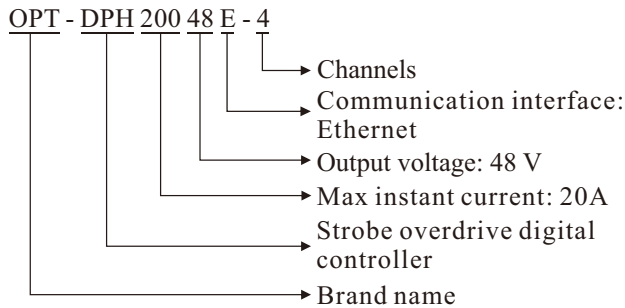


## DPH Strobe Overdrive Digital Controller



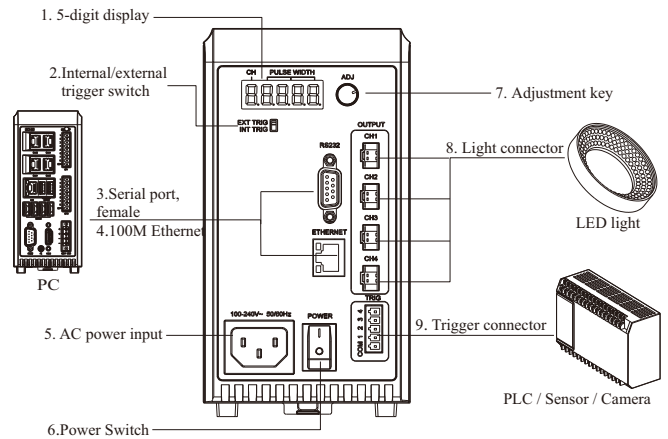
### Selection Guide



### Product Features

- 1** Programmable trigger mode available, 32 steps at max; the trigger source, intensity and trigger pulse width of each step can be set
- 2** Instant overdrive the light, pulse width can set 1-1023μs
- 3** Short trigger response time ( $\leq 15\mu s$ )
- 4** Simultaneous communication of multiple channels available
- 5** Trigger signal input: connect an external signal source (e.g. a camera trigger signal) to strobe the LED light, and extend life span of light
- 6** Internal self-trigger function, self-trigger cycle can set 15 to 1000 ms.
- 7** RS232 communication
- 8** 100M Ethernet communication
- 9** Trigger pulse width can be set
- 10** Temperature controlled fan, longer life span
- 11** Withstanding high voltage (AC1500V 1min, leak current  $< 10mA$ )
- 12** High insulation resistance (DC500V  $> 20M\Omega$ )
- 13** Easy to install: screw and DIN rail mounting available.

### Device Overview



No.	Item	Description
1	5-digit display	The 1st number indicates the channel and the others show the value
2	Internal/external trigger switch	INT TRIG : internal trigger EXT TRIG: external trigger
3	Serial port, female	Communicate to PC via RS232
4	100M Ethernet	Communicate to PC via Ethernet
5	AC power input	Input AC100-240V 50/60Hz
6	Power Switch	To turn the controller on/off
7	Adjustment key	To adjust value of the chosen channel. Press it, the chosen channel number twinkle on digit display; press it again will chose next channel. Rotate it in clockwise, the value increased; rotate it in anti-clockwise, the value decreased
8	Light connector	In total, four lights can be controlled individually
9	Trigger connector	For connection with an external trigger source

### Internal / External Trigger Switch Setting

Switch Position	Mode
EXT TRIG	External trigger
INT TRIG	Internal trigger

### Parameters

Item	Parameter	Description
Input voltage	AC100~240V	50/60Hz
Output voltage	48V	
Lighting mode	Strobe	
Internal trigger	Yes	Via Internal/external trigger switch
Internal trigger cycle	15-1000ms	Set via adjustment key or DEMO software, each channel can set in different value
External trigger	Level trigger	Default rising edge trigger
External trigger pulse width	1-1023μs	Set via adjustment key or DEMO software, each channel can set in different value
Programmable trigger	Yes	Pulse width and trigger source can set
Response time	$\leq 15\mu s$	
Short circuit protection	Yes	The related channel shuts down and "ER2" appears on the display

Item	Parameter	Description
Max instant output current	20A/CH	
External trigger frequency	Can set in 1~900Hz	Default 40Hz
Communication	RS232 / Ethernet	
Standby power consumption	≤3.4W	
Hi-Pot test	AC1500V 1min	Leak current <10mA
Insulation resistance	DC500V	>20MΩ
Work temperature	-5℃~50℃	
Size (L x W x H)	91 x 132.41 x 171mm	
Weight (kg)	1.1	

### ERR Code Description

Code	ERR Reason	Display	Solution
Err2	short circuit protection	“Err2” on digit display	Remove ERR and reboot
Err4	hardware communication ERR	“Err4” on digit display	Return to OPT for repair
Err5	hardware communication ERR	“Err5” on digit display	Return to OPT for repair

Remark: “----” appears on the digit display during controller startup. And value will appear after startup finished

### Trigger

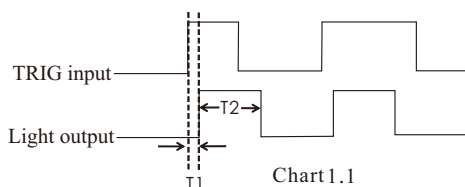
DPH20048E has three kind trigger modes: internal trigger, external trigger, programmable trigger. Two kind trigger polarities: rising edge trigger, falling edge trigger. Default set is falling edge trigger.

Trigger Mode	Trigger Polarity	Description
Internal trigger	Auto trigger	Controller outputs the pulse width according to the set internal trigger cycle, no need external trigger signal
External trigger	Rising edge trigger	Single channel outputs 48V, trigger pulse width can set in 1-1023μs
	Falling edge trigger	
Programmable trigger	Rising edge trigger	Switch to programmable trigger mode via DEMO software; need to set trigger signal source and trigger pulse width in work flow table in advance
	Falling edge trigger	

### Trigger Sequence Chart

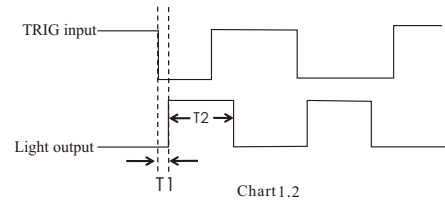
#### Rising edge trigger

Illuminating time is equal to the set trigger pulse width. Trigger pulse width set via DEMO or adjustment key. Refer to Chart 1.1



#### Falling edge trigger

Illuminating time is equal to the set trigger pulse width. Trigger pulse width set via DEMO or adjustment key. Refer to Chart 1.2

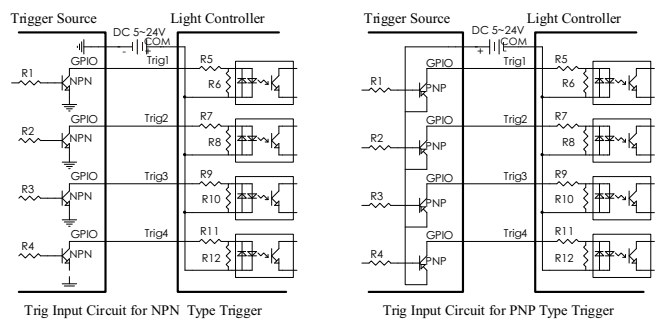


Note:

- (1) T1 is OFF to ON response time, T2 is trigger pulse width
- (2) T1 ≤ 15μs, T2 can set in 1~1023μs

### Trigger Wiring Diagram

4 trigger channels. "COM" is the common interface. Two-way optocoupler is inside. Input 0-2V is low level. Input 5-24V is high level. Default set is rising edge trigger. Wiring diagram as below



### Dimensional Drawing [mm]

