

Differential Group Delay Line



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

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 pigtails or standard connector interface.

SPECIFICATIONS:

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

All dimensions are approximate and may vary slightly.

Notes to Specifications:

- All specifications are worst case for the wavelength range selected; actual products commonly exhibit better specification.
- All depolarizers are individually tested.

1. The devices will provide depolarization over a wide wavelength range for which the fiber is single mode. Performance characteristics are wavelength dependent and the devices will meet specification as follows:

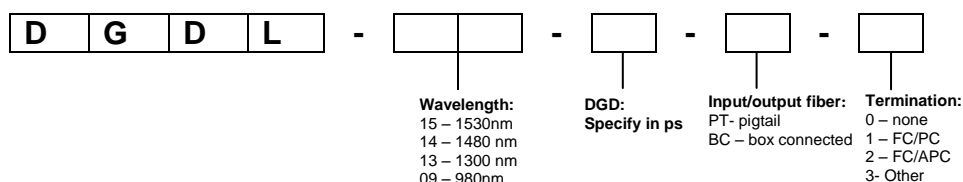
Type 15 – 1530nm to 1625nm
Type 14 – 1420 nm to 1530 nm
Type 13 – 1280nm to 1320nm
Type 09 – 980nm

2. The DGD is selectable up to 150ps, for higher values contact Phoenix sales.

3. Insertion loss excludes termination loss.

4. Return loss excludes reflections from connectors.

PRODUCT ORDERING INFORMATION:



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Fixed differential delay line_01202