

**ION**  
**OPTIX**



# PMT400

User Manual

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## **Research Use Only**

This product is intended for research purposes only. It is not certified for clinical applications (including diagnostic purposes). Use of this product in uncertified applications is in violation of FDA regulations.

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## Safety Precautions



To ensure reliability and safety, we recommend using the instrument according to the guidelines described in this manual. All safety and operating instructions should be read and understood before use.

Electric shock risk! Do not remove instrument cover. There are no user-serviceable parts inside. Refer servicing to IonOptix technical support ([support@ionoptix.com](mailto:support@ionoptix.com)). Static electricity can damage electronic components. Take care to discharge yourself before handling the device.

Please adhere to the following safety guidelines:

- Unplug the instrument from the wall before cleaning.
- Keep the instrument free from moisture, water, and dust.
- Do not place instrument on unstable surface and do not drop the device.
- If ventilation slots are present on instrument panels, keep clear of obstructions.
- All cables and power supply cords should be routed so as to not cause a hazard. Use only supplied or approved/recommended cables.
- Ensure instrument is not situated near a heat source.

## Statement of Conformity



This instrument carries the CE mark and meets the appropriate EU directives.

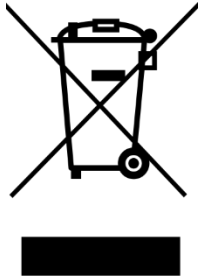
## Intended Use



This product is intended for **research purposes only**. It is not certified for clinical applications (including diagnostic purposes). Use of this product in uncertified applications is in violation of FDA regulations.

IonOptix products are intended to be installed, used, and operated under the supervision of an appropriately qualified life-science researcher.

## Disposal



Forward to recycling center or return to manufacturer. Unwanted equipment bearing the Waste Electrical and Electronic Equipment (WEEE) Directive symbol requires separate waste collection. For a product labeled with this symbol, either forward to a recycling center or contact your nearest IonOptix representative for methods of disposal at the end of its working life.

## Warranty

This IonOptix instrument is warranted for a period of one (1) year from delivery under normal use and conditions, and will operate in material conformance with applicable IonOptix specifications or standards.

This warranty does not apply to any defect caused by failure to provide a suitable operating environment, any other excluded use, or any other abuse, misuse, or neglect of the instrument.

## Overview

This manual describes how to setup and use the PMT400 photomultiplier in your application.

### Features

- Single, lockable 9-pin DSUB cable for power and data transfer
- Compact form factor

## Technical Specifications

Item	Specification
Dimensions	102.5 (L) x 36.2 (W) x 50 (H) mm
Weight	210 g
Peak QE	28%
Operating temperature	5 - 55 °C
Air humidity	93 % RH, non-condensing
Maximum Recommended Count Rate	5MHz
Max Dark Count Rate @ 20C	100Hz
Warmup time	1S

## Connections

The PMT400 has a single DB9 connector that connects to either of the rear-panel PMT inputs of the FSI.

## Installation



**Attention:** Always use the supplied or recommended cables and mounting accessories.

- Install PMT to CFA.
- Make sure PMT power is off on the FSI
- Connect DB9 cable to FSI.

## How to Use

All options except the PMT power are controlled by software. See the IonWizard Acquisition Manual for software setup.

When you are ready to acquire data, turn on the FSI PMT power for 1 second before acquisition begins.

# Cleaning and Maintenance

## Cleaning

- Use a soft cloth and a mild cleaner (e.g., window cleaner) to clean the outside of the PMT as necessary.
- Do not use solvents like acetone or thinner.
- Do not allow device to become saturated with cleaning solution.
- Do not attempt to clean the input window!

## Maintenance

- No maintenance other than cleaning is necessary.
- In case of malfunctions contact the manufacturer

# Storage and Transport

## Storage

- Store in a dry and clean environment

## Transport

- For transport, the original box is preferred.

# Repairing

- If the PMT400 is damaged, stop using it and disconnect all cabling.
- The PMT400 cannot be repaired by the user, and there are no user-serviceable parts inside.
- For repair or inspection, contact the manufacturer.

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