



GMS Software

Product Description

The PDL5 Polarization Dependent Loss Meter is built on top of stable and proven MBR5 meter technology and takes it to the next level. Improved source isolation, electronics, optics, and continuous laser power referencing enhance the performance to allow for repeatable and stable measurements. The meter is capable of providing PDL, IL and average IL measurements with a resolution of 0.001 dB while BR measurements have a 0.1 dB resolution.

The PDL5 is the practical choice for many types of fiber-optic component testing. It is available with up to 4 internal sources (1310/1490/1550/1625/1650 nm), calibrated external inputs, and multiple detectors.

An intuitive display and keypad simplifies the collection and management of measurement data allowing quick access to test results from various channels. The meter may be controlled through remote interface (GPIB, RS232, or USB*) or locally via the user-friendly front panel keypad and display. The PDL5 can be used with our free GMS software which can also control our SX1/SX8 optical switches for added functionality.

*USB interface via-USB-DB9 adapter

KEY FEATURES

- Ultra stable and accurate PDL, IL and BR measurements
- Up to 4 internal lasers
- Up to 2 output channels or detectors
- 4 or 6 states Mueller Matrix methods
- Resolution down to 0.001 dB
- ~1 second PDL measurements

APPLICATIONS

- Optical component testing
- Incoming inspection
- QA testing

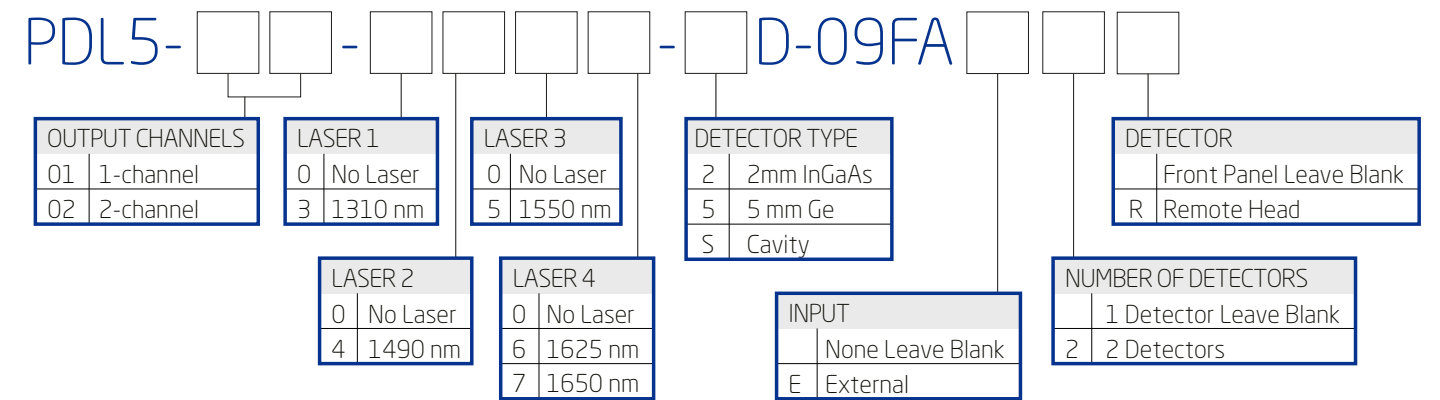
COMPLIANCE

- UL/CSA 61010
- IEC 61010
- IEC 60825-1 (Class 1)
- FCC Part 15 (Class A)
- EN 61326 (Class A)

IN THE BOX

- PDL5
- AC power cord
- Calibration certificate
- Calibrated jumper
- Hybrid test jumper
- SD00 detector cap
- SD01 FC detector adapter
- MW3 mandrel wrap

Ordering Scheme



*Additional options may be available upon request

Optical/Electrical Specifications

Parameter	Specification	
Fiber Type (µm)	SMF-28e (9/125)	
Operating Wavelengths (nm)	1310 / 1490 / 1550 / 1625 / 1650/ Ext	
Detector Type	2mm InGaAs	5mm Ge
Power Range (dBm)	5 to -80	5 to -60
PDL Accuracy		
@ 1550nm (dB)	+/- (0.005 + 2% of PDL)	+/- (0.010 + 2% of PDL)
@ 1310/1490/1625/1650nm (dB)	+/- (0.010 + 2% of PDL)	+/- (0.015 + 2% of PDL)
PDL Calculation method	Mueller Matrix	
PDL Dynamic Range (dB)	0 to 3	
Absolute Power Accuracy (dB) ¹	±0.25	
Relative Power Accuracy (dB)	+/- 0.05 (< 5 dB loss) +/- 0.15 (> 5 dB loss)	
PDL Measurement time (s) ²	0.7	
Backreflection Range (dB)	0 to -75	
Backreflection Accuracy (dB) ³	0.4	
Remote Interface	GPIB / RS-232 / USB ⁴	
Input Voltage	100 - 240 V AC, 50 - 60 Hz	
Power Consumption (VA)	80 maximum	
Display	4 lines, 16 character per line, LCD	

Notes:
¹ Measured at -10 dBm.
² 4-state mode. Add 0.5s in 6 state mueller matrix mode.
³ Add 0.1 dB to the spec for every 1dB below -60dB.
⁴ USB interface via USB-DB9 adapter.

Mechanical/Environmental Specifications

Parameter	Specification
Unit Dimensions W x H x D (cm)	36 x 15 x 34
Shipping Box Dimensions W x H x D (cm)	43 x 27 x 47
Unit Weight (kg)	9
Total Shipment Weight (kg)	10
Operating Temperature (°C)	0 to 40
Storage Temperature (°C)	-40 to 60
Humidity (Non-condensing)	Maximum 95% RH from 0 to 40°C

