

# USB Photomultiplier

M009

Realize the measurement of ultra weak light  
by the USB cable connected to PC

## Overview

Directly connected to the PC the weak light measurement with a USB cable  
Photomultiplier control signal at the USB, and transfer the measurement data through USB port.



## Topics

### Appearance

- It will measure the weak light through USB port to the PC
- Optical sensor module is consisted of a photomultiplier and a signal processing circuit.
- Set the sensitivity and measurement conditions by the control signal to the detector.
- Outputs the detection data to the PC

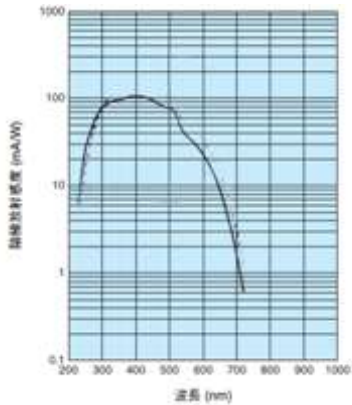
## Application

- Weak optical measurement of fluorescence and emission absorption and so on.
- Application to the detection portion of the optical measuring device

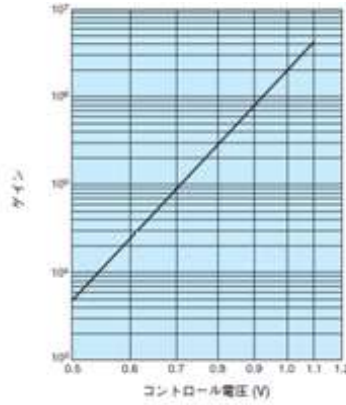
## Specification

Details	Content
Wavelength range	230nm~870nm
Detector type	Photomultiplier
Size (mm)	Acceptance surface $\Phi 8.0$
Signal amplifier	Current-to-voltage conversion
Sampling time	100ms
Gain	4,000 ~ 5,000,000
Analog-to-digital resolution	24bit
Optical coupling	SMA Optical fiber (Removable)
Driving power	USB bus power
Output Display	Detection light intensity (Current value)
Current value	Control voltage
Data transfer	Save in the PC via the USB
Dimension	30 W × 30 H × 96 D [mm]
Weight	135 g
Operating temperature	+5 ~ +50 °C
Operating humidity	30%~80% (no condensation)

# Characteristic



Typical spectral sensitivity



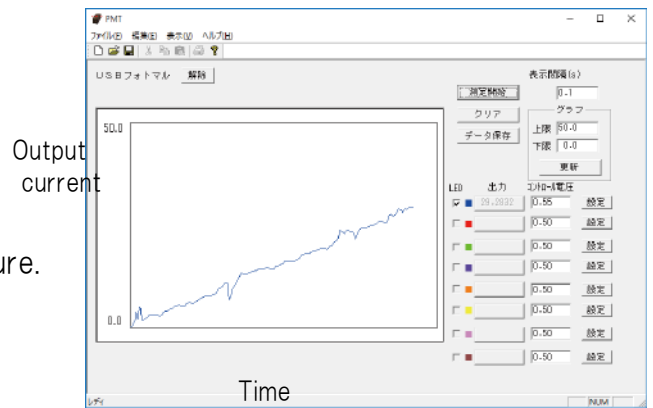
Typical characteristics of control voltage and gain



Connection to a PC

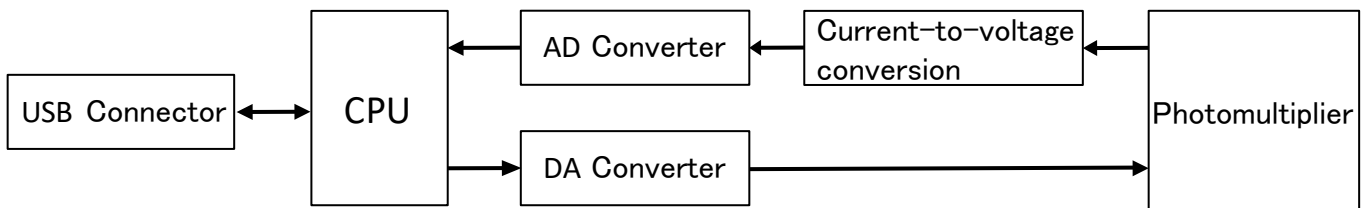
# Software

- To set control voltage and the measurement interval
- Example of data display is shown on the right side figure.
- Maximum concurrent eight possible measurement.
- The results show graphs
- Measurement results will be format of CSV output.



Data on the screen

# Block Diagram



# Dimensions

