



MACK

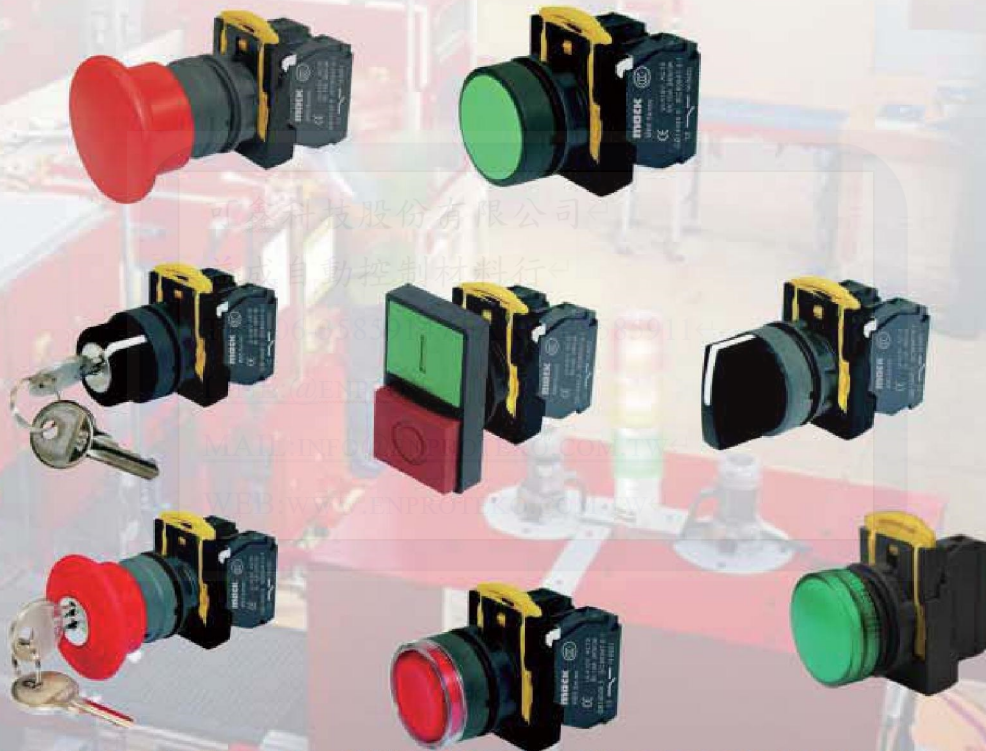
MB5系列按鈕開關目錄 CONTENTS

MB5按鈕開關選配說明、產品概述、技術參數、燈珠規格
COMPONENTS SELECTION GUIDE、PRODUCT OVERVIEW、TECHNICAL DATA、BULB TYPE

MB5按鈕開關編號說明
ORDERING

MB5按鈕開關
MB5 PUSH BUTTON ACTUATORS

配件
ACCESSORIES



创新性的解决了：殘餘電壓造成的指示燈微亮現象、交流電反向電流燒壞LED現象、浪湧及雜波引起的LED燒壞現象。

Innovatively resolve the following problems: left-over cause indication light to light, alternative current opposite to burn the LED, slight wave damage the LED.

- ★ 解决了设备电路关闭情况下残余电压造成的指示灯微亮现象!指示燈啟動電壓 $\geq 24V$,低於此電壓指示燈不發光。(見48V-240V啟動電壓)

We solve the problem of pilot light' tiny-light after the equipment electricity line shut down with residual voltage.
(See 48V-240V start voltage)

- ★ LED集成了兩個相反LED晶片,當它接到交流電時,正半波與負半波兩個LED輪流導通,將電壓穩定在3V左右,這樣LED反向電壓超過3V時不會將LED擊穿燒壞。

LED combine with two opposited LED chips, when it is connected with alternative voltage, the positive and negative weave led come through. And we control the voltage at 3V, so LED opposited 3V will not damage the product.

- ★ LED兩端并連了電阻,此電阻與LED的降壓電阻比起來阻值小,起到穩壓及分流作用,在LED遇到浪湧及一些雜波干擾電壓升高時,大電壓作用在降壓電阻上面,同時通過這個電阻的分流作用保護了LED。

LED two sides connected with resistance, which is much lower than bulb's resistance, whoes function is stablized voltage and shunt electricity. When LED come up with wave and some small weave will cause the voltage grow up. When the high voltage meet the decrease resistance, they will inform the communicate the resistance to shunt the electricity to protect the LED.

產品概述

MB5系列按鈕開關適用於交流50Hz或60Hz，額定工作電壓至240V及直流工作電壓至240V的工業控制電路中，作為電磁起動器、接觸器、繼電器及其他電器線路的控制之用。

PRODUCT OVERVIEW

MB5 SERIES PUSH BUTTON ACTUATORS is suitable to be applied with AC 50Hz or 60Hz, rated voltage up to 240V and AC working voltage up to 240 industrial electricity line. It is used as electromagnetism starter, contactor and relay and other electrical line control.

按鈕開關選配說明
COMPONENTS SELECTION GUIDE


按鈕頭部中心缺口對準中板固定槽突點處扣壓
 The center (larger) gap of actuator is pointed to the protrusion of the holder and push in.

按壓開閉鈕即可將中板與頭部分離
 Push the button then easily could separate the middle part and the head actuator

技術參數 TECHNICAL DATA

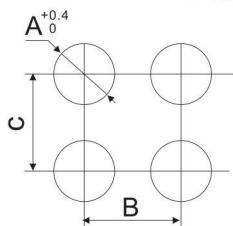
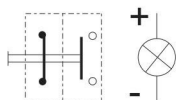
額定絕緣電壓 U_i (V)	Rated Insulation Voltage	415V
約定自由空氣發熱電流 I_{th} (A)	Rated Free air Heating Electric Current	10A
額定工作電壓 U_e (V)	Rated Operating Voltage	240V、125V
工作溫度	Rated Operating Temperature	-25°C ~ +55 °C
抗振性	Shutter Protection	<500Hz, 振幅約1.0mm Amplitude about 1.0mm
抗衝擊	Shock-Resistance	≥10g
防護等級	Protection Degree	IP54
★48V-240V啟動電壓(V)	Start Voltage	≥24V
接觸電阻	Contact Resistance	≤50mΩ
機械壽命	Mechanical Endurance	自複鈕100萬次以上，其餘10萬次以上
電壽命	Re-connection Time	AC 10萬次以上，通斷頻率30次/分鐘
短路保護	Short circuit Protection	RT10-16A

燈珠規格 BULB TYPE

燈珠類型 Type	MBA9S LED燈珠			
額定電壓 Rated Voltage(V)	AC/DC12V	AC/DC24V	AC/DC110V	AC220V
燈珠壽命 Lamp Life(H)	≥3萬小時 ≥30,000 Hours			
燈珠顏色 Colours	R	G	Y	BL W
電壓極限 Voltage Limits	0.85 U_n ≤ U ≤ 1.1 U_n			

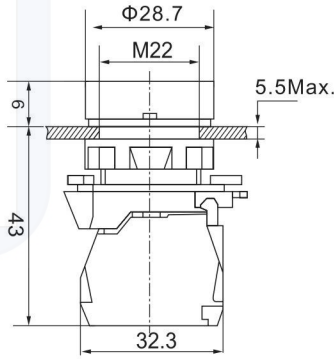
MB5 PUSH BUTTON ACTUATORS
安裝孔尺寸 INSTALLATION HOLE SIZE

安裝面板厚度為0.5~5.5mm The Installation Panel Thickness is 0.5~5.5mm

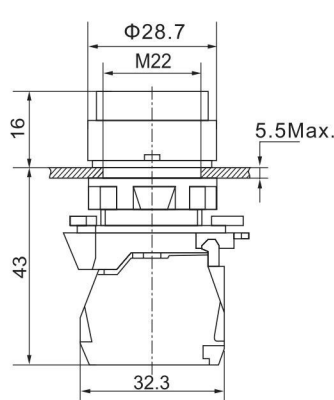

 11、12為常閉觸頭NC 11、12 is Normal Close Contact NC
 13、14為常開觸頭NO 13、14 is Normal Open Contact NO


類型 Type	A	B	C	備註 Remark
普通型 Common Type	Φ22 Φ25	≥32	≥45	1、單位 : mm 2、B和C指最小尺寸 B and C Refer to the Minimum Size
蘑菇式 Mushroom		≥45	≥45	
雙頭按鈕式 Double Touch		≥32	≥50	

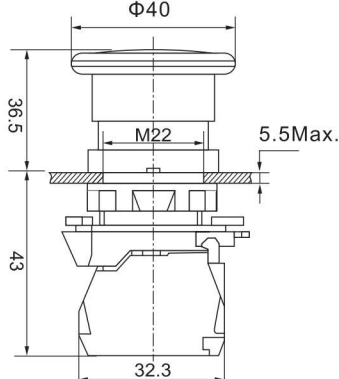
**MB5-F
平頭按鈕**


規格型號 Type	觸點 Contact Point	動作類型 Action	顏色 Colours	尺寸圖 Size Chart (mm)
MB5-F-10-□	1NO	瞬時型 Momentary Type	R 紅色	
MB5-F-01-□	1NC		G 綠色	
MB5-F-11-□	1NO 1NC		Y 黃色	
MB5-F-20-□	2NO		BL 藍色	
MB5-F-02-□	2NC		W 白色 B 黑色	

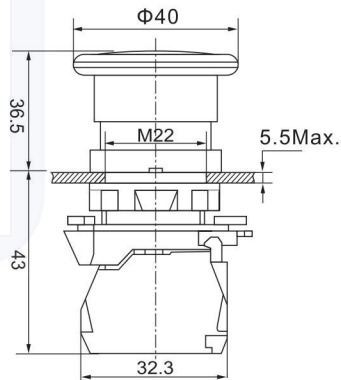
**MB5-P
凸頭按鈕**


規格型號 Type	觸點 Contact Point	動作類型 Action	顏色 Colours	尺寸圖 Size Chart (mm)
MB5-P-10-□	1NO	瞬時型 Momentary Type	R 紅色	
MB5-P-01-□	1NC		G 綠色	
MB5-P-11-□	1NO 1NC		Y 黃色	
MB5-P-20-□	2NO		BL 藍色	
MB5-P-02-□	2NC		W 白色 B 黑色	

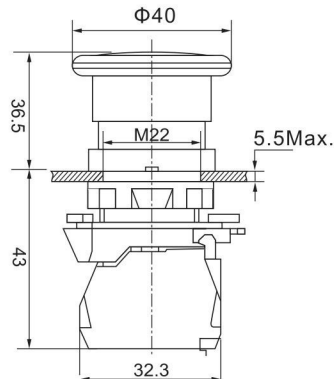
MB5 PUSH BUTTON ACTUATORS
MB5-M
大頭按鈕


規格型號 Type	觸點 Contact Point	動作類型 Action	顏色 Colours	尺寸圖 Size Chart (mm)
MB5-M-10-□	1NO	瞬時型 Momentary Type	R 紅色 G 綠色 Y 黃色	
MB5-M-01-□	1NC			
MB5-M-11-□	1NO 1NC			
MB5-M-20-□	2NO			
MB5-M-02-□	2NC			

MB5-Z
保險按鈕


規格型號 Type	觸點 Contact Point	動作類型 Action	顏色 Colours	尺寸圖 Size Chart (mm)
MB5-Z-10-R	1NO	瞬時型 Momentary Type	R 紅色	
MB5-Z-01-R	1NC			
MB5-Z-11-R	1NO 1NC			
MB5-Z-20-R	2NO			
MB5-Z-02-R	2NC			

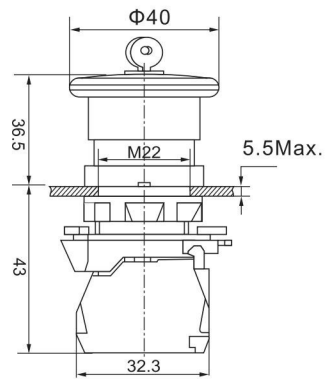
MB5-T
按拉式急停按鈕


規格型號 Type	觸點 Contact Point	動作類型 Action	顏色 Colours	尺寸圖 Size Chart (mm)
MB5-T-10-R	1NO	瞬時型 Momentary Type	R 紅色	
MB5-T-01-R	1NC			
MB5-T-11-R	1NO 1NC			
MB5-T-20-R	2NO			
MB5-T-02-R	2NC			

MB5 PUSH BUTTON ACTUATORS
MB5-AS

鎖扣式大頭按鈕

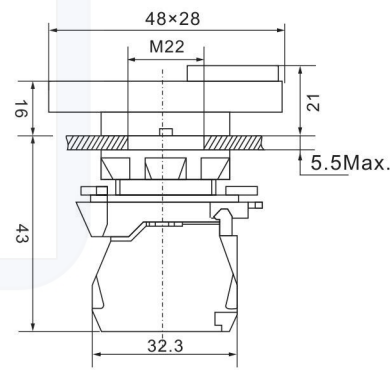


規格型號 Type	觸點 Contact Point	動作類型 Action	顏色 Colours	尺寸圖 Size Chart (mm)
MB5-AS-10-R	1NO	瞬時型 Momentary Type	 紅色	
MB5-AS-01-R	1NC			
MB5-AS-11-R	1NO 1NC			
MB5-AS-20-R	2NO			
MB5-AS-02-R	2NC			

MB5-R

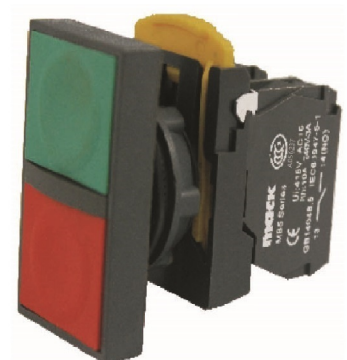
雙頭按鈕

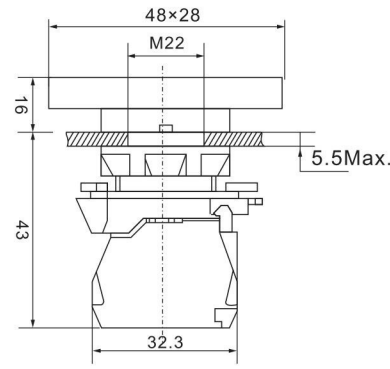


規格型號 Type	觸點 Contact Point	動作類型 Action	尺寸圖 Size Chart (mm)
MB5-R-10	1NO	瞬時型 Momentary Type	
MB5-R-01	1NC		
MB5-R-11	1NO 1NC		
MB5-R-20	2NO		
MB5-R-02	2NC		

MB5-RP

雙頭等高按鈕

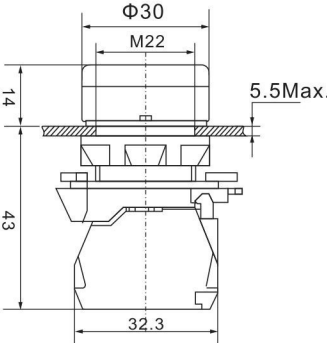


規格型號 Type	觸點 Contact Point	動作類型 Action	尺寸圖 Size Chart (mm)
MB5-RP-10	1NO	瞬時型 Momentary Type	
MB5-RP-01	1NC		
MB5-RP-11	1NO 1NC		
MB5-RP-20	2NO		
MB5-RP-02	2NC		

MB5 PUSH BUTTON ACTUATORS
MB5-LF

平頭照光按鈕

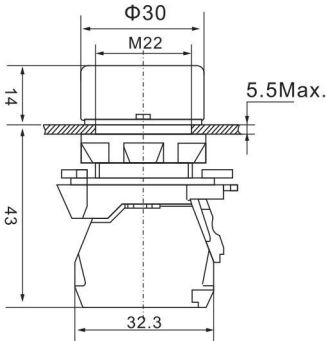


規格型號 Type	觸點 Contact Point	動作類型 Action	顏色 Colours	電壓 Voltage	尺寸圖 Size Chart (mm)	
MB5-LF-10-□-D2LK	1NO	瞬時型 Momentary Type	R 紅色	AC/DC12V		
MB5-LF-01-□-D2LK	1NC					
MB5-LF-11-□-D2LK	1NO 1NC					
MB5-LF-20-□-D2LK	2NO					
MB5-LF-02-□-D2LK	2NC		G 綠色	AC/DC24V		
MB5-LF-10-□-D4LK	1NO					
MB5-LF-01-□-D4LK	1NC					
MB5-LF-11-□-D4LK	1NO 1NC					
MB5-LF-20-□-D4LK	2NO		Y 黃色	AC/DC110V		
MB5-LF-02-□-D4LK	2NC					
MB5-LF-10-□-N1LK	1NO					
MB5-LF-01-□-N1LK	1NC					
MB5-LF-11-□-N1LK	1NO 1NC		BL 藍色	AC/DC110V		
MB5-LF-20-□-N1LK	2NO					
MB5-LF-02-□-N1LK	2NC					
MB5-LF-10-□-N2LK	1NO		W 白色	AC220V		
MB5-LF-01-□-N2LK	1NC					
MB5-LF-11-□-N2LK	1NO 1NC					
MB5-LF-20-□-N2LK	2NO					
MB5-LF-02-□-N2LK	2NC					

MB5-L

平頭指示燈

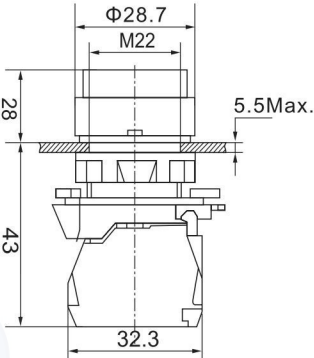


規格型號 Type	動作類型 Action	顏色 Colours	電壓 Voltage	尺寸圖 Size Chart (mm)
MB5-L-□-D2LK	瞬時型 Momentary Type	R 紅色	AC/DC12V	
MB5-L-□-D4LK			AC/DC24V	
MB5-L-□-N1LK			AC/DC110V	
MB5-L-□-N2LK			AC220V	

MB5 PUSH BUTTON ACTUATORS

MB5-S2/MB5-S3
 MB5-S2f/MB5-S3ffu
 短柄



規格型號 Type	觸點 Contact Point	動作類型 Action	顏色 Colours	尺寸圖 Size Chart (mm)
MB5-S2-10- ☐	1NO	兩位鎖定 Two Positions Locked	 紅色	
MB5-S2-01- ☐	1NC			
MB5-S2-11- ☐	1NO 1NC			
MB5-S2-20- ☐	2NO			
MB5-S2-02- ☐	2NC			
MB5-S2f-10- ☐	1NO	兩位 右復位 Spring Return from Two Ways	 綠色	
MB5-S2f-01- ☐	1NC			
MB5-S2f-11- ☐	1NO 1NC			
MB5-S2f-20- ☐	2NO			
MB5-S2f-02- ☐	2NC			
MB5-S3-10- ☐	1NO	三位鎖定 Three Positions Locked	 黃色	
MB5-S3-01- ☐	1NC			
MB5-S3-11- ☐	1NO 1NC			
MB5-S3-20- ☐	2NO			
MB5-S3-02- ☐	2NC			
MB5-S3ffu-10- ☐	1NO	三位左 右復位 Spring Return from Three Ways	 黑色	
MB5-S3ffu-01- ☐	1NC			
MB5-S3ffu-11- ☐	1NO 1NC			
MB5-S3ffu-20- ☐	2NO			
MB5-S3ffu-02- ☐	2NC			

MB5-D2/MB5-D3
 MB5-D2f/MB5-D3ffu
 長柄



規格型號 Type	觸點 Contact Point	動作類型 Action	顏色 Colours	尺寸圖 Size Chart (mm)		
MB5-D2-10-B	1NO	兩位鎖定 Two Positions Locked	黑色			
MB5-D2-01-B	1NC					
MB5-D2-11-B	1NO 1NC					
MB5-D2-20-B	2NO					
MB5-D2-02-B	2NC					
MB5-D2f-10-B	1NO	兩位 右復位 Spring Return from Two Ways				
MB5-D2f-01-B	1NC					
MB5-D2f-11-B	1NO 1NC					
MB5-D2f-20-B	2NO					
MB5-D2f-02-B	2NC					
MB5-D3-10-B	1NO	三位鎖定 Three Positions Locked				
MB5-D3-01-B	1NC					
MB5-D3-11-B	1NO 1NC					
MB5-D3-20-B	2NO					
MB5-D3-02-B	2NC					
MB5-D3ffu-10-B	1NO	三位左 右復位 Spring Return from Three Ways				
MB5-D3ffu-01-B	1NC					
MB5-D3ffu-11-B	1NO 1NC					
MB5-D3ffu-20-B	2NO					
MB5-D3ffu-02-B	2NC					

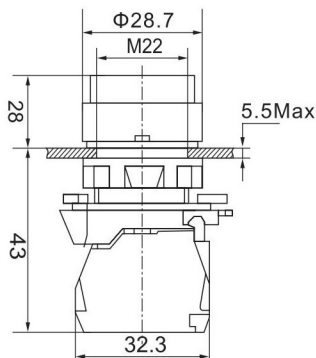
MB5 PUSH BUTTON ACTUATORS
MB5-LS2/MB5-LS3

短柄照光 (鎖定選擇)

MB5-LS2f/MB5-LS3ffu

短柄照光 (復歸選擇)

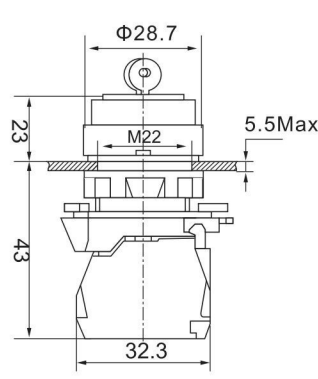


規格型號 Type	觸點 Contact Point	動作類型 Action	顏色 Colours	電壓 Voltage	尺寸圖 Size Chart (mm)				
MB5-LS2-10-□-D2LK	1NO	兩位鎖定 Two Positions Locked	R 紅色	AC/DC12V					
MB5-LS2-01-□-D2LK	1NC			AC/DC24V					
MB5-LS2-11-□-D2LK	1NO 1NC			AC/DC110V					
MB5-LS2-20-□-D2LK	2NO			AC220V					
MB5-LS2-02-□-D2LK	2NC			Y 黃色					
MB5-LS2-10-□-D4LK	1NO			兩位 右復位 SpringReturn from Two Ways		G 綠色	AC/DC12V		
MB5-LS2-01-□-D4LK	1NC						AC/DC24V		
MB5-LS2-11-□-D4LK	1NO 1NC						AC/DC110V		
MB5-LS2-20-□-D4LK	2NO						AC220V		
MB5-LS2-02-□-D4LK	2NC						W 白色		
MB5-LS3-10-□-D2LK	1NO	三位鎖定 Three Positions Locked	BL 藍色				AC/DC12V		
MB5-LS3-01-□-D2LK	1NC						AC/DC24V		
MB5-LS3-11-□-D2LK	1NO 1NC						AC/DC110V		
MB5-LS3-20-□-D2LK	2NO						AC220V		
MB5-LS3-02-□-D2LK	2NC						三位左 右復位 SpringReturn from Three Ways	W 白色	AC/DC12V
MB5-LS3-10-□-D4LK	1NO			AC/DC24V					
MB5-LS3-01-□-D4LK	1NC			AC/DC110V					
MB5-LS3-11-□-D4LK	1NO 1NC			AC220V					
MB5-LS3-20-□-D4LK	2NO			三位左 右復位 SpringReturn from Three Ways		W 白色			AC/DC12V
MB5-LS3-02-□-D4LK	2NC								AC/DC24V
MB5-LS3-10-□-N1LK	1NO	AC/DC110V							
MB5-LS3-01-□-N1LK	1NC	AC220V							
MB5-LS3-11-□-N1LK	1NO 1NC	三位左 右復位 SpringReturn from Three Ways	W 白色		AC/DC12V				
MB5-LS3-20-□-N1LK	2NO				AC/DC24V				
MB5-LS3-02-□-N1LK	2NC				AC/DC110V				
MB5-LS3-10-□-N2LK	1NO				AC220V				
MB5-LS3-01-□-N2LK	1NC			三位左 右復位 SpringReturn from Three Ways	W 白色	AC/DC12V			
MB5-LS3-11-□-N2LK	1NO 1NC					AC/DC24V			
MB5-LS3-20-□-N2LK	2NO					AC/DC110V			
MB5-LS3-02-□-N2LK	2NC					AC220V			

MB5 PUSH BUTTON ACTUATORS

MB5-K2/MB5-K3
 MB5-K2f/MB5-K3ffu
 鑰匙開關



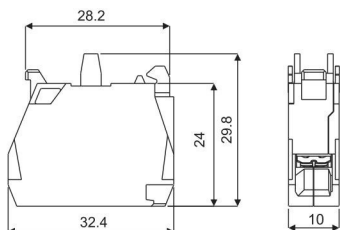
規格型號 Type	觸點 Contact Point	動作類型 Action	顏色 Colours	尺寸圖 Size Chart (mm)		
MB5-K2+a-10	1NO	兩位鎖定 Two Positions Locked	B 黑色			
MB5-K2+a-01	1NC					
MB5-K2+a-11	1NO 1NC					
MB5-K2+a-20	2NO					
MB5-K2+a-02	2NC					
MB5-K2f+a-10	1NO	兩位 右復位 Spring Return from Two Ways				
MB5-K2f+a-01	1NC					
MB5-K2f+a-11	1NO 1NC					
MB5-K2f+a-20	2NO					
MB5-K2f+a-02	2NC					
MB5-K2+au-10	1NO	兩位鎖定 Two Positions Locked				
MB5-K2+au-01	1NC					
MB5-K2+au-11	1NO 1NC					
MB5-K2+au-20	2NO					
MB5-K2+au-02	2NC					
MB5-K2f+au-10	1NO	兩位 右復位 Spring Return from Two Ways				
MB5-K2f+au-01	1NC					
MB5-K2f+au-11	1NO 1NC					
MB5-K2f+au-20	2NO					
MB5-K2f+au-02	2NC					
MB5-K3+ao-10	1NO	三位鎖定 Three Positions Locked				
MB5-K3+ao-01	1NC					
MB5-K3+ao-11	1NO 1NC					
MB5-K3+ao-20	2NO					
MB5-K3+ao-02	2NC					
MB5-K3ffu+ao-10	1NO	三位左 右復位 Spring Return from Three Ways				
MB5-K3ffu+ao-01	1NC					
MB5-K3ffu+ao-11	1NO 1NC					
MB5-K3ffu+ao-20	2NO					
MB5-K3ffu+ao-02	2NC					
MB5-K3+aa-10	1NO	三位鎖定 Three Positions Locked				
MB5-K3+aa-01	1NC					
MB5-K3+aa-11	1NO 1NC					
MB5-K3+aa-20	2NO					
MB5-K3+aa-02	2NC					
MB5-K3ffu+aa-10	1NO	三位左 右復位 Spring Return from Three Ways				
MB5-K3ffu+aa-01	1NC					
MB5-K3ffu+aa-11	1NO 1NC					
MB5-K3ffu+aa-20	2NO					
MB5-K3ffu+aa-02	2NC					

配件 ACCESSORIES
MB5-10

一常開觸點(常規型)

CONTACT BLOCK (1NO=1A)

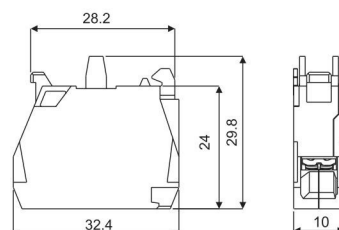
Unit: mm


MB5-01

一常閉觸點(常規型)

CONTACT BLOCK (1NC=1B)

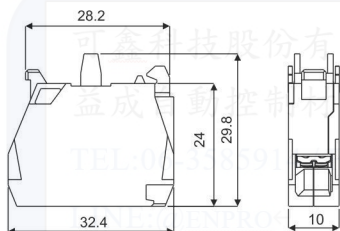
Unit: mm


MB5-10H

一常開觸點(靈敏型)

CONTACT BLOCK (1NO=1A)

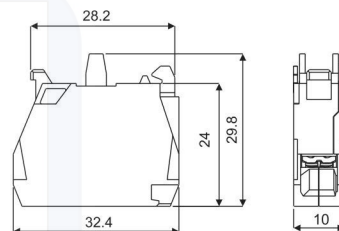
Unit: mm

 內部動觸頭橋片採用純銀H形雙觸頭結構
 Internal contact bridge piece by using silver
 H from double contact structure

MB5-01H

一常閉觸點(靈敏型)

CONTACT BLOCK (1NC=1B)

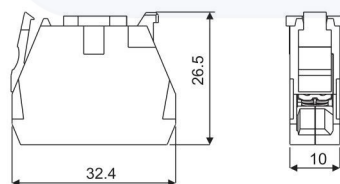
Unit: mm

 內部動觸頭橋片採用純銀H形雙觸頭結構
 Internal contact bridge piece by using silver
 H from double contact structure

MB5-LB

燈座

LAMP HOLDER

Unit: mm


MF30

30口徑套環


 適用於使MB5系列的安裝口徑從22改變到30口徑
 (旋掉原頭部的螺帽後使用此產品, 原頭部橡膠圈保留)

 Apply to make MB5 series in stallation caliber
 change from 22 to 30 caliber (Spin off original head
 nut after using this product, the original rubber washer
 head remain)

MBA9S燈泡

MBA9S BULB



D2LK=AC/DC12V

N1LK=AC/DC110V

D4LK=AC/DC24V

N2LK=AC220V

MT-22

安裝工具

TOOLING OF FABRICATING



適用本系列螺帽的安裝及拆卸, 方便快捷, 使用簡單

 Apply to the series of nut installation and removal,
 simple、rapid and convenient use