

# PWM control power supply ● TPAP Series/TPDP Series [www.hikarishop.com](http://www.hikarishop.com)



TPAP1B type

TPDP1B type



TPAP2B type

TPDP2B type



\* Product specifications are subject to change without notice.

## Use and features

- TPAP-B Series provides high performance (including PWM light control and external control) at low cost.
- HIKARI-SHOP low-cost power supply with external ON/OFF and dimming control (0 to 5 V) suited to image processing LED illumination.
- Several different output capacity models available to best match the illumination purposes
- Application: LED illumination power supply for image processing (24 V output only) suited for area camera imaging
- TPAP-B Series power supply 4-pin output connector (changed from 2-pin as used in TPAP-A Series)
- ※ An optional 2-pin output connector is available on request. Note that, the ECI operates only with the 4-pin specification.

Power specifications	Analog setting type PWM control power supply					Digital setting type PWM control power supply				
Model	TPAP1B-2410NCW	TPAP1B-2430NCW	TPAP1B-2450NCW	TPAP2B-2430NCW	TPAP2B-2450NCW	TPDP1B-2410NCW	TPDP1B-2430NCW	TPDP1B-2450NCW	TPDP2B-2430NCW	TPDP2B-2450NCW
Light control setting system	Analog setting (continuous control)					Digital setting (8 bits, 256 gradations)				
Output control method	PWM control (56 ±5 kHz)									
Number of outputs	1ch		2ch			1ch		2ch		
Output voltage	24 VDC (±0.5V)									
Maximum output current	0.38A	1.12A	1.85A	1.12A	1.85A	0.38A	1.12A	1.85A	1.12A	1.85A
Maximum output capacity	9W	27W	45W	27W	45W	9W	27W	45W	27W	45W
External ON/OFF	With external ON/OFF control (pin open: lit, short-circuited: unlit) Logic inversion of ON/OFF control is enabled by the internal settings.									
External light control	With external light control (0 VDC to 5 VDC, continuously variable)					With external light control (8 bits, 256 gradations)				
Input voltage, frequency	100 VAC to 240 VAC, 50/60 Hz (worldwide)									
Output connector/polarity	SMP-04V-BC (J.S.T. Mfg.) / 1: NC, 2: +(DC24V), 3: - (GND), 4: NC									
External control connector	SMP-03V-BC (J.S.T. Mfg.)					DALC-J155A-23 (Dsub 15 pins)				
External control input specification	1: External light control input 0 VDC to 5 VDC 2: External ON/OFF 3: Common GND					1: COM, 2 to 9: D0 to D7 10 to 11: ON/OFF 12: +5V, 13: GND, 14 to 15: NC				
Outer dimensions L1	173	218	173	218	173	218	173	218	245	245
Outer dimensions L2	141	186	141	186	141	186	141	186	213	213
Usage environment	Temperature: 0°C to 40°C, humidity: 20 to 85RH (no condensation), indoor lighting equipment									
Storage environment	Temperature: 0°C to 60°C, humidity: 20 to 85RH (no condensation)									
Cooling system	Natural air cooling									
Mass	600g	650g	850g	650g	850g	550g	650g	750g	850g	900g

# Constant-current control power supply ● TPDC Series [www.hikarishop.com](http://www.hikarishop.com)



TPDC1 type

TPDC2 type

\* Product specifications are subject to change without notice.



## Use and features

- Advanced functions (such as external light control, external ON/OFF, maximum output current setting/adjustment, cable compensation) at low cost
- Digital light control allows for optimum reproducibility.
- Suited for HIKARI-SHOP high-brightness and low-price LED illumination for image processing
- Select from several power supply models according to illumination needs (number of outputs and capacity).
- Best suited for line cameras and imaging at high shutter speeds

## Functions

- TPDC power supply ECI function automatically sets maximum output current according to connected illuminator  
Furthermore, the ACC function automatically responds to voltage fluctuations even if the extended cable length is changed (up to 10 m) to regulate the brightness of the illuminator.
- ECI (Electronic Calibrate Identify)  
This function automatically identifies connected illuminator, and then automatically adjusts the maximum output current value.
- ACC (Automatic Cable Compensation)  
This function automatically responds to a change in the cable length between power supply and illuminator or voltage fluctuations in the power-on process to regulate the brightness of the illuminator.
- When selecting power supplies, pay attention to the maximum output current as well as capacity.

Digital setting-type constant-current control power supply								
Power specifications	TSP18/22 type only		For 24 V drive illumination					
Model	TPDC1-0510NCW	TPDC2-0510NCW	TPDC1-2410NCW	TPDC1-2430NCW	TPDC1-2450NCW	TPDC2-2430NCW	TPDC2-2450NCW	TPDC2-240530NCW
Light control setting system	Digital setting (8 bits, 256 gradations)							
Output control method	Constant-current control							
Number of outputs	1ch	2ch	1ch			2ch		
Output voltage	5 VDC		24 VDC			24 VDCx1, 5 VDCx8		
Maximum output current	1.5A	1.58A	0.31A	0.94A	1.5A	0.94A	1.5A	1.4A
Maximum output capacity	7.5W	7.9W	7.4W	22.5W	36W	22.5W	36W	22.5W
External ON/OFF	With external ON/OFF control (pin open: lit, short-circuited: unlit) Logic inversion of ON/OFF control is enabled by the internal settings.							
External light control	With external light control (8 bits, 256 gradations)							
Input voltage, frequency	100 VAC to 240 VAC, 50/60 Hz (worldwide)							
Output connector/polarity	SMP-04V-BC (J.S.T. Mfg.) / 1: ECI, 2: +(24 VDC or 5 VDC), 3: -(GND), 4: ECI							
External control connector	DALC-J155A-23 (Dsub 15 pins)							
External control input specification	1: COM, 2 to 9: D0 to D7, 10 to 11: ON/OFF, 12: +5V, 13: GND, 14 to 15: NC							
Outer dimensions L1	173		200	245	200	245	200	
Outer dimensions L2	133		160	213	160	213	160	
Outer dimensions L3	24		16		24	16	24	
Usage environment	Temperature: 0°C to 40°C, humidity: 20 to 85RH (no condensation), indoor lighting equipment							
Storage environment	Temperature: 0°C to 60°C, humidity: 20 to 85RH (no condensation)							
Cooling system	Natural air cooling				Fan cooling	Natural air cooling	Fan cooling	Natural air cooling
Mass	650g	700g	650g	750g	1,000g	850g	1,000g	850g