

USB/RS232C Photoncounter

M014-01

General

Low light level measurement is achieved by direct connection to PC through USB or RS232C cable. PC provides both photomultiplier tube control signal and measurement result data.



External View (front)

External View (rear)

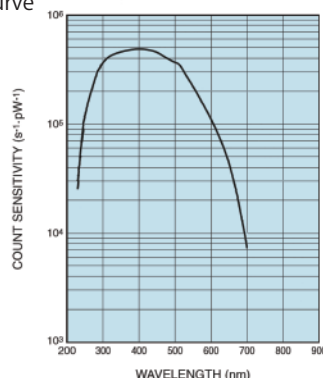
Features

- Low light level measurement and control are done through USB or RS232C port of PC.
- High sensitivity optical sensor module combines a photomultiplier tube and built-in signal processing circuit.
- Control signal set sampling time and repetition rate.
- Detected data is output (count number).

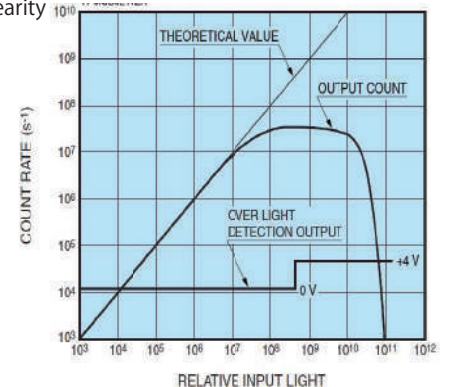
Specification

Item	Detail
Wavelength Range	230nm ~ 700nm ※1
Detector type Size (mm)	Photomultiplier tube Sensitive area : Φ8.0 mm dia
Count rate linearity	5.0×10^6 [s ⁻¹] ※2
Dark count	(average)50[CPS]、(max)100[CPS]
Sampling time	0.01 ~ 60 [s] (BurstMode 0.01~1[s])
Repetition rate	1 ~ 100 [times] (BurstMode 1~800[times])
Counter size	32bit
Driving power supply	USB bus power or DC+5V(RS232C 9pins)
Output indication	Count number (measured, average)
Data transfer	Kept in PC through USB or RS232C
Dimension	30 W × 50 H × 85 D [mm]
Weight	190 g
Operating ambient temperature	+5 ~ +35 deg. C
Operating ambient humidity	30% ~ 80% RH (no condensation)
Housing material	SPCC

※1. Spectral Response Curve



※2. Count Rate Linearity

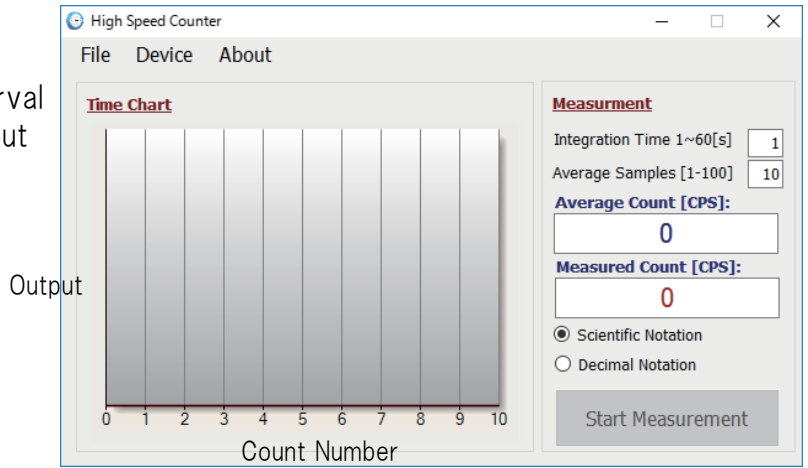


Application

- Low light measurement for fluorescence, emission and absorption
- Detection unit for various optical measuring system

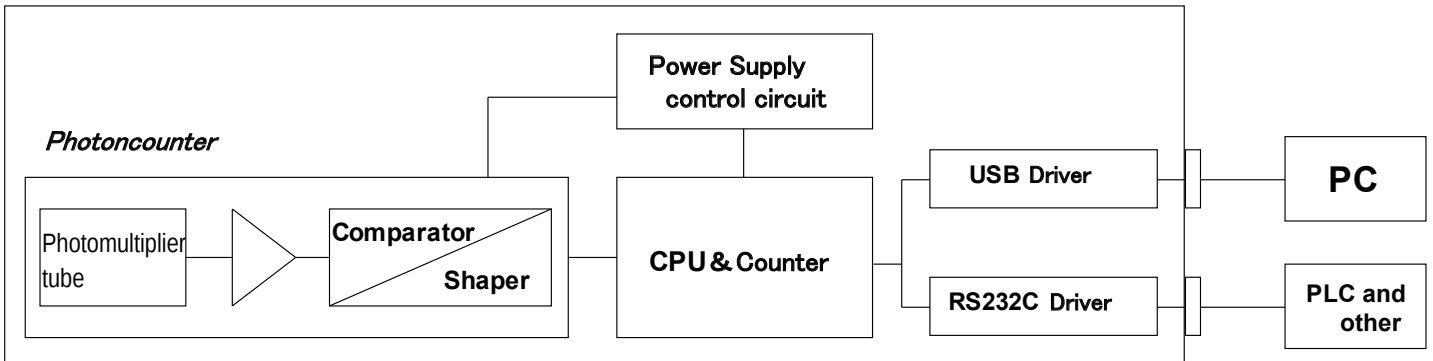
Software

- Adjusting control voltage and measuring interval
- Multiple simultaneous measurements and output on graphic display
- Result is kept in CSV format thus process freely later

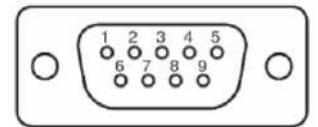
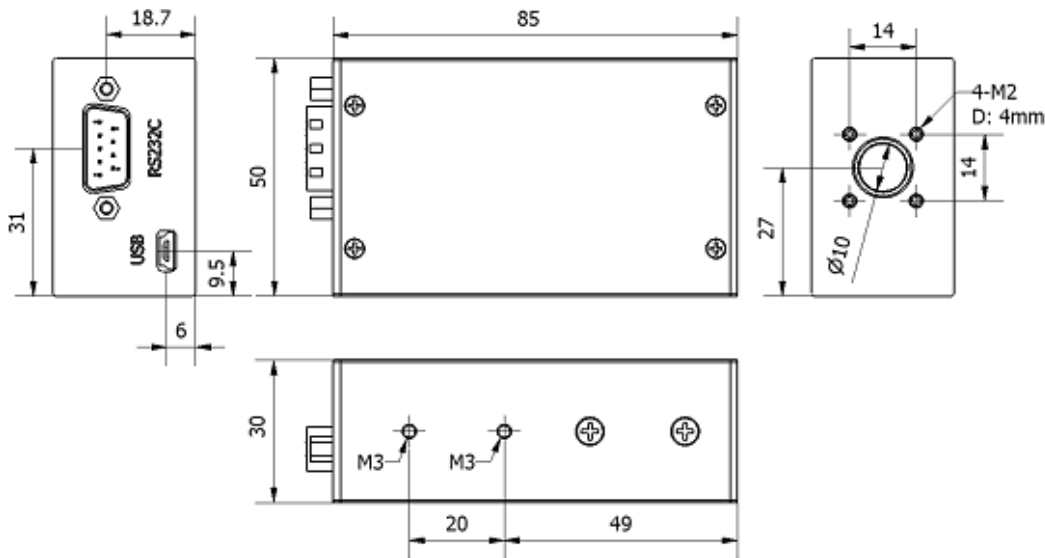


Software Screen

Block Diagram



External Dimension



RS232C DB9 (Male) Pinout:

1. -
2. RX (Input)
3. TX (Output)
4. -
5. GND
6. -
7. -
8. -
9. +5VDC 200mA (Option)