' Sales Representative.



Application



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