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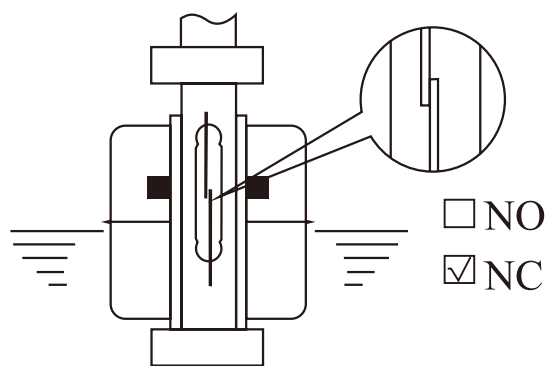
## 連桿浮球液位開關



# 產品簡介

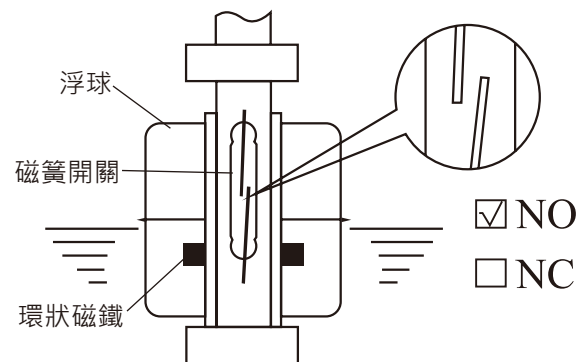
## 動作原理

在密閉的金屬或塑膠管內，設置一點或多點的磁簧開關，然後將管子貫穿一個或多個，中空而內部裝有環型磁鐵的浮球，並利用固定環，控制浮球與磁簧開關在相關位置上，使浮球在一定範圍內上下浮動。



常閉(N.C.)當液位上升時磁簧開關不導通

利用浮球內的磁鐵去吸引磁簧開關的接點，產生開與關的動作，作液位的控制或指示。下圖為常閉(NC)及常開(NO)時浮球開關的相關位置。



常開(N.O.)，當液位上升時磁簧開關接通

## 特點

- 可作多點控制，控制開關位置可以隨著使用者需要訂製。
- 使用磁簧開關不需供應電源，接點壽命可達200萬次。
- 所有的開關出線在同一接線盒，外部施工配線成本低廉。
- 多個開關控制點和其他型式的液位開關比較，FC(D)型的單價最低。
- 接線盒的防護等級皆在IP-65以上。
- 有PVDF、PP、PVC塑膠材質及SUS304、SUS316金屬材質，因此不管酸鹼液、溶劑
- 各種燃油，皆有合適產品可配合使用。
- 磁簧開關與導線完全和液體隔離，因此在高溫、高壓設備上亦可安全使用。

## 適用行業

造船工業、發電機設備、石油化學、食品工業、廢水或淨水設備、電子工業、染整工業、化學工業、橡膠及塑膠工業、油壓機械等。

### 一般型電氣特性規格

| 桿徑     | 材質   | 輸出接點 | 輸出容量 | 耐電壓            | 最大切換電流 | 最大通電電流 |
|--------|------|------|------|----------------|--------|--------|
| OD8    | SUS  | SPST | 50W  | 300Vac/350Vdc  | 0.5A   | 2.5A   |
|        | PVC  | SPDT | 20W  | 150Vac/200Vdc  | 1A     | 2A     |
| OD9.5  | SUS  | SPST | 50W  | 300Vac/350Vdc  | 0.5A   | 2.5A   |
|        |      | SPDT | 20W  | 150Vac/200Vdc  | 1A     | 2A     |
| OD12.7 | SUS  | SPST | 50W  | 300Vac/350Vdc  | 0.5A   | 2.5A   |
|        |      | SPDT | 50W  | 400Vac/1000Vdc | 1A     | 2A     |
| OD16   | PVDF | SPST | 50W  | 300Vac/350Vdc  | 0.5A   | 2.5A   |
|        |      | SPDT | 50W  | 400Vac/1000Vdc | 1A     | 2A     |
| OD17.2 | PP   | SPST | 50W  | 300Vac/350Vdc  | 0.5A   | 2.5A   |
|        |      | SPDT | 50W  | 400Vac/1000Vdc | 1A     | 2A     |

※UL認證系列磁簧開關為240Vac/200Vdc, 50W, 0.5A。

### 防爆型電氣特性規格

| 桿徑     | 材質   | 輸出接點 | 輸出容量 | 耐電壓    | 最大切換電流 | 最大通電電流 |
|--------|------|------|------|--------|--------|--------|
| OD8    | SUS  | SPST | 50W  | 250Vac | 0.5A   | 1A     |
| OD9.5  | SUS  | SPST | 50W  | 250Vac | 0.5A   | 1A     |
|        |      | SPDT | 10W  | 110Vac |        |        |
| OD12.7 | SUS  | SPST | 50W  | 250Vac | 0.5A   | 1A     |
|        |      | SPDT | 50W  | 250Vac |        |        |
| OD16   | PVDF | SPST | 50W  | 250Vac | 0.5A   | 2.5A   |
|        |      | SPDT | 50W  | 250Vac |        |        |
| OD17.2 | PP   | SPST | 50W  | 250Vac | 0.5A   | 2.5A   |
|        |      | SPDT | 50W  | 250Vac |        |        |

### 浮球材質適用範圍

| 被測環境<br>浮球材質  | 溫度                          | 壓力                      | 酸性 | 鹼性 | 燃油 | 溶劑 |
|---------------|-----------------------------|-------------------------|----|----|----|----|
| SUS304        | -20°C~120°C<br>(200°C Max.) | 10~35kg/cm <sup>2</sup> | ×  | △  | ◎  | ◎  |
| SUS316        | -20°C~120°C<br>(200°C Max.) | 10~35kg/cm <sup>2</sup> | △  | ○  | ◎  | ◎  |
| Polypropylene | -20°C~80°C                  | 5kg/cm <sup>2</sup>     | ○  | ○  | ○  | ×  |
| PVDF          | -20°C~120°C                 | 5kg/cm <sup>2</sup>     | ◎  | ◎  | ○  | ○  |

Note: ◎ = 優    ○ = 良好    △ = 可接受    × = 不可使用    (S10耐壓50kg)

# 化學特性

● 優 ○ 好 △ 普通 × 劣

| 化學式                                                                   | 濃度<br>% | 溫度<br>°C °F | 塑膠  |    |      |      | 橡膠  | 不銹鋼 |     |
|-----------------------------------------------------------------------|---------|-------------|-----|----|------|------|-----|-----|-----|
|                                                                       |         |             | PVC | PP | PVDF | PTFE | NBR | 304 | 316 |
| 氨水<br>NH <sub>4</sub> OH                                              | 10      | 40 104      | ●   | ●  | ●    | ●    | ○   |     |     |
|                                                                       | 10      | 80 176      |     | ○  | ●    | ●    |     |     |     |
| 王水<br>3HCl+HNO <sub>3</sub>                                           | 10      | 40 104      | △   | △  | ●    | ●    |     |     |     |
|                                                                       | 10      | 80 176      |     |    | ●    | ●    |     |     |     |
| 苯<br>C <sub>6</sub> H <sub>6</sub>                                    | 純       | 40 104      | ×   | △  | ○    | ●    |     |     |     |
|                                                                       |         | 80 176      |     |    | △    | ●    |     |     |     |
| 漂白液<br>Ca(ClO) <sub>2</sub>                                           | 5       | 40 104      | ●   |    | ●    | ●    |     |     |     |
|                                                                       | 5       | 80 176      |     |    | ●    | ●    |     |     |     |
|                                                                       | 20      | 40 104      | ●   |    | ●    | ●    |     |     |     |
|                                                                       | 20      | 80 176      |     |    | ●    | ●    |     |     |     |
| 硼酸<br>H <sub>3</sub> BO <sub>3</sub>                                  | 飽合      | 40 104      | ●   | ●  | ●    | ●    | ●   |     |     |
|                                                                       |         | 80 176      |     | ●  | ●    | ●    | ○   |     |     |
| 鹽水                                                                    |         | 40 104      | ●   | ●  | ●    | ●    | ●   |     |     |
|                                                                       |         | 80 176      |     | ●  | ●    | ●    |     |     |     |
| 丁二烯<br>CH <sub>2</sub> =CH=CH=CH <sub>2</sub>                         | 氣體      | 40 104      | ●   |    | ●    | ●    |     |     |     |
|                                                                       |         | 80 176      |     |    | ●    | ●    |     |     |     |
| 丁烷<br>CH <sub>3</sub> (CH <sub>2</sub> ) <sub>2</sub> CH <sub>3</sub> | 氣體      | 40 104      | ●   | ●  | ●    | ●    |     |     |     |
|                                                                       |         | 80 176      |     | ●  | ●    | ●    |     |     |     |
| 硝酸<br>HNO <sub>3</sub>                                                | 10      | 40 104      | ●   | ●  | ●    | ●    | ●   | ●   | ●   |
|                                                                       | 10      | 80 176      | ×   | ○  | ●    | ●    |     | ●   |     |
|                                                                       | 30      | 40 104      | ●   | ●  | ●    | ●    |     | ●   | ●   |
|                                                                       | 30      | 80 176      | ×   | ○  | ●    | ●    |     | ●   | ●   |
|                                                                       | 50      | 40 104      | ○   | ○  | ●    | ●    |     | ●   | ●   |
|                                                                       | 50      | 80 176      | ×   | ×  | ○    | ●    |     |     |     |
|                                                                       | 70      | 40 104      | ○   | ×  | ●    | ●    |     | ○   | ●   |
|                                                                       | 70      | 80 176      | ×   |    | ○    | ●    |     |     |     |
|                                                                       | 98      | 40 104      |     |    | ○    | ○    |     |     |     |
|                                                                       | 98      | 80 176      |     |    |      | △    |     |     |     |
| 草酸<br>HOOC-COOH                                                       | 20      | 40 104      | ●   | ●  | ●    | ●    | ●   |     | △   |
|                                                                       | 20      | 80 176      |     | ●  | ●    | ●    |     |     |     |
|                                                                       | 50      | 40 104      | ●   | ●  | ●    | ●    |     |     | △   |
|                                                                       | 50      | 80 176      |     | ●  | ●    | ●    |     |     |     |
| 磷酸<br>H <sub>3</sub> PO <sub>4</sub>                                  | 10      | 40 104      | ●   | ●  | ●    | ●    | ●   | ●   | ●   |
|                                                                       | 10      | 80 176      |     | ○  | ●    | ●    | △   | ●   | ●   |
|                                                                       | 50      | 40 104      | ●   | ●  | ●    | ●    | ●   | ●   | ●   |
|                                                                       | 50      | 80 176      |     | △  | ●    | ●    | ×   | ●   | ●   |
|                                                                       | 80      | 40 104      | ●   | ●  | ●    | ●    | ○   | ●   | ●   |
|                                                                       | 80      | 80 176      |     | △  | ●    | ●    |     | ●   | ●   |
| 丁烷<br>CH <sub>3</sub> (CH <sub>2</sub> ) <sub>2</sub> CH <sub>3</sub> | 氣體      | 40 104      | ●   | ●  | ●    | ●    |     |     |     |
|                                                                       |         | 80 176      |     | ●  | ●    | ●    |     |     |     |
| 苛性鈉<br>NaOH                                                           | 15      | 40 104      | ●   | ●  | ●    | ●    | ●   | ●   | ●   |
|                                                                       | 15      | 80 176      |     | ○  | △    | ●    | △   | ×   | ×   |
|                                                                       | 30      | 40 104      | ●   | ●  | ●    | ●    | ●   | ●   | ●   |
|                                                                       | 30      | 80 176      |     | ○  | △    | ●    | ●   | ×   | ×   |
|                                                                       | 50      | 40 104      | ●   | ●  | ○    | ●    | ●   | ●   | ●   |
|                                                                       | 50      | 80 176      |     | ○  | ×    | ●    | ●   | ×   | ×   |
|                                                                       | 70      | 40 104      | ○   | ○  | ○    | ●    |     |     |     |
|                                                                       | 70      | 80 176      |     | ○  | ×    | ●    |     |     |     |

| 化學式                                                 | 濃度<br>% | 溫度<br>°C °F | 塑膠  |    |      |      | 橡膠  | 不銹鋼 |     |
|-----------------------------------------------------|---------|-------------|-----|----|------|------|-----|-----|-----|
|                                                     |         |             | PVC | PP | PVDF | PTFE | NBR | 304 | 316 |
| 次氯酸鹽<br>NaClO                                       | 3       | 40 104      | ●   | ○  | ●    | ●    |     | △   | ○   |
|                                                     | 3       | 80 176      |     |    |      |      |     |     |     |
|                                                     | 5       | 40 104      | ●   | ○  | ●    | ●    |     | △   | ○   |
|                                                     | 5       | 80 176      |     |    |      |      |     |     |     |
|                                                     | 7       | 40 104      | ●   | △  | ○    | ●    |     | ×   | ×   |
|                                                     | 7       | 80 176      |     |    |      |      |     |     |     |
|                                                     | 10      | 40 104      | ●   | △  | ●    | ●    |     | ×   | ×   |
|                                                     | 10      | 80 176      |     |    |      |      |     |     |     |
|                                                     | 13      | 40 104      | ●   | △  | ●    | ●    |     | ×   | ×   |
| 13                                                  | 80 176  |             |     |    |      |      |     |     |     |
| 硫酸<br>H <sub>2</sub> SO <sub>4</sub>                | 10      | 40 104      | ●   | ●  | ●    | ●    | ●   | ●   | ●   |
|                                                     | 10      | 80 176      |     | ●  | ●    | ●    | ○   | ○   | ○   |
|                                                     | 30      | 40 104      | ●   | ●  | ●    | ●    | ●   | ×   | ×   |
|                                                     | 30      | 80 176      |     | ●  | ●    | ●    | ○   | ×   | ×   |
|                                                     | 50      | 40 104      | ●   | ●  | ●    | ●    | ○   | ×   | ×   |
|                                                     | 50      | 80 176      |     | ●  | ●    | ●    | △   | ×   | ×   |
|                                                     | 60      | 40 104      | ●   | ●  | ●    | ●    | ●   | ×   | ×   |
|                                                     | 60      | 80 176      |     | ○  | ●    | ●    | ○   | ×   | ×   |
|                                                     | 70      | 40 104      | ●   | ●  | ●    | ●    | ○   | ×   | ×   |
|                                                     | 70      | 80 176      |     | ○  | ●    | ●    | △   | ×   | ×   |
|                                                     | 80      | 40 104      | ●   | ●  | ●    | ●    | ●   | ×   | ×   |
|                                                     | 80      | 80 176      |     | ○  | ●    | ●    | △   |     |     |
|                                                     | 90      | 40 104      | ○   | ●  | ●    | ●    | △   | ×   | ×   |
|                                                     | 90      | 80 176      |     | ○  | ●    | ●    | △   |     |     |
|                                                     | 98      | 40 104      | △   |    | ●    | ○    |     | ○   | ○   |
|                                                     | 98      | 80 176      |     |    | △    | ○    |     |     |     |
| 甲苯<br>C <sub>6</sub> H <sub>5</sub> CH <sub>3</sub> |         | 40 104      |     | △  | △    | ●    |     |     |     |
|                                                     |         | 80 176      |     |    |      | ○    |     |     |     |
| 氯氣<br>Cl <sub>2</sub>                               | 濕       | 40 104      | ○   |    | ●    | ●    |     |     |     |
|                                                     | 濕       | 80 176      |     |    | △    | ●    |     |     |     |
|                                                     | 乾       | 40 104      | ●   |    | ●    | ●    |     |     |     |
|                                                     | 乾       | 80 176      |     |    | ●    | ●    |     |     |     |
| 鉻酸<br>H <sub>2</sub> CrO <sub>4</sub>               | 10      | 40 104      | ●   |    | ●    | ●    |     |     |     |
|                                                     | 10      | 80 176      |     |    | ●    | ●    |     |     |     |
|                                                     | 20      | 40 104      | △   |    | ●    | ●    |     |     |     |
|                                                     | 20      | 80 176      |     |    | ●    | ●    |     |     |     |
|                                                     | 40      | 40 104      | △   |    | ●    | ●    |     |     |     |
|                                                     | 40      | 80 176      |     |    | ●    | ●    |     |     |     |
|                                                     | 50      | 40 104      | ×   |    | ●    | ●    |     |     |     |
|                                                     | 50      | 80 176      |     |    | △    | ●    |     |     |     |
| 鹽酸<br>HCl                                           | 15      | 40 104      | ●   | ●  | ●    | ●    | ○   |     |     |
|                                                     | 15      | 80 176      |     | ●  | ●    | ●    |     |     |     |
|                                                     | 25      | 40 104      | ●   | ●  | ●    | ●    | ×   |     |     |
|                                                     | 25      | 80 176      |     | ●  | ●    | ●    |     |     |     |
|                                                     | 35      | 40 104      | ●   | ●  | ●    | ●    | ×   |     |     |
|                                                     | 35      | 80 176      |     | ○  | ●    | ●    |     |     |     |
|                                                     | 38      | 40 104      | ●   | ●  | ●    | ●    | ×   |     |     |
|                                                     | 38      | 80 176      |     | ○  | ●    | ○    |     |     |     |

● 優 ○ 好 △ 普通 × 劣

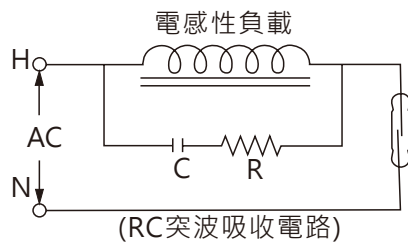
| 化學式                   | 濃度<br>% | 溫度<br>°C °F | 塑膠  |    |      |      | 橡膠  | 不銹鋼 |     |
|-----------------------|---------|-------------|-----|----|------|------|-----|-----|-----|
|                       |         |             | PVC | PP | PVDF | PTFE | NBR | 304 | 316 |
| 檸檬酸<br>$C_5H_8O_7$    | 10      | 40 104      | ●   | ●  | ●    | ●    | ●   | ●   | ●   |
|                       | 10      | 80 176      |     | ○  | ●    | ●    | ●   |     |     |
| 汽油                    | 10      | 40 104      | ●   |    | ●    | ●    |     |     |     |
|                       | 10      | 80 176      |     |    | ●    | ●    |     |     |     |
| 柴油                    |         | 40 104      |     |    | ●    | ●    |     | ●   | ●   |
|                       |         | 80 176      |     |    | ●    | ●    |     | ●   | ●   |
| 乙醇<br>$C_2H_5OH$      | 純       | 40 104      | ●   | ●  | ●    | ●    | ●   | ○   | ○   |
|                       |         | 80 176      |     | ○  | ●    | ●    | ○   |     |     |
| 蟻酸<br>$HCOOH$         | 90      | 40 104      | ○   | ○  | ●    | ●    |     |     |     |
|                       |         | 80 176      |     |    | ●    | ●    |     |     |     |
| 氫氟酸<br>$HF$           | 稀釋      | 40 104      | ●   | ○  | ●    | ●    | ●   |     |     |
|                       | 稀釋      | 80 176      |     | ○  | ●    | ●    | ●   |     |     |
|                       | 30      | 40 104      | ○   | ○  | ●    | ●    | ●   |     |     |
|                       | 30      | 80 176      | ×   | ○  | ●    | ●    | ●   |     |     |
|                       | 40      | 40 104      | △   | ○  | ●    | ●    | ●   |     |     |
|                       | 40      | 80 176      |     | ○  | ●    | ●    | ●   |     |     |
|                       | 50      | 40 104      | △   | ○  | ●    | ●    | ●   |     |     |
|                       | 50      | 80 176      |     | ○  | ●    | ●    | ●   |     |     |
| 雙氧水<br>$H_2O_2$       | 5       | 40 104      | ●   | ●  | ●    | ●    |     | ○   | ●   |
|                       | 5       | 80 176      |     | ○  | ●    | ●    |     |     |     |
|                       | 20      | 40 104      | ●   | ●  | ●    | ●    |     |     |     |
|                       | 20      | 80 176      |     | ○  | ●    | ●    |     |     |     |
|                       | 30      | 40 104      | ○   | ○  | ●    | ●    |     |     |     |
|                       | 30      | 80 176      |     | △  | ●    | ●    |     |     |     |
|                       | 50      | 40 104      | △   | ×  | ●    | ●    |     |     |     |
|                       | 50      | 80 176      |     |    | ●    | ●    |     |     |     |
|                       | 90      | 40 104      |     |    | ●    | ●    |     |     |     |
|                       | 90      | 80 176      |     |    | ●    | ●    |     |     |     |
| 異丙醇<br>$(CH_3)_2CHOH$ | 純       | 40 104      | ●   | ●  | ●    | ●    | ○   |     |     |
|                       |         | 80 176      |     |    | ●    | ●    |     |     |     |
| 煤油                    |         | 40 104      | ●   | ○  | ●    | ●    |     |     |     |
|                       |         | 80 176      |     |    | ●    | ●    |     |     |     |
| 甲醇<br>$CH_3OH$        |         | 40 104      | ○   | ●  | ●    | ●    | △   |     |     |
|                       |         | 80 176      |     | ○  | ●    | ●    |     |     |     |
| 丁酮<br>$CH_3COC_2H_5$  |         | 40 104      |     | △  |      | ●    |     |     |     |
|                       |         | 80 176      |     |    |      | ●    |     |     |     |
| 鉻酸鉀<br>$K_2CrO_4$     |         | 40 104      | ●   | ●  | ●    | ●    | ●   |     |     |
|                       |         | 80 176      |     | ○  | ●    | ●    | ○   |     |     |

# 開關接點保護線路

## 電感性負載

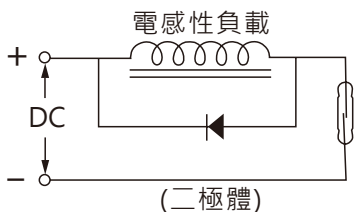
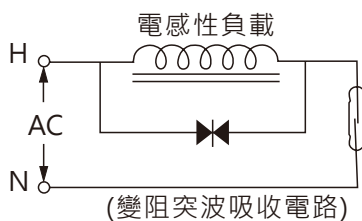
當磁簧開關使用在有馬達、繼電器、螺管線圈等之有電感性負載的電路中，當磁簧開路瞬間，接點間將承受一高感應電壓。這樣的感應電壓將造成磁簧開關的損壞或嚴重縮短磁簧開關的使用壽命。因此建議一些保護線路如：RC(緩衝器)、變阻器、二極體，(參考圖一)

(圖一)



$$C = \frac{I^2}{10} \text{ (uF)}$$

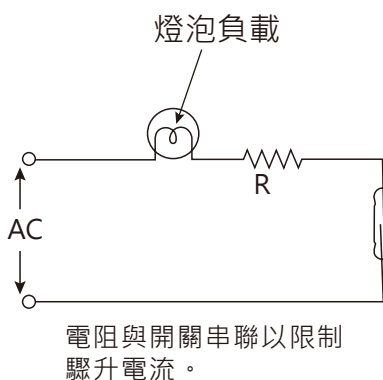
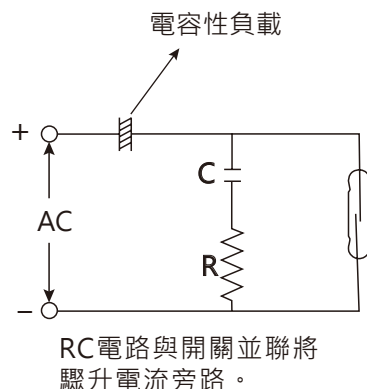
$$R = \frac{E}{10I(1 + \frac{50}{E})}$$



## 電容性負載

當磁簧開關使用在電容性負載的線路中如：電容器、白熱燈泡、很長的電纜線等，在開關的接點間將產生一個驟升(突波)電流。因此建議一些保護線路：如突波吸收器或限流電阻器。(參考圖二)

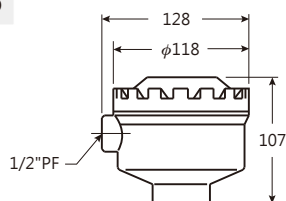
(圖二)



※請勿直接連接於電磁閥、馬達或電磁開關。

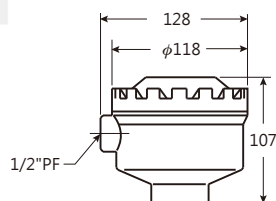
# 接線盒規格

**B**



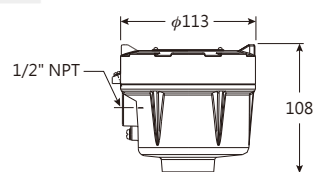
材 質 : 鋁合金烤漆  
防護等級: IP65  
耐 溫 : -20 ~ 200°C

**C**



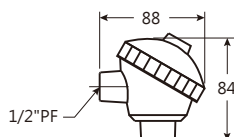
材 質 : PP加纖(耐酸鹼)  
防護等級: IP65  
耐 溫 : -20 ~ 80°C

**D**



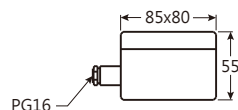
材 質 : 鋁合金烤漆  
防護等級: IP65  
耐 溫 : -20 ~ 200°C  
註!本接線盒結合機身探棒, 整機通過NEPSI與ATEX防爆認證, 詳細證號請查詢防爆型選單。

**E**



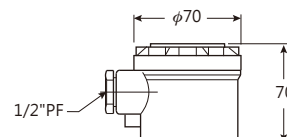
材 質 : 鋁合金烤漆  
防護等級: IP65  
耐 溫 : -20 ~ 200°C

**G**



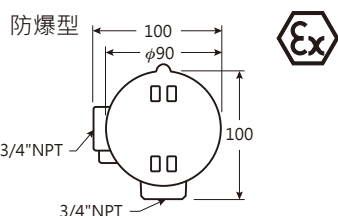
材 質 : PC  
防護等級: IP65  
耐 溫 : -20 ~ 80°C

**H**



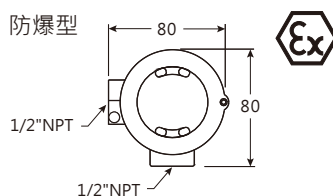
材 質 : 鋁合金烤漆  
防護等級: IP65  
耐 溫 : -20 ~ 100°C

**K**



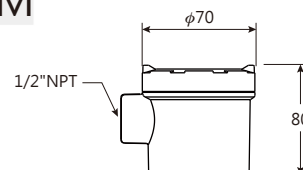
材 質 : 鋁合金  
防護等級: INERIS 09 ATEX 0049  
II 2GD Ex d IIC T4~T6  
耐 溫 : -20 ~ 100°C

**L**



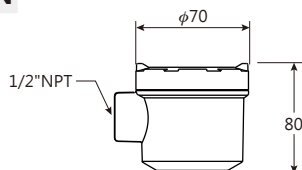
材 質 : 鋁合金  
防護等級: INERIS 09 ATEX 0049  
II 2GD Ex d IIC T4~T6  
耐 溫 : -20 ~ 90°C  
建議使用在流動開關方面

**M**



材 質 : 不銹鋼 SUS316  
防護等級: IP65  
耐 溫 : -20 ~ 200°C  
建議使用在側裝浮球方面

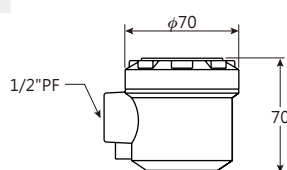
**N**



材 質 : 不銹鋼 SUS316  
防護等級: IP65  
耐 溫 : -20 ~ 200°C

註!本接線盒結合機身探棒, 整機通過NEPSI與ATEX防爆認證, 詳細證號請查詢防爆型選單。

**X**

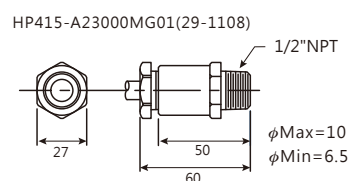
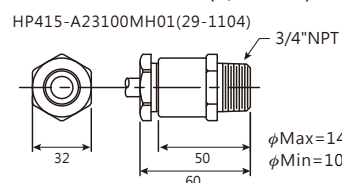


材 質 : 鋁合金烤漆  
防護等級: IP65  
耐 溫 : -20 ~ 100°C

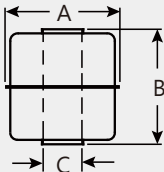
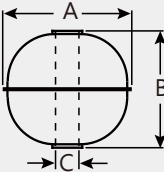
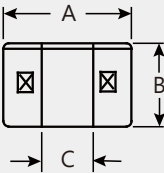
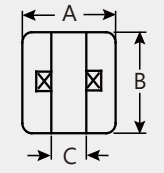
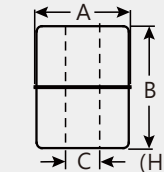
## 選購配件

### 防爆電纜接頭-Ex d IIC

材質: 橡膠墊圈---NBR  
本體--- 銅合金(3/4\"NPT)  
銅鍍鎳(1/2\"NPT)



# 浮球規格

| 外 型                                                                                             | 型 號 | 外觀尺寸<br>(mm)  | 比 重    | 耐 壓<br>(kg/cm <sup>2</sup> ) | 重 量   | 材 質           | 最大耐溫<br>(°C) |
|-------------------------------------------------------------------------------------------------|-----|---------------|--------|------------------------------|-------|---------------|--------------|
|                | S1  | 28x28x9.5     | E>0.7  | 10                           | 8     | SUS316 / 316L | 200          |
|                                                                                                 | S3  | 45x55x15      | E>0.65 | 12                           | 37.6  | SUS 316       | 200          |
|                                                                                                 | S6  | 75x108x20     | E>0.5  | 10                           | 165   | SUS 316       | 200          |
|                                                                                                 | R3  | 38x50x15      | E>0.62 | 12                           | 22.9  | SUS 316L      | 200          |
|                | S2  | 41x38x11      | E>0.7  | 35                           | 19.5  | SUS 316       | 200          |
|                                                                                                 | S4  | 52x52x15      | E>0.55 | 30                           | 33.4  | SUS 316       | 200          |
|                                                                                                 | S5  | 75x73x20      | E>0.70 | 30                           | 102.4 | SUS 316       | 200          |
|                                                                                                 | S7  | 30x28x9.5     | E>0.75 | 25                           | 8     | SUS316 / 316L | 200          |
|                                                                                                 | S8  | 100x100x20    | E>0.5  | 15                           | 249.7 | SUS 304       | 200          |
|                                                                                                 | S9  | 150x150x30    | E>0.45 | 15                           | 534   | SUS 304       | 200          |
|                                                                                                 | R0  | 30x32x9.5     | E>0.75 | 50                           | 8.6   | SUS 316       | 200          |
|                                                                                                 | R1  | 28x32x9.5     | E>0.82 | 30                           | 8.1   | SUS 316       | 200          |
| <br>(Hollow) | P1  | 25x15x10      | E>0.65 | 4                            | 3.5   | PP / 白黑       | 80           |
|                                                                                                 | P2  | 25x25x10      | E>0.7  | 4                            | 5     | PP / 白黑       | 80           |
|                                                                                                 | P3  | 48x45x18.5    | E>0.6  | 5                            | 35.5  | PP / 黑        | 80           |
|                                                                                                 | P4  | 20x25x10      | E>0.7  | 4                            | 3.7   | PP / 黑        | 80           |
|                                                                                                 | P5  | 20x20x8.1     | E>0.75 | 4                            | 4     | PP / 黑        | 80           |
|                                                                                                 | P8  | 18.2x15.3x7.2 | E>0.8  | 4                            | 1.82  | PP / 黑        | 80           |
| <br>(Foam)   | Q6  | 20x20x7.5     | E>0.75 | ATM                          | 3.5   | PP / 白        | 80           |
|                                                                                                 | Q7  | 25x25x8.8     | E>0.7  | ATM                          | 6.7   | PP / 白        | 80           |
|                                                                                                 | N1  | 25x15x10      | E>0.5  | ATM                          | 2.7   | NBR / 黑       | 100          |
|                                                                                                 | N2  | 18.5x26x10    | E>0.7  | ATM                          | 3.3   | NBR / 黑       | 100          |
|                                                                                                 | N4  | 17.5x25x10    | E>0.65 | ATM                          | 2.5   | NBR / 黑       | 100          |
|                                                                                                 | N5  | 30x45x12.8    | E>0.5  | ATM                          | 11.5  | NBR / 黑       | 100          |
| <br>(Hollow) | F2  | 42x44x14      | E>0.45 | 5                            | 18.5  | PP            | 80           |
|                                                                                                 | F3  | 45x45x20      | E>0.65 | 5                            | 35.7  | PP            | 80           |
|                                                                                                 | F4  | 48x62x18      | E>0.8  | 5                            | 65.3  | PVDF          | 120          |

※ FC與FG浮球雖有同尺寸但比重並不同，兩個系列不互通，請在各自的產品型錄中選擇。

## 浮球與液體特性關係

請依照被測物之使用溫度、壓力、比重、耐酸鹼等特性，選用上表所列各種規格之浮球。

- 1.溫度：PVDF最高溫度為120℃，PP最高為80℃，SUS304/316最高為200℃。
- 2.壓力：塑膠類浮球耐壓最大5kg/cm<sup>2</sup>，SUS浮球耐壓35kg/cm<sup>2</sup>(S10浮球可達50kg)。
- 3.粘著：應選用球徑大、比重小的浮球才能克服液體表面張力。
- 4.酸鹼性：塑膠材質適用於酸鹼場所，如有溫度考慮時應選用PVDF。
- 5.油精：應使用金屬材質。
- 6.比重：浮球比重SG必須小於被測液體否則浮球浮不起來。

在訂購時須注意，兩個浮球間最小間距及最底點的最小距離，如果間距不夠將無法依規格生產製作。

請於訂購時依下表尺寸訂定尺寸

A = 距接續底面的最小距離。

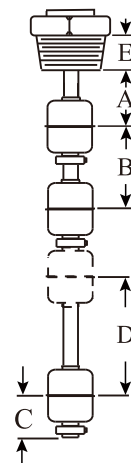
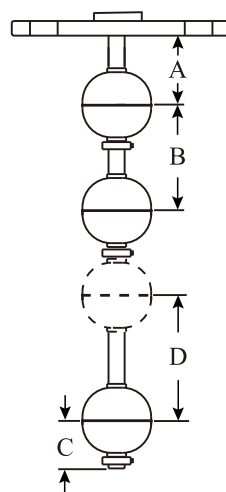
B = 兩個浮球間最小間距。

C = 距最底點的最小距離。

D = 一個浮球，兩個水位的最小距離。

E = 螺紋長度。

| 浮球規格  | S1 | S2 | S3 | S4 | S5  | S6  | P1 | P2 | P3 | F4 |
|-------|----|----|----|----|-----|-----|----|----|----|----|
| A(mm) | 25 | 32 | 40 | 39 | 50  | 70  | 27 | 35 | 52 | 70 |
| B(mm) | 50 | 59 | 79 | 78 | 100 | 138 | 50 | 62 | 80 | 96 |
| C(mm) | 25 | 32 | 40 | 39 | 50  | 70  | 25 | 30 | 43 | 50 |
| D(mm) | 30 | 40 | 55 | 50 | 65  | 70  | 30 | 30 | 45 | 65 |



## 金屬螺紋長度

| 牙規格   | 1/2" | 3/4" | 1" | 1-1/4" | 1-1/2" | 2" | 2-1/2" | 3" |
|-------|------|------|----|--------|--------|----|--------|----|
| E(mm) | 14   | 16   | 19 | 22     | 22     | 22 | 25     | 27 |

## 塑膠螺紋長度 (PP、PVC、PVDF)

| 牙規格   | 3/4" | 1" | 1-1/4" | 1-1/2" | 2" | 2-1/2" | 3" |
|-------|------|----|--------|--------|----|--------|----|
| E(mm) | 16   | 25 | 25     | 25     | 25 | 27     | 30 |

※1/2 塑膠牙長請另外洽詢

## 牙口與安裝法蘭規格選擇

| 浮球型式 | 浮球材質 | 浮球尺寸     | 可直接穿過牙口<br>之最小尺寸 | 可直接穿過法蘭之最小尺寸  |               |
|------|------|----------|------------------|---------------|---------------|
|      |      |          |                  | SCH40S        | SCH80S        |
| P1   | P.P. | Ø25×15   | 1"PF or PT       | 1"×5K,10K     | 1-1/4"×5K,10K |
| P2   | P.P. | Ø25×25   | 1"PF or PT       | 1"×5K,10K     | 1-1/4"×5K,10K |
| P3   | P.P. | Ø48×45   | 2"PF or PT       | 2"×5K,10K     | 2"×5K,10K     |
| P4   | P.P. | Ø20×25   | 3/4"PF or PT     | 3/4"×5K,10K   | 1"×5K,10K     |
| N1   | NBR  | Ø25×15   | 1"PF or PT       | 1"×5K,10K     | 1-1/4"×5K,10K |
| N2   | NBR  | Ø18.5×26 | 3/4"PF or PT     | 3/4"×5K,10K   | 1"×5K,10K     |
| N4   | NBR  | Ø17.5×25 | 1/2"PF or PT     | 1/2"×5K,10K   | 3/4"×5K,10K   |
| N5   | NBR  | Ø30×45   | 1-1/4"PF or PT   | 1-1/4"×5K,10K | 1-1/2"×5K,10K |
| F2   | P.P. | Ø42×44   | 1-1/2"PF or PT   | 2"×5K,10K     | 2"×5K,10K     |
| F3   | P.P. | Ø45×45   | 2"PF or PT       | 2"×5K,10K     | 2"×5K,10K     |
| F4   | PVDF | Ø48×62   | 2"PF or PT       | 2"×5K,10K     | 2"×5K,10K     |
| S1   | SUS  | Ø28×28   | 1"PF or PT       | 1-1/4"×5K,10K | 1-1/4"×5K,10K |
| S2   | SUS  | Ø41×38   | 1-1/2"PF or PT   | 1-1/2"×5K,10K | 2"×5K,10K     |
| S3   | SUS  | Ø45×55   | 2"PF or PT       | 2"×5K,10K     | 2"×5K,10K     |
| S4   | SUS  | Ø52×52   | 2"PF or PT       | 2"×5K,10K     | 2-1/2"×5K,10K |
| S5   | SUS  | Ø75×73   | 3"PF or PT       | 3"×5K,10K     | 3-1/2"×5K,10K |
| S6   | SUS  | Ø75×108  | 3"PF or PT       | 3"×5K,10K     | 3-1/2"×5K,10K |
| S7   | SUS  | Ø30×28   | 1-1/4"PF or PT   | 1-1/4"×5K,10K | 1-1/2"×5K,10K |
| R0   | SUS  | Ø30×32   | 1-1/4"PF or PT   | 1-1/4"×5K,10K | 1-1/2"×5K,10K |
| R1   | SUS  | Ø28×32   | 1"PF or PT       | 1-1/4"×5K,10K | 1-1/4"×5K,10K |
| R3   | SUS  | Ø38×50   | 1-1/4"PF or PT   | 1-1/4"×5K,10K | 1-1/2"×5K,10K |

※如果配置防波管，安裝法蘭規格請選擇加大一級口徑，例如: 3/4"×5K→1"×5K。

## 型號 / 訂購料號 對照表

| 型號        | 訂購料號                     |
|-----------|--------------------------|
| FCCFQ6F44 | FCX10000-ACAAB2012C24F44 |
| FCCFQ5P34 | FCX10000-ACAAB2012D18P34 |
| FCCFN6F44 | FCX10000-ACAKB2422C24F44 |
| FCCFN5P34 | FCX10000-ACAKB2422D18P34 |

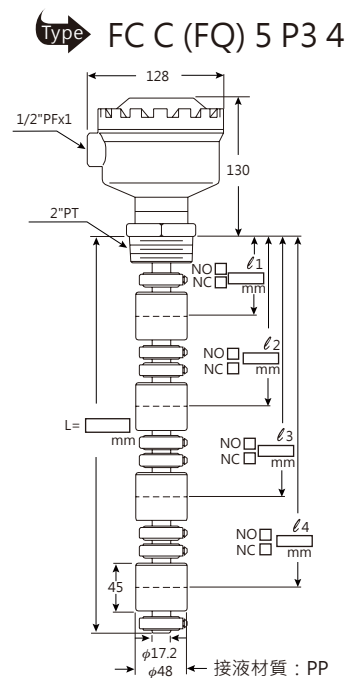
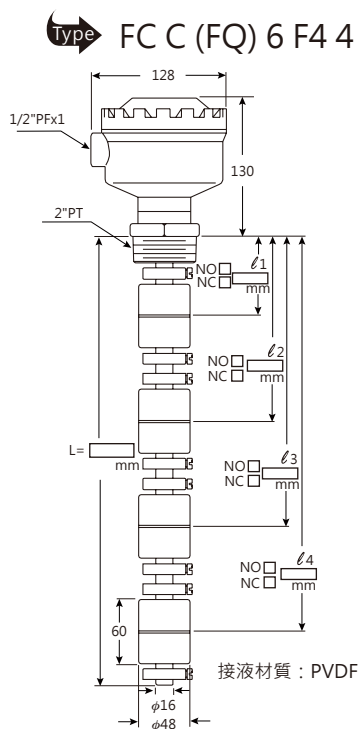
(接續下頁)



# 耐酸鹼型

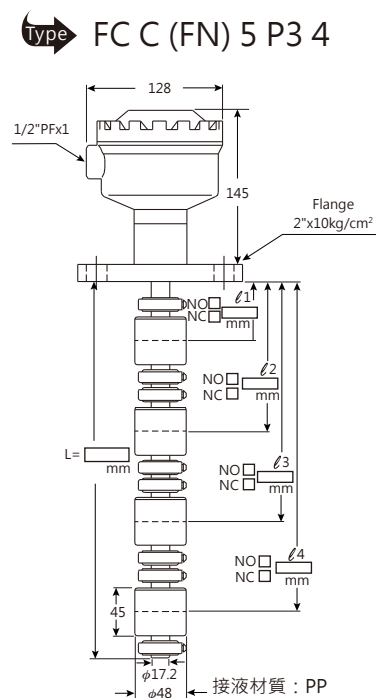
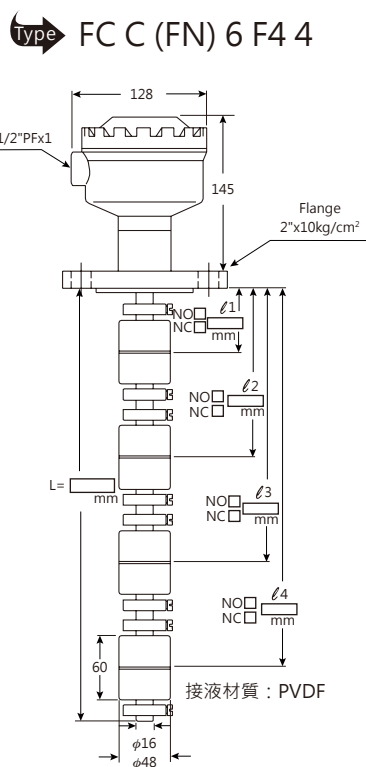
## 耐酸鹼型

接線盒材質為PP，接液材質有PVDF及PP，可適用在化工類有腐蝕性的場所。



## 訂購說明範例

| <div> <div>產品代號</div> <div>接線盒型式</div> <div>FC C (FQ) 6 F1 4</div> </div> |          |                |      |
|---------------------------------------------------------------------------|----------|----------------|------|
| 接續                                                                        | 管徑       | 球型             | 球數   |
| FQ=2" PT                                                                  | 6= φ16   | F4=PVDF φ48x62 | 1~ 4 |
| FQ=2" PT                                                                  | 5=φ17.2  | P3=PP φ48x45   | 1~ 4 |
| FN=2" 10kg/cm <sup>2</sup>                                                | 6= φ16   | F4=PVDF φ48x62 | 1~ 4 |
| FN=2" 10kg/cm <sup>2</sup>                                                | 5= φ17.2 | P3=PP φ48x45   | 1~ 4 |



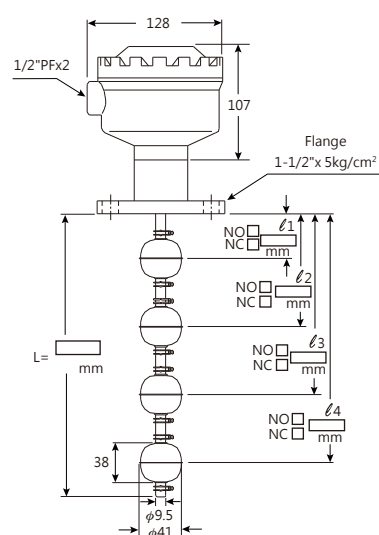
# 法蘭接續標準型

## 法蘭接續標準型

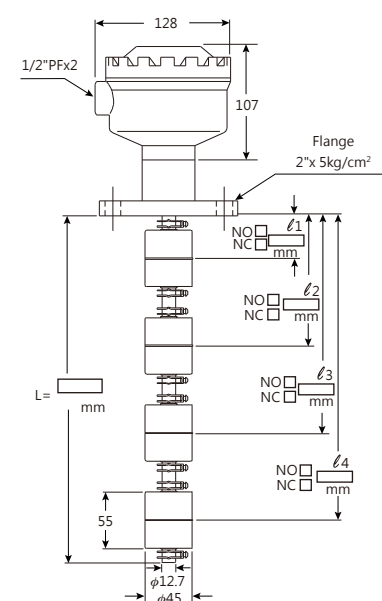
接線盒為IP65防水防塵型，可適用在室外



Type FD B (EM) 3 S2 4



Type FD B (FM) 4 S3 4

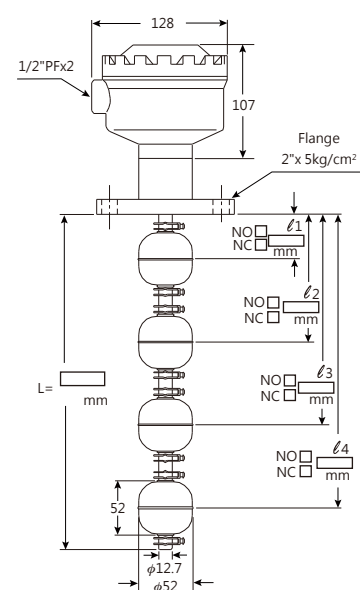


## 訂購說明範例

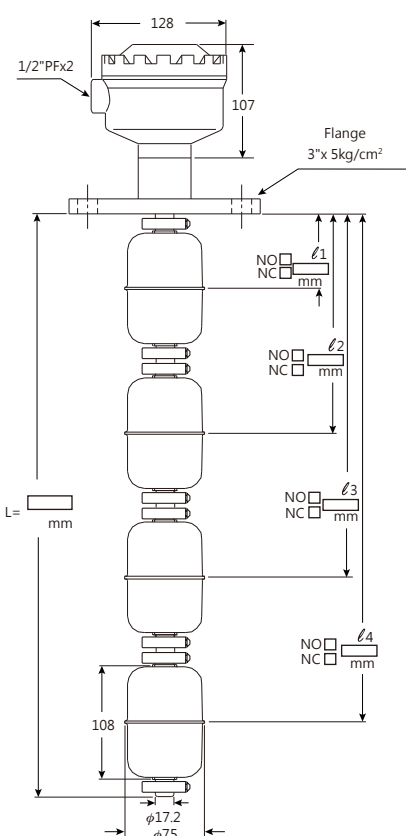
產品代號  
接線盒型式  
**FD B (HM) 7 S6 4**

| 接續                               | 管徑      | 球型         | 球數  |
|----------------------------------|---------|------------|-----|
| EM=1-1/2"<br>5kg/cm <sup>2</sup> | 3=φ9.5  | S2=φ41x38  | 1~4 |
| FM=2"<br>5kg/cm <sup>2</sup>     | 4=φ12.7 | S3=φ45x55  | 1~4 |
| FM=2"<br>5kg/cm <sup>2</sup>     | 4=φ12.7 | S4=φ52x52  | 1~4 |
| HM=3"<br>5kg/cm <sup>2</sup>     | 7=φ17.2 | S6=φ75x108 | 1~4 |

Type FD B (FM) 4 S4 4



Type FD B (HM) 7 S6 4



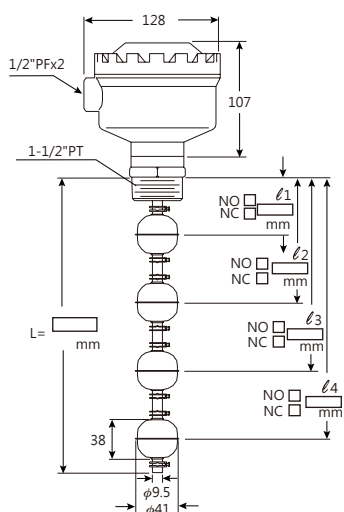
# 牙口接續標準型

## 牙口接續標準型

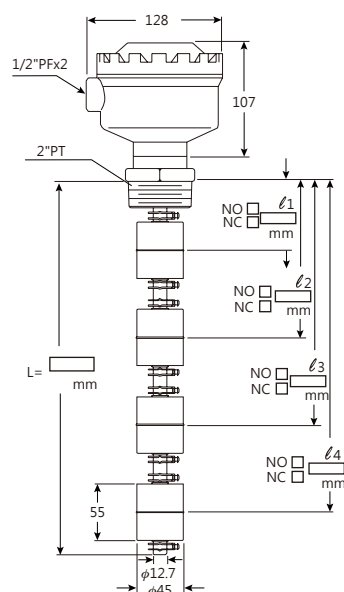
接線盒為IP65防水防塵型，可適用在室外



Type FD B (EQ) 3 S2 4



Type FD B (FQ) 4 S3 4

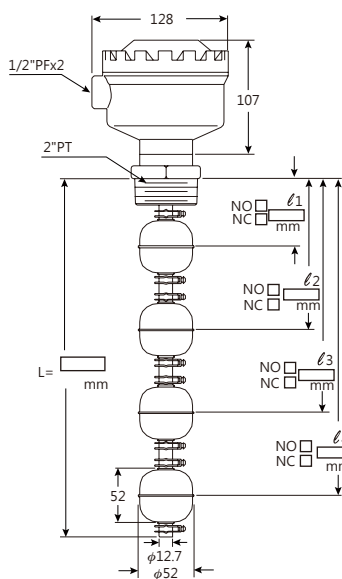


## 訂購說明範例

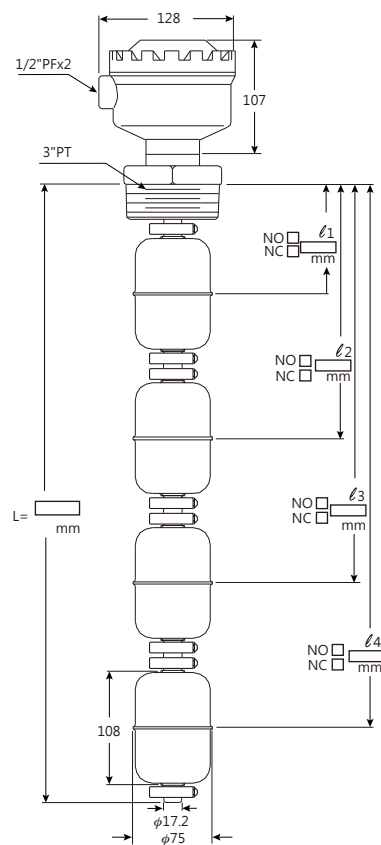
產品代號  
接線盒型式  
**FD B (HQ) 7 S6 4**

| 接續              | 管徑       | 球型             | 球數   |
|-----------------|----------|----------------|------|
| EQ=1-1/2"<br>PT | 3= ϕ9.5  | S2=<br>ϕ41x38  | 1~ 4 |
| FQ=2"<br>PT     | 4= ϕ12.7 | S3=<br>ϕ45x55  | 1~ 4 |
| FQ=2"<br>PT     | 4= ϕ12.7 | S4=<br>ϕ52x52  | 1~ 4 |
| HQ=3"<br>PT     | 7= ϕ17.2 | S6=<br>ϕ75x108 | 1~ 4 |

Type FD B (FQ) 4 S4 4



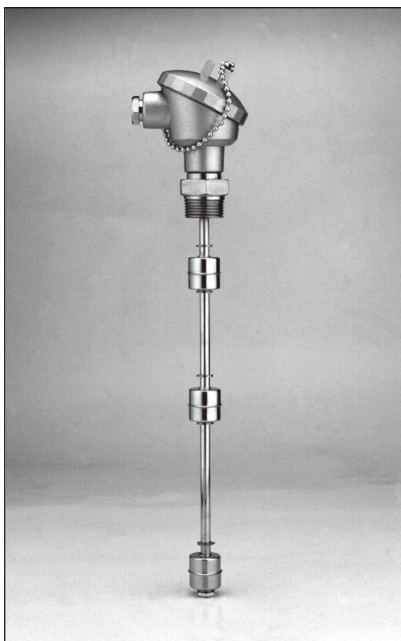
Type FD B (HQ) 7 S6 4



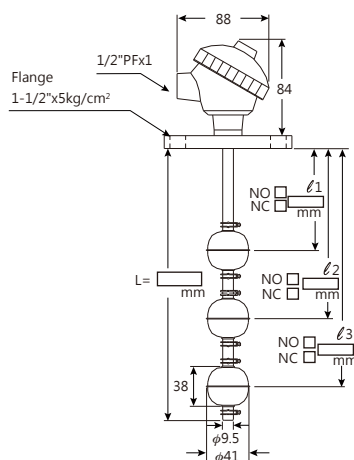
# 輕便型

## 輕便型

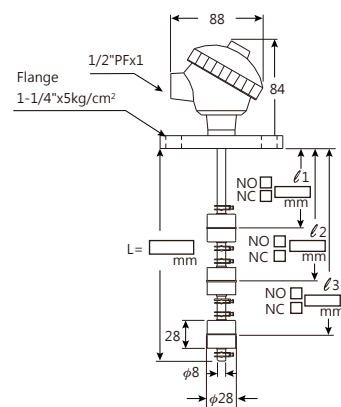
接線盒為IP65防水防塵型，可適用在室外



Type FD E (EM) 3 S2 3



Type FD E (3M) 1 S1 3

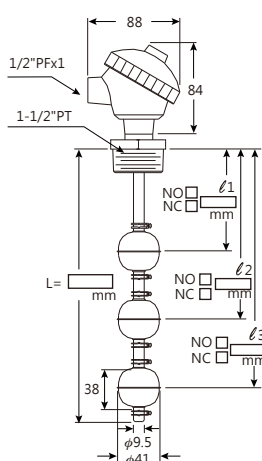


## 訂購說明範例

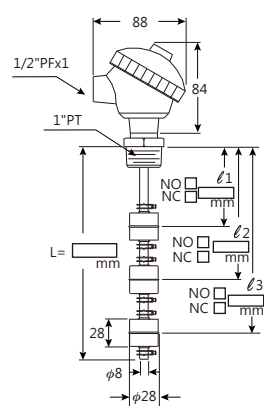
產品代號  
接線盒型式  
FD E (3Q) 1 S1 3

| 接續                               | 管徑            | 球型                  | 球數   |
|----------------------------------|---------------|---------------------|------|
| EM=1-1/2"<br>5kg/cm <sup>2</sup> | 3= $\phi$ 9.5 | S2=<br>$\phi$ 41x38 | 1~ 3 |
| 3M=1-1/4"<br>5kg/cm <sup>2</sup> | 1= $\phi$ 8   | S1=<br>$\phi$ 28x28 | 1~ 3 |
| EQ=1-1/2"<br>PT                  | 3= $\phi$ 9.5 | S2=<br>$\phi$ 41x38 | 1~ 3 |
| DQ=1"PT                          | 1= $\phi$ 8   | S1=<br>$\phi$ 28x28 | 1~ 3 |

Type FD E (EQ) 3 S2 3



Type FD E (DQ) 1 S1 3



# 接線盒防爆型

INERIS09ATEX0049  II2 GD Exd IIC T4~T6  
 IM2 Ex dI Ex tD A21 IP66 T85~135°C

## 法蘭接續防爆型

### 訂購說明範例

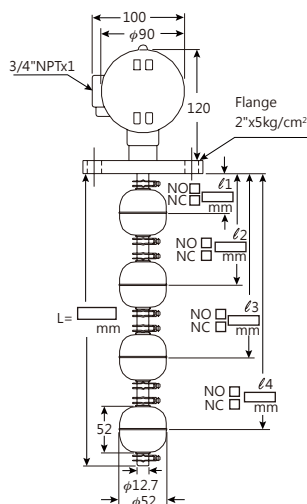
產品代號  
接線盒型式

**FD K (HM) 7 S6 4**

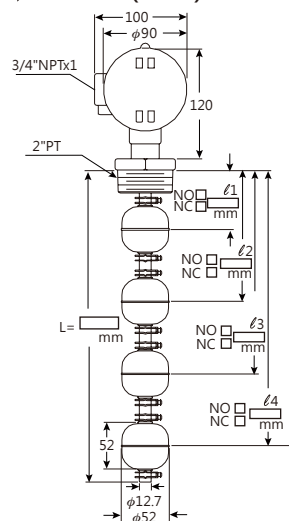
| 接續                               | 管徑      | 球型             | 球數  |
|----------------------------------|---------|----------------|-----|
| EM=1-1/2"<br>5kg/cm <sup>2</sup> | 3=φ9.5  | S2=<br>φ41x38  | 1~4 |
| FM=2"<br>5kg/cm <sup>2</sup>     | 4=φ12.7 | S3=<br>φ45x55  | 1~4 |
| FM=2"<br>5kg/cm <sup>2</sup>     | 4=φ12.7 | S4=<br>φ52x52  | 1~4 |
| HM=3"<br>5kg/cm <sup>2</sup>     | 7=φ17.2 | S6=<br>φ75x108 | 1~4 |

註1:防爆電纜固定頭為選購品，意者請洽業務。

### Type FD K (FM) 4 S4 4



### Type FD K (HM) 7 S6 4



## 牙口接續防爆型

### 訂購說明範例

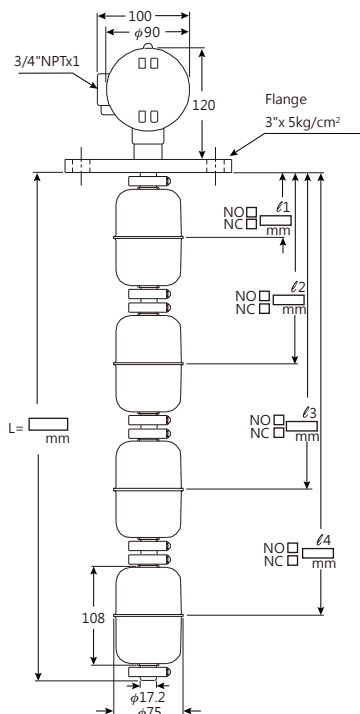
產品代號  
接線盒型式

**FD K (HQ) 7 S6 4**

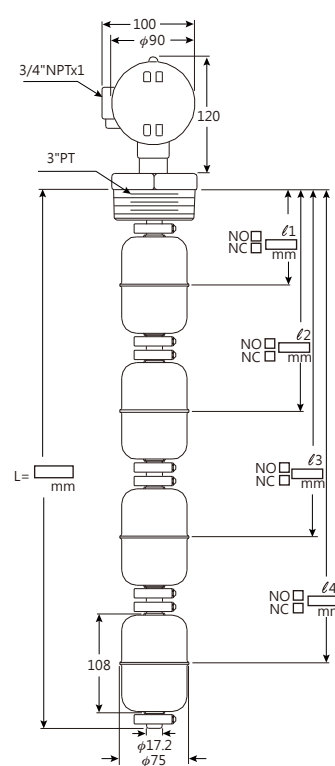
| 接續              | 管徑      | 球型             | 球數  |
|-----------------|---------|----------------|-----|
| EQ=1-1/2"<br>PT | 3=φ9.5  | S2=<br>φ41x38  | 1~4 |
| FQ=2"<br>PT     | 4=φ12.7 | S3=<br>φ45x55  | 1~4 |
| FQ=2"<br>PT     | 4=φ12.7 | S4=<br>φ52x52  | 1~4 |
| HQ=3"<br>PT     | 7=φ17.2 | S6=<br>φ75x108 | 1~4 |

註1:防爆電纜固定頭為選購品，意者請洽業務。

### Type FD K (FQ) 4 S4 4



### Type FD K (HQ) 7 S6 4



## 動作點可調型

很多場所的使用者需要經常改變液位高度，為了使用方便，本公司特別設計此產品，使用者只要將接頭上的六角螺絲鬆開，即可將連桿往上或往下移動調整，達到控制液位高度的目的，使用上很方便。

☆適用在桶內壓力5kg/cm<sup>2</sup>以下。

☆耐溫125°C(最高可達200°C)。

☆開關規格：

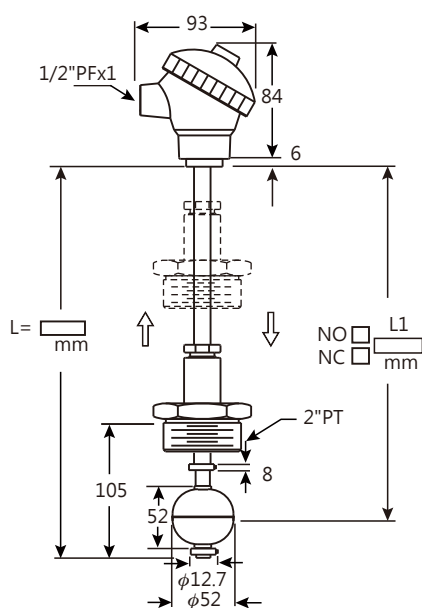
20W/150Vac /250Vdc SPDT

50W/300Vac /350Vdc SPST

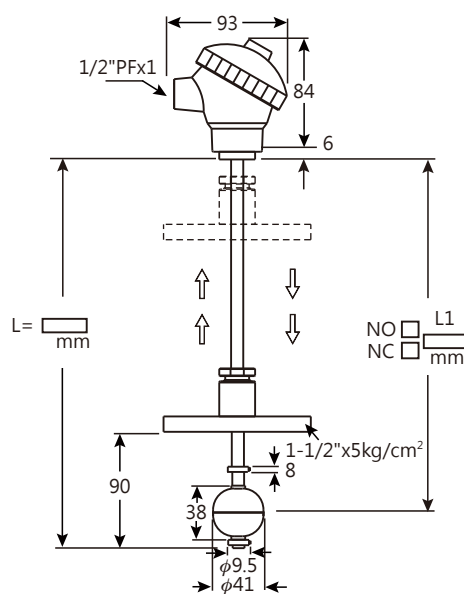
50W/220Vac /500Vdc SPST

50W/400Vac /1000Vdc SPDT

☆特殊法蘭或牙口亦可訂製。

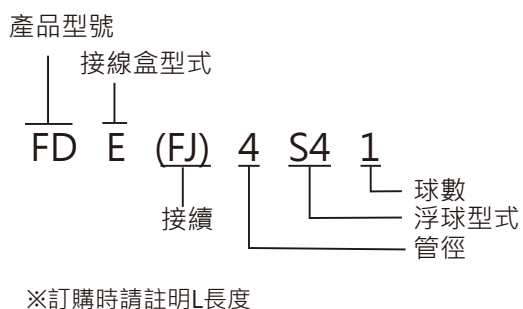


FD E (FJ) 4 S4 1



FD E (EK) 3 S2 1

## 訂購說明範例



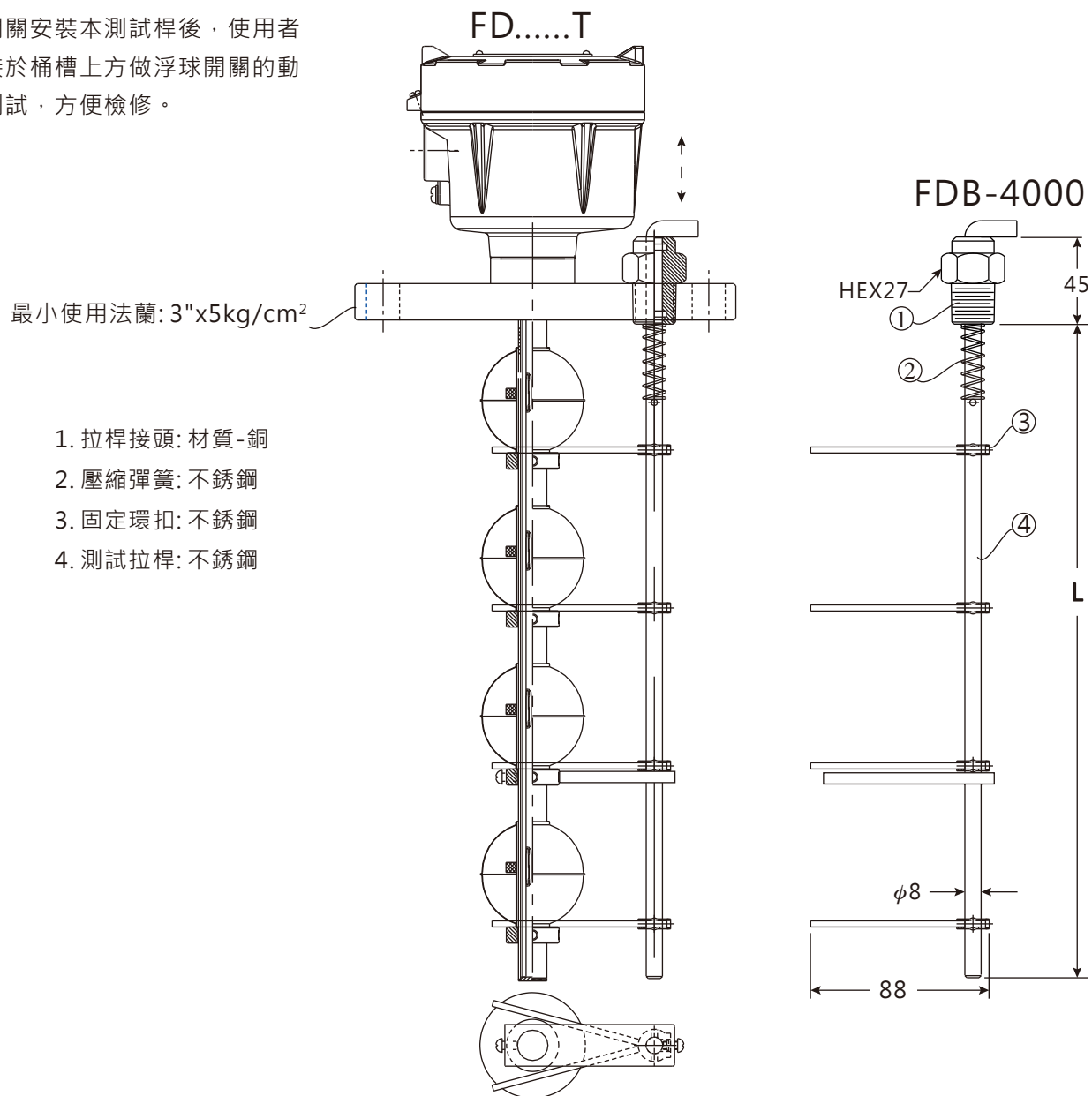
| 接 續                           | 管 徑            | 球 型              |
|-------------------------------|----------------|------------------|
| EJ=1-1/2" PT                  | 3= $\phi$ 9.5  | S2= $\phi$ 41x38 |
| FJ=2" PT                      | 4= $\phi$ 12.7 | S4= $\phi$ 52x52 |
| EK=1-1/2" 5kg/cm <sup>2</sup> | 3= $\phi$ 9.5  | S2= $\phi$ 41x38 |

# 測試桿

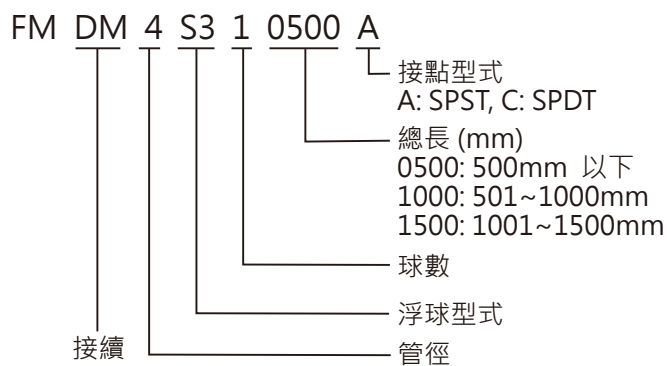
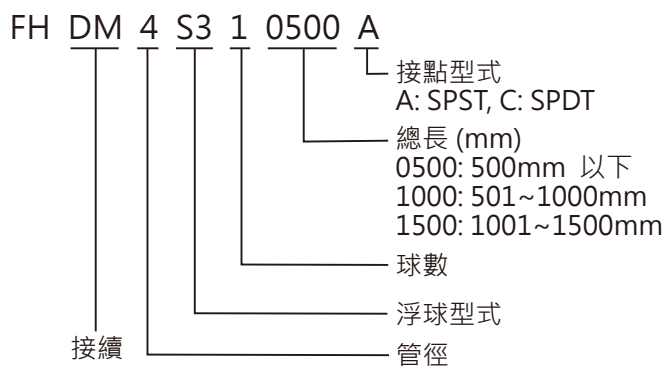
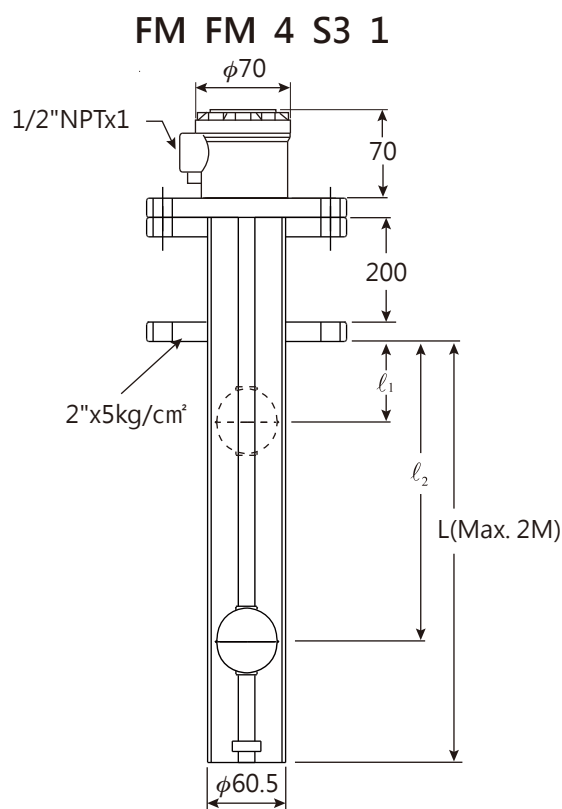
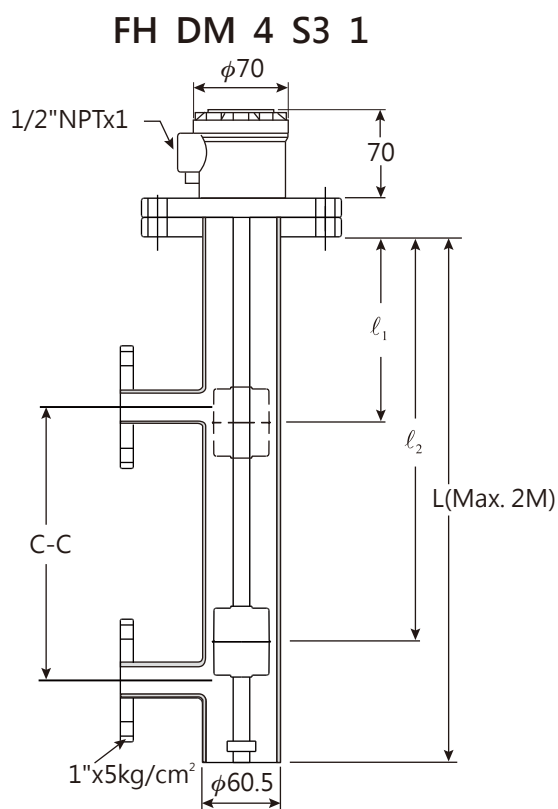
GL驗船認證50885-04HH

功能：

浮球開關安裝本測試桿後，使用者可直接於桶槽上方做浮球開關的動作點測試，方便檢修。



# 船級認證產品



※訂購時請註明  $l_1$ 、 $l_2$ 、L 及C-C長度

| 接 續                       | 管 徑      | 球 型        |
|---------------------------|----------|------------|
| DM=1"x5kg/cm <sup>2</sup> | 4= φ12.7 | S3= φ45x55 |
| FM=2"x5kg/cm <sup>2</sup> | 4= φ12.7 | S4= φ52x52 |

# 防爆型產品

TS Ex db IIB T6...T3 Gb  
NEPSI Ex d IIC T3~T6 Gb



ATEX II 2 G Ex d IIB T3 or T4 or T5 or T6 Gb

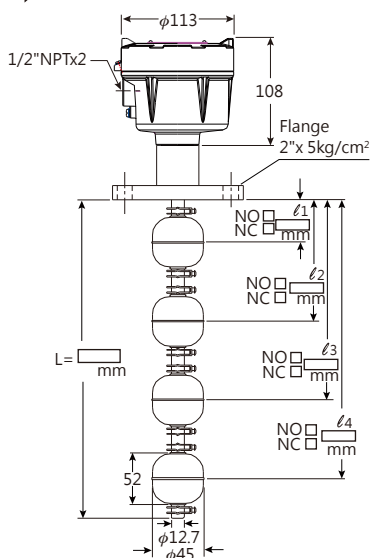
II 2 D Ex tb IIC T200°C or T135°C or T100°C or T85°C Db

IECEx Ex db IIB T3 or T4 or T5 or T6 Gb

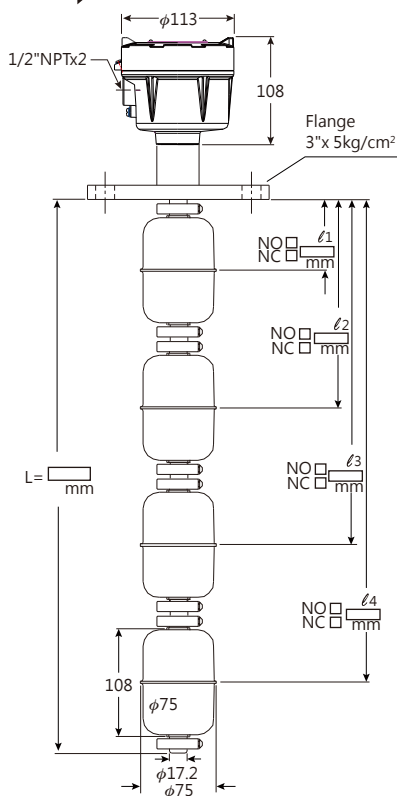
Ex tb IIC T200°C or T135°C or T100°C or T85°C Db

## 法蘭接續防爆型

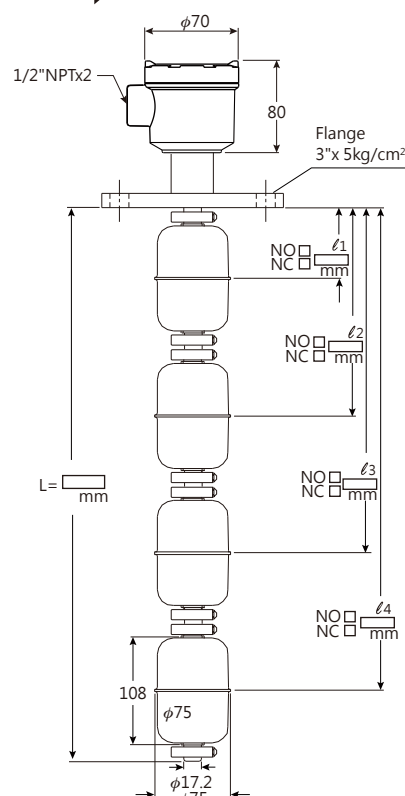
Type FD7 D FM 4 S4 4



Type FD7 D HM 7 S6 4

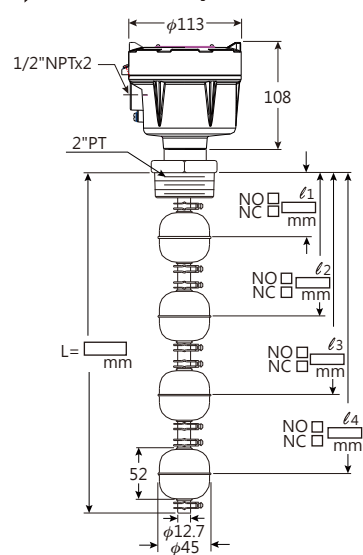


Type FD7 N HM 7 S6 4

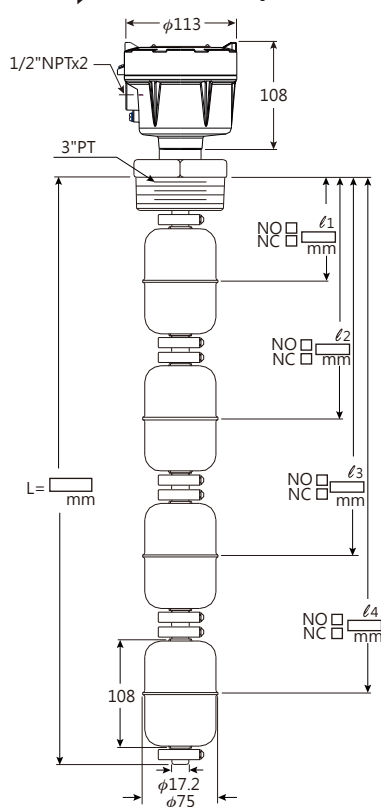


## 牙口接續防爆型

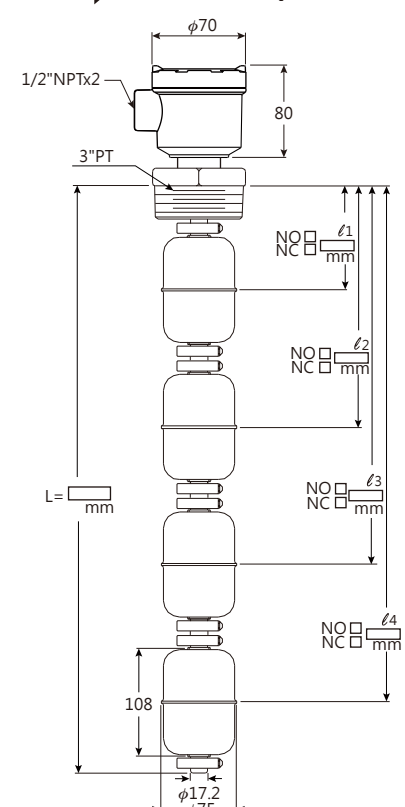
Type FD7 D FQ 4 S4 4



Type FD7 D HQ 7 S6 4



Type FD7 N HQ 7 S6 4



## 型號 / 訂購料號 對照表

| 型號          | 訂購料號                     |
|-------------|--------------------------|
| FDBEM3S24   | FDX10000-ABAKB1401GMAS24 |
| FDBFM4S34   | FDX10000-ABAKB2402AMAS34 |
| FDBFM4S44   | FDX10000-ABAKB2402AMAS44 |
| FDBHM7S64   | FDX10000-ABAKB5402DMAS64 |
| FFDBEQ3S24  | FDX10000-ABAAB1011GMAS24 |
| FDBFQ4S34   | FDX10000-ABAAB2012AMAS34 |
| FDBFQ4S44   | FDX10000-ABAAB2012AMAS44 |
| FDBHQ7S64   | FDX10000-ABAAB5012DMAS44 |
| FD7DFM4S44  | FDX1001C-ADAKB2402AMAS44 |
| FFD7DHM7S64 | FDX1001C-ADAKB5402DMAS64 |
| FD7NHM7S64  | FDX1001C-ANAKB5402DMAS64 |
| FD7DFQ4S44  | FDX1001C-ADAAB5012AMAS44 |
| FD7DHQ7S64  | FDX1001C-ADAAB5012DMAS44 |
| FD7NHQ7S64  | FDX1001C-ANAAB5012DMAS44 |

# 訂購說明

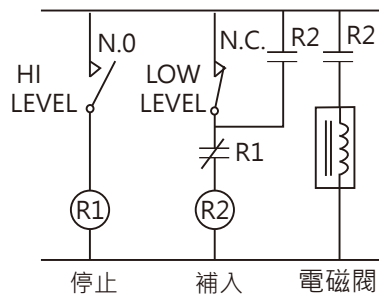
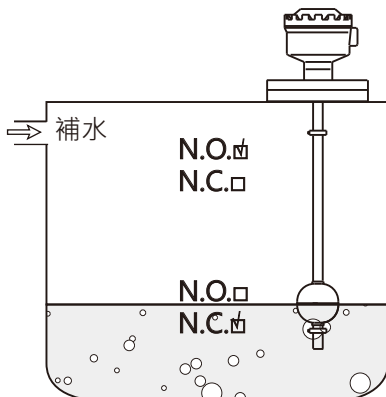
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 05           | 06                        | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |  |              |              |              |      |          |          |            |          |          |             |        |          |            |            |          |  |        |          |      |            |          |         |        |  |          |        |  |  |  |           |  |  |           |  |  |            |  |  |                          |  |  |                           |  |  |             |  |  |             |  |  |          |  |  |          |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|---------------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--|--------------|--------------|--------------|------|----------|----------|------------|----------|----------|-------------|--------|----------|------------|------------|----------|--|--------|----------|------|------------|----------|---------|--------|--|----------|--------|--|--|--|-----------|--|--|-----------|--|--|------------|--|--|--------------------------|--|--|---------------------------|--|--|-------------|--|--|-------------|--|--|----------|--|--|----------|
| <b>FDX1</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |              |                           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |              |              |              |      |          |          |            |          |          |             |        |          |            |            |          |  |        |          |      |            |          |         |        |  |          |        |  |  |  |           |  |  |           |  |  |            |  |  |                          |  |  |                           |  |  |             |  |  |             |  |  |          |  |  |          |
| <b>05 06 型號</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |              |                           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |              |              |              |      |          |          |            |          |          |             |        |          |            |            |          |  |        |          |      |            |          |         |        |  |          |        |  |  |  |           |  |  |           |  |  |            |  |  |                          |  |  |                           |  |  |             |  |  |             |  |  |          |  |  |          |
| 00: 標準型(溫度120度)<br>01: 經濟型(無接線盒)<br>02: 高溫型(溫度200度)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |              |                           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |              |              |              |      |          |          |            |          |          |             |        |          |            |            |          |  |        |          |      |            |          |         |        |  |          |        |  |  |  |           |  |  |           |  |  |            |  |  |                          |  |  |                           |  |  |             |  |  |             |  |  |          |  |  |          |
| <b>07 08 認證</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |              |                           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |              |              |              |      |          |          |            |          |          |             |        |          |            |            |          |  |        |          |      |            |          |         |        |  |          |        |  |  |  |           |  |  |           |  |  |            |  |  |                          |  |  |                           |  |  |             |  |  |             |  |  |          |  |  |          |
| 00: 無認證<br>1C: ATEX-本體隔爆<br>2C: IECEx-本體隔爆<br>5C: TS-本體隔爆<br>7C: NEPSI-本體隔爆<br>B0: DNV.GL<br>C0: ABS<br>E0: BV<br>F0: LR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |              |                           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |              |              |              |      |          |          |            |          |          |             |        |          |            |            |          |  |        |          |      |            |          |         |        |  |          |        |  |  |  |           |  |  |           |  |  |            |  |  |                          |  |  |                           |  |  |             |  |  |             |  |  |          |  |  |          |
| <b>09 型式</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |              |                           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |              |              |              |      |          |          |            |          |          |             |        |          |            |            |          |  |        |          |      |            |          |         |        |  |          |        |  |  |  |           |  |  |           |  |  |            |  |  |                          |  |  |                           |  |  |             |  |  |             |  |  |          |  |  |          |
| A: 標準型<br>B: 側裝型<br>C: 接續可調式<br>D: 上裝型(牙朝上/無牙)<br>E: 側裝型(牙朝上/無牙)<br>F: 船舶認證防波管上裝型<br>G: 船舶認證旁通管型                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |              |                           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |              |              |              |      |          |          |            |          |          |             |        |          |            |            |          |  |        |          |      |            |          |         |        |  |          |        |  |  |  |           |  |  |           |  |  |            |  |  |                          |  |  |                           |  |  |             |  |  |             |  |  |          |  |  |          |
| <b>10 接線盒</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |              |                           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |              |              |              |      |          |          |            |          |          |             |        |          |            |            |          |  |        |          |      |            |          |         |        |  |          |        |  |  |  |           |  |  |           |  |  |            |  |  |                          |  |  |                           |  |  |             |  |  |             |  |  |          |  |  |          |
| B: B型接線盒(鋁)<br>D: D型接線盒(鋁)<br>E: E型接線盒(鋁)<br>K: K型接線盒(鋁)<br>L: L型接線盒(鋁)<br>N: N型接線盒(不鏽鋼)<br>H: H型接線盒(鋁)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |              |                           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |              |              |              |      |          |          |            |          |          |             |        |          |            |            |          |  |        |          |      |            |          |         |        |  |          |        |  |  |  |           |  |  |           |  |  |            |  |  |                          |  |  |                           |  |  |             |  |  |             |  |  |          |  |  |          |
| <b>接續尺寸</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |              |                           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |              |              |              |      |          |          |            |          |          |             |        |          |            |            |          |  |        |          |      |            |          |         |        |  |          |        |  |  |  |           |  |  |           |  |  |            |  |  |                          |  |  |                           |  |  |             |  |  |             |  |  |          |  |  |          |
| <table border="0"> <tr> <td><b>11 12</b></td> <td><b>13 14</b></td> <td><b>15 16</b></td> </tr> <tr> <td>法蘭選項</td> <td>A5: 1/2"</td> <td>D7: DN20</td> </tr> <tr> <td>AK: JIS-FF</td> <td>A7: 3/4"</td> <td>D8: DN25</td> </tr> <tr> <td>AN: ANSI-RF</td> <td>A8: 1"</td> <td>D9: DN32</td> </tr> <tr> <td>AS: DIN-FF</td> <td>B1: 1-1/2"</td> <td>E1: DN40</td> </tr> <tr> <td></td> <td>B2: 2"</td> <td>E2: DN50</td> </tr> <tr> <td>牙口選項</td> <td>B4: 2-1/2"</td> <td>E3: DN65</td> </tr> <tr> <td>AA: JIS</td> <td>B5: 3"</td> <td></td> </tr> <tr> <td>AC: ANSI</td> <td>B7: 4"</td> <td></td> </tr> <tr> <td></td> <td></td> <td>01: 外牙 PT</td> </tr> <tr> <td></td> <td></td> <td>03: 外牙 PF</td> </tr> <tr> <td></td> <td></td> <td>07: 外牙 NPT</td> </tr> <tr> <td></td> <td></td> <td>40: 5 kg/cm<sup>2</sup></td> </tr> <tr> <td></td> <td></td> <td>42: 10 kg/cm<sup>2</sup></td> </tr> <tr> <td></td> <td></td> <td>48: 150 Lbs</td> </tr> <tr> <td></td> <td></td> <td>49: 300 Lbs</td> </tr> <tr> <td></td> <td></td> <td>57: PN10</td> </tr> <tr> <td></td> <td></td> <td>58: PN16</td> </tr> </table> |              |                           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  | <b>11 12</b> | <b>13 14</b> | <b>15 16</b> | 法蘭選項 | A5: 1/2" | D7: DN20 | AK: JIS-FF | A7: 3/4" | D8: DN25 | AN: ANSI-RF | A8: 1" | D9: DN32 | AS: DIN-FF | B1: 1-1/2" | E1: DN40 |  | B2: 2" | E2: DN50 | 牙口選項 | B4: 2-1/2" | E3: DN65 | AA: JIS | B5: 3" |  | AC: ANSI | B7: 4" |  |  |  | 01: 外牙 PT |  |  | 03: 外牙 PF |  |  | 07: 外牙 NPT |  |  | 40: 5 kg/cm <sup>2</sup> |  |  | 42: 10 kg/cm <sup>2</sup> |  |  | 48: 150 Lbs |  |  | 49: 300 Lbs |  |  | 57: PN10 |  |  | 58: PN16 |
| <b>11 12</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <b>13 14</b> | <b>15 16</b>              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |              |              |              |      |          |          |            |          |          |             |        |          |            |            |          |  |        |          |      |            |          |         |        |  |          |        |  |  |  |           |  |  |           |  |  |            |  |  |                          |  |  |                           |  |  |             |  |  |             |  |  |          |  |  |          |
| 法蘭選項                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | A5: 1/2"     | D7: DN20                  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |              |              |              |      |          |          |            |          |          |             |        |          |            |            |          |  |        |          |      |            |          |         |        |  |          |        |  |  |  |           |  |  |           |  |  |            |  |  |                          |  |  |                           |  |  |             |  |  |             |  |  |          |  |  |          |
| AK: JIS-FF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | A7: 3/4"     | D8: DN25                  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |              |              |              |      |          |          |            |          |          |             |        |          |            |            |          |  |        |          |      |            |          |         |        |  |          |        |  |  |  |           |  |  |           |  |  |            |  |  |                          |  |  |                           |  |  |             |  |  |             |  |  |          |  |  |          |
| AN: ANSI-RF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | A8: 1"       | D9: DN32                  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |              |              |              |      |          |          |            |          |          |             |        |          |            |            |          |  |        |          |      |            |          |         |        |  |          |        |  |  |  |           |  |  |           |  |  |            |  |  |                          |  |  |                           |  |  |             |  |  |             |  |  |          |  |  |          |
| AS: DIN-FF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | B1: 1-1/2"   | E1: DN40                  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |              |              |              |      |          |          |            |          |          |             |        |          |            |            |          |  |        |          |      |            |          |         |        |  |          |        |  |  |  |           |  |  |           |  |  |            |  |  |                          |  |  |                           |  |  |             |  |  |             |  |  |          |  |  |          |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | B2: 2"       | E2: DN50                  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |              |              |              |      |          |          |            |          |          |             |        |          |            |            |          |  |        |          |      |            |          |         |        |  |          |        |  |  |  |           |  |  |           |  |  |            |  |  |                          |  |  |                           |  |  |             |  |  |             |  |  |          |  |  |          |
| 牙口選項                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | B4: 2-1/2"   | E3: DN65                  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |              |              |              |      |          |          |            |          |          |             |        |          |            |            |          |  |        |          |      |            |          |         |        |  |          |        |  |  |  |           |  |  |           |  |  |            |  |  |                          |  |  |                           |  |  |             |  |  |             |  |  |          |  |  |          |
| AA: JIS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | B5: 3"       |                           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |              |              |              |      |          |          |            |          |          |             |        |          |            |            |          |  |        |          |      |            |          |         |        |  |          |        |  |  |  |           |  |  |           |  |  |            |  |  |                          |  |  |                           |  |  |             |  |  |             |  |  |          |  |  |          |
| AC: ANSI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | B7: 4"       |                           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |              |              |              |      |          |          |            |          |          |             |        |          |            |            |          |  |        |          |      |            |          |         |        |  |          |        |  |  |  |           |  |  |           |  |  |            |  |  |                          |  |  |                           |  |  |             |  |  |             |  |  |          |  |  |          |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |              | 01: 外牙 PT                 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |              |              |              |      |          |          |            |          |          |             |        |          |            |            |          |  |        |          |      |            |          |         |        |  |          |        |  |  |  |           |  |  |           |  |  |            |  |  |                          |  |  |                           |  |  |             |  |  |             |  |  |          |  |  |          |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |              | 03: 外牙 PF                 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |              |              |              |      |          |          |            |          |          |             |        |          |            |            |          |  |        |          |      |            |          |         |        |  |          |        |  |  |  |           |  |  |           |  |  |            |  |  |                          |  |  |                           |  |  |             |  |  |             |  |  |          |  |  |          |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |              | 07: 外牙 NPT                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |              |              |              |      |          |          |            |          |          |             |        |          |            |            |          |  |        |          |      |            |          |         |        |  |          |        |  |  |  |           |  |  |           |  |  |            |  |  |                          |  |  |                           |  |  |             |  |  |             |  |  |          |  |  |          |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |              | 40: 5 kg/cm <sup>2</sup>  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |              |              |              |      |          |          |            |          |          |             |        |          |            |            |          |  |        |          |      |            |          |         |        |  |          |        |  |  |  |           |  |  |           |  |  |            |  |  |                          |  |  |                           |  |  |             |  |  |             |  |  |          |  |  |          |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |              | 42: 10 kg/cm <sup>2</sup> |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |              |              |              |      |          |          |            |          |          |             |        |          |            |            |          |  |        |          |      |            |          |         |        |  |          |        |  |  |  |           |  |  |           |  |  |            |  |  |                          |  |  |                           |  |  |             |  |  |             |  |  |          |  |  |          |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |              | 48: 150 Lbs               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |              |              |              |      |          |          |            |          |          |             |        |          |            |            |          |  |        |          |      |            |          |         |        |  |          |        |  |  |  |           |  |  |           |  |  |            |  |  |                          |  |  |                           |  |  |             |  |  |             |  |  |          |  |  |          |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |              | 49: 300 Lbs               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |              |              |              |      |          |          |            |          |          |             |        |          |            |            |          |  |        |          |      |            |          |         |        |  |          |        |  |  |  |           |  |  |           |  |  |            |  |  |                          |  |  |                           |  |  |             |  |  |             |  |  |          |  |  |          |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |              | 57: PN10                  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |              |              |              |      |          |          |            |          |          |             |        |          |            |            |          |  |        |          |      |            |          |         |        |  |          |        |  |  |  |           |  |  |           |  |  |            |  |  |                          |  |  |                           |  |  |             |  |  |             |  |  |          |  |  |          |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |              | 58: PN16                  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |              |              |              |      |          |          |            |          |          |             |        |          |            |            |          |  |        |          |      |            |          |         |        |  |          |        |  |  |  |           |  |  |           |  |  |            |  |  |                          |  |  |                           |  |  |             |  |  |             |  |  |          |  |  |          |
| <b>17 18 桿徑</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |              |                           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |              |              |              |      |          |          |            |          |          |             |        |          |            |            |          |  |        |          |      |            |          |         |        |  |          |        |  |  |  |           |  |  |           |  |  |            |  |  |                          |  |  |                           |  |  |             |  |  |             |  |  |          |  |  |          |
| 1F: $\phi$ 8.0mm<br>1G: $\phi$ 9.5mm<br>2A: $\phi$ 12.7mm<br>2D: $\phi$ 17.2mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |              |                           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |              |              |              |      |          |          |            |          |          |             |        |          |            |            |          |  |        |          |      |            |          |         |        |  |          |        |  |  |  |           |  |  |           |  |  |            |  |  |                          |  |  |                           |  |  |             |  |  |             |  |  |          |  |  |          |

(接續下頁)

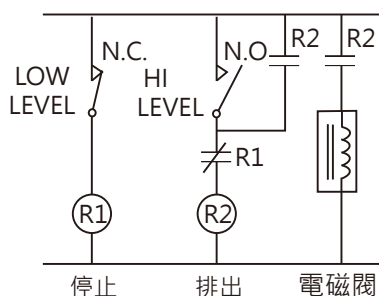
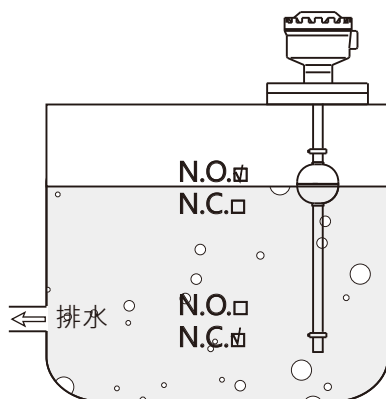


# 浮球開關應用線路範例

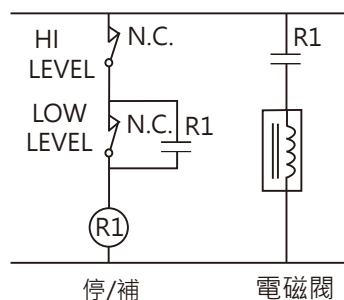
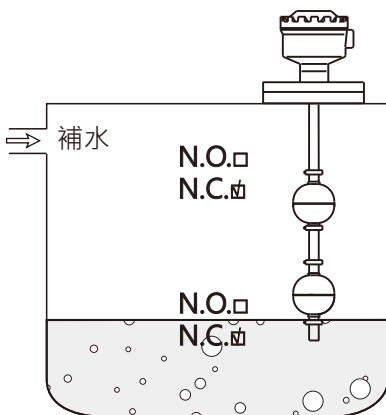
※單一浮球,二個磁簧開關  
的補水控制線路。



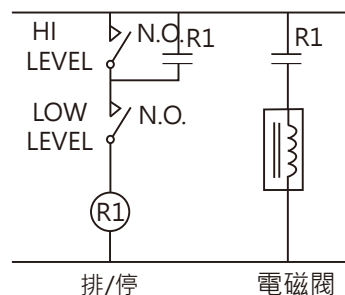
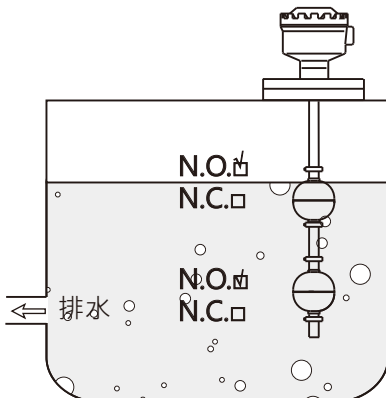
※單一浮球,二個磁簧開關  
的排水控制線路。



※二個浮球,二個磁簧開關  
的補水控制線路。

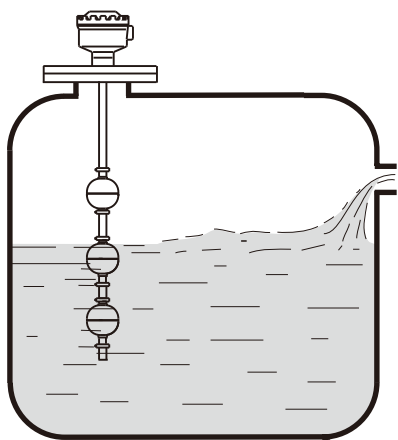


※二個浮球,二個磁簧開關  
的排水控制線路。

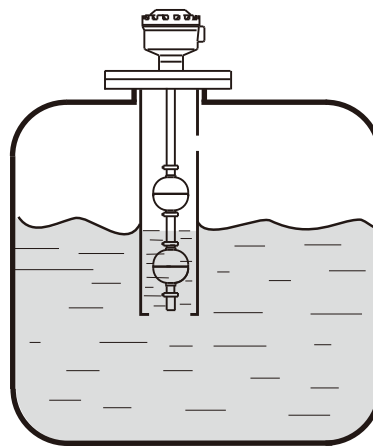


## 安裝說明

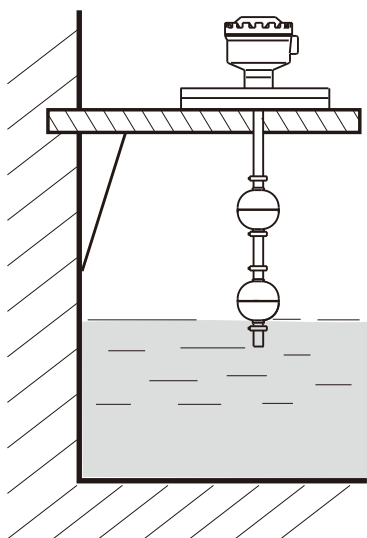
※ 安裝位置應遠離進水口，否則開關會因進水口的波動大而造成誤動作。



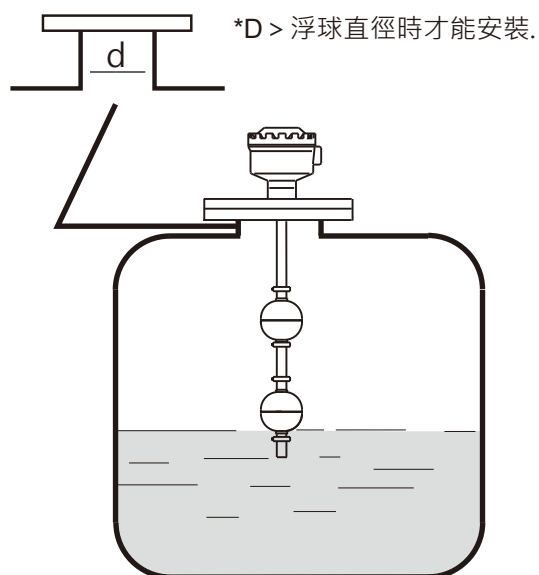
※ 若開關裝置於攪拌區域，可裝置防波管或防波擋板。



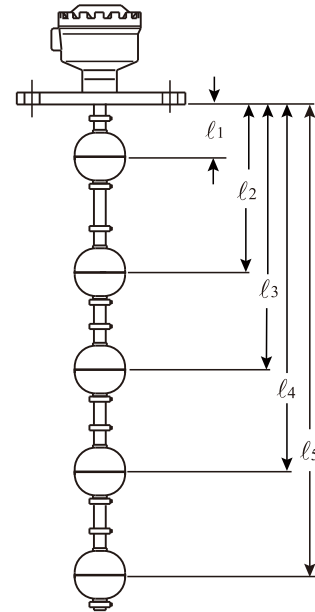
※ 開關裝置於混凝土池壁，可加裝L型角鋼支架。



※ 選擇管徑大於浮球直徑的法蘭連接管。



## 接線圖



※<sup>NO C NC</sup>☐ ☒ ☒ 表示液位低於浮球時接點接通；NC 或 B 或 ON ↓

※<sup>NO C NC</sup>☒ ☒ ☐ 表示液位高於浮球時接點接通；NO 或 A 或 ON ↑

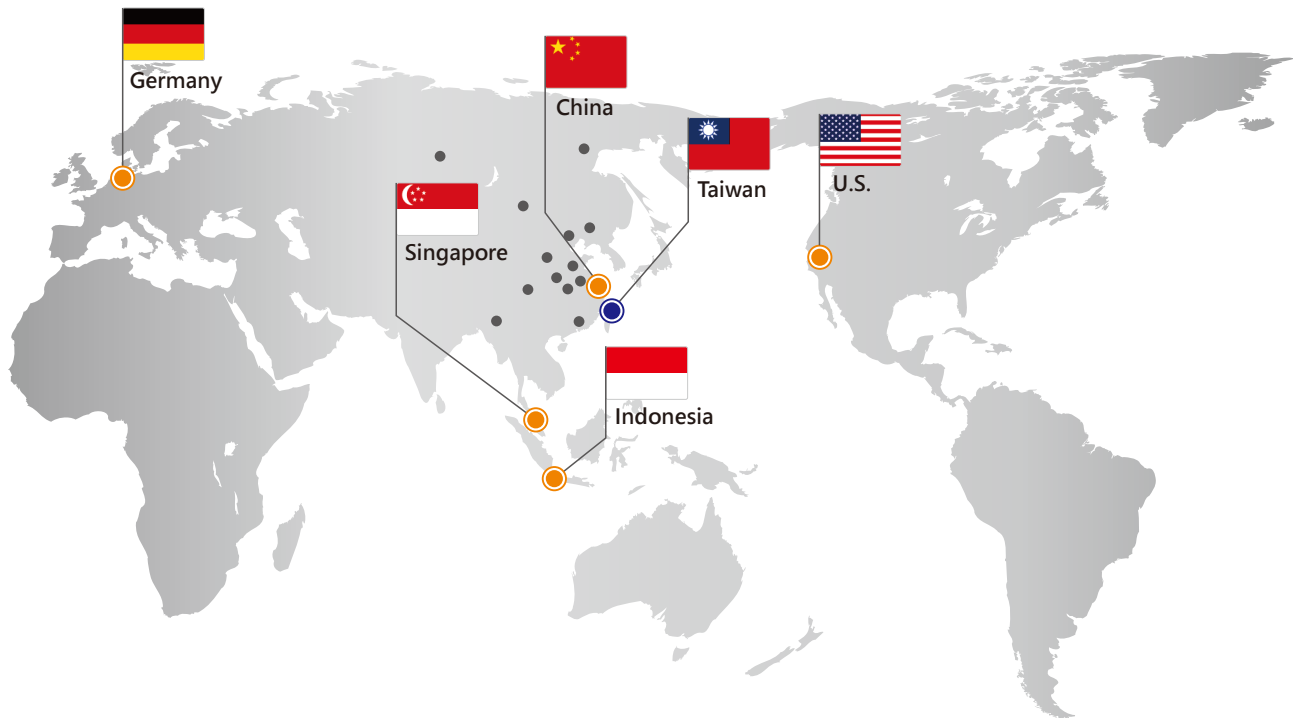
※<sup>NO C NC</sup>☒ ☒ ☒ 表示液位高於浮球時NO-C接點接通，NC-C開路；若液位低於浮球時則NO-C接點開路，NC-C接點接通。

※不可任意更改動作位置，否則開關將無動作輸出。

※接線完畢後請將盒蓋旋緊並將接線口固定，以確保盒體防水功能。

（建議使用配線以φ8mm多蕊電纜）

# 全球據點



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