

Raman Pump Laser Depolarizer



FEATURES:

- Low DOP
- Low insertion loss
- Near zero back reflection
- All-fiber construction
- 14XX operation
- Passive operation
- Rugged packaging
- Integrated polarizer option

The **Phoenix Photonics** Raman pump laser depolarizer is an all-fiber device producing pseudo-random polarization output, with low degree of polarization (DOP).

Designed specifically to meet the requirements of PDG reduction in Raman Amplifiers, this depolarizer can be spliced directly to the laser or to the polarization multiplexer PM fiber pigtail.

A single unit will depolarize at any of the 14XX pump wavelengths.

DEPOLARIZER OPTIONS

The standard device has a polarization maintaining (PM) fiber input and depolarizes separate laser sources input to the fast and the slow axes of the fiber. When used following a polarization multiplexer, both polarization modes are depolarized providing an even power distribution from both fiber axes.

An integrated polarizer option is available for use directly from the pump laser to 'clean up' the linear SOP from the laser to improve depolarizer stability.

SPECIFICATIONS

Wavelength range ¹	1420nm to 1500nm
Residual extinction ratio ²	<0.2 dB
Degree of Polarization ³	<5%
Insertion loss ⁴	<1dB (<1.5dB with polarizer)
Return loss ⁵	>70dB
Operating temperature range ⁶	-5 ⁰ C to 70 ⁰ C
Transportation/storage ⁷	-40 ⁰ C to 85 ⁰ C
Input Fiber type	Corning Puremode PANDA 400µm coating
Output Fiber type	Corning SMF 28
Pigtails	1m fiber standard, 900µm loose tube optional
Dimensions	150x95x10 mm

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.

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 5%.

4. Insertion loss is typically 0.7dB without integrated polarizer and 1dB with the polarizer.

5. The all-fiber technology gives an excellent return loss figure of >70dB.

6. The operating temperature range is specified for typical telecommunications operation.

7. The devices are very robust for storage and transportation.

PRODUCT ORDERING INFORMATION:

D P O L - **R M** - **1 4** - **P S** - -

Polarizer:
0 – none
1 – integrated at input

Cable type:
0 – none
1 – 900µm loose tube

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