



PH

10 pW to 750 mW, Si and Ge Sensors



KEY FEATURES

1. **LARGE APERTURES**
10 mm Ø for the Silicon sensors
2. **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
3. **CHOICE OF ATTENUATORS**
 - OD0.3: 50 % Transmission (for PH100-Si^{UV} only)
 - OD1: 10 % Transmission
 - OD2: 1 % Transmission
4. **HIGH ACCURACY**
The PH100-Si-HA presents the lowest calibration uncertainty to date
5. **PRECISE CALIBRATION**
Wavelength selection in 1 nm steps
6. **SMART INTERFACE**
Containing all the calibration data
7. **integra OPTIONS**
 - Standard: USB Output (-INT)
 - In Option: RS-232 Output (-IDR)

AVAILABLE MODELS



PH100-Si-HA
(10 mm - Silicon)



PH100-Si^{UV}
(10 mm - UV-Silicon)



PH20-Ge
(5 mm - Germanium)

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

ACCESSORIES



Stand with Delrin Post
(Model Number: 200428)



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



Fiber Adaptors & Connectors
(FC, SC, ST and SMA)



OD Attenuators



Pelican Carrying Case

SEE ALSO

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COMPATIBLE MONITORS	
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APPLICATION NOTE

CALIBRATION UNCERTAINTY
OF PHOTO DETECTORS

[202174](#)

MONITORS

ENERGY DETECTORS

POWER DETECTORS

HIGH POWER SOLUTIONS

PHOTO DETECTORS

THZ DETECTORS

OEM DETECTORS

SPECIAL PRODUCTS

BEAM DIAGNOSTICS

PH



*Also traceable to NRC-CNRC

SPECIFICATIONS

	PH100-Si-HA	PH100-Si ^{UV}	PH20-Ge			
MAX AVERAGE POWER* (ALONE / WITH MAX ATTENUATION)	36 mW / 750 mW	4 mW / 38 mW	30 mW / 500 mW			
EFFECTIVE APERTURE	10 mm Ø	10 mm Ø	5 mm Ø			
MEASUREMENT CAPABILITY						
Spectral Range	350 – 1080 nm	210 – 1080 nm	800 – 1650 nm			
With OD0.3	---	210 – 1080 nm	---			
With OD1	420 – 1080 nm	400 – 1080 nm	900 – 1650 nm			
With OD2	630 – 1080 nm	---	950 – 1650 nm			
Maximum Measurable Power*	36 mW @ 1064 nm	4 mW @ 532 nm	30 mW @ 1064 nm			
With OD0.3	---	11 mW @ 300 nm	---			
With OD1	300 mW @ 1064 nm	38 mW @ 532 nm	300 mW @ 1064 nm			
With OD2	750 mW @ 1064 nm	---	500 mW @ 1064 nm			
Noise Equivalent Power ^a	10 pW @ 980 nm	10 pW @ 850 nm	60 pW @ 1550 nm			
Rise Time (nominal)	0.2 sec (0.45 sec INTEGRA)	0.2 sec (0.45 sec INTEGRA)	0.2 sec (0.45 sec INTEGRA)			
Peak Sensitivity	0.5 A/W @ 980 nm	0.45 A/W @ 850 nm	0.98 A/W @ 1550 nm			
Calibration Uncertainty	±6.0 % (350 - 399 nm)	±8 % (200 - 219 nm)	±3.5 % (800 - 1650 nm)			
	±2.0 % (400 - 449 nm)	±6.5 % (220 - 399 nm)	---			
	±1.5 % (450 - 940 nm)	±2.5 % (400 - 899 nm)	---			
	±2.0 % (941 - 980 nm)	±3.5 % (900 - 999 nm)	---			
	±5.0 % (981 - 1049 nm)	±5 % (1000 - 1049 nm)	---			
	±7.0 % (1050 - 1080 nm)	±7 % (1050 - 1080 nm)	---			
Calibration Uncertainty (with OD filters)	±4.0 % (420 - 980 nm)	±5 % (210 - 1049 nm)	±5 %			
	±5.0 % (981 - 1049 nm)	±7 % (1050 - 1080 nm)				
	±7.0 % (1050 - 1080 nm)					
DAMAGE THRESHOLDS						
Maximum Average Power Density	100 W/cm ²	100 W/cm ²	100 W/cm ²			
PHYSICAL CHARACTERISTICS						
Effective Aperture	10 mm Ø	10 mm Ø	5 mm Ø			
Distance to Sensor Face	13.7 mm	13.7 mm	10.5 mm			
Sensor	Silicon	UV-Silicon	Germanium			
Dimensions	38.1Ø x 27.4D mm	38.1Ø x 27.4D mm	38.1Ø x 27.4D mm			
Weight (head only)	130 g	130 g	130 g			
ORDERING INFORMATION						
	Standard	Add Ext. for INTEGRA (USB) (RS-232)	Standard	Add Ext. for INTEGRA (USB) (RS-232)	Standard	Add Ext. for INTEGRA (USB) (RS-232)
Product Name	PH100-Si-HA-D0	-INT -IDR	PH100-SiUV-D0	-INT -IDR	PH20-Ge-D0	-INT -IDR
Product Number (without stand)	202681	202782	200879	202788	200866	202794
Product Name (with OD0.3)			PH100-SiUV-OD.3	-INT		
Product Number (without stand)			202679	202792		
Product Name (with OD1)	PH100-Si-HA-OD1	-INT -IDR	PH100-SiUV-OD1	-INT -IDR	PH20-Ge-OD1	-INT -IDR
Product Number (without stand)	202683	202784	200881	202790	200874	202796
Product Name (with OD2)	PH100-Si-HA-OD2	-INT -IDR			PH20-Ge-OD2	-INT -IDR
Product Number (without stand)	202685	202786			200875	202798

Specifications are subject to change without notice // Compatible stand: P/N 200428

* See curves (p. 126-129) for maximum power at other wavelengths

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