Gooch & Housego
ENABLING PHOTONIC TECHNOLOGIES

OCT VARIABLE OPTICAL DELAY LINE

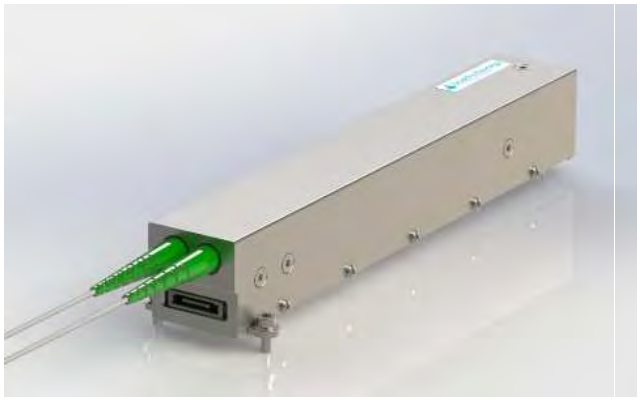
Small Form-Factor

PRELIMINARY PRODUCT DATA SHEET

The Gooch & Housego Variable Optical Delay Line provides fast and accurate optical path length control in a compact housing.

Based on a customisable chassis that can be adapted to incorporate additional optical components, the unit is designed to be easily incorporated into any modular optical coherence tomography (OCT) system architecture.

Optical interface is through a single or dual fiber pigtails which can be specified to length and terminated with all commonly used optical connectors. Internal optical sensors can be used as reference location and travel limit switches.



Key Features

- Point-and-return or dual fiber architecture
- Extremely compact design
- Optical wavebands covered:
  - 850 nm
  - 1060 nm
  - 1310 nm
- Low insertion loss
- Simple system integration
- Highly customisable

Applications

- OCT
- Medical diagnostics
- Industrial NDT
- Scientific

Associated Documents

- OCT coupler 850 nm and 1300 nm
- OCT coupler 1060 nm
- Extreme Wideband OCT coupler
- Fiber Collimators

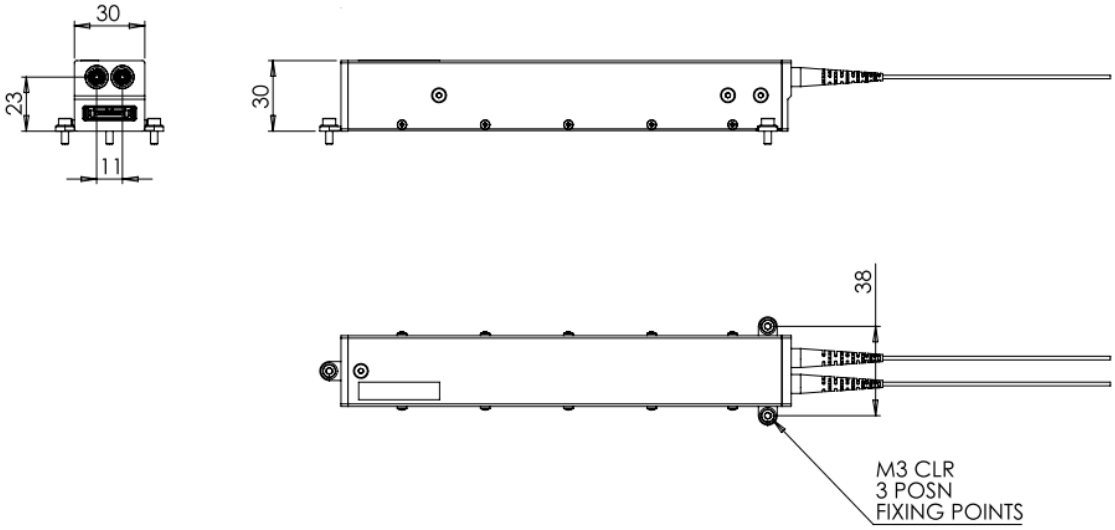
Typical Specifications

Parameter	Value	Notes
Wavelength range	850, 1060 and 1310 nm	Typical spectral bandwidth ±50 nm
Optical input power	≥100 mW	Continuous exposure
Retro-reflector travel range	50-90 mm	Can be customized according to requirements
Optical delay range	333 ps – 1200 ps*	Can be customized according to requirements
Travel speed	25 mm/s	
Travel resolution	5 µm	Can be customized according to requirements
Optical delay resolution	0.03 ps	
Double pass optical IL	≤1.5 dB @1310 nm	
Double pass Il across travel range	≤ ±0.5 dB	
Double pass WDL	≤ ±0.3 dB	
Temperature dependent IL	≤0.5 dB	
Return loss	>55 dB	
Operating temperature range	+10°C to +50°C	Typical
Dimensions	See mechanical outline	Length dimension depends on maximum delay required

* Assumes point-and-return architecture for 90mm travel

Mechanical Outline

Length dimension dependent on optical delay spec.



For further information

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