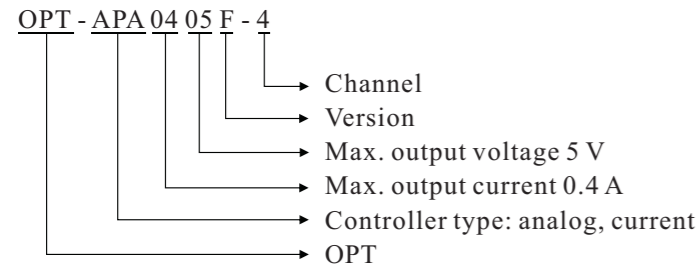


# Analog Controller for Spot Lights

## Model No



Order code	Channel	Matching lights
OPT-APA0405F-1	1	0.4A / 5V lights
OPT-APA0405F-2	2	0.4A / 5V lights
OPT-APA0405F-3	3	0.4A / 5V lights
OPT-APA0405F-4	4	0.4A / 5V lights

Remark: OPT-APA0405F-1/2/3 have 1, 2, or 3 channels respectively. Please go to <http://www.optmv.com> for further information.



## Product Features

- 1 Continuous intensity control gradeless
- 2 Trigger signal input: connect an external signal source (e.g. a camera trigger signal) for synchronized strobing of the illumination device.
- 3 Easy to install: screw mount or DIN rail are available

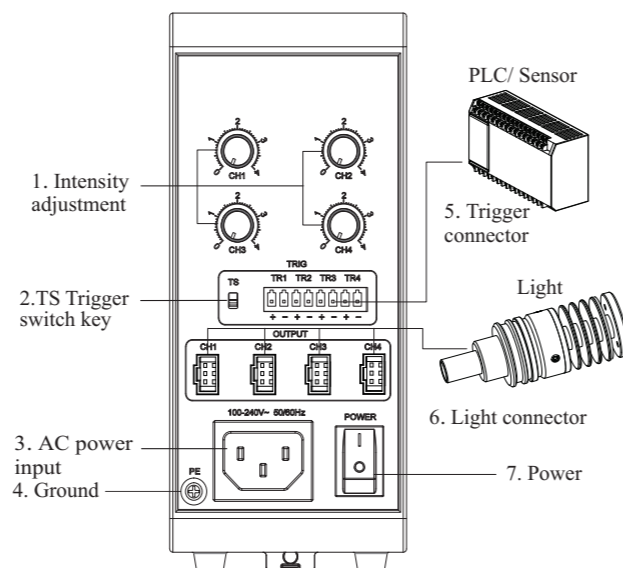
## Device Overview

No.	Interface	Description
1	Intensity adjustment	One adjusted key per channel
2	TS Trigger switch key	Switch to activate/deactivate the triggering
3	AC power input	100 - 240 V AC, 50/60 Hz
4	Ground	Ground protection
5	Trigger connector	For connection with an external trigger source such as a PLC, sensor or camera
6	Light connector	For 0.4 A / 5 V spot lights
7	Power	Turns the controller on/off

Remark: instruction of APA0405F-4 as above, the quantity of intensity adjusted key, external trigger connector and Light connector of APA0405F-1/2/3 are 1, 2, 3 respectively

### Connection Setup

- Step 1: Turn the intensity adjustment key to zero (counterclockwise)
- Step 2: Connect the light with the controller; pls. refer to the drawing on the right.
- Step 3: For external triggering, connect the external trigger source with the trigger port.
- Step 4: Connect the controller with a 100 - 240 V AC power source and switch the controller on. The indicator is lit.
- Step 5: Turn the intensity adjustment key until the intended brightness of the light is reached.

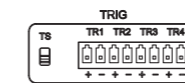


## Parameter Description

Item	Parameter	Description
Output current	0 - 0.4 A	Continuous adjustment of the current
Intensity control	continuous	Manually at the device
External trigger input	Light strobing is synchronized with external trigger	
Trigger mode	Switch trigger	NPN trigger is ok
Trigger delay time	≤ 80 μs	
External trigger frequency	max. 1 kHz	
Trigger control	On/Off switch	Toggles btw. On/Off mode triggering
Output power	2 W per channel	
Input voltage	100 - 240 V AC, 50/60HZ	Input ordinary voltage
Standby power consumption	APA0405F-1	< 3.5 W
	APA0405F-2	< 3.6 W
	APA0405F-3	< 4.0 W
	APA0405F-4	< 4.5 W
		Tested at 220 V AC
Overvoltage resistance	1500 V AC, max.1 minute	Leak current < 10 mA
Insulation resistance	500 V DC	Insulation resistance > 20 MΩ
Working temp.	-5°C - 50°C	
Size [mm]	166 x 73.5 x 129.5	
Weight [kg]	APA0405F-1/2	0.6 ± 0.02
	APA0405F-3/4	0.7 ± 0.02

### Trigger port and setup

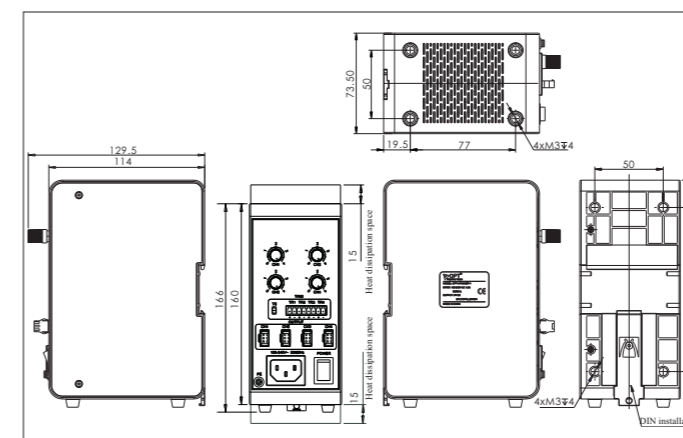
APA0405F-1/2/3/4 has 1, 2, 3, or 4 channels, each channel has two pins, "+" and "-". Please find the details about the wiring scheme of the trigger ports for the APA0405F-4 below.



Digital controller has ON and OFF two modes which can do internal set. Definition as the chart below, customer can choose the trigger mode according to the application.

TS	Trigger mode	Description
Up	Continuous on	Trig+ and Trig- port is disconnected, the light is continuous on; Trig+ and Trig- port is connected, the light is turned off.
Down	Turn off	Trig+ and Trig- port is disconnected, the light is turned off; Trig+ and Trig- port is connected, the light is continuous on.

## Dimensions [mm]

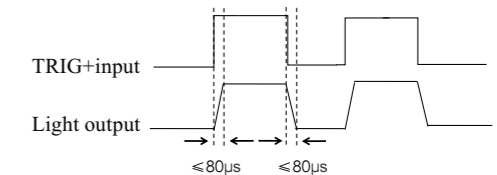


Remark: All controllers have the same size, independent of the number of channels.

## Sequence Diagram

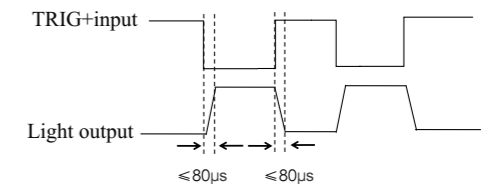
### Continuous on mode

When the COM port connect the outside signal, the lighting is continuous on if the input signal of "trigger+" and "trigger-" port disconnected (high voltage trigger), the lighting is turned off if the input signal of "trigger+" and "trigger -" is connected (lower voltage trigger).



### Turn off mode

When the COM port connect the outside signal, the lighting is turned off if the input signal of "trigger+" and "trigger-" port disconnected (high voltage trigger), the lighting is continuous on if the input signal of "trigger+" and "trigger -" is disconnected (lower voltage trigger).



Please find the wiring scheme of the switch and the trigger port below.

