

# M22 SERIES



### Product Features

- Minimum fitting hole dimension: 30X40 mm ..... 最小安裝孔切割距離: 30X40 mm
- Degree of protection: IP 65 ..... 保護等級: IP65
- Up to 6 contacts per mounting position ..... 每個安裝位置可達到6組接點
- Quick setting modular system ..... 快速模組系統
- Front ring with black, shined silver, gold ..... 前面板飾環有黑、亮銀及金色
- Mounting diameter: 22.3mm ..... 面板鑽孔尺寸: 22.3mm
- Approved by UL, CSA, C.C.C. .... UL, CSA, C.C.C. 認證

**(一) M22FP Flat head/Illuminated Pushbutton 平面按鈕開關**



**1 Operation 操作**

M-Momentary 復歸  
 A-Alternate 交替  
 AM-Momentary Aluminum cover 鋁合金上蓋(復歸)  
 AA-Alternate 鋁合金上蓋(交替)

**2 Wiring terminal 配線端子接腳**

SF-Screw terminals with fixing on adapter 螺絲前扣  
 SB-Screw terminals with fixing on base 螺絲基座  
 CF-Clamp terminals with fixing on adapter 彈片前扣  
 CB-Clamp terminals with fixing on base 彈片基座  
 PF-PCB terminals with fixing on adapter 基板端子前扣

**3 Contact switch block 接點**

11-NO+NC(1A+1B)  
 10-NO(1A)  
 01-NC(1B)  
 20-2NO(2A)  
 02-2NC(2B)

**4 Rating operation voltage 電壓 (有燈泡型)**

E30-LED30V  
 E230-LED230V

**5 Color of lens 顏色**

G-green 綠色  
 R-red 紅色  
 Y-yellow 黃色  
 W-white 白色  
 BL-blue 藍色  
 WO 白色不透光  
 RO 紅色不透光  
 BKO 黑色不透光

**6 Symbol 標記**

As required.  
 /  
 /  
 /  
 /  
 /  
 /

M22FP- 1 2 3 4 5 6  
 EXP:1. M22FP- M SF 11 G  
 1. M22FP-MSF11G  
 平頭按鈕復歸前扣1A+1B接點，綠色(控制面板使用)

M22FP- 1 2 3 4 5 6  
 EXP:2. M22FP- A SB 20 R  
 2. M22FP-ASB20R  
 平頭按鈕交替基座2A接點，紅色(控制盒使用)



**(二) M22XP Extended head/Illuminated Pushbutton 凸頭按鈕開關**



**1 Operation 操作**

M-Momentary 復歸  
 A-Alternate 交替  
 AM-Momentary Aluminum cover 鋁合金上蓋(復歸)  
 AA-Alternate 鋁合金上蓋(交替)

**2 Wiring terminal 配線端子接腳**

SF-Screw terminals with fixing on adapter 螺絲前扣  
 SB-Screw terminals with fixing on base 螺絲基座  
 CF-Clamp terminals with fixing on adapter 彈片前扣  
 CB-Clamp terminals with fixing on base 彈片基座  
 PF-PCB terminals with fixing on adapter 基板端子前扣

**3 Contact switch block 接點**

11-NO+NC(1A+1B)  
 10-NO(1A)  
 01-NC(1B)  
 20-2NO(2A)  
 02-2NC(2B)

**4 Rating operation voltage 電壓(有燈泡型)**

E30-LED30V  
 E230-LED230V

**5 Color of lens 顏色**

G-green 綠色  
 R-red 紅色  
 Y-yellow 黃色  
 W-white 白色  
 BL-blue 藍色

**6 Symbol 標記**

As required.  
 /  
 /  
 /  
 /

M22XP- 1 2 3 4 5 6  
 EXP:1. M22XP- M SF 11 E30 G  
 1. M22XP-MSF11E30G  
 凸頭按鈕復歸前扣1A1B接點，LED30伏電壓，綠色(控制面板使用)

M22XP- 1 2 3 4 5 6  
 EXP:2. M22XP- A SB 10 E230 W  
 2. M22XP-ASB10E230W  
 凸頭按鈕交替基座1A接點，LED230伏電壓，白色(控制盒使用)



**(三) M22DP Double Actuator Pushbutton 雙頭按鈕開關**

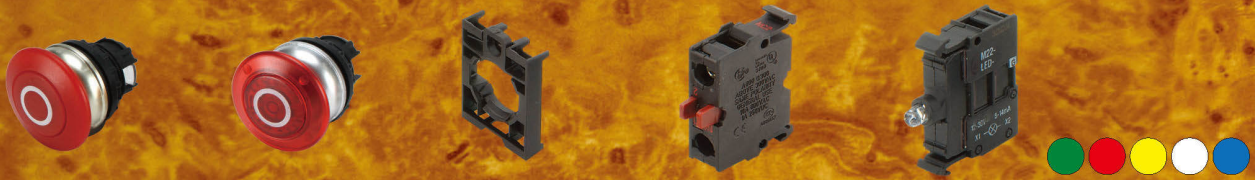


- |  |  |  |   |   |
|--|--|--|---|---|
| <p><b>1</b> Wiring terminal<br/>配線端子接腳</p> <p>SF-Screw terminals with fixing on adapter<br/>螺絲前扣<br/>SB-Screw terminals with fixing on base<br/>螺絲基座<br/>CF-Clamp terminals with fixing on adapter<br/>彈片前扣<br/>CB-Clamp terminals with fixing on base<br/>彈片基座<br/>PF-PCB terminals with fixing on adapter<br/>基板端子前扣</p> | <p><b>2</b> Contact switch block 接點</p> <p>11-NO+NC(1A+1B)</p> | <p><b>3</b> Rating operation voltage 電壓(有燈泡型)</p> <p>E30-LED30V<br/>E230-LED230V</p> | <p><b>4</b> Color of lens 顏色</p> <p>GR-green red<br/>綠紅色<br/>WB-white black<br/>白黑色</p> | <p><b>5</b> Symbol 標記</p> <p>&lt;I, O &gt;<br/>&lt;Start, Stop &gt;<br/>&lt;+, - &gt;<br/>"<br/>"</p> |
|--|--|--|---|---|

M22DP-**1** **2** **3** **4** **5**  
 EXP: M22DP-SF 02 E230 GR (I,O)  
 M22DP-SF02E230GR ( I, O )  
 雙頭按鈕開關前扣2B接點，LED230伏電壓，  
 綠紅色(起動，停止)，(控制面板使用)



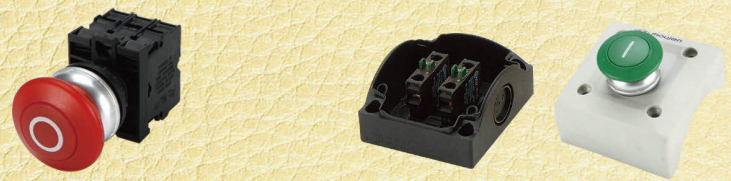
**(四) M22MP Mushroom Actuator Pushbutton 香菇頭按鈕開關**  
**M22MPL Illuminated Mushroom Actuator Pushbutton 照光式香菇頭按鈕開關**



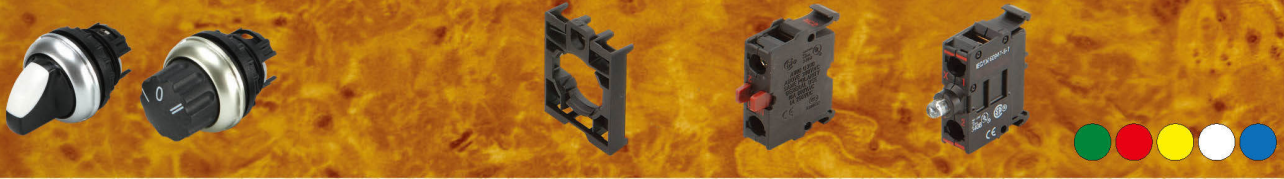
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|---|--|--|--|---|---|
| <p><b>1</b> Operation 操作</p> <p>M-Momentary<br/>復歸<br/>A-Alternate<br/>交替</p> | <p><b>2</b> Wiring terminal 配線端子接腳</p> <p>SF-Screw terminals with fixing on adapter<br/>螺絲前扣<br/>SB-Screw terminals with fixing on base<br/>螺絲基座<br/>CF-Clamp terminals with fixing on adapter<br/>彈片前扣<br/>CB-Clamp terminals with fixing on base<br/>彈片基座<br/>PF-PCB terminals with fixing on adapter<br/>基板端子前扣</p> | <p><b>3</b> Contact switch block 接點</p> <p>11-NO+NC(1A+1B)<br/>10-NO(1A)<br/>01-NC(1B)<br/>20-2NO(2A)<br/>02-2NC(2B)</p> | <p><b>4</b> Rating operation voltage 電壓(有燈泡型)</p> <p>E30-LED30V<br/>E230-LED230V</p> | <p><b>5</b> Color of lens 顏色</p> <p>G-green 綠色<br/>R-red 紅色<br/>Y-yellow 黃色<br/>W-white 白色<br/>BL-blue 藍色</p> | <p><b>6</b> Symbol 標記</p> <p>鏡片指示標記<br/>&lt;I, O &gt;<br/>"<br/>"</p> |
|---|--|--|--|---|---|

M22MP-**1** **2** **3** **4** **5** **6**  
 EXP: M22MP- M SF 11 R  
 1. M22MP-MSF11R  
 香菇頭按鈕復歸前扣1A1B接點，  
 紅色(控制面板使用)

M22MP-**1** **2** **3** **4** **5** **6**  
 EXP: M22MP- A SB 20 G  
 2. M22MP-ASB20G  
 香菇頭按鈕交替基座2A接點，  
 綠色(控制盒使用)



(五)M22S Selector Actuator Switch 選擇開關



<p><b>1 Shape 外型</b></p> <p>R-Rotary 轉動 T-Thumb grip 手指扳動</p>	<p><b>2 Operation 操作</b></p> <p>22—2 positons (40° spring return) 2段(40°彈回)</p> <p>20—2 positons (60° stay-put) 2段(60°定點左右)</p> <p>32—3 positons (40° spring return) 3段(40°彈回)</p> <p>30—3 positons (60° stay-put) 3段(60°定點左右)</p> <p>其他特殊使用方法由頭內零件組合變化以符合需要</p>	<p><b>3 Wiring terminal 配線端子接腳</b></p> <p>SF-Screw terminals with fixing on adapter 螺絲前扣 SB-Screw terminals with fixing on base 螺絲基座 CF-Clamp terminals with fixing on adapter 彈片前扣 CB-Clamp terminals with fixing on base 彈片基座 PF-PCB terminals with fixing on adapter 基板端子前扣</p>	<p><b>4 Contact switch block 接點</b></p> <p>11-NO+NC (1A+1B) 10-NO(1A) 01-NC(1B) 20-2NO(2A) 02-2NC(2B)</p>	<p><b>5 Rating operation voltage 電壓</b></p> <p>(Thumb grip only) (只有T型手指扳動) E30-LED30V E230-LED230V</p>	<p><b>6 Color of lens 顏色</b></p> <p>G-green 綠色 R-red 紅色 Y-yellow 黃色 W-white 白色 BL-blue 藍色</p>
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M22S- 1 2 3 4 5 6  
EXP: M22S- T 20 SF 10 E30 G

1.M22S-T20SF10E30G- 選擇開關手指型2段定點前扣, 1A接點, LED30伏電壓綠色

M22S- 1 2 3 4 5 6  
EXP: M22S- R 32 SF 20

2.M22S-R32SF20 選擇開關旋轉型3段彈回前扣, 2A接點

(六)M22K Key-operated Actuator Switch 鑰匙開關



<p><b>1 Operation 操作</b></p> <p>22—2 positons (40° spring return) 2段(40°彈回)</p> <p>20—2 positons (60° stay-put) 2段(60°定點左右)</p> <p>32—3 positons (40° spring return) 3段(40°彈回)</p> <p>30—3 positons (60° stay-put) 3段(60°定點左右)</p> <p>其他特殊使用方法由頭內零件組合變化以符合需要</p>	<p><b>2 Wiring terminal 配線端子接腳</b></p> <p>SF-Screw terminals with fixing on adapter 螺絲前扣 SB-Screw terminals with fixing on base 螺絲基座 CF-Clamp terminals with fixing on adapter 彈片前扣 CB-Clamp terminals with fixing on base 彈片基座 PF-PCB terminals with fixing on adapter 基板端子前扣</p>	<p><b>3 Contact switch block 接點</b></p> <p>11-NO+NC(1A+1B) 10-NO(1A) 01-NC(1B) 20-2NO(2A) 02-2NC(2B)</p>	<p><b>4 Key withdrawable in position 鑰匙抽出位置</b></p> <table border="1"> <tr> <td>2.positions:</td> <td>A</td> <td></td> <td>O</td> </tr> <tr> <td></td> <td>B</td> <td></td> <td>O.I</td> </tr> <tr> <td></td> <td>C</td> <td></td> <td>O</td> </tr> <tr> <td>3.positions:</td> <td>A</td> <td></td> <td>O</td> </tr> <tr> <td></td> <td>B</td> <td></td> <td>I.O.II.</td> </tr> <tr> <td></td> <td>C</td> <td></td> <td>I.O.</td> </tr> <tr> <td></td> <td>D</td> <td></td> <td>O.II.</td> </tr> <tr> <td></td> <td>E</td> <td></td> <td>O</td> </tr> <tr> <td></td> <td>F</td> <td></td> <td>I.II.</td> </tr> <tr> <td></td> <td>G</td> <td></td> <td>I.</td> </tr> </table>	2.positions:	A		O		B		O.I		C		O	3.positions:	A		O		B		I.O.II.		C		I.O.		D		O.II.		E		O		F		I.II.		G		I.
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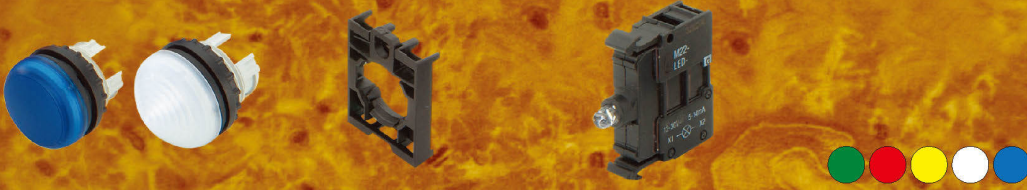
M22K- 1 2 3 4  
EXP:1. M22K- 22 SF 11 A

M22K- 1 2 3 4  
EXP:2. M22K- 30 SF 20 B

1.M22K-22SF11A- 鑰匙開關2段回彈前扣, 1A1B接點, O點取出Key.

2.M22K-30SF20B- 鑰匙開關3段定點前扣, 2A接點, I, O, II(全部)點取出Key, PS: 以上皆為控制面板用

**(七) M22L Pilot Light 指示燈**



**1 Shape 外型**

F-Flat head 平頭  
X-Extended head 凸頭

**2 Wiring terminal 配線端子接腳**

**SF**-Screw terminals with fixing on adapter 螺絲前扣  
**SB**-Screw terminals with fixing on base 螺絲基座  
**CF**-Clamp terminals with fixing on adapter 彈片前扣  
**CB**-Clamp terminals with fixing on base 彈片基座  
**PF**-PCB terminals with fixing on adapter 基板端子前扣

**3 Rating operation voltage 電壓(有燈泡型)**

E30-LED30V  
E230-LED230V

**4 Color of lens 顏色**

G-green 綠色  
R-red 紅色  
Y-yellow 黃色  
W-white 白色  
BL-blue 藍色

**5 Symbol 標記**

As required.  
"  
"  
"  
"

M22L- 1 2 3 4 5  
EXP:1. M22L- F SF 30 BL

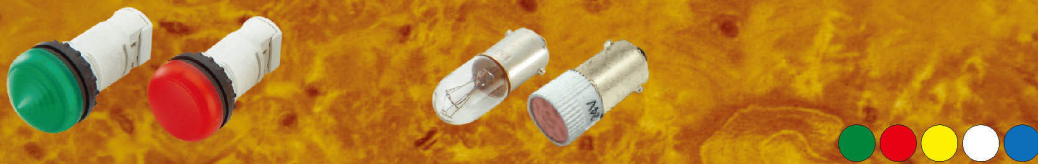
1. M22L-FSFE30BL  
指示燈平頭前扣，LED30伏特電壓，藍色(控制面板用)

M22L- 1 2 3 4 5  
EXP:2. M22L- F SB E230 R

2. M22L-FSBE230R  
指示燈平頭基座，LED230伏電壓，紅色(控制盒用)



**(八) M22LC Compact Pilot Light 簡易指示燈**



**1 Shape 外型**

F-Flat head 平頭  
X-Extended head 凸頭

**2 Rating Operation Voltage(bulb) 電壓**

Incandescent(AC /DC) 白熱燈  
06 —6VAC /DC  
14 —14VAC /DC  
28 —28VAC /DC  
120 —120VAC /DC  
LED  
E06 —6VAC /DC  
E12 —12VAC /DC  
E24 —24VAC /DC  
E110 —110VAC /DC  
E220 —220VAC /DC

**3 Color of lens 顏色**

G-green 綠色  
R-red 紅色  
Y-yellow 黃色  
W-white 白色  
BL-blue 藍色

M22LC- 1 2 3  
EXP:1. M22LC- F 28 R

1. M22LC-F28R 簡易型指示燈，平頭白熱燈泡，28伏電壓，紅色

M22LC- 1 2 3  
EXP:2. M22LC- X E110 Y

2. M22LC-XE110Y 簡易型指示燈，凸頭，110伏電壓LED燈泡，黃色  
P.S.: 簡易型指示燈只用於控制面板



**(九) M22E Emergency-Stop Pushbutton 緊急按鈕開關**

**M22EL Illuminated Emergency-Stop Pushbutton 照光式緊急按鈕開關**



**1 Operation 操作**

P-Pull to release  
拉出解除  
K-Key to release  
鑰匙解除  
T-Turn to release  
轉動解除

**2 Wiring terminal 配線端子接腳**

**SF-Screw** terminals with fixing on adapter  
螺絲前扣  
**SB-Screw** terminals with fixing on base  
螺絲基座  
**CF-Clamp** terminals with fixing on adapter  
彈片前扣  
**CB-Clamp** terminals with fixing on base  
彈片基座

**3 Contact switch block 接點**

11-NO+NC(1A+1B)  
10-NO(1A)  
01-NC(1B)  
20-2NO(2A)  
02-2NC(2B)

**4 Rating operation voltage 電壓(有燈泡型)**

E30-LED30V  
E230-LED230V

**5 Color of lens 顏色**

R-red 紅色

M22E- **1** **2** **3**  
EXP:1. M22E- P SF 20

1.M22E-PSF20 緊急按鈕，拉出解除，螺絲前扣，2A接點(控制面板使用)



M22E- **1** **2** **3**  
EXP:2. M22E- K SB 11

2.M22E-KSB11 緊急按鈕，鑰匙解除，螺絲基座，1A+1B接點(控制盒使用)

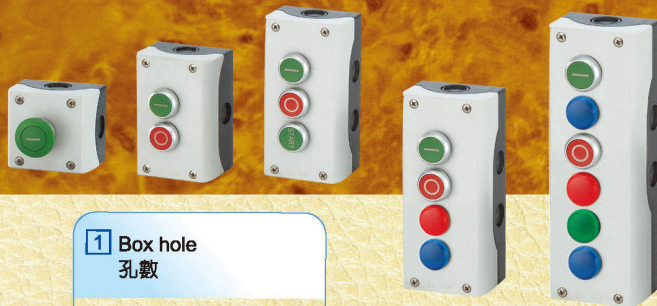


M22E- **1** **2** **3**  
EXP:3. M22E- T SB 20

3.M22E-TSB20 緊急按鈕，轉動解除，螺絲基座，2A接點(控制盒使用)



**(十) M22 Box 控制盒**



**1 Box hole 孔數**

B1-one hole 1孔  
B2-two holes 2孔  
B3-three holes 3孔  
B4-four holes 4孔  
B6-six holes 6孔

**IP65**

**2 Color 顏色**

YB-yellow black 黃黑  
IB-ivory black 白黑

M22- **1** **2**  
EXP: M22- B3 IB

M22-B3IB 3孔控制盒，上白下黑



(十一) M22FPS Foot and Palm Switch 手足開關(緊急)



**1 Operation**  
操作

M-Spring-return  
復歸  
A-Stay-Put  
交替  
P-Pull to release  
拉回復歸

**2 Wiring terminal**  
配線端子接腳

SD-Screw  
terminals with  
fixing on Base  
螺絲基座

**3 Contact switch block**  
接點

11-NO+NC(1A+1B)  
10-NO(1A)  
01-NC(1B)  
20-2NO(2A)  
02-2NC(2B)

**4 Color of lens**  
顏色

RI- red ivory  
GI- green ivory  
BI- black ivory

M22FPS- **1** **2** **3** **4**  
EXP:1. M22FPS- M SD 20 RI

1. M22FPS-MSD20RI-  
緊急手足開關，復歸，  
2A接點，上紅下白色



**Accessories 配件**

**1 Contact Blocks 接點組**

Front fixing 前扣固定  
Screw terminals 螺絲端子



代號  
→NO(A接點) SF-NO



代號  
→NC(B接點) SF-NC

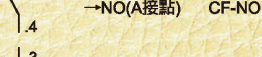
Clamp terminals 彈片端子



代號  
→NC(B接點) CF-NC



代號  
→NC(B接點) CF-NC



代號  
→NO(A接點) CF-NO

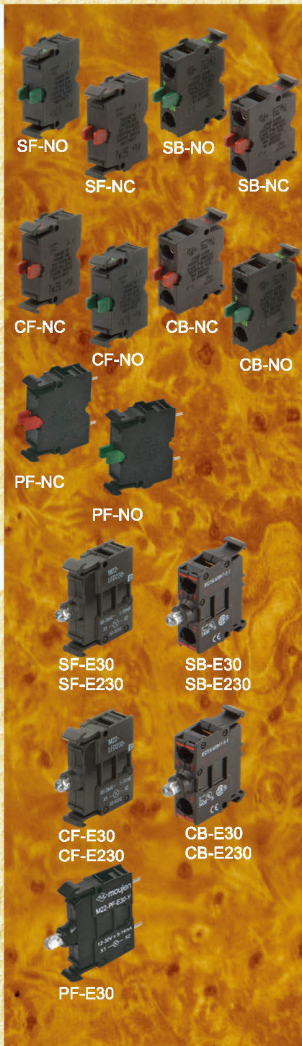
PCB terminals 基板端子



代號  
→NO(A接點) PF-NO



代號  
→NC(B接點) PF-NC



綠色表NO組，紅色表NC組

Base fixing 基座固定

Screw terminals 螺絲端子



代號  
→NO(A接點) SB-NO



代號  
→NC(B接點) SB-NC

Clamp terminals 彈片端子



代號  
→NC(B接點) CB-NC



代號  
→NC(B接點) CB-NC



代號  
→NO(A接點) CB-NO



**2 LED Element—LED 燈泡組**

Front fixing 前扣固定

Rated Operational Voltage 操作電壓	Rated Operational Current 操作電流	Power consumption 功率	代號
12-30VAC/DC	5~14mA	0.26W /24V	SF-E30
85-264VAC	5~15mA	0.33W /24V	SF-E230

Screw terminals 螺絲端子

12-30VAC/DC	5~14mA	0.26W /24V	SF-E30
85-264VAC	5~15mA	0.33W /24V	SF-E230

Clamp terminals 彈片端子

12-30 VAC/DC	5~14mA	0.26W /24V	CF-E30
85-264 VAC	5~15mA	0.33W /24V	CF-E230

PCB terminals 基板端子

12-30 VAC/DC	5~14mA	0.26W /24V	PF-E30
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Base fixing 基座固定

Rated Operational Voltage 操作電壓	Rated Operational Current 操作電流	Power consumption 功率	代號
12-30VAC/DC	5~14mA	0.26W /24V	SB-E30
85-264VAC	5~15mA	0.33W /24V	SB-E230

Screw terminals 螺絲端子

12-30VAC/DC	5~14mA	0.26W /24V	SB-E30
85-264VAC	5~15mA	0.33W /24V	SB-E230

Clamp terminals 彈片端子

12-30 VAC/DC	5~14mA	0.26W /24V	CB-E30
85-264 VAC	5~15mA	0.33W /24V	CB-E230

**M22BZ Panel mount buzzer / Buzzer with LED indicating light**  
**M22BZ 蜂鳴器 / 蜂鳴器 附 LED 指示燈** **CE RoHS**

Description	M22BZ-220ACS	M22BZ-220ACF	M22BZ-110ACS	M22BZ-110ACF	M22BZ-024DCS	M22BZ-024DCF	M22BZ-024DCSL	M22BZ-024DCFL
Dimensions 尺寸	Ø29.7mm X 53mmL							
Current 電流	< 50mA							
Input voltage 輸入電壓	220VAC	220VAC	110VAC	110VAC	24VDC	24VDC	24VDC	24VDC
Tone 鳴叫聲音	Slow pulse 慢斷續聲	Fast pulse 快斷續聲	Slow pulse 慢斷續聲	Fast pulse 快斷續聲	Slow pulse 慢斷續聲	Fast pulse 快斷續聲	Slow pulse 慢斷續聲	Fast pulse 快斷續聲
Light indication 燈光指示	—	—	—	—	—	—	Red LED 紅色 LED	Red LED 紅色 LED
Operating temperature 工作溫度	-30°C ~ +85°C							
Storage temperature 儲藏溫度	-40°C ~ +85°C							
Weight 重量	16g		16g		16.5g		17g	
Life duration 使用壽命	Up to 10,000 Hrs    使用一萬小時以上							
Fixing 安裝方式	For Ø22mm ~ Ø25mm mounting    孔徑 Ø22~ Ø25mm 安裝使用							
Lens color 色蓋顏色	Black 黑色	Black 黑色	Black 黑色	Black 黑色	Black 黑色	Black 黑色	Red 紅色	Red 紅色



M22BZ-220ACS



M22BZ-110ACS



M22BZ-024DCS



M22BZ-024DCSL



M22BZ-220ACF



M22BZ-110ACF



M22BZ-024DCF



M22BZ-024DCFL



### 3 M22LC-Bulb 簡易型燈泡

Incandescent Blub	白熱燈
Code rated	operational voltage current
代號	操作電壓 操作電流
M22-06	6VAC/DC 200mA
M22-14	14VAC/DC 80mA
M22-28	28VAC/DC 40mA
M22-120	120VAC/DC 25mA



LED Bulb	LED燈
Code rated	operational voltage
代號	操作電壓
M22-E06	6VAC/DC
M22-E12	12VAC/DC
M22-E24	24VAC/DC
M22-E110	110VAC/DC
M22-E220	220VAC/DC

### 4 M22-FR Front ring 面板飾環

- Black 黑
- Silver 亮銀
- Gold 金



### 5 M22-TR Threaded ring 頭部固定環

- Plastic 塑膠
- metal 鋅合金



### 6 M22-A3 Fixing adapter For 3 elements 頭部與3組開關中接環

Code  
代號 M22-A3



Code  
代號 M22-FRB

Code  
代號 M22-FRS

Code  
代號 M22-FRG

Code  
代號 M22-TRP

Code  
代號 M22-TRM

### 7 M22E-GR Guard ring for Emergency-stop 緊急開關保護蓋

Code  
代號 M22E-GR



### M22-A4 Fixing adapter for 4 elements 頭部與4組開關中接環

Code  
代號 M22-A4

### M22E-GRC Guard ring cover for Emergency-stop 緊急開關保護套組

Code  
代號 M22E-GRC

FP, XP, MP



### 8 Button Plates 色蓋及標示

D.P.



### 9 M22 Legend plates 銘板



### 10 M22-Mounting Wrench 取置器



Code  
代號 M22-LP  
Available with Laser Marking (custom made)  
雷射雕刻記號(訂製品)

Code  
代號 M22-MW

### 11 M22E-Label for ES 緊急開關貼紙

ø90mm ; ø60mm



Code  
代號 M22E-LES

### 12 M20-Cable Gland 電纜固定頭

M20 \* P1.5



Code  
代號 M20

### 13 M22-C1 Dust Protection Caps For M22 FP 按鈕開關防塵蓋



Code  
代號 M22-C1

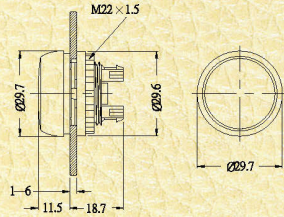
### 14 M22-C2 Dust Protection Caps For M22 DP 雙頭按鈕開關防塵蓋



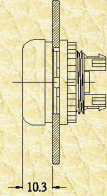
Code  
代號 M22-C2

		Contact elements 開關接觸接點	LED elements LED單元	Illuminated pushbutton actuators, Pushbutton actuators, Mushroom actuators, spring-return 復歸型照光按鈕開關	Double pushbutton actuators 雙頭開關	Selector switch actuators, Illuminated selector switch actuators 照光選擇開關
<b>General Technical data</b>						
Standards		IEC/EN 60947 UL-508 VDE 0660				
Lifespan, mechanical	Operations	> 5000000	—	>5000000	>200000	>100000
Operating frequency	Operations/h	< 3600	—	<3600	<3600	<2000
Actuating force	g	< 510g	—	<510g	< 510g	—
Operating torque		< 0.8 Nm	—	—	—	< 0.3 Nm
Degree of protection, IEC/EN 60529		See Selection pages				
Ambient temperature Open		-25/70 °C	-25/70 °C	-25/70 °C	-25/70 °C	-25/70 °C
Mechanical shock resistance according to IEC 60068-2-27 Shock duration 11ms. Half-sinusoidal		> 30g	> 30g	> 30g	> 30g	> 30g
Terminal capacity						
Solid		0.75 - 2.5 mm <sup>2</sup>	0.75 - 2.5 mm <sup>2</sup>	—	—	—
Stranded		0.5 - 2.5 mm <sup>2</sup>	0.5 - 2.5 mm <sup>2</sup>	—	—	—
<b>Contacts 接觸特性參量</b>						
Rated impulse withstand voltage	Uimp	6000 VAC	6000 VAC			
Rated insulation voltage	Ui	500 V	500 V			
Max. short-circuit protective device Fuse	gG/gL	10 A				
<b>Switching capacity 開關電流額定</b>						
<b>Rated operational current</b>						
<b>AC-15</b>						
115V	Ie	6 A				
230V	Ie	6 A				
400V	Ie	4 A				
500V	Ie	2 A				
<b>DC-13</b>						
24V	Ie	3 A				
42V	Ie	1.7 A				
60V	Ie	1.2 A				
110V	Ie	0.8 A				
220V	Ie	0.3 A				
<b>Lifespan, electrical</b>						
<b>AC-15</b>						
230 V / 0.5 A	Operations	1600000				
230 V / 1.0 A	Operations	1000000				
230 V / 3.0 A	Operations	700000				
<b>DC-13</b>						
12 V / 2.8 A	Operations	1200000				
<b>Technical Data</b>						
General Technical data		Key operated actuators 鑰匙開關	Pilot lights compact acoustic Indicators, Compact indicator lights. 指示燈及觸覺型指示燈	Illuminated pushbutton actuators, Pushbutton actuators, Mushroom actuators, stay-put 交替型照光或按鈕開關	Emergency stop actuators 緊急開關	
Standards		IEC/EN 60947 UL-508 VDE 0660				
Lifespan, mechanical	Operations	>1000000	—	>1000000	> 100000	
Operating frequency	Operations/h	<100	—	< 1800	< 600	
Actuating force		—	—	< 510 g	< 5100 g	
Operating torque		< 0.5Nm	—	—	—	
Ambient temperature Open		-25/70 °C	-25/70 °C	-25/70 °C	-25/70 °C	
Mechanical shock resistance according to IEC 60068-2-27 Shock duration 11ms. Half-sinusoidal		>30 g	>30 g	> 30 g	>50 g	
Terminal capacity						
Solid		—	0.5 - 1.5 mm <sup>2</sup>	—	—	
Stranded		—	0.5 - 1.5 mm <sup>2</sup>	—	—	
<b>Contacts</b>						
Rated impulse withstand voltage	Uimp	—	4000VAC			
Rated insulation voltage	Ui	—	2500V			
<b>M22FPS foot and palm switches 手足開關</b>						
		Spring-return 復歸型		Stay-put 交替型		
<b>General Technical data</b>						
Standards		IEC/EN 60947 UL-508 VDE 0660				
Lifespan, mechanical	Operations	> 1000000		> 100000		
Operating frequency	Operations/h	< 3600		< 600		
Actuating force		< 4080g		< 6120 g		
Operating torque		—		—		
Degree of protection, IEC/EN 60529		IP67		IP67		
Ambient temperature Open		-25/40°C		-25/40°C		
Mechanical shock resistance according to IEC 60068-2-27 Shock duration 11ms. Half-sinusoidal		>15 g		>15 g		

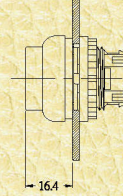
**Pilot Lights Dimension**  
指示燈尺寸圖



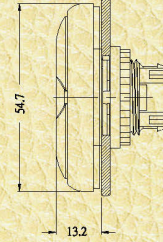
▪ **M22 FP** Illuminated pushbuttons  
照光式平頭按鈕開關  
頭部尺寸



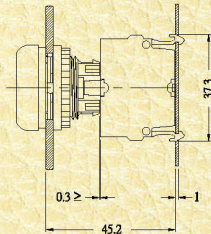
▪ **M22 XP** Illuminated pushbuttons  
照光式凸頭按鈕開關  
頭部尺寸



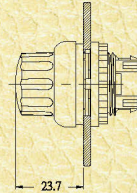
▪ **M22 DP** Pushbutton actuators  
雙頭按鈕開關頭部尺寸



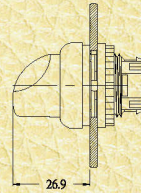
▪ **M22 FP** SB pushbuttons in base fixing  
按鈕開關及頭部尺寸  
(基座固定)



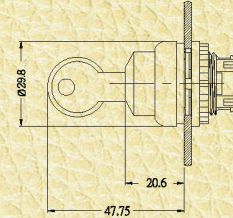
▪ **M22S-R** Selector switch actuators  
轉動選擇開關頭部尺寸



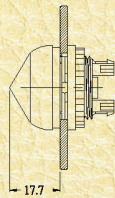
▪ **M22S-T** Selector switch actuators  
指板選擇開關頭部尺寸



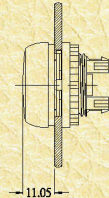
▪ **M22K** Key-operated actuators  
鑰匙開關頭部尺寸



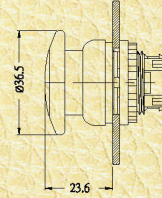
▪ **M22L-X** Pilot Lights  
凸型指示燈頭部尺寸



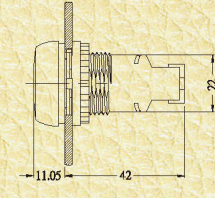
▪ **M22L-F** Pilot Lights  
平頭指示燈頭部尺寸



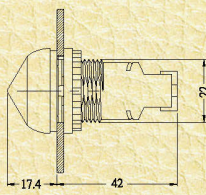
▪ **M22MP** Mushroom buttons  
香菇頭按鈕開關頭部尺寸  
**M22MPL** Illuminated Mushroom buttons  
照光式香菇頭按鈕開關頭部尺寸



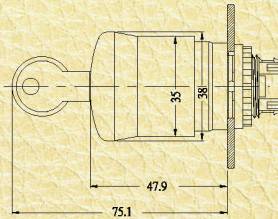
▪ **M22LC** Compact pilot lights  
平頭簡易型指示燈尺寸  
**M22BZ** BUZZER  
蜂鳴器



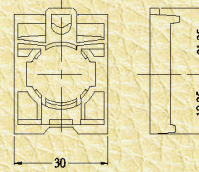
▪ **M22LC** Compact pilot lights  
凸型簡易型指示燈尺寸



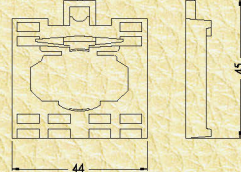
▪ **M22E-P** Emergency-Stop  
**M22E-K** actuators  
**M22E-T** 緊急停止開關頭部



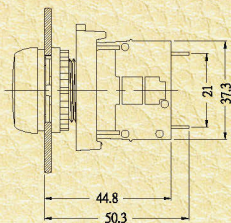
▪ **M22-A3** Fixing adapter  
中接組件尺寸



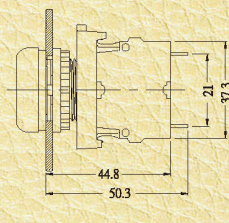
▪ **M22-A4** Fixing adapter  
中接組件尺寸



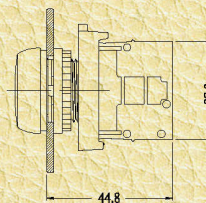
▪ **M22-PF-LED**  
PCB terminals (LED Element)  
前扣基板端子 (LED燈泡組) 尺寸



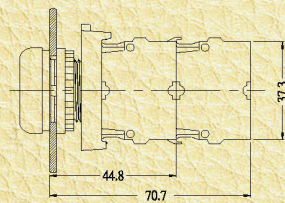
▪ **M22-PF-NO&NC**  
PCB terminals (NO&NC)  
前扣基板端子 (NO&NC接點組) 尺寸



▪ **M22-SF-LED**  
Switch block front fixing  
前扣尺寸

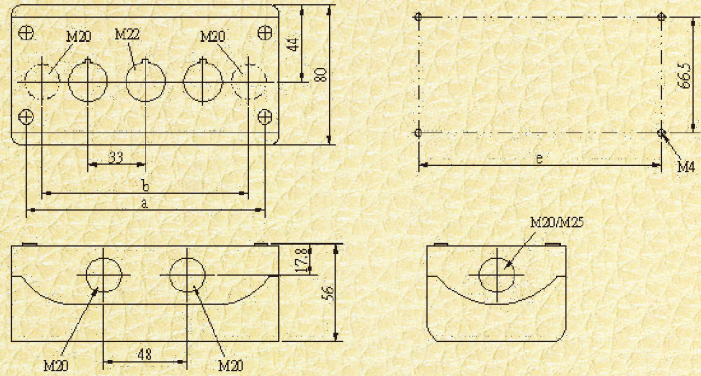
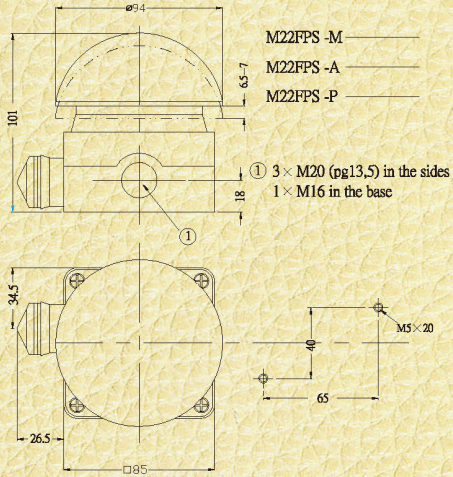


▪ **M22-** plus second layer  
switch block  
加裝第二層開關體



■ **M22FPS** Foot and palm switches  
手足開關 (緊急)

Switch Box (開關盒)  
B1~B6



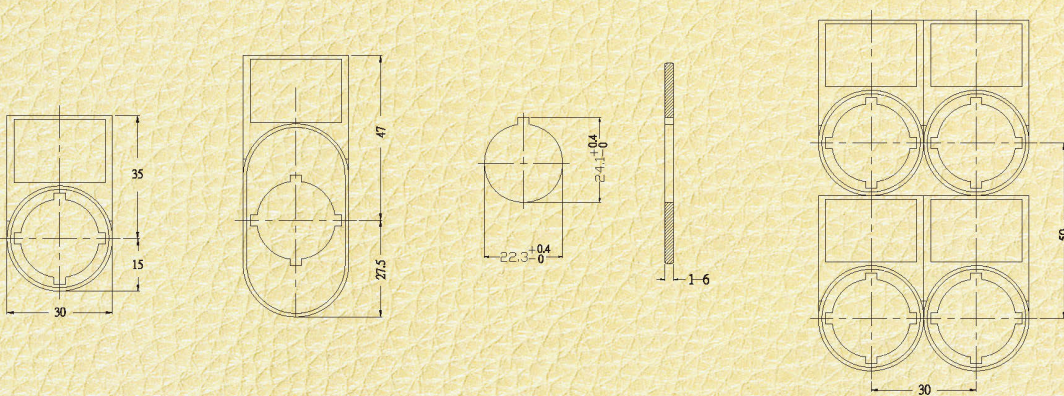
Type	Mounting	a	b	e	Cable entries
B1	1	72	42.6	58.5	2×M16 3×M20 2×M25
B2	2	120	85.6	106.5	2×M20 3×M20 2×M25
B3	3	153	118.6	139.5	2×M20 2×M25 4×M20
B4	4	186	151.6	172.5	2×M20 2×M25 4×M20
B6	6	252	217.6	238.5	2×M20 2×M25 4×M20

■ **M22-各系列**  
Label mounts  
標籤尺寸

■ **M22DP**  
Label mounts  
標籤尺寸

Mounting hole with lug slot  
面板鑽孔尺寸及厚度

Grid dimension to  
IEC/EN 60947



■ **M22E-GRC** Guard ring cover for emergency-stop  
緊急關關保護蓋

■ **M22E-GR** Guard ring for emergency-stop  
緊急關關保護蓋

