FOR IMMEDIATE RELEASE

CCS Releases RB-HLV Series to Reduce Setup Time in Electronic Component and Semiconductor Inspection

Inspection spot lighting connection adapter for PD4-A Series

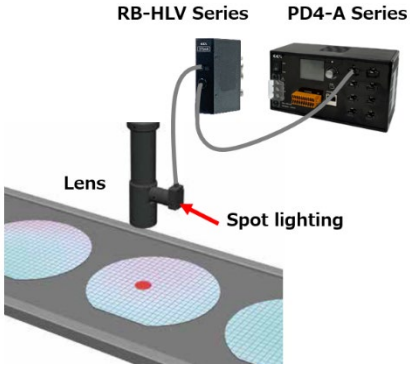
Kyoto, Japan, August 1, 2025 – CCS Inc. (CCS) will release the RB-HLV Series connection adapter for inspection spot lighting on August 4, 2025.
The RB-HLV Series is an adapter to connect CCS inspection spot lighting (hereinafter called “spot lighting”) to the PD4-A Series control unit for inspection lighting. By using this adapter, a dedicated control unit for spot lighting is no longer required. A single PD4-A Series unit can now control both spot lighting and 24 V input inspection lighting (hereinafter called “24 V lighting”), significantly reducing the setup time for both lighting and control unit.

In recent years, inspection processes for electronic components and semiconductors have become more complex, leading to more cases of combining multiple types of lights. As a result, there is growing demand for centralized lighting control using a single control unit and for space-saving solutions in inspection environments.
CCS spot lighting is widely used for applications such as detecting alignment marks for positioning electronic components and semiconductor wafers.
However, while CCS 24 V lighting operates on constant voltage drive*1, spot lighting operates on constant current drive*2. Due to this difference in drive methods, when using 24 V lighting and spot lighting together, a dedicated control unit for spot lighting had to be added separately, leading to extra setup and installation requirements.
The newly released RB-HLV Series resolves this issue so that both spot lighting and 24 V lighting can be operated from a single PD4-A Series unit.

*1 A drive method that supplies a constant voltage at all times
*2 A drive method that supplies a constant current at all times

■ Product Image and Setup Image

RB-HLV-1000

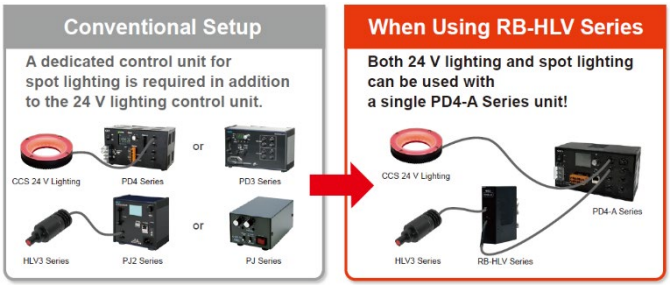


Setup image of semiconductor wafer alignment mark detection process

■ Product Features

1. Simplified setup for lighting and control unit

When using both 24 V lighting and spot lighting, there is no need to prepare a separate control unit for spot lighting. This reduces the setup time for both the lighting and control unit.



2. Significantly improved response speed for external control

When integrating the lighting and control unit into an inspection system controlled by a PLC*3, trigger signals are often used to synchronize the lighting with the camera shutter. Compared to dedicated control units for 24 V lighting, the conventional spot lighting control units*4 have a slower response time to trigger signals. This led to more configuration work to align timing between the light and camera, and slower inspection speeds compared to using only 24 V lighting. By using the RB-HLV Series, these issues can be resolved.

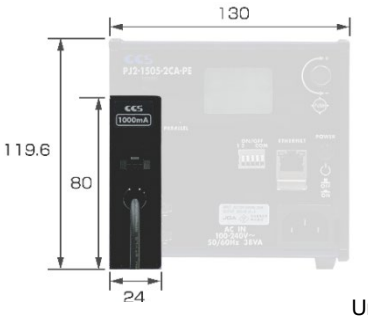
*3 Programmable Logic Controller. A control device used in factories to control equipment and machinery.

*4 Model name: PJ2-1505-2CA-PE

3. Compact design with four models to suit different types of spot lighting

Compared to the conventional spot lighting control unit, the RB-HLV Series features a more compact size to save space in inspection environments.

Four models are available to suit the specific spot light being used.



Unit: mm

Size comparison with CCS spot lighting dedicated control unit*4

■ Common Specifications

Model Name	RB-HLV-275	RB-HLV-385	RB-HLV-700	RB-HLV-1000
Power Consumption (max.)	4.9 W	6.2 W	7.3 W	9.7 W
Output Current (max.)	275 mA	385 mA	700 mA	1000 mA
Compatible Lighting	Spot lighting with a rated input current 275 mA	Spot lighting with a rated input current 385 mA	Spot lighting with a rated input current 700 mA	Spot lighting with a rated input current 1000 mA
Lighting Method	Continuous lighting			
Drive Method	Constant current mode			
Number of Channels	1 channel			
Cooling Method	Natural air cooling			
External Dimensions	Width 24 mm × Height 80 mm × Depth 60 mm			
Weight	310 g or less			

Since 1993, CCS has advanced the machine vision industry by developing LED lighting for inspection that creates customer satisfaction for both manufacturers and their consumers, who demanded safe, high-quality goods. Today, CCS leads the machine vision world in innovation with thousands of products including lights, controllers, and accessories. CCS's global network of employees is dedicated to helping manufacturers capture the most important details in an inspection so that their customers never receive anything less than their highest quality.

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Media Contact:
Sayoko Takahashi – Global Marketing Communication
Tel. +81-75-415-8284
sy-takahashi@ccs-inc.co.jp

CCS Inc.
38 Konoecho, Demizu-Agaru, Muromachi-dori,
Kamigyo-ku, Kyoto, 602-8019 Japan
TEL: +81-75-415-8284
sales@ccs-inc.co.jp
www.ccs-grp.com