

賀電
NHD

CONTROL UNITS



**PUSH BUTTON
SELECTOR SWITCH
LED PILOT LAMP
CONTROL STATION
LED TOWER LAMP**



CONTROL UNITS FEATURES AND CHARACTERS 特性表

接觸阻抗 Contact Resistance	50 mΩ以下 less than 50 mΩ
絕緣阻抗 Insulation Resistance	500V DC電壓下, 100MΩ以上 Over 100MΩ at 500V DC
耐電壓 Dielectric Strength	AC 2500V之測試電壓1分鐘, 無短路, 破壞, 燒毀等異常現象 Test with AC 2500V for one min. without short circuit, breaks, burns or anything unusual.
耐衝擊 Shock Resistance	500 m/s ²
耐振動 Vibration Resistance	10~55Hz 複振幅0.1mm Total Amplitude 0.1mm, 10~55Hz.
動作頻率 Operation Frequency	1800次/小時 1800 times/ hour
機械壽命 Mechanical Durability	100萬次以上 Over one million times
電氣壽命 Electrical Durability	10萬次以上 Over one hundred thousand times
螺絲扭力 Screw Torque	0.8 N-m保持5秒鐘不得破損 0.8 N-m for five seconds without any fracture.
牙圈扭力 Tightening Torque	2.5 N-m保持1分鐘不得破損 2.5 N-m for one min. without any fracture.
保存溫度 Storage Temperature	-20~60°C (-4~140°F)
使用溫度 Operating Temperature	-5~40°C (23~104°F)
相對溼度 Relative Humidity	45~85% RH
耐濕性 Humidity- Resistance	在溫度40±2°C (104±35°F), 相對溼度90~100%狀態下, 放置48小時後, 擦乾水滴於5分鐘內測試絕緣體電阻3MΩ以上, 接觸電阻5mΩ以下, 耐電壓亦符合規定, 且無機械故障。 Leave one unit in ambient temperature of 40±2°C (104±35°F) with relative humidity of 90~100% for 48 hours, then dry and test it in 5 minutes. The results have to be: *Insulation Resistance: over 3MΩ *Contact Resistance: less than 5mΩ *Dielectric Strength: fit with its testing standard *No Mechanical failure

CSA Certified 2718965
Applicable Requirements



CSA Standard C22.2 No. 0-10 - General Requirements - Canadian Electrical Code, Part II
CSA Standard C22.2 No. 14-13 - Industrial Control Equipment

UL File NO. E239743



USR - Indicates evaluation to UL 508, Seventeenth Edition, the Standard for Industrial Control Equipment.
CNR indicates investigation to CAN/CSA C22.2 No. 14-05, the Standard for Industrial Control Equipment.
USR, CNR - Pushbutton Switches and Pilot Lights for Industrial Use,
Series NPB22, NLB22, NSS22, NLS22, NPL22 or NLD22, followed by additional characters.

TÜV Rheinland Group

License No. R50202326
EN 60947-1 : 2007
EN 60947-5-1 : 2004+A1
License No. R50204143
EN 60947-1 : 2007
EN 60947-5-1 : 2004+A1
EN 60947-5-5 : 1997+A1
CE Marked : EN60947-5-1



Model Designation :

型號說明

NPL22-GA

1

2 3

1. Series (系列)

NPL22	Round Head 凸頭圓形
NLD22	Flush Head 平頭圓形

2. Cap Color (顏色)

R	Red 紅色	Y	Yellow 黃色
G	Green 綠色	S	Blue 藍色
W	White 白色	O	Orange 橘色

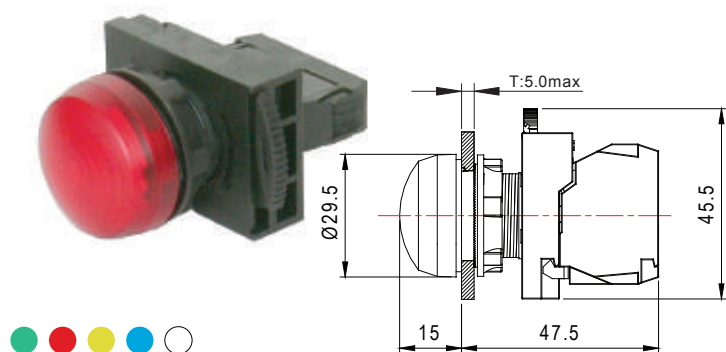
3. Voltage Rating (電壓)

NPL22		NLD22	
A	AC/DC 24V	A	AC/DC 24V
E	AC/DC 100~120V	E	AC 100~120V
I	AC/DC 220~240V	I	AC 220~240V
M	AC 380~440V	M	AC 380~440V
Y	AC/DC 12V		

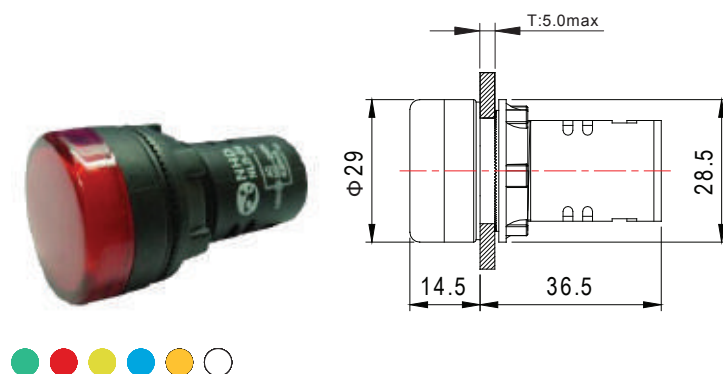
SPECIFICATION

Unit (單位) : mm

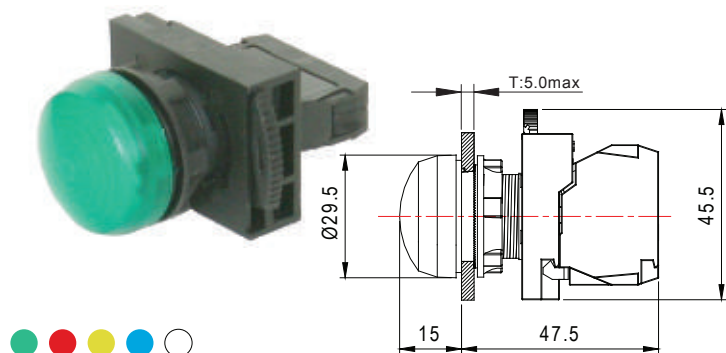
NPL22-R



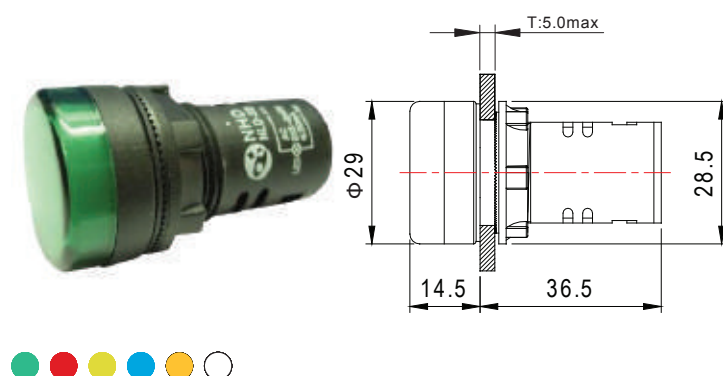
NLD22-R



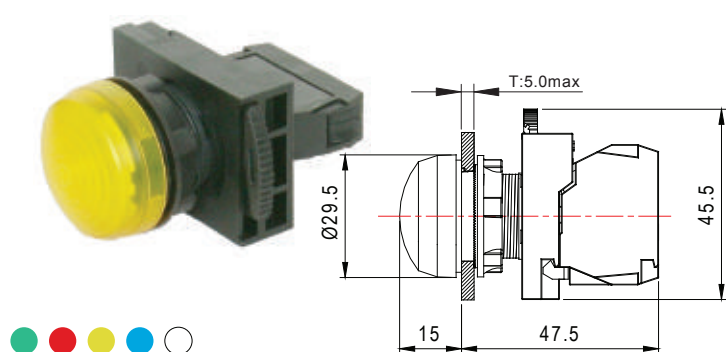
NPL22-G



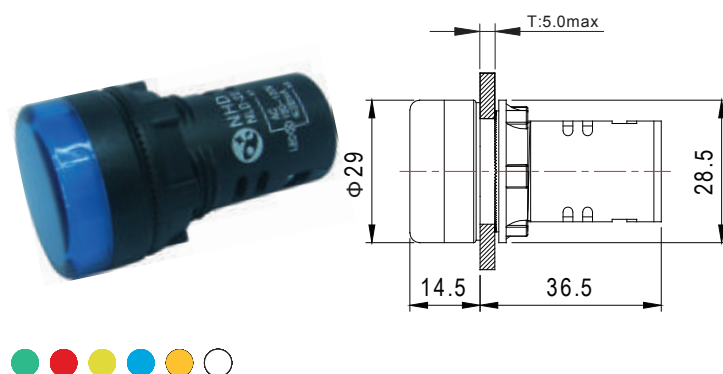
NLD22-G



NPL22-Y



NLD22-S



(NON-ILLUMINATED & LED ILLUMINATED) / 無照光按鈕與照光式按鈕

Model Designation :

型號說明

NPB22-F11GA

1 2 3 4 5

1. Series(系列)

NPB22	Non-Illuminated 無照光式按鈕
NLB22	Led Illuminated 照光式按鈕

3. Contact Blocks(接點)

10	1a	21	2a1b
01	1b	12	1a2b
11	1a1b	22	2a2b
20	2a	02	2b

4. Cap Color(顏色)

NPB22		NLB22	
R	Red 紅色	R	Red 紅色
G	Green 綠色	G	Green 綠色
Y	Yellow 黃色	Y	Yellow 黃色
S	Blue 藍色	S	Blue 藍色
B	Black 黑色	W	White 白色
W	White 白色		

2. Type (型式)

NPB22				NLB22	
F	Flush Head 平頭	T	Turn To Reset Head (40Ø) 大頭連鎖式(40Ø)	F	Flush Head 平頭
E	Elevation Head 凸頭	R	Turn To Reset Head (40Ø) 大頭連鎖式(40Ø)	E	Elevation Head 凸頭
M	Mushroom Head 大頭(40Ø)	S	Reset Push-Pull Stop Mushroom Head 35Ø 復歸拉卡連鎖式(35Ø)	M	Mushroom Head 大頭(40Ø)
K	Mushroom Head 40Ø (With key) 大頭附鎖 (40Ø)	D	Double Push Button 兩點式按鈕	D	Double Push Button 兩點式按鈕
L	Flush Head Push-push to release 平頭停置	G	Mushroom Head Push-push to release 大頭停置(40Ø)	L	Flush Head Push-push to release 平頭停置
P	Projecting Head Push-push to release 凸頭停置	H	Flush Head Reset Push-Pull Stop 復歸拉卡連鎖式(40Ø)	G	Mushroom Head Push-push to release 大頭停置(40Ø)
J	Turn To Reset Mushroom Head (40Ø) 大頭連鎖式(40Ø)	I	Turn To Reset Mushroom Head (40Ø) 大頭連鎖式(40Ø)	P	Projecting Head Push-push to release 凸頭停置
				R	Reset Mushroom Head (40Ø) 大頭連鎖式(40Ø)
				T	Reset Mushroom Head (40Ø) 大頭連鎖式(40Ø)

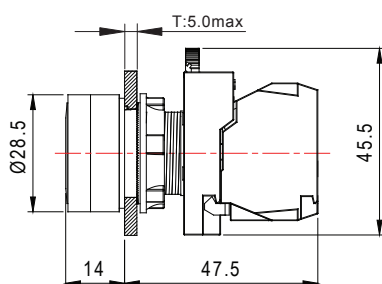
5. Voltage Rating(電壓)

	NLB22
A	AC/DC 24V
E	AC/DC 100~120V
I	AC/DC 220~240V
M	AC 380~440V
Y	AC/DC 12V

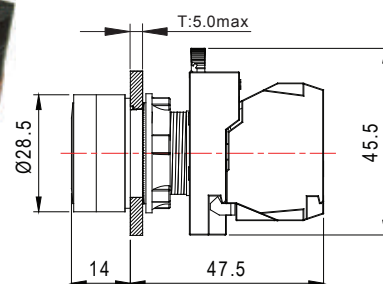
SPECIFICATION

Unit (單位) : mm

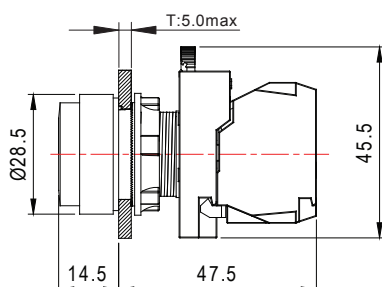
NPB22-F



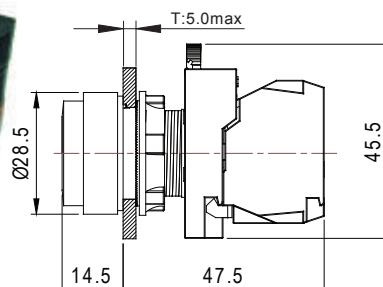
NLB22-F



NPB22-E

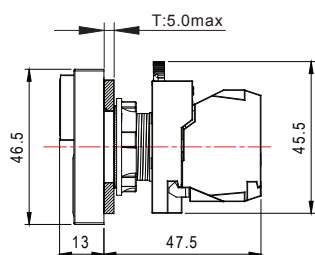


NLB22-E

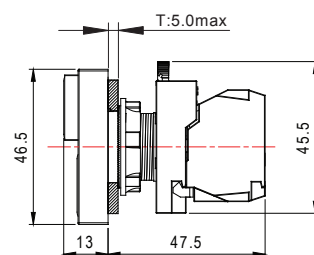


(NON-ILLUMINATED & LED ILLUMINATED) / 無照光按鈕與照光式按鈕

NPB22-D

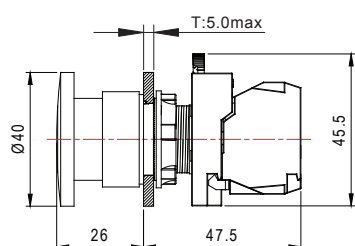


NLB22-D

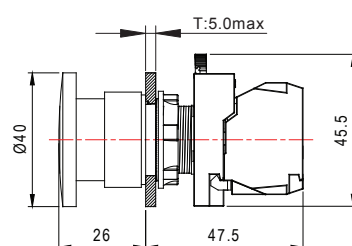


For BA9-R、G、Y
適用BA9-R、G、Y三種顏色

NPB22-G

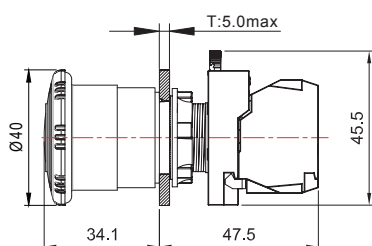


NLB22-M

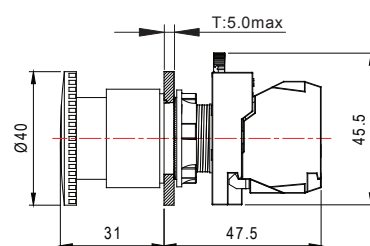


Emergency Stop / 緊急停止按鈕系列

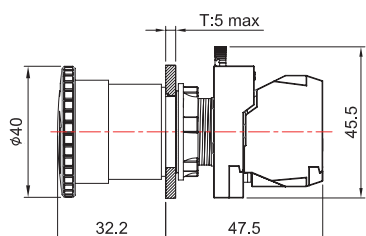
NPB22-T
NLB22-T



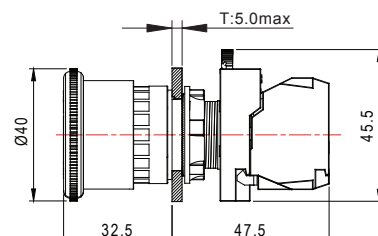
NPB22-R
NLB22-R



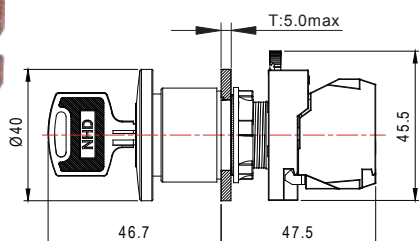
NPB22-J



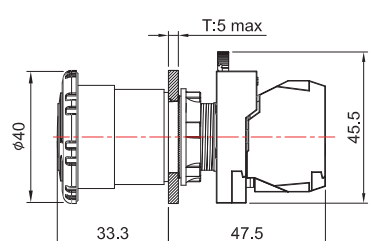
NPB22-H



NPB22-K



NPB22-I



(NON-ILLUMINATED & LED ILLUMINATED) / 無照光選擇與照光選擇

Model Designation :

型號說明

NSS22-S211GA2

1 2 3 4 5 6 7

1. Series (系列)

NSS22	Non-Illuminated 無照光式選擇鈕
NLS22	Led Illuminated 照光式選擇鈕

2. Type (型式)

NSS22		NLS22	
S	Normal Shaft 標準選擇	S	Normal Shaft 標準選擇
L	Long Shaft 長柄選擇	L	Long Shaft 長柄選擇
K	Key 鑰匙選擇		

3. Position (方位)

2	2 Position 90° 2段選擇90°	1 2 V
1	2 Position 90° (Spring Return) 2段選擇復歸型90°	1 2 V ←
3	3 Position 45° 3段選擇45°	1 0 2 V
0	3 Position 45° (Spring Return) 3段選擇復歸型45°	1 0 2 V ←
4	3 Position 45° (Spring Return From Left) 3段選擇 左邊復歸型45°	1 0 2 ← V
5	3 Position 45° (Spring Return From Right) 3段選擇 右邊復歸型45°	1 0 2 V ←
6	2 Position 90° (Signal continuous) 2段開關 訊號連續型90°	

4. Contact Blocks (接點)

10	1a	21	2a1b
01	1b	12	1a2b
11	1a1b	22	2a2b
20	2a	02	2b

5. Cap Color (顏色)

NSS22		NLS22	
R	Red 紅色	R	Red 紅色
G	Green 綠色	G	Green 綠色
Y	Yellow 黃色	Y	Yellow 黃色
B	Black 黑色		

6. Voltage Rating (電壓)

	NLS22
A	AC.DC 24V
E	AC.DC 100~120V
I	AC.DC 220~240V
M	AC 380~440V
Y	AC.DC 12V

7. NSS22-K positions of remove key (鑰匙抽取方向)

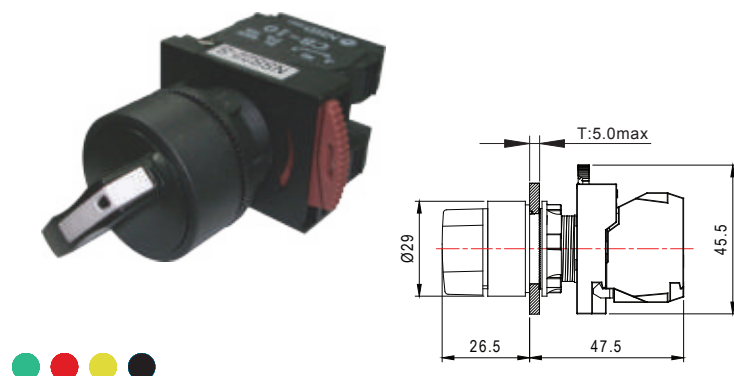
V: Remove key(抽出鑰匙)

code 代碼	3 position 3段選擇			2 position 2段選擇	
	left 左	center 中	right 右	left 左	right 右
0		V			
1	V	V			
2		V	V		
3	V	V	V		
4	V			V	
5			V		V
6	V		V	V	V

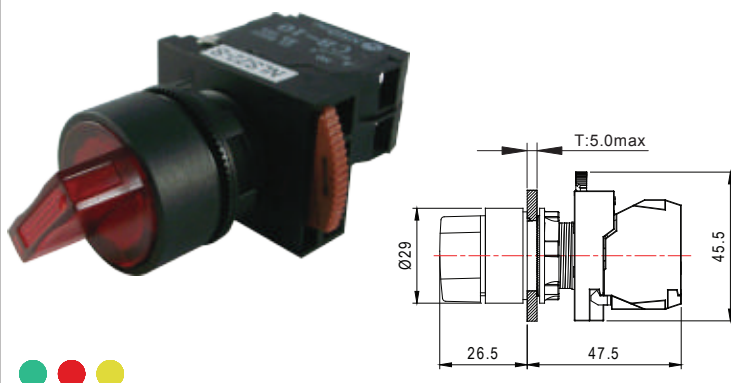
SPECIFICATION

Unit (單位) : mm

NSS22-S2



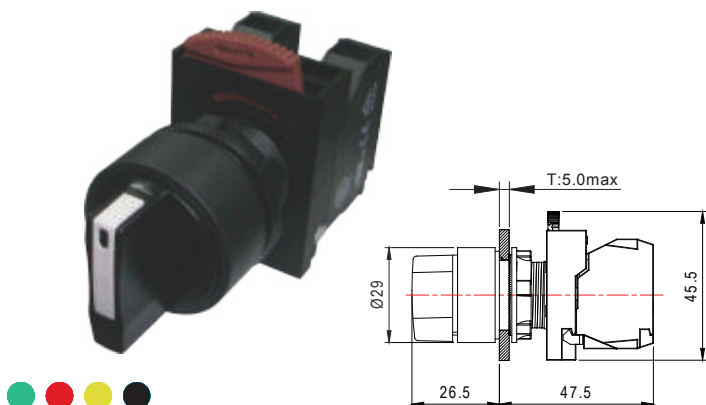
NLS22-S2



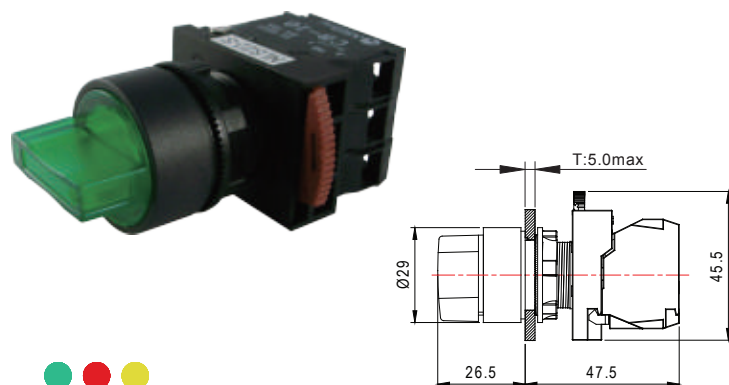
SELECTOR SWITCHES / 選擇開關 22Φ / 25Φ

(NON-ILLUMINATED & LED ILLUMINATED) / 無照光選擇與照光選擇

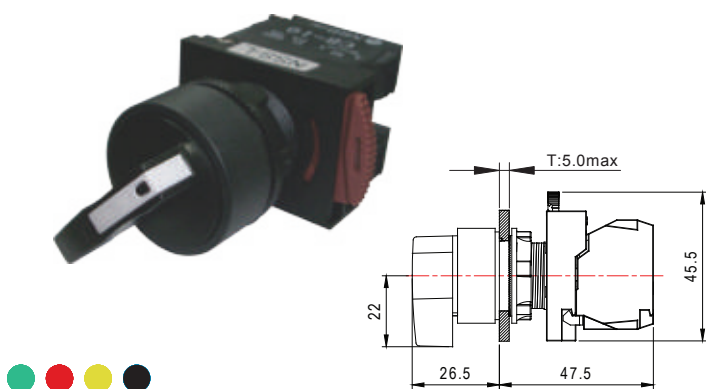
NSS22-S3



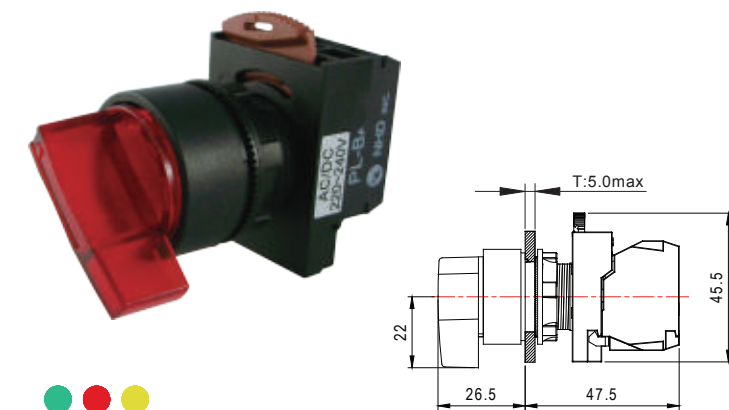
NLS22-S3



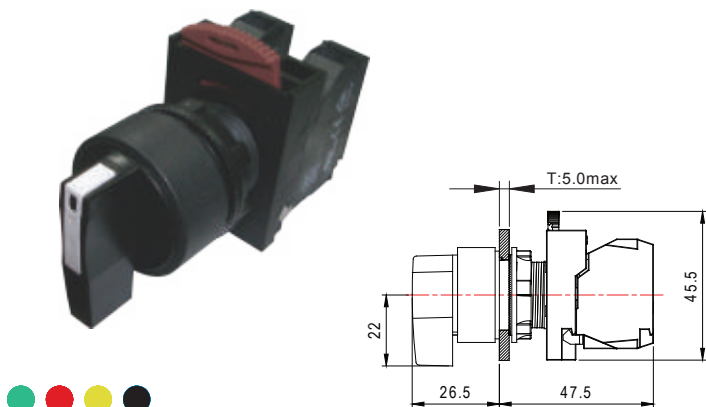
NSS22-L2



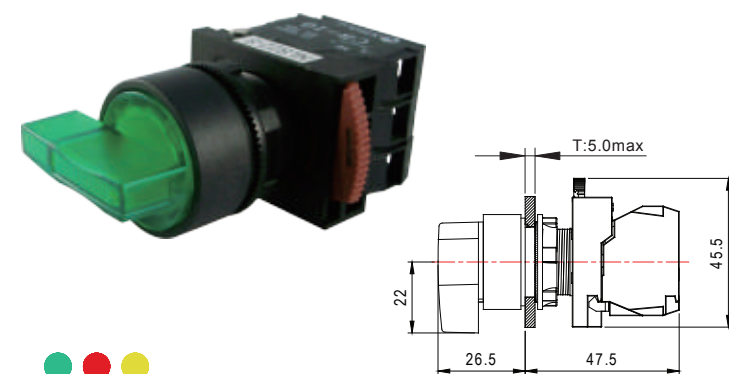
NLS22-L2



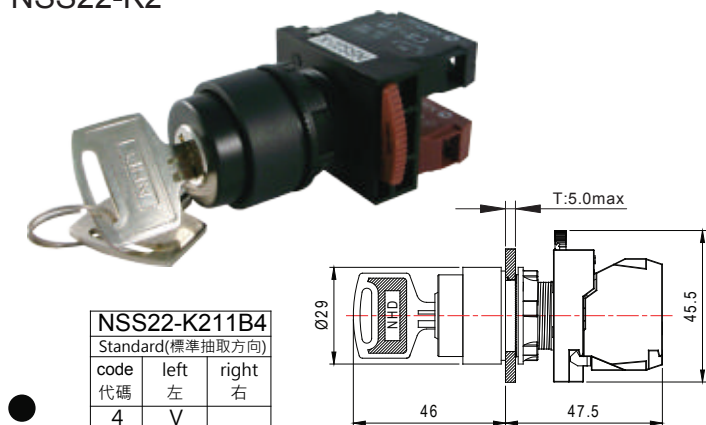
NSS22-L3



NLS22-L3



NSS22-K2



NSS22-K3



FOOT AND PALM SWITCHES / 腳踏開關

Model Designation :

型號說明

NFP-B11R

1	2	3	4
----------	----------	----------	----------

1.Series (系列)

2.Box (盒子)

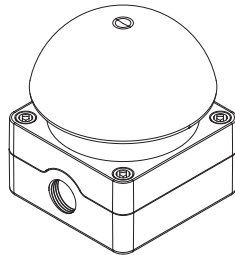
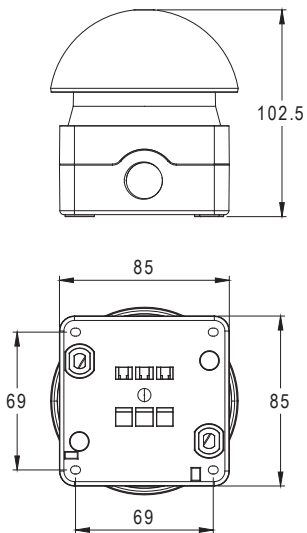
3.Contact Blocks (接點)

4.COLOR (顏色)

NFP	Foot and palm switches 腳踏開關
-----	--------------------------------

10	1a	30	3a
01	1b	03	3b
11	1a1b	21	2a1b
20	2a	12	1a2b
02	2b	00	none

R	Red 紅色	B	Black 黑色
G	Green 綠色		



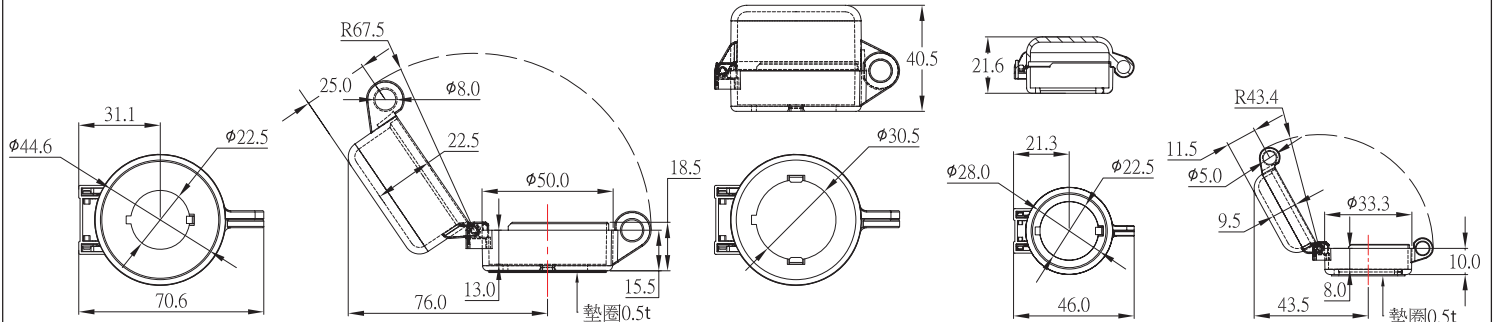
Unit (單位) : mm

Padlock Cover (鎖扣蓋)

NPB22-H06L

NPB30-H06L

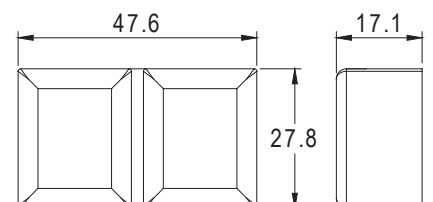
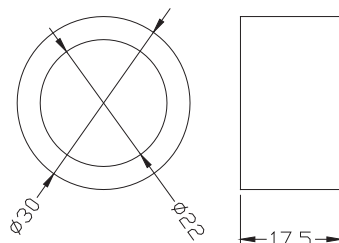
NPB22-E06L



Transparent Boots (保護套)

PPB22-P06

PPB22-D06



ACCESSORIES / 附件

Contact Blocks (接點)

CB-10

CB	
10	1a
01	1b



Ui : 600V lth : 10A

Buzzer(蜂鳴器)

NBZ22-RA

A	AC/DC 24V
E	AC 100~120V
I	AC 220~240V



LED Bulb (燈球)

1.Color (顏色)

BA9-GA 1 2

R	Red 紅色	Y	Yellow 黃色
G	Green 綠色	S	Blue 藍色
W	White 白色		

2.Voltage Rating (電壓)

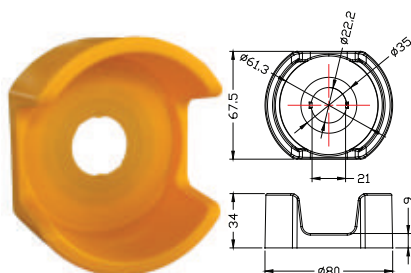
A	AC/DC 24V
E	AC/DC 100~120V
I	AC/DC 220~240V
M	AC 380~440V
Y	AC/DC 12V



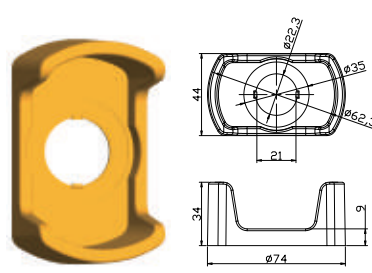
Back row : M Front row : A、E、I、Y
(燈球上圖為:M。下圖為:A、E、I、Y)

Shrouds (誤觸控保護座)

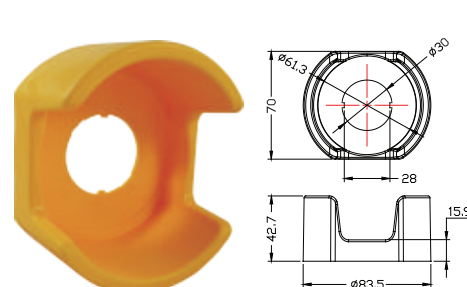
EMO-01Y ●
EMO-01W ○



EMO-02Y ●
EMO-02W ○



EMO-03Y ●



Unit (單位) : mm

EMO-04Y ●

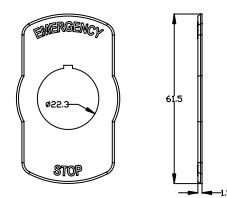
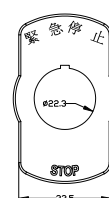
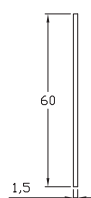
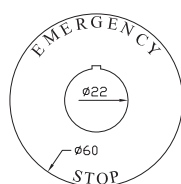
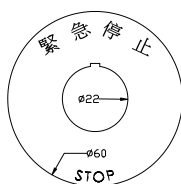
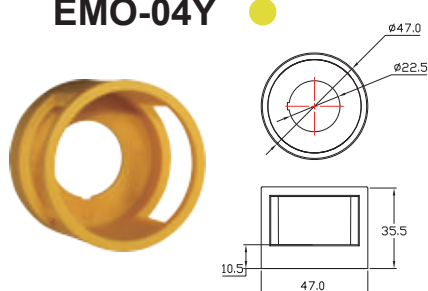
Name Plates (緊急停止銘板)

NPB22-R01C-C

NPB22-R01C-E

NPB22-R02C-C

NPB22-R02C-E



Anti-Disturbance Bulb Holder (抗干擾燈座)

BA9-L



Patent Number (專利號碼) : M429166
Voltage Rating (電壓) : AC
Vs > 40V, LED ON
Vs < 40V, LED OFF
Vs(max) is depended on LED voltage

Bulb Holder(燈座)

BA9



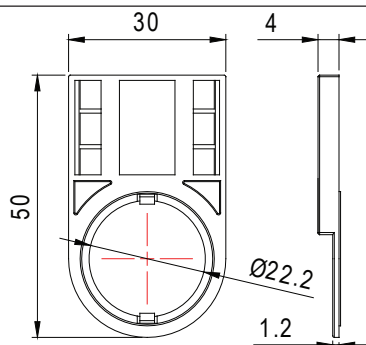
Fixing base(固定座)

NPB22-SB



Name Plates **NPB22-01C**

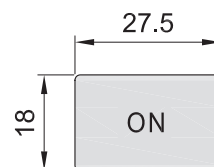
(標示框)



Unit (單位) : mm

Standard Legend Code **NPB22-01C-01**

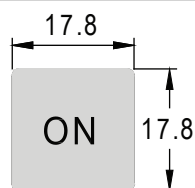
(標示銘板)



01 ON	02 OFF	03 STOP	04 START	05 FWD	06 REV	07 UP	08 DOWN	09 RUN
10 OFF ON	11 O I	12 ON OFF ON	13 FWD OFF REV	14 MAN OFF AUTO	15 LOW OFF HIGH	16 ON OFF	17 OPEN	18 CLOSE
19 RESET	20 	21 EM. STOP	22 BLANK	23 TRIP	24 POWER	25 ○	26 I	27 HIGH
28 LOW	29 FAULT	50 電 源	51 運 轉	52 啟 動	53 停 止	54 手動 停止 自動	55 逆轉 停止 正轉	56 正 轉
57 反 轉	58 自 動	59 復 歸	60 電 源 關 開					

Standard Legend Code **NCU-61-01**

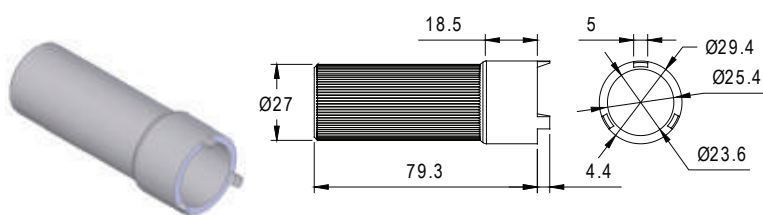
(標示銘板)



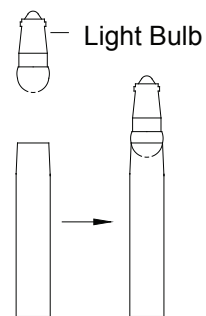
01 ON	02 OFF	03 START	04 STOP	05 FWD	06 REV	07 UP	08 DOWN	09 FAST	10 SLOW
11 OPEN	12 CLOSE	13 RESET	14 EM. STOP	15 I O	16 ON OFF	17 START STOP	18 FWD REV	19 UP DOWN	20 FAST SLOW
21 OPEN CLOSE	22 O I	23 O F F O N	24 S T O P S T A R T	25 R E V F W D	26 D O W N U P	27 S L O W F A S T	28 C L O S E O P E N	29 ←	30 ← →
31 ○	32 I	33 POWER	00 						

Tools Of Fabricating (工具圖)

PPB22-02T

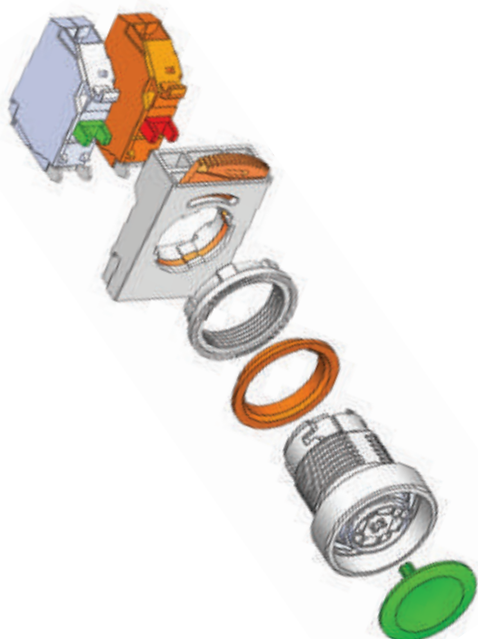


BA9-T2



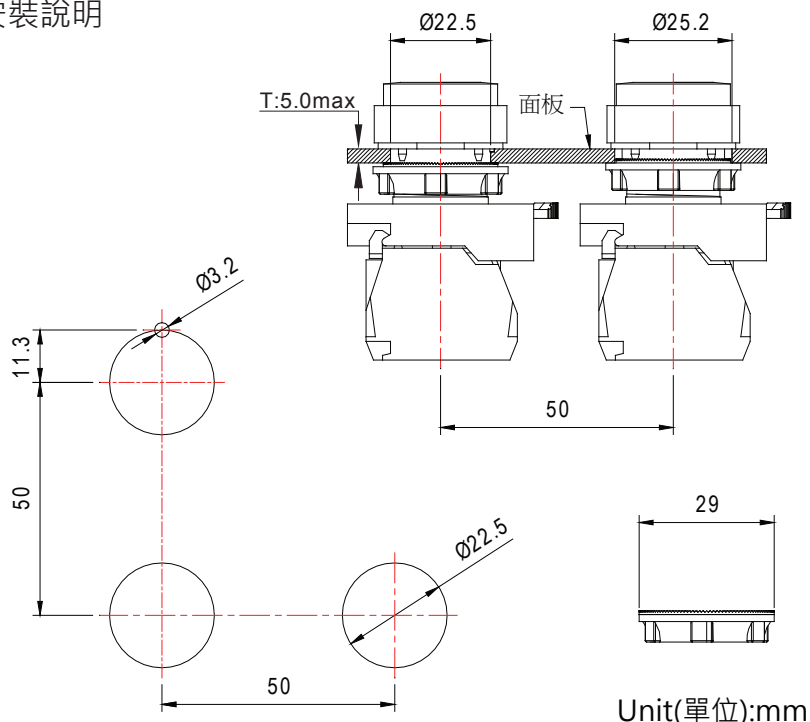
Exploded Views

分解圖

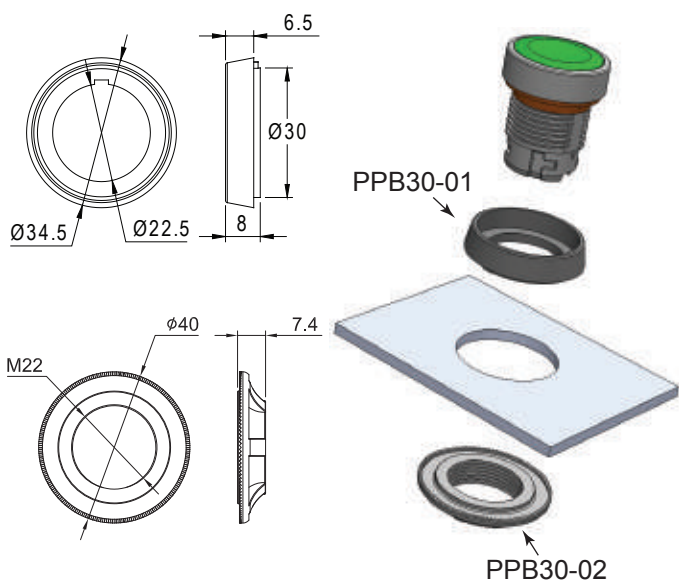


Mounting Hole Layout

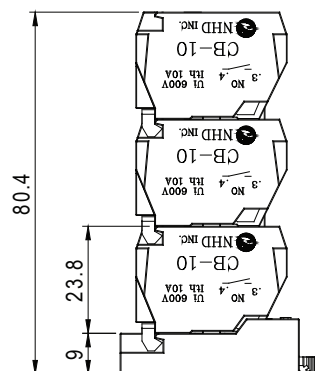
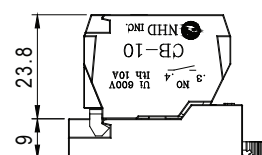
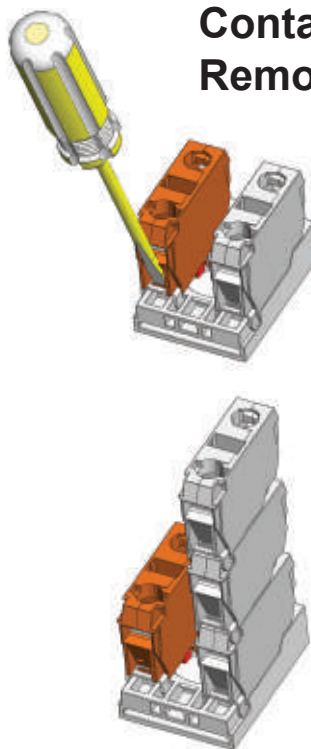
安裝說明



Mounting Adaptor (轉接器) From 22mm to 30mm (22mm 轉 30mm 墊片) NPB30-01



Contacts Mounting And Removing 接點拆卸圖



Unit(單位):mm

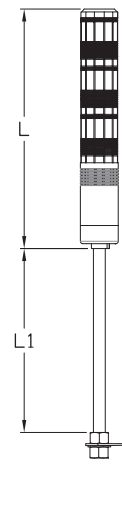
LED TOWER LAMP / 多層警示燈

Model Designation :

型號說明

NTL - T L 5 A 3 - ROG - 1
1 2 3 4 5 6 7

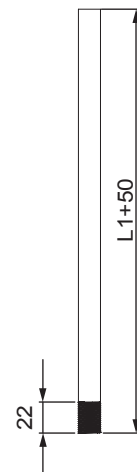
Model Designation 項次	Code 代號	Description 說明
1.Mounting 固定方式	N	Tube Mounting 桿式
	T	Side-Mount Bracket 桿式-L型鐵架
	W	Tube Mounting with Round Base 桿式-圓盤底座
	R	Direct Mounting with Round Base 圓盤底座
	F	Rotatable Fixing Base 可折式
2.Function 功能	L	Non-Flashing Model 常亮型
	F	Flashing Model 閃光型
	S	Flashing Model with Alarm 閃光蜂鳴型
	B	Non-Flashing Model with Alarm 常亮蜂鳴型
3.Dimension 外徑大小	5	Ø 50mm
4.Voltage Rating 使用電壓	A	AC/DC 24V
	E	AC 100V~120V
	I	AC 220V~240V
5.Section 層數	1~5	1~5
6.Lens (Selecting from top to bottom) 燈殼顏色(由上而下依次排列)	R	Red 紅
	O	Orange 黃
	G	Green 綠
	B	Blue 藍
	W	White 白
7.Length of Tube 附桿長度	0	0 mm
	1	100 mm
	2	180 mm
	3	250 mm



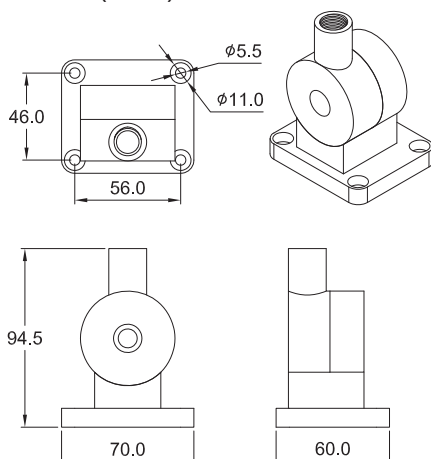
L	
Section 層數	Height 高度(L)
1	188.8
2	252.8
3	316.8
4	380.8
5	444.8

L1	
Code 代號	Height 高度(L)
0	0
1	100
2	180
3	250

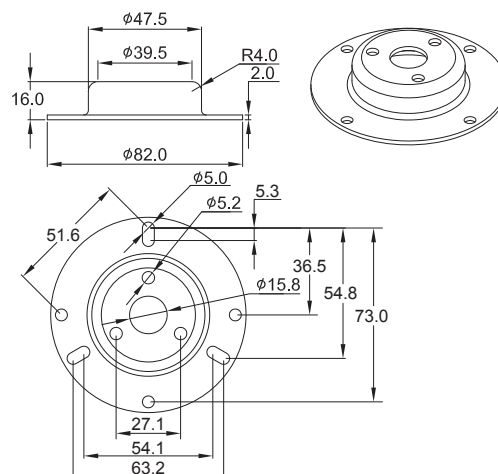
Tube 鋁桿



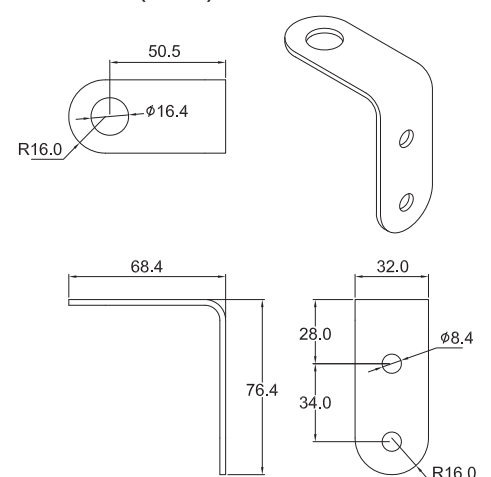
Rotatable Fixing Base(折彎座)
Code(代號) : F



Round Base(圓盤底座)
Code(代號) : R

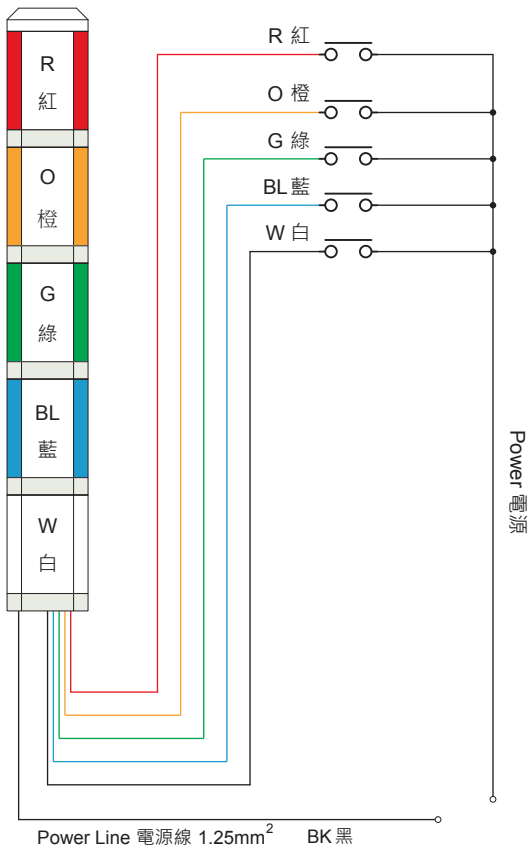


Side-Mount Bracket(L型鐵架)
Code(代號) : T

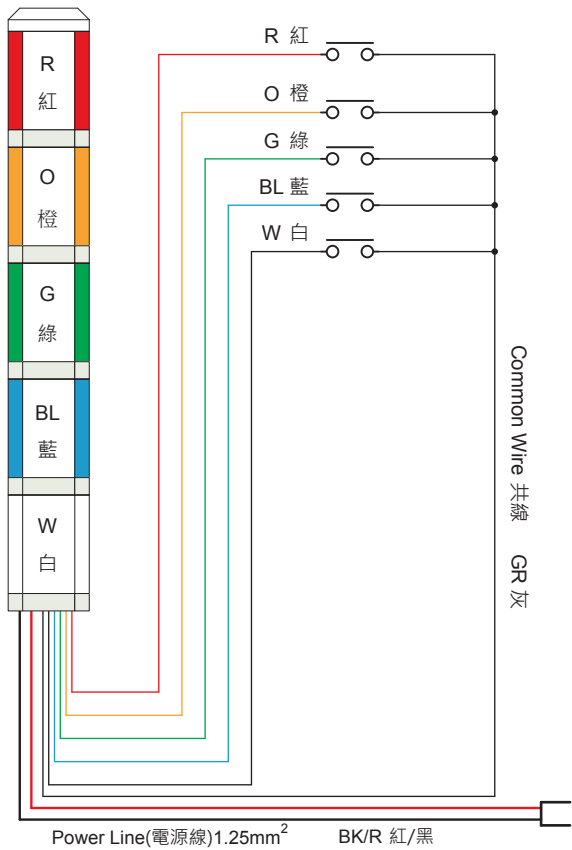


Wiring Diagram / 接線圖

Non-Flashing Model 常亮型



Flashing Model 閃光型

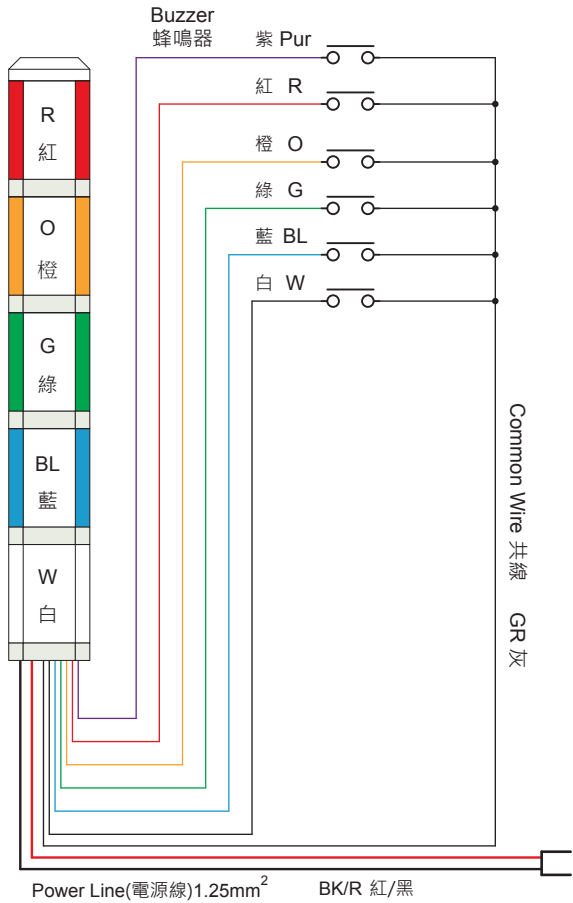


NTL-W

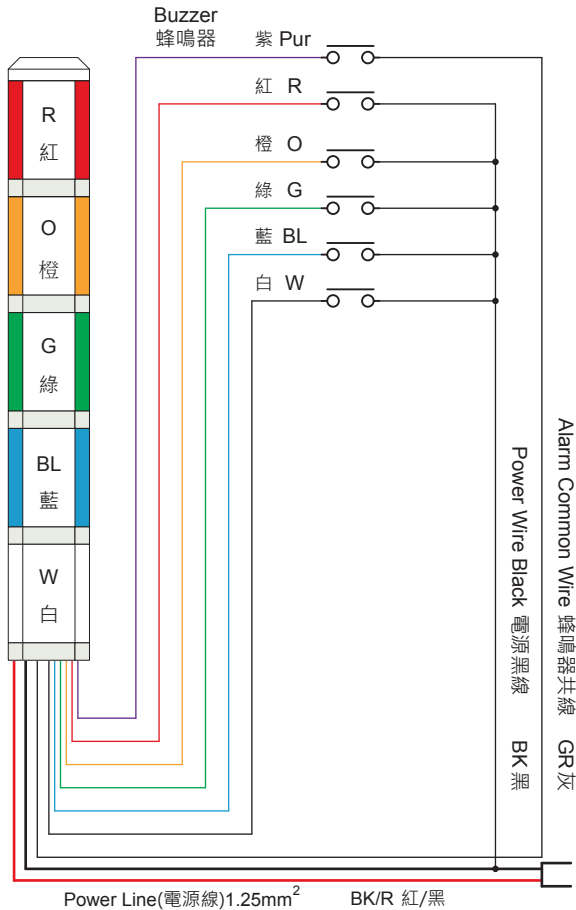


NTL-F

Flashing Model with Alarm 閃光蜂鳴型



Non-Flashing Model with Alarm 常亮蜂鳴型



NTL-R



C1Y-001



C1W-001



C1Y-002



C1W-002



C1Y-003



C1Y-004



C1W-003



C2Y-001



C2Y-002



C2Y-003



C2Y-004



C3Y-001



C3W-001



C3Y-002



C3W-002



C4Y-001



C4Y-002



C4Y-003



C4Y-004



C4Y-005

CONTROL STATION/按鈕開關盒

Model Designation :

型號說明

Holes 孔數	Part Number 編號	Ctrl. Station 防塵防水盒	Control Units Combination按鈕組合				Accessories 配件*
			1	2	3	4	
1Hole 1孔	C1Y-001	NB22-C1Y	NPB22-R11R-A				
	C1Y-002	NB22-C1Y	NSS22-K211B				
	C1Y-003	NB22-C1Y	NPB22-I11R				EMO-02Y
	C1Y-004	NB22-C1Y	NPB22-J11R				EMO-04Y
	C1W-001	NB22-C1W	NLB22-D11G				
	C1W-002	NB22-C1W	NSS22-S211B				
	C1W-003	NB22-C1W	NNS22-S211G				
2 Holes 2孔	C2Y-001	NB22-C2Y	NSS22-S211B	NPB22-F11G			
	C2Y-002	NB22-C2Y	NLB22-F11GE	NLB22-F11RE			
	C2Y-003	NB22-C2Y	NLB22-F11GE	NLB22-T11RE			
	C2Y-004	NB22-C2Y	NPB22-F11G	NPB22-F11R			
3 Holes 3孔	C3Y-001	NB22-C3Y	NPB22-F11G	NPB22-F11G	NPB22-F11R		Symbol printing 印字
	C3Y-002	NB22-C3Y	NPB22-F11G	NPB22-F11R	NPB22-F11Y		
	C3W-001	NB22-C3W	NLB22-F11GE	NLB22-F11RE	NSS22-K211B		
	C3W-002	NB22-C3W	NLB22-F11GE	NLB22-F11RE	NPB22-R11R-A		
4 Holes 4孔	C4Y-001	NB22-C4Y	NLD22-RE	NPB22-F11G	NPB22-F11R	NPB22-T11R	
	C4Y-002	NB22-C4Y	NLD22-RE	NPB22-F11G	NPB22-F11Y	NPB22-F11R	
	C4Y-003	NB22-C4Y	NPB22-F11G	NPB22-F11Y	NPB22-F11R	NSS22-S211B	
	C4Y-004	NB22-C4Y	NPB22-F11G	NPB22-F11Y	NPB22-F11R	NSS22-K211B	
	C4Y-005	NB22-C4Y	NLB22-F11GE	NLB22-F11RE	NLB22-F11YE	NPB22-R11R-A	

* Note:

The accessories are include a. Standard Legend Code

(NCU-61-xx, page 9), b. Padlock Cover (page 7), c. Transparent Boots (page 7), d. Shrouds (page 8)

附註

配件包括 a. 標示銘板 (NCU-61-XX, 第9頁) · b. 鎖扣蓋 (第7頁) · c. 保護套 (第7頁) · d. 誤觸控保護座 (第8頁)

