



Superior Performance Fiber Optic Depolarizers

Product Overview

The Phoenix Photonics depolarizer is an all-fiber Lyot type device producing pseudo-random polarization output, with low degree of polarization (DOP), for any input state of polarization (SOP).

The depolarizer is a passive device utilizing the coherence properties of the source to randomize the SOP. For optimum performance the depolarizers are designed to match the source spectrum and the range of Phoenix depolarizers will meet the differing requirements of optical sources from broadband ASE's to high power amplifier pump lasers.

High Performance Range

There are two options within the high performance range of depolarizers, both offering superior specification to the standard range of depolarizers. Targeted at measurement applications in which the lowest possible degree of polarization is required, these wideband devices are designed to operate over a large bandwidth of telecommunications wavelengths and provide <1% DOP. For specific requirements outside the specification range below, please contact us.

Technical Information

To ensure optimum performance and price, Phoenix designs its depolarizers to the match customer's source spectrum. Contact a Phoenix Sales representative with the source specification, in particular:

- The source line width (FWHM)
- If the source is a laser, is it single mode or multi-mode?
- If multi-mode, what is the mode spacing?



Features & Applications

FEATURES:

- Extremely low DOP
- Low insertion loss
- Near zero back reflection
- All-fiber construction
- Wide wavelength operating range

APPLICATIONS:

- Optical source polarization randomization
- ASE, SLD and ELED sources
- Polarization measurement systems
- Fiber optic gyroscopes
- Optical fiber sensor systems

For more information please contact Phoenix sales:
sales@phoenixphotonics.com or visit us at
www.phoenixphotonics.com



SPECIFICATIONS

Grade	
Wavelength range ¹	1280nm – 1640nm
Residual extinction ratio ²	<0.1dB
Degree of Polarization ³	<1%
Insertion loss	<0.5dB
Return loss	>70dB
Source linewidth ⁴	>5nm
Operating temperature range ⁷	-5°C to 70°C
Transportation/storage ⁸	-40°C to 85°C
Input Fiber type	SMF28(SM) PANDA (PM)
Output Fiber type	SMF28 (SM) PANDA (PM)
Pigtails	1m fiber standard, 900µm loose tube optional

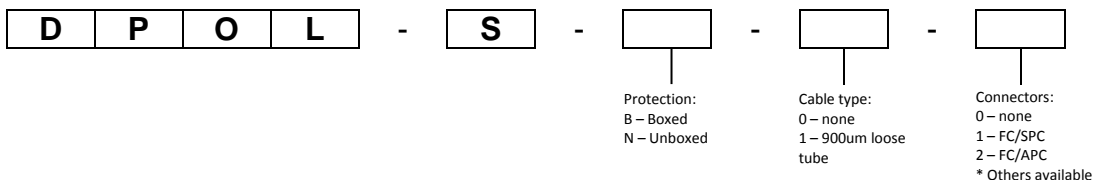
Package Dimensions

Dimensions (mm) LxWxH			
BB	150x95x10	150x95x10	150x95x10
LS	160x103x35.5	160x103x35.5	160x103x35.5
RM	N/A	150x95x10	150x95x10

Notes to Specifications

- All specifications are worst case for the wavelength range.
 - All depolarizers are individually tested.
1. The devices will provide depolarization over a wide wavelength range for which the fiber is single mode.
 2. The residual extinction ratio (RER) is measured for each device during manufacture to ensure specification.
 3. The DOP varies with wavelength increasing at longer wavelengths. Across the specified band the DOP is within the specified value.
 4. Linewidths of 1nm - 5nm can be accommodated, please contact our sales representative.
 5. The operating temperature range is specified for typical telecommunications operation. Please discuss with the sales representative if operation outside the specified range is required.
 6. The devices are very robust for storage and transportation.

Ordering Information



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