

FOR IMMEDIATE RELEASE

CCS Launches PD4 Series digital power supplies for LED Lighting in image processing
New functions such as sequence lighting control and PLC link to simplify set-up for lighting control



Kyoto, Japan, December 15, 2022 – CCS Inc. will release the PD4 Series, a digital power supply for LED light control, on December 16, 2022.

The successor to CCS's best-selling PD3 Series, it features a variety of added functions and is designed for ease of use at manufacturing sites.

Lineup

The lineup includes a total of eight models: 2-channel/4-channel types that can control two or four lights with a single power supply, 60W/120W types for the total output of connected lights, and Ethernet/parallel communication types for external control. All models are capable of 1,024-step intensity settings. The natural air cooling system is suitable for use in clean rooms where airflow is controlled. The PD4 Series offers the following additional features to enhance ease of use at manufacturing sites:

Sequence control function

Light emission patterns can be set for turning lights ON/OFF up to 16 steps. For example, when using 4-quadrant bar lights or segmented ring lights to illuminate from multiple directions, the emission patterns for each channel can be stored and switched ON/OFF by trigger input. This function can be used for multi-surface inspections, inspections for multiple types of defects, and inspections using photometric stereo, which extracts information on unevenness and patterns on a workpiece by using the differences between images taken from each direction.

PLCCOM communication function

The PLC link function reads and writes on PLC memory areas via Ethernet communication. This function simplifies linking with PLCs, whereas previously it was necessary to create a separate program to control the power supply via the PLC. Supports MC protocol and FINS commands for the convenience of many PLC users.

Trigger output function

The PD4 can send an output trigger in response to an external lighting command (trigger) or light output, so less time is needed to synchronize the light and camera or to set the next light emission.

Real-time monitoring function

Using Ethernet or USB communication, external devices such as PCs and image processing equipment can track the cumulative number of times the light has been turned on and the cumulative ON time. This information is useful for preventive maintenance to replace lights at the appropriate time.

Recipe function

Parameters for each channel can be registered in advance and recalled when necessary. Up to eight patterns can be registered for parameters such as lighting method, intensity value, and light emission delay time for each channel, reducing time spent on setup and changeover.

Dedicated application for setting

Two applications are available for easy configuration of lighting control parameters. The basic version only sets basic parameters such as intensity value and emission time, as well as trigger input/output. In addition to the functions of the basic version, the standard version can control settings for all PD4 Series functions, such as sequence control and real-time monitoring functions.

Specifications

Model name	PD4-6024-□-▲	PD4-12024-□-▲
Applicable light units	24 VDC Input Lights, Channel Total: 60 W	24 VDC Input Lights, Channel Total: 120 W
Lighting method	Regular Emission / Strobe Emission (Without Overdrive)	
Drive method	Constant-voltage system	
Intensity control method	PWM Control	
No. of channels	2 channels / 4 channels (□ in Model name: 2 or 4)	
External control	Ethernet communication TCP/IP UDP/IP (CCS Command communication, PLCCOM communication (MC protocol·FINS commands)) Parallel communication (▲ in Model name: Ethernet = E, Parallel communication = P)	
PWM frequency	125 kHz	
Power consumption (max.)	152 VA (Ethernet) 155 VA (Parallel)	168 VA (Ethernet) 170 VA (Parallel)
Cooling method	Natural air cooling	
Intensity setting	1,024 steps (0: Not lit)	
Weight	1.5 kg max.	

From 1993, CCS advanced the machine vision industry by developing LED lighting for inspection that Created 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.

Press Contact:

Sayoko Takahashi – Marketing Communications

Tel. +81-75-415-8277

sy-takahashi@ccs-inc.co.jp

CCS Inc.

38 Konoecho, Demizu-Agaru, Muromachi-dori,

Kamigyo-ku, Kyoto, 602-8019 Japan

TEL: +81-75-415-8277

sales@ccs-inc.co.jp

www.ccs-grp.com