

Probe Catalog

Version 4.2 – February 2024

G5 “Goccia” Optical probe:

The G5 optode is water proof, flexible and durable. With adaptive geometry also for curved surfaces, and improved ambient light rejection, this probe features a built in contact sensor. Equipped with smart IRFBOX and holder. The recommended applications are in-vivo measurements (adults and babies), sport and exercise measurements, clinical studies and trials.



Source-detection separation¹	25 mm
Dimensions	55.0 mm (W) x 30.0 mm (L) x 8.5 mm (H)
Main body flexibility²	Medium
Optical fibers	PIONIRS POF fibers (source and detection), FC/PC connectors
Standard cabling length	1.5 m
Contact sensor	Yes
Typical measurement sites	Muscles, forehead

H2 Optical probe:

The H2 optode features vertical illumination and retractable fiber tips. It has easy mount flexible adapter with adaptable interfiber distance. The probe is highly flexible with orientable fiber cables. Ideal for in-vivo measurements on head, also in presence of hair, and functional-NIRS (fNIRS) measurements.



Source-detection separation¹	20 mm to 30 mm
Dimensions	60 mm (W) x 20 mm (L) x 15 mm (H)
Main body flexibility²	High
Optical fibers	2x1 PIONIRS fiber bundle (source), PIONIRS POF fiber (detection), FC/PC connectors
Standard cabling length	1.5 m or 3.0 m
Contact sensor	No
Typical measurement sites	Head, through hair, Fp1, ... C1, C3, ... , visual cortex, etc.

B5 Optical probe:

The B5 optode is our first choice for a plug-and-play solution, optimal for in-vivo measurements during extreme tasks. It is the most compact PIONIRS probe (less than 7 mm thickness). The recommended applications are: in-vivo measurements, sport and exercise measurements.



Source-detection separation¹	30 mm
Dimensions	37.7 mm (W) x 28.5 mm (L) x 6.5 mm (H)
Main body flexibility²	Medium
Optical fibers	PIONIRS POF fibers (source and detection), FC/PC connectors
Standard cabling length	1.5 m
Contact sensor	No
Typical measurement sites	Muscles, forehead

P1 “Penna” Optical probe:

The P1 optode is a hand held vertical illumination probe, with ergonomic handle, apt for single-shot measurements. The recommended applications are head measurements through hair and in-vivo veterinary medicine. The P1 optode has IP65 impermeability grade.



Source-detection separation¹	25 mm
Dimensions	43 mm (W) x 22 mm (L) x 120 mm (H)
Main body flexibility²	N/A (rigid probe)
Optical fibers	2x1 PIONIRS fiber bundle (source), PIONIRS POF fiber (detection), FC/PC connectors
Standard cabling length	1.5 m or 3.0 m
Contact sensor	No
Typical measurement sites	Head (through hair), veterinary application

SI Optical Probe:

The SI optode is an easy-to-use fiber replaceable solution, optimal for measurement on semi-planar surfaces. Thanks to its compactness and high durability, it is optimal for optical tissue characterization, either on phantoms and ex-vivo.



Source-detection separation¹	30 mm
Dimensions	48 mm (W) x 20 mm (L) x 11.3 mm (H)
Main body flexibility²	Low
Optical fibers	2x1 PIONIRS fiber bundle (source), PIONIRS POF fiber (detection), FC/PC connectors
Standard cabling length	1.5 m or 3.0 m
Contact sensor	No
Typical measurement sites	Phantoms, ex-vivo tissue

¹ Source – Detection (SD) separation (distance) is the mean distance between the illumination point and the detection location, the SD can be customized upon request.

² Internal flexibility scale: Low – Medium – High

NOTE:

Products are intended to be used for research applications only, not sold as medical device. Products are not intended to be used for diagnosis or disease treatments. Specifications and data are preliminary and may be subject to changes, to improve function, reliability or design. This document should not be reproduced or distributed without written consent. © PIONIRS s.r.l. 2024