

# PH

10 pW to 750 mW, Si and Ge sensors



## KEY FEATURES

- > **LARGE APERTURES**  
10 mm Ø for the silicon sensors
- > **3 VERSIONS**
  - Silicon: 350 - 1080 nm, up to 750 mW
  - Silicon-UV: 210 - 1080 nm, up to 38 mW
  - Germanium: 800 - 1650 nm, up to 500 mW
- > **CHOICE OF ATTENUATORS**
  - OD0.3: 50% transmission (for PH100-SIUV only)
  - OD1: 10% transmission
  - OD2: 1% transmission
- > **HIGH ACCURACY**  
The PH100-SI-HA presents the lowest calibration uncertainty to date
- > **PRECISE CALIBRATION**  
Wavelength selection in 1 nm steps

## OD ATTENUATORS

OD attenuators sold in option. When bought together, the detector is calibrated with and without the attenuator.



PH series detector with OD attenuator

## OUTPUT OPTIONS

- > **SMART DB15 CONNECTOR**  
Contains all the calibration data
- > **integra ALL-IN-ONE-METER**  
Connects directly to a PC  
Two models available:
  - USB output (-INT)
  - RS-232 output (-IDR)

## COMPATIBLE DISPLAYS & PC INTERFACES



MIRO ALTITUDE



MAESTRO



TUNER



UNO



U-LINK and P-LINK



M-LINK

## ACCESSORIES



Stand with delrin post



Extension cables  
(4, 15, 20 or 25 m)



Fiber adaptors & connectors  
(FC, SC, ST and SMA)



Attenuateurs OD






Malette de transport Pelican

# PH

Specifications

CE NIST\*  
Traceable  
\*Also traceable to NRC-CNRC



	PH100-SI-HA-D0	PH100-SIUV-D0	PH20-GE-D0
<b>MAX AVERAGE POWER*</b> (ALONE / WITH MAX ATTENUATION)	36 mW / 750 mW	4 mW / 38 mW	30 mW / 500 mW
<b>EFFECTIVE APERTURE</b>	10 mm $\phi$	10 mm $\phi$	5 mm $\phi$
<b>MEASUREMENT CAPABILITY</b>			
<b>Calibrated spectral range</b>	350 - 1080 nm	210 - 1080 nm	800 - 1650 nm
<b>With OD0.3</b>	---	210 - 1080 nm	---
<b>With OD1</b>	400 - 1080 nm	400 - 1080 nm	900 - 1650 nm
<b>With OD2</b>	630 - 1080 nm	---	950 - 1650 nm
<b>Maximum measurable power*</b>	36 mW at 1064 nm	4 mW at 532 nm	30 mW at 1064 nm
<b>With OD0.3</b>	---	16 mW at 300 nm	---
<b>With OD1</b>	300 mW at 1064 nm	38 mW at 532 nm	300 mW at 1064 nm
<b>With OD2</b>	750 mW at 1064 nm	---	500 mW at 1064 nm
<b>Noise equivalent power <sup>a</sup></b>	10 pW at 980 nm	10 pW at 850 nm	60 pW at 1550 nm
<b>Rise time (nominal)</b>	0.2 s	0.2 s	0.2 s
<b>Calibration uncertainty</b>	$\pm 5.0\%$ (350 - 399 nm) $\pm 2.0\%$ (400 - 449 nm) $\pm 1.5\%$ (450 - 809 nm) $\pm 2.0\%$ (810 - 899 nm) $\pm 4.0\%$ (900 - 1009 nm) $\pm 7.5\%$ (1010 - 1080 nm)	$\pm 18\%$ (210 - 229 nm) $\pm 8.0\%$ (230 - 254 nm) $\pm 6.5\%$ (255 - 399 nm) $\pm 2.5\%$ (400 - 899 nm) $\pm 4.0\%$ (900 - 1009 nm) $\pm 7.5\%$ (1010 - 1080 nm)	$\pm 5.0\%$ (800 - 1049 nm) $\pm 3.5\%$ (1050 - 1559 nm) $\pm 7.0\%$ (1560 - 1629 nm) $\pm 10\%$ (1630 - 1650 nm) --- ---
<b>Calibration uncertainty (with OD filters)</b>	$\pm 5.0\%$ (400 - 419 nm) $\pm 4.0\%$ (420 - 899 nm) $\pm 5.0\%$ (900 - 1009 nm) $\pm 7.5\%$ (1010 - 1080 nm)	Same as without attenuator --- --- ---	$\pm 5.0\%$ (900 - 1559 nm) $\pm 7.0\%$ (1560 - 1629 nm) $\pm 10\%$ (1630 - 1650 nm) ---
<b>DAMAGE THRESHOLDS</b>			
<b>Maximum average power density</b>	100 W/cm <sup>2</sup>	100 W/cm <sup>2</sup>	100 W/cm <sup>2</sup>
<b>PHYSICAL CHARACTERISTICS</b>			
<b>Effective aperture</b>	10 mm $\phi$	10 mm $\phi$	5 mm $\phi$
<b>Distance to sensor face</b>	13.7 mm	13.7 mm	10.5 mm
<b>Sensor</b>	Silicon	UV-Silicon	Germanium
<b>Dimensions</b>	38.1 $\phi$ x 27.4D mm	38.1 $\phi$ x 27.4D mm	38.1 $\phi$ x 27.4D mm
<b>Weight (head only)</b>	130 g	130 g	130 g
<b>ORDERING INFORMATION</b>			
<b>Available output options</b>	DB15, USB or RS-232	DB15, USB or RS-232	DB15, USB or RS-232
<b>Compatible stand</b>	Stand-D-233	Stand-D-233	Stand-D-233
<b>Product page</b>			

\* See curves (p. 62-64) for maximum power at other wavelengths

a. Nominal value. Depends on environmental electromagnetic interference and wavelength.

Specifications are subject to change without notice