



Features:

- Universal AC input/Full range (up to 305V)
- 4 DALI addressable output channels
- Comply with DALI standards (IEC62386-101, 102, 207)
- PWM active high or active low selectable by jumper
- Fully isolated plastic case
- IP20 design
- 3 years warranty
- Convert DALI signal to PWM signal
- Built-in push dim function
- Linear or logarithm dimming curve selectable (meet IEC62382-207)
- Dimming range: 1~100%
- Class II power unit, no FG
- Power consumption < 0.5W
- Built-in relay for ON/OFF control of MEAN WELL's AC/DC LED power supply

Wiring:

- Use wires with an adequate cross-section (see 3)
- Use suitable mounting tools to do the wiring and mounting (see 3)
- Use a Miniature Circuit Breaker (MCB) with an adequate current rating to protect the lighting system (see 4)

Environmental limitations:

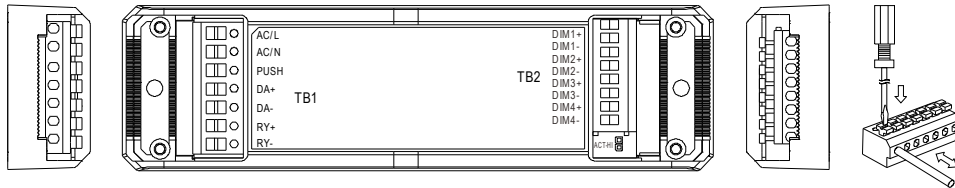
- Maximum ambient temperature must not exceed 60°C
- Only install the unit at indoor environments

Cautions:

- This unit must be installed by a qualified electrician
- Only can be used with MEANWELL's LED Power Supply Units (PSUs) equipped with 3 in 1 dimming function. LED PSUs made by other manufacturers may be incompatible with the DAP-04

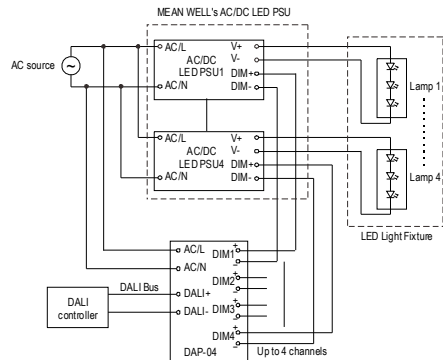
Settings and connections:

1. Terminal Block Pin Assignments



2. Connection of Dimming Functions

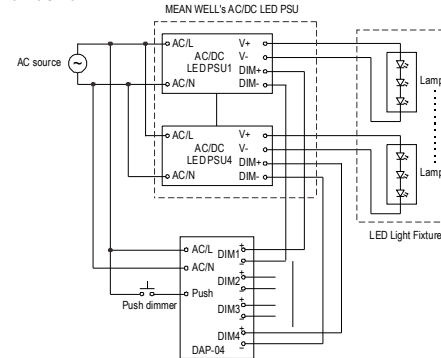
a. DALI



※Note: Choose a suitable cable for connecting the DAP-04 and DALI controller and make sure the maximum voltage drop between these two units should not be higher than 2V. (Maximum cable length for 1.5mm² cables is 300m.)



b. Push dim



※Note: Only use Normally Open Push Button without light indicator .

c. Dimming with LED PSU ON/OFF

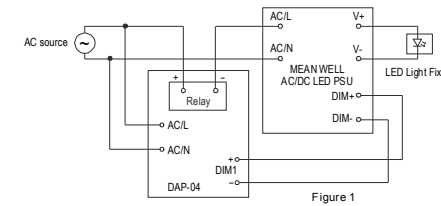


Figure 1

Dimming control mechanism

Function	Pushing time
No change of state	<0.05 sec
Turn ON/OFF	0.1~1 sec
Dimming up or down	1.5~10 sec
Setting light to 100%	>11 sec

- It will always dim up when light intensity is lower than 10%, whereas it will always dim down when light intensity is higher than 90%
- Factory default dimming setting : 100%

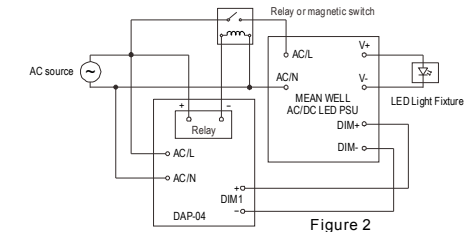
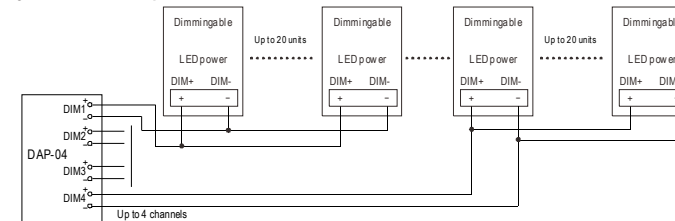


Figure 2

The DAP-04 is equipped with a relay that can be used to turn ON/OFF MEAN WELL LED PSUs. The relay is in the closed position when the DIM1 generates dimming signal; the relay is in the open position when there is no output signal on the DIM1.

※Note: An additional magnetic switch is needed when the total input current of the selected LED PSUs is higher than 8A or used with LED PSUs whose inrush current is greater than 50A, please refer to the figure 2.

d. Synchronization operation



The DAP-04 is equipped with 4 DALI channels, each channel can drive up to 20 LED PSUs, allowing a total of 80 LED PSUs to be connected to the DALI/PWM converter. (Each channel is individually addressable, light intensity of LED PSUs connected to the same channel will be the same; the maximum allowable voltage drop between the DAP-04 and LED PSUs should not be higher than 0.5V; Maximum cable length for 1.31mm² cables is 300m.)

※Note: Light intensity of LEDs in the same group may be decreased when one of the LED PSUs is AC OFF.

3. Recommended Screwdriver, Wire and Torque Setting

Type	The cover (the blue ones)	TB1(ACL/N,PUSH,DALI±,RY±)	TB2(DIM1±,2±,3±,4±)
Solid wire		ϕ 1.02mm- ϕ 1.628mm	ϕ 1.02mm- ϕ 1.29mm
Stranded wire		0.823-2.08mm ²	0.823-1.31mm ²
American wire gauge		14-18AWG	16-18AWG
Wire stripping length		10mm(0.39")	10mm(0.39")
Screwdriver	5mm Phillips	3mm Slotted	3mm Slotted
Recommended tightening torque	4.6kgf-cm(4lb-in)		
Suggested push-down strength		3-4kp(6.61-8.81lb _r)	3-4kp(6.61-8.81lb _r)

4. Suggested Maximum Number of the DAP-04 Units that can be Connected to a MCB at 230Vac

Model	B10	B16	C10	C16
DAP-04	10	16	17	27

※Note: These calculated values are based on MCB S201 series manufactured by ABB.



特色：

- 90~305VAC交流輸入
- 四組可定址DALI輸出通道
- 符合DALI規範(IEC62386-101,102,207)
- 可選擇PWM輸出的邏輯單位
- 絕緣塑膠外殼
- IP20等級
- 三年保固
- DALI訊號轉PWM訊號
- 內建按壓調光(PUSH DIM)功能
- 可選擇線性或對數調光模式(符合IEC62386-207規範)
- 調光範圍:1~100%
- Class II 電源, 無FG
- 消耗瓦數<0.5W
- 內建繼電器可對所搭接之MW交流/直流LED電源供應器作開/關控制

接線：

- 配線時請使用建議的線材(請參考第3項)
- 配線時請使用建議工具(請參考第3項)
- 請選用適當電流量容的MCB(miniature circuit breaker), 可以保護整個照明系統(請參考第4項)

使用環境：

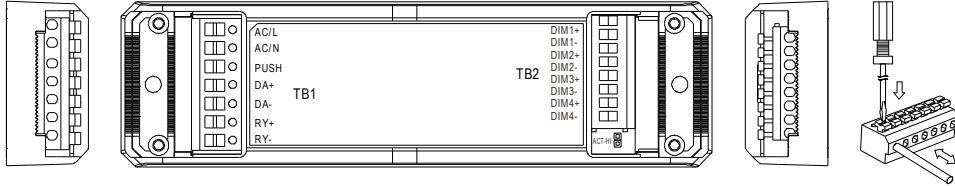
- 最高環境溫度請勿超過60°C
- 只限用於室內環境

注意事項：

- 本產品僅能由合格的電氣工程人員安裝
- DAP-04搭配之LED電源僅能是明緯具三合一可調光之機種, 無法與其它LED電源品牌產品搭用

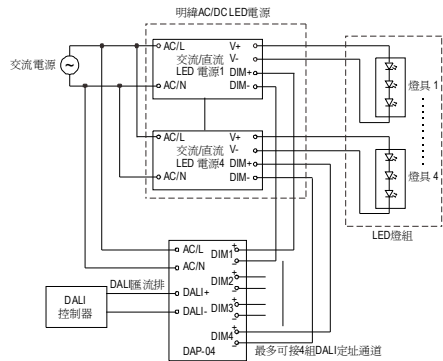
設定與連接：

1. 端子台腳位定義



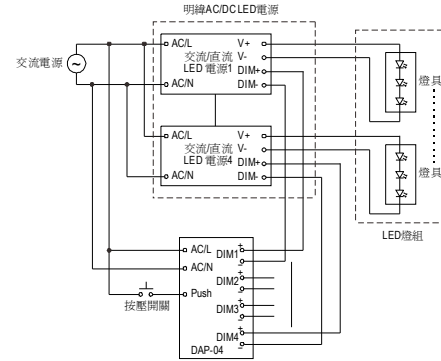
2. 調光功能的連接方式

a. DALI調光



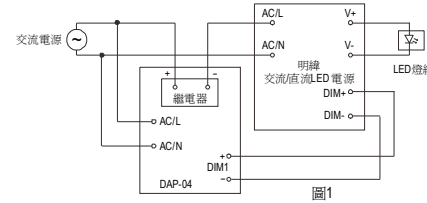
※請注意DALI控制線長度選用, 應確保DALI控制器與最遠的DAP-04之線壓降須小於2V; 使用1.5mm²線材時, 最長可為300公尺。

b. 按壓調光



※請注意僅能使用無指示燈的按鈕開關。

c. 調光加上ON/OFF功能



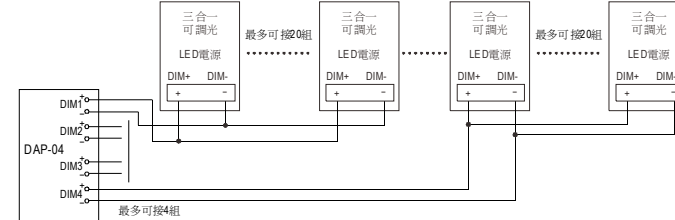
調光控制操作

功能	按壓時間
無動作	<0.05秒
開關	0.1~1秒
調光	1.5~10秒
重置	>11秒

- 當亮度小於10%時, 亮度僅能往上調亮。當調光亮度大於90%時, 亮度僅能往下調暗
- 出廠預設亮度為全亮(100%)

DAP-04內建繼電器可以開/關明緯的LED電源, 當DIM1調光輸出時, 繼電器為接合狀態, 當DIM1無輸出時, 繼電器為開路狀態。
※請注意當選用的明緯LED電源的輸入電流大於8A, 或是湧浪電流大於50A的機型, 內建繼電器需搭配額外電磁開關使用(參考圖2)。

d. 同步操作功能



DAP-04內建4組通道, 每個通道最多可連接20台明緯LED電源, 四個通道最多共可接80台明緯LED電源。
(每個通道皆可獨立控制, 接在同一組通道的明緯LED電源的亮度一致, DAP-04與LED電源的連接線壓降應小於0.5V; 使用1.31mm²線材時, 最長可為300公尺。)

※請注意當其中一台LED電源市電OFF時, 可能會導致其他LED電源輸出調光亮度下降。

3. 建議的安裝線材與工具

型式	側蓋(藍色)	TB1(AC/L,N,PUSH,DALI±,RY±)	TB2(DIM1±,2±,3±,4±)
單芯線		ϕ 1.02mm- ϕ 1.628mm	ϕ 1.02mm- ϕ 1.29mm
多芯絞線		0.823-2.08mm ²	0.823-1.31mm ²
美規線		14-18AWG	16-18AWG
剝線長度		10mm(0.39")	10mm(0.39")
安裝工具	5mm 十字	3mm 一字	3mm 一字
建議鎖附力矩	4.6kgf-cm(4lb-in)		
建議按壓力矩		3-4kp(6.61-8.81lb _f)	3-4kp(6.61-8.81lb _f)

4. 於230V在同一個MCB迴路下, 建議最大的安裝台數

型式	B10	B16	C10	C16
DAP-04	10	16	17	27

※此計算參數皆以ABB S201估算。