

# Coarse Wavelength Division Multiplexer – CWDM

## > mux or demux, 4 channels (reduced size)



### Features

- Devices may be used as multiplexer or demultiplexer
- Micro-hybrid construction in a sealed metal housing
- Epoxy-free optical path
- Extremely small component dimensions: 17.1 x 12.5 x 6.5 mm<sup>3</sup>, other dimensions on request
- Fiber packaging: loose tube or 250 μm coating

### Applications

- Combines / separates 4 channels with a 20 nm spacing
- Optimized package for CFP transceiver modules
- According to 40 Gbps IEEE 802.3ba standard

### Specifications

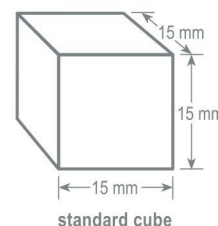
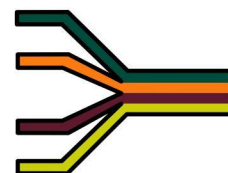
Parameters	Coarse Wavelength Division Multiplexer – mux/demux (all values refer to single mode)		
Channels	4		
Center Wavelength [nm]	1271 / 1291 / 1311 / 1331 other wavelength upon request; please contact CUBO		
Optical Bandwidth	> 13 nm (higher bandwidth on request)		
Insertion Loss *	4 channel CWDM	Standard < 2.0 dB	Premium < 1.5 dB
Isolation **	adjacent channel	> 30 dB	
	non-adjacent channel	> 40 dB	
	Isolation Spectral Range	1260-1460 nm	
Return Loss *	> 45 dB (50 dB typ.)		
Directivity	> 50 dB		
Polarization Dependent Loss	< 0.2 dB		
Max. optical power	250 mW		
Operating Temperature	-5°C to 75°C		
Storage Temperature	-40°C to 85°C (when removed from plastic package)		
Package Dimensions	17.1 x 12.5 x 6.5 mm <sup>3</sup>		

\* With passband, valid over full temperature range and at all states of polarization but without connector losses.

\*\* Valid over full temperature range and at all wavelengths across the channel.

Additional components according to your specifications on request! Please contact Cube Optics for further details.

Our COLOR-Cubes bring color into play.



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## Ordering Information

Indicate your requirements by selecting one option from each configuration table. Please write the corresponding codes in the available boxes to form your part number. For more information on this or other products and their availability, please contact Cube Optics AG at +49-6131-69851-0 or via e.mail at sales@cubeoptics.com, or visit our website at www.cubeoptics.com.

Ordering example: C-40-A-C-S-R-12-1-A-15

C -  -  -  -  -  - 1 2 -  -  -

no. of channels	code	mux or demux code	grade	code	Fiber length	code	Connector in/out*	code
4	40	No distinction* A	Standard	S	0.5 m	A	none	0
		* uniform losses, works as mux or demux	Premium	P			SC/PC	1
							FC/PC	2
							SC/APC**	3
							FC/APC**	4
							LC/PC	5
							MU/PC	6
							E2000	7
							E2000/HRL**	8
							ST/PC	9

housing	code	fiber type an packaging	code
Reduced size	R	Coming SMF-28™ (9,125,250 μm) 900 μm loose tube	1
		Coming SMF-28™ (9,125,250 μm) 250 μm coating	2
		Coming SMF-28™ (9,125,250 μm) 250 μm coating color coded fiber ports	C

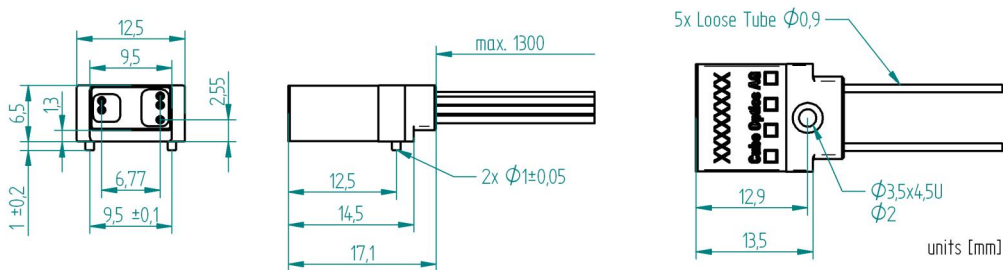
  

Center wavelengths [nm]	code
1271 / 1291 / 1311 / 1331	C

connectors only available in combination with loose tube fiber protection  
 \* device regarded as demultiplexer  
 \*\* 8° angular polishing

Further configuration on request!

## Reduced size 4 channel housing



All housing dimensions +/-0.2 if not otherwise specified.

