

## Motorized Variable Optical Delay Line - MODEL C

Optowaves' motorized variable optical delay line provides precision optical path length adjustment and delay scanning functionality. A stepper motor with high accuracy lead-screw and the sensitive position sensors ensure precise delay control. Low insertion loss and high reliability make this device ideal for integration in optical coherence alignment. Variable Optical Attenuator is an optional built-in component.



Figure 1. Transmissive type with built-in VOA (1130ps)

### Features

- Built-in VOA
- Low insertion loss
- High stability & reliability
- Low cost
- Compact size

### Applications

- Optical Coherence Tomography (OCT)
- Optical fourier spectrum analysis
- Time division multiplexing (TDM)
- Fiber sensors
- Interferometry
- Delay generation & measurement

### Specifications

ITEM		SPECIFICATION		
Optical Delay Range		330ps, 660ps, 1130ps or others		
Operating Mode		Transmissive or reflective		
Operating Wavelength		780~900nm	980~1140nm	1260~1650nm
Insertion Loss		Typ. 2.0, Max 2.5dB	Typ. 1.0dB, Max 1.5dB	
Insertion Loss Variation		± 0.3dB		
PDL		< 0.15dB		
Return Loss		> 55dB		
VOA	Attenuation Range	0 ~ 30dB		
	Ripple	<0.05dB		
	Attenuation Resolution	continuous		
Grade		I	II	
Optical Delay Accuracy		± 3µm	± 20µm	
Optical Delay Repeatability		± 3µm	± 20µm	
Continuous Delay Adjusting Rate		Max. 10mm/s	≥20mm/s	
Optical Delay Resolution		<2µm	<10µm	
Optical Damage Power Threshold		300mW		
Power Supply		12 VDC/ 1A (Drive board)		
Electrical Interface		Stepper motor drive signal & Limit switch sensor connections		
Operating Temperature		0 to 50 °C		
Storage Temperature		-20 to 60 °C		
Operating Relative Humidity		10% to 85%		
Fiber Type		HI 780, HI 1060, SMF-28e+ or others		
Dimensions (L x W x H)		330ps: 154 x 41 x 23 mm <sup>3</sup> 660ps: 215 x 46 x 40 mm <sup>3</sup> 1130ps: 289x45.5x30.5 mm <sup>3</sup>		

Notes: Values are referenced without connectors.

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### Ordering Information

