

POLARIZATION-STATE SCRAMBLER RCPS-600



FIBER CONTROL INDUSTRIES Resonant-Coil Polarization Scrambler converts highly polarized light into light with a scrambled polarization by rapidly modulating the state-of-polarization — creating a time-varying birefringence within the fiber.

Typical function generators (± 10 Volts, $Z_0 = 50 \Omega$) provide adequate power for operation near 600 kHz. Optional integrated booster amplifiers extend the range of modulation frequencies up to 1 MHz.

FEATURES:

- User-friendly bench-top unit
- Fully licensed
- Broad range of modulation frequencies
- Connectorized input/output
- Low back-reflection
- Low insertion loss

APPLICATIONS:

- Reduce the effect of PDL of measurements within optical test-sets
- Reduce polarization-dependent effects within EDFA based optical transmission systems



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SPECIFICATIONS (Optical, Electrical, Physical):

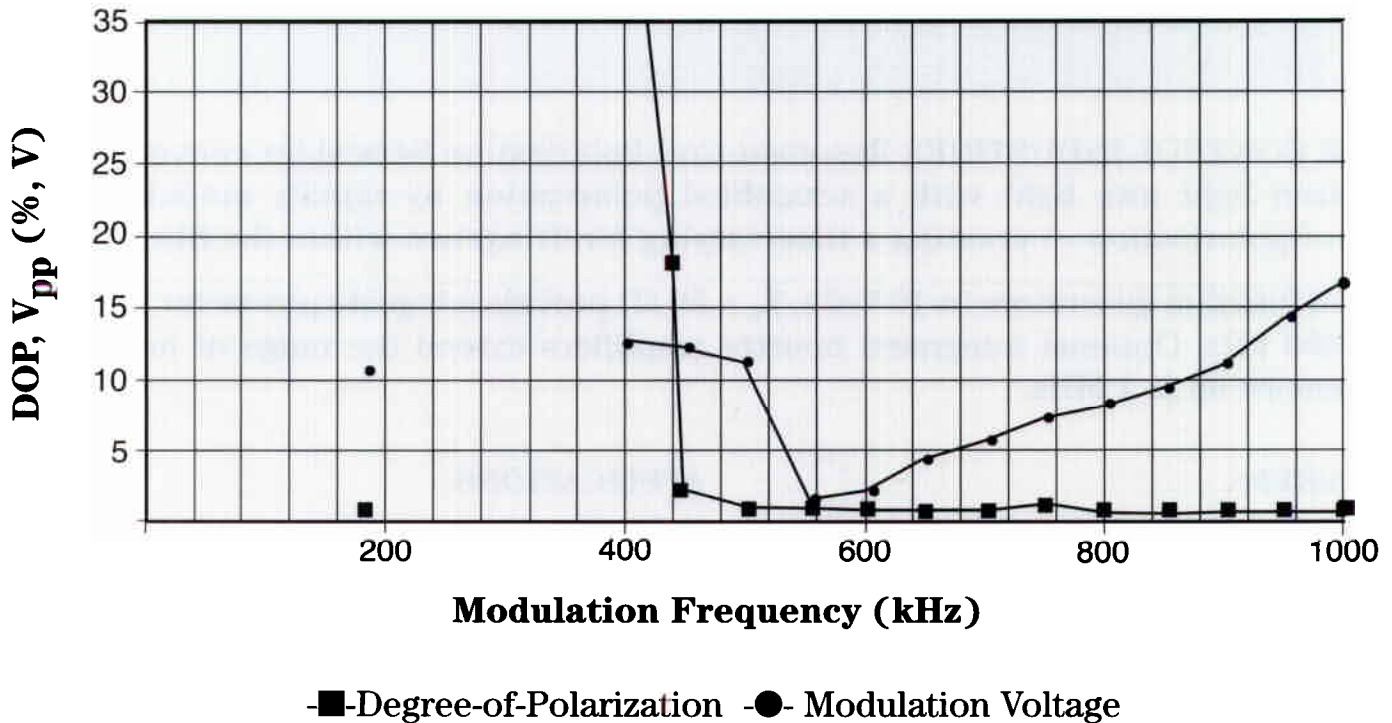
Optical input/output connectors	FC/UPC or FC/APC (Molex®)
Minimum Degree-of-Polarization @ 600 kHz	< 2 % (typical)
Insertion-loss	< 1 dB
Return loss	> 50 dB, > 60 dB (with FC/UPC or FC/APC)
Electrical Input connector	BNC Connector (AMP®)
Modulation Rate* (nominal)	600 kHz, 600 kHz - 1 MHz
Modulation Signal Waveform	Sine
Modulation Voltage, 50 Ω @ 600 kHz	< 20 V _{pp}
Resonant Coil Material	Piezoelectric Ceramic (PZT)
Physical dimensions	7x19x26 cm (2¾ x 7½ x 10¼)

* - including option B

OPTIONS:

- model RCPS-600B (600 kHz - 1 MHz) — see curve below

Degree-of-Polarization and Drive Voltage vs. Modulation Frequency



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