

## Differential Group Delay Line



### Product Overview

The Phoenix Photonics differential group delay (DGD) line utilises a compact high linear birefringence fiber to provide an accurate fixed differential delay. Based on the technology developed to manufacture high performance Lyot depolarizers, precise differential time delay coils are fabricated. Time delays can be selected from fixed delays to customer selectable delays.

### Delay Line Options

The delay line can be supplied with an integrated polarization controller (PSC).

For applications in which specific polarization state is required for analysis or launch an integrated polarizer at 45deg to the input axis can be supplied.

Single mode fiber pigtailed or standard connector interface.

### Features & Applications

#### FEATURES:

- Low insertion loss
- Near zero back reflection
- All-fiber construction
- Wide wavelength operating range
- Passive operation
- Rugged packaging

#### EXAMPLE APPLICATIONS

- PMD emulator
- PMD compensation
- Sensing

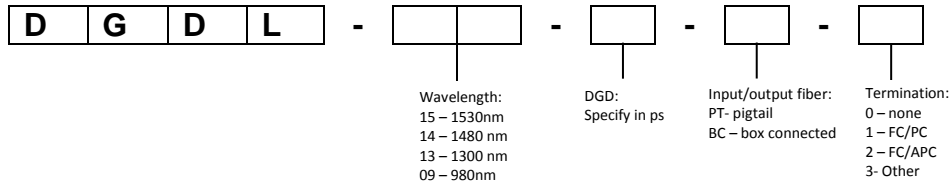
### SPECIFICATIONS

Wavelength range <sup>1</sup>	980nm – 1080nm	1280nm – 1625nm
DGD <sup>2</sup>	Up to 150ps	
Insertion loss <sup>3</sup>	<0.2dB	
Return loss <sup>4</sup>	>70dB	
Operating temperature range	-5 <sup>o</sup> C to 70 <sup>o</sup> C	
Transportation/storage	-40 <sup>o</sup> C to 85 <sup>o</sup> C	
Input Fiber type	HI 1060	SMF28(SM)
Output Fiber type	HI 1060	SMF28 (SM)
Input/output	Pigtails: 1m fiber standard, 900um jacket optional Connector interface: standard termination types	
Box	160x103x305mm	

### Notes to Specifications

- All specifications are worst case for the wavelength range selected; actual products commonly exhibit better specification.
  - All devices are individually tested.
1. The DGD is selectable up to 150ps, for higher values contact Phoenix sales.
  2. Insertion loss excludes termination loss.
  3. Return loss excludes reflections from connectors

### Ordering Information



For more information please contact Phoenix sales:  
[sales@phoenixphotonics.com](mailto:sales@phoenixphotonics.com) or visit us at  
[www.phoenixphotonics.com](http://www.phoenixphotonics.com)