

Signal processing unit for photodiode module



C10475-01

Specifically designed for photodiode modules (C10439 series)

The C10475-01 is a signal processing unit specifically designed to convert the output of a photodiode module (C10439 series) into digital signals. High-resolution digital output (16 bits) can be obtained through serial connection (RS-232C) to a PC. The sample software that comes with the C10475-01 allows easily obtaining measurement data using the PC. The measurement data can also be recorded in the internal memory (data logger function). The C10475-01 can also operate on batteries for portability.

Features

- High-resolution digital output (16-bit)
- Data logger function
- Low battery function
- Choice of internal battery (+9 V) or stabilized DC power supply (+12 V) operation
- Supplies power to the photodiode module

Applications

- Precision photometry
- Light source power monitors
- Fluorescence detection of printed matter
- Illuminometers
- Color difference meters
- Refractometers
- Flowmeters, etc.

Absolute maximum ratings (Ta=25 °C, unless otherwise noted)

Parameter	Symbol	Value	Unit
Supply voltage	Vs max	+13	V
Supply current	Iin max	2	A
Input voltage*1	Vin max	±10	V
Operating temperature*2	Topr	0 to +50*3	°C
Storage temperature*2	Tstg	-10 to +60*3	°C

*1: Output voltage from photodiode module

*2: No dew condensation

When there is a temperature difference between a product and the surrounding area in high humidity environments, dew condensation may occur on the product surface. Dew condensation on the product may cause deterioration in characteristics and reliability.

*3: When used with a dry battery, temperature will be +5 to +40 °C.

Note: Exceeding the absolute maximum ratings even momentarily may cause a drop in product quality. Always be sure to use the product within the absolute maximum ratings.

Specifications (Vs=+12 V, Ta=25 °C, unless otherwise noted)

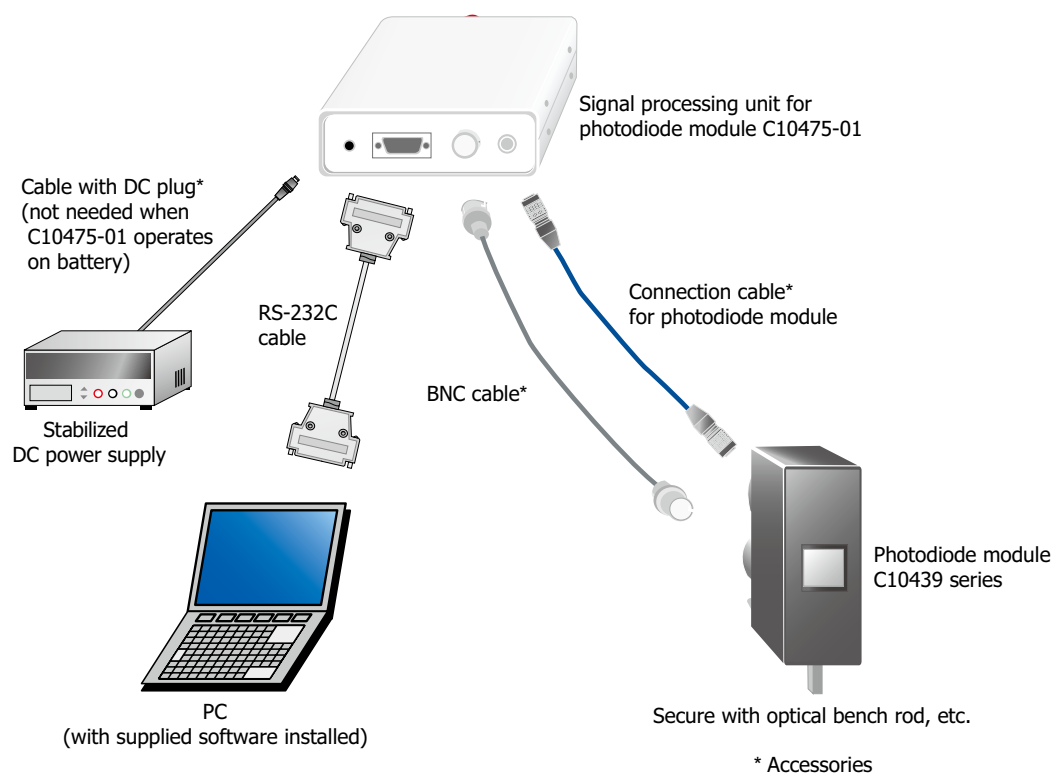
Parameter	Symbol	Min.	Typ.	Max.	Unit
Supply voltage*4	Vs	+6	+12	+13	V
Input voltage	Vin	-5	-	+5	V
Current consumption*5	Is	-	20	-	mA
Interface	-	RS-232C, 19200 bps, 8-bit, Non-parity, 2-stop bit			-
A/D conversion cycle	-	50	-	-	ms

*4: A stabilized DC power supply of approximately 12 V and 1.25 A is recommended. The electric current for operating this product varies depending on the use environment. Please check in advance.

Recommended power supply: PW18-1.8AQ (TEXIO)

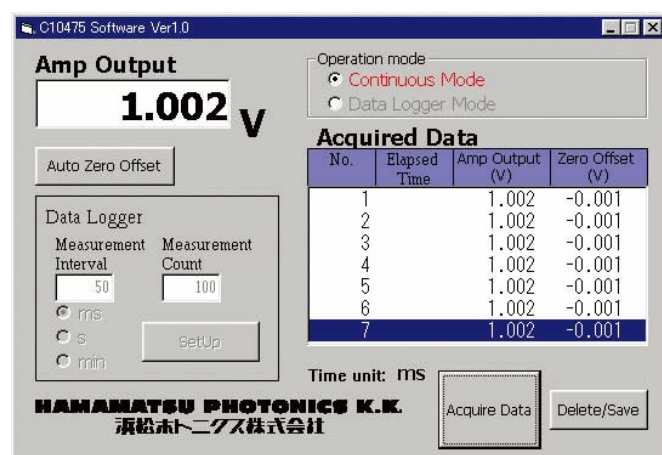
*5: When the photodiode module (C10439 series) is connected, in dark state.

Connection example



KACCC1186EA

Sample software (accessory)



Data logger setting range

Measurement interval: 50 ms to 1 min (50 ms interval)

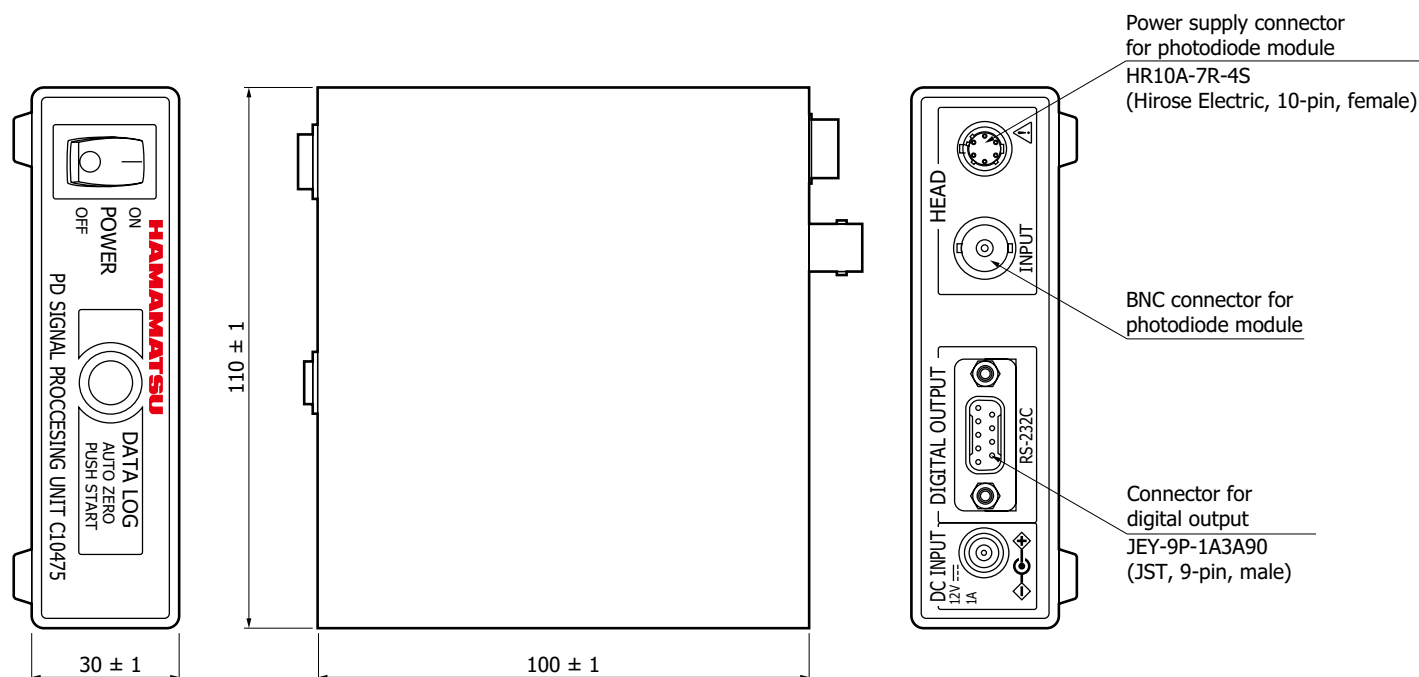
Measurement count: 32000 max.

Measurement interval × Measurement count: 20 hours max.

Compatible OS: Microsoft® Windows® 10 Pro (32-bit, 64-bit)

Note: Microsoft and Windows are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.

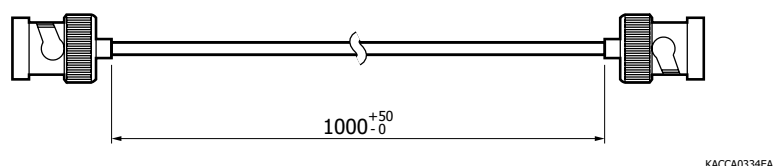
■ Dimensional outline (unit: mm)



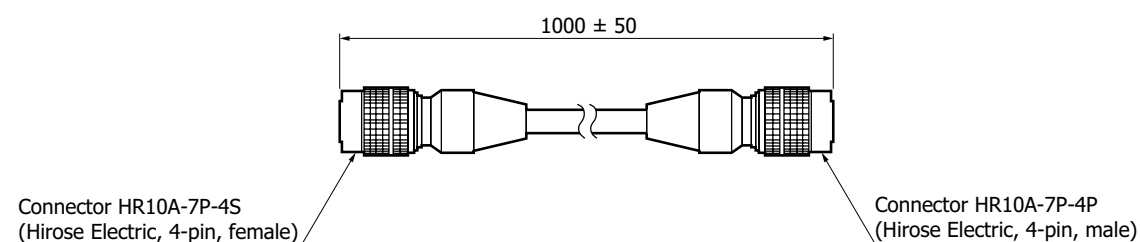
KACCA0206EB

■ Accessories (unit: mm)

- Instruction manual
- Sample software CD-ROM
- Cable with DC plug
- BNC cable E2573



- Cable for photodiode module



Note: RS-232C cable is not supplied with C10475-01. For RS-232C cables, use a commercially available cable with 9-pin D-sub connectors (female - female, straight cable).

Related information

www.hamamatsu.com/sp/ssd/doc_en.html

- Precautions
- Disclaimer

Information described in this material is current as of January 2023.

Product specifications are subject to change without prior notice due to improvements or other reasons. This document has been carefully prepared and the information contained is believed to be accurate. In rare cases, however, there may be inaccuracies such as text errors. Before using these products, always contact us for the delivery specification sheet to check the latest specifications.

The product warranty is valid for one year after delivery and is limited to product repair or replacement for defects discovered and reported to us within that one year period. However, even if within the warranty period we accept absolutely no liability for any loss caused by natural disasters or improper product use. Copying or reprinting the contents described in this material in whole or in part is prohibited without our prior permission.

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