# 穿牆式液位警報器

## TYPE SPECIFICATION `

Lo level with signal output and alarm CS093-1-L

# **FEATURES**

- 1. This is a capacitive sensor, Microcontroller Unit detects different dielectric constant of the non-conductive glass or plastic vessel and liquid, on which taking its change of capacitance to position the Low liquid level.
- 2. Pressing housing to set the liquid level.
- 3. Alarm & Color the liquid level.



# TECHNICAL SPECIFICATIONS

Dimensions (LxWxH)	35.3x17.9x64.6mm	尺寸(長X寬X高)
Supply voltage	7~24VDC	供電電源
Current supply (Enable alarm)	90mA Max	電流供應(警報器動作)
Switching current	3.3~40mA	開關電流
Maximum switching frequency	1Hz	最大開關頻率
Ambient temperature range	-15∼+60°C	環境溫度
Thickness of the vessel wall	2~15mm	容器厚度
Protection class	IP 64	 防護等級

The use of the alarm which is paired up micom liquid feeder is only reminding that the liquid will be running out, these things of which does not directly affect the operation of micom liquid feeder, the alarm and micom liquid feeder operate independently, only the power sharing, if the alarm do not need to use that can remove it.

警報器搭配微電腦自動 加液器的用途僅為提醒 液體即將用完,並不會 直接影響自動加液器的 運作,警報器與自動加 液器各自獨立運作,只 有電源共用,如不用警 報器時可將其拔除。

## **INSTALLATION FOR ALARM**

- 1. Fix the alarm on the bottom side of the outer wall of the plastic vessel.
- 1.將警報器安裝在塑膠容器 外壁之底側

低液位信號輸出與警報

- 1.這是一種電容式感測器, 微控制器檢測不同介電常 數之玻璃、塑膠等非導電 容器和液體,取其電容變 化而將低液位定位。
- 2.按壓外殼即可設定液位。 3.警報和顏色指示液位。

# 技術規格















- 2. Attachment is done by tying a cable tie.
- Steps of tying the cable tie as follows:
- 2-1. The pointed tip of the cable tie be pulling through the open case that build a loop.
- 2-2. Put the vessel and the alarm together and then take this loop in the upward direction from the bottom of the two objects to tighten the two objects up (the cable tie placed about midline position).
- 2-3. Depress the open case up and down by the two fingers, the other two fingers pull the cable tie out so that the alarm can be fastened and positioned.
- 3. Replace the new liquid:
- 3-1. Depress the cable tie down.

3-2. Remove the alarm up.

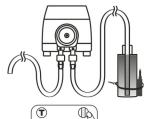
- 3-3. A tab be depressed to release the ratchet so that the tie can be reused.
- 3-4.As  $2-1 \sim 2-3$  steps replace the new liquid.

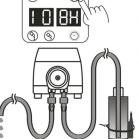
- 2.附著是由紮線帶綁緊 完成。
  - 綁紮線帶步驟如下:
  - 2-1.將紮線帶之尖窄端穿 入開口端成一環圏。
  - 2-2.將容器與警報器併靠 在一起後拿此環圈從 二物件之底部往上之 方向將此二物件套緊 ( 紮線帶置放於約中 線位置)。
- 2-3.二指上下按壓開口端 ,另二指將紮線帶往 外拉,如此可將警報 器釦緊並定位。
- 3.換新的液體:
- 3-1.將紮線帶下壓。

3-2.往上取出警報器。

- 3-3.按壓突片將棘輪釋放 使得紮線帶可被重複 使用。
- 3-4.如2-1~2-3步驟換 成新的液體

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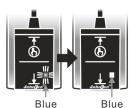




Purple

Blue





## THE ALARM BE USED WITH A LIQUID FEEDER

- 1. The entrance tube be sure to touch the bottom of the plastic vessel.
- 1.進料管務必接觸到塑膠 容器底部。

警報器配合加液器使用`

2. Press ( ) button so that both side of tube be full of liquid.

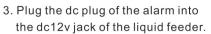
#### Attention:

Exchange the new liquid, this procedure must do.

2.按 ① 鍵使左右兩邊管子 佈滿液體

注意:

換新液體時,此道程序 必做。



3.將警報器的dc插頭插入 加液器的dc12v插座内。

4.警報器通電,LED閃爍

紫色8次後跳至藍色,

此表示容器内的液體

是至少有一半(50%)

每换新瓶,容器內的

液量至少需半滿。

4. The alarm be enabled, the LED flashes with purple color 8 times, then it skip to blue color, it means that the liquid inside the vessel will be at least half (50%) or more.

#### Attention:

Each new bottle, the liquid inside the vessel will be at least half full.

- 5.LO level settings:
  - 5-1.Press ( b) button about 2 seconds, then the LED flashes with blue color.
  - 5-2.Left ( button, the LED flashes with blue color about 10 times, then skip to blue color.

5. 設定低水位:

以上。

注意:

5-1.按 🕒 鍵約2秒後 LED會閃爍藍色。







5-3. LED skip to blue color, it means that the low level be positioned.

5-3. LED跳至藍色, 表示低水位定位 完成。

6. The LED flashes with red color and sound an alarm twice, it means that the level alarm be positioned in low level state or placed in the air, and then will sound an alarm twice in every 6 seconds.

6.LED閃爍紅色並警報聲 2次,表示液位警報器處 在低水位狀態或置於空 氣中,而後每隔6秒會 警報聲2次。

#### Attention:

- 1. According to the different composition and concentration of various liquid and the different material and thickness of the vessel, the alarm warning the low level will be different about from 0 to 5 cm (Special materials will be more than 5 cm ) that will start flashing with red color and sounding an alarm.
- 2.Depending on the different speed of crystallization of each liquid, the liquid which be easier to form crystals will extend the response time of the alarm, the longest response time spend about 30 minutes before the alarm will sound an alarm.

#### 注意:

- 1.依照各種液體成份及 濃度的不同和容器材 質及厚度的差異,警 報器警示液體之低水 位會有所不同,約介 於0~5公分之間(特 殊材質會大於5公分) ,會開始閃爍紅燈並 發出警報聲。
- 2.依照每種液體結晶速 度不同,越容易行成 結晶體之液體越會延 長警報器的反應時間 ,最長反應時間約需 30分鐘後警報器才會 發出警報聲。

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