# PiCOEXPLORER™

# PHOTO ABSORBANCE SENSOR (PAS)

The PiCOEXPLORER™ is a compact photometer suitable for quantitative colorimetric or optical density measurements. The unique absorption sensor uses a novel concept design to suppress optical scattering and reduce scattered light noise. The patented sensor technology developed by USHIO allows the use of a visible spectrum LED source. Powered by three 1.5V AAA batteries, the PicoExplorer™ is a low cost space-saving portable analytical tool.

The PiCOEXPLORER is controlled through wireless communication to a tablet, smartphone or other mobile device. The software application allows for rapid quantitative measurement of colorimetric assays including assays for protein, nucleic acid, heavy metals, organic molecules and carbohydrates. Measurements are done using a micro- or PCR-tube. No special cuvettes are needed and assays can be performed in a closed tube thereby reducing the potential for contamination or spillage of hazardous materials.

The built-in calibrator function permits quantitative measurments. Results are displayed on an easy-to-read screen and can be downloaded to a portable text file in a spreadsheet format for data recording and analysis offline.

#### Accurate and Affordable Photometer

# **FEATURES & BENEFITS:**

- Free Up Dedicated Resources
- Use anywhere, on a lab bench, under a laboratory hood
- Quick results on one-off analysis
- No Pipettes or Cuvettes
  - Analyze directly in unopened PCR tube
  - Reduced contamination risk
  - No sample loss
- · Mobile App Connectivity
  - Bluetooth-enabled
  - Free app for quick results on your mobile device
- Super Affordable and Productive
  - No special consumables

# **PRIMARY APPLICATION:**

- · Laboratory Research
- · Field Research
- Biomanufacturing
- · Teaching Laboratory



Available in Canada from...





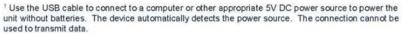


Photo Absorbance Sensor (PAS)

# **SPECIFICATIONS**

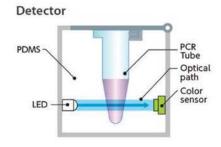
Item Code #0207 Photo Absorbance Sensor (PAS-110)

Dimensions		70 x 150 x 30 mm (excluding protrusions)
Weight		200 g (including batteries)
Power		4.5V DC (3 AAA-type batteries) 5V DC (micro-USG connector¹)
Battery Life		5 hours <sup>2</sup>
Usage Environment	Temperature/Humidity	5°C – 35°C, 70% RH or less
	Altitude	2,000 m or less
	Installation Condition	Indoor, Pollution Degree 2
Measurement	Total Sample	1 per measurement, <200 μl
	Time	1-2s
	Absorbance Range	>0.02 AU 400 to 800 nm
Sensor Unit	Light Source	White LED
	Detector	Cold Sensor
Communication Interface		Bluetooth low energy (Bluetooth smart) Class 2
Compatible Devices		Android and Apple OS tables and smartphones
Recommended 0.2 ml Microtubes		AthenaES Cat. No. 0208 or equivalent
Minimum Sample Volume		30 µl <sup>3</sup>



 $<sup>^2</sup>$  The battery life is based on using new, fully-charged batteries. Battery life cannot be guaranteed as different operating conditions will affect battery life.





# Two types of calibration curve available: preset or simple generation

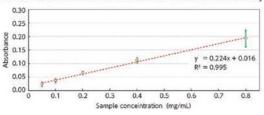
#### To use a preset calibration curve

# To generate a calibration curve



### Calibration curves

Protein Quantification with PICOEXPLORER Bradford assay



FCC ID: 2AF33USHIO-PAS





Specifications may be subject to change without prior notice. Refer to www.PiCOEXPLORER.com for the most current product specifications.



<sup>&</sup>lt;sup>3</sup> With a sample volume of 30 µl, be sure to measure with the device tilted nor more than 10° or less from the horizontal.