

NEW-FLOW

**ISO 9001
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NEW-FLOW

MANUFACTURE OF THERMAL INSERTION LIQUID LEVEL SWITCH
TLS SERIES
AND CONTROL INSTRUMENTS

熱質插入式液位開關操作說明書

Instruction Manual



Approvals:



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Instruction No.: 20180116-0-tls

1.0 OPERATION

Instruction Manual 用法說明

TLS Series is assembled with a thermal dispersion sensor. It designed to provide a switch function for controller or alarm when the sensor is immersed into process liquid.

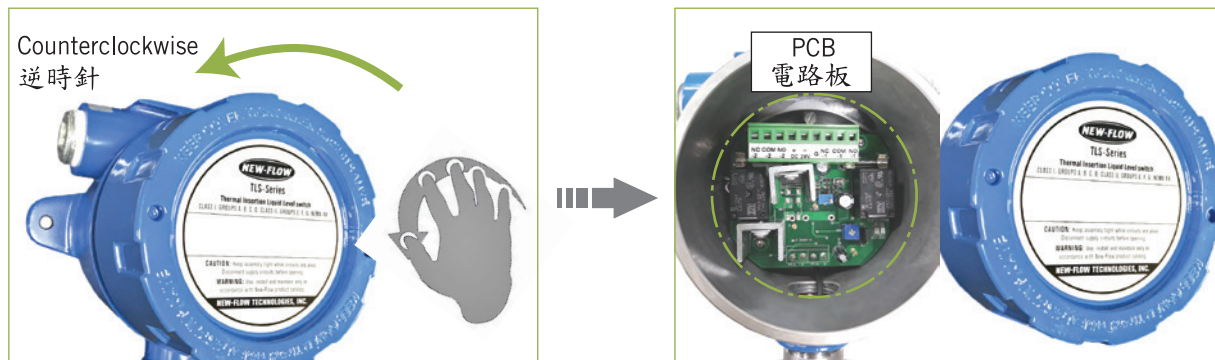
TLS系列與熱擴散傳感器組裝在一起。此系列被設計當傳感器浸入使用液體時為控制器或警報提供開關功能。

Operated Method 操作說明

STEP 1. Open the Top Cover / 打開上蓋

Open the top cover by counterclockwise, then you can see the inner PCB.

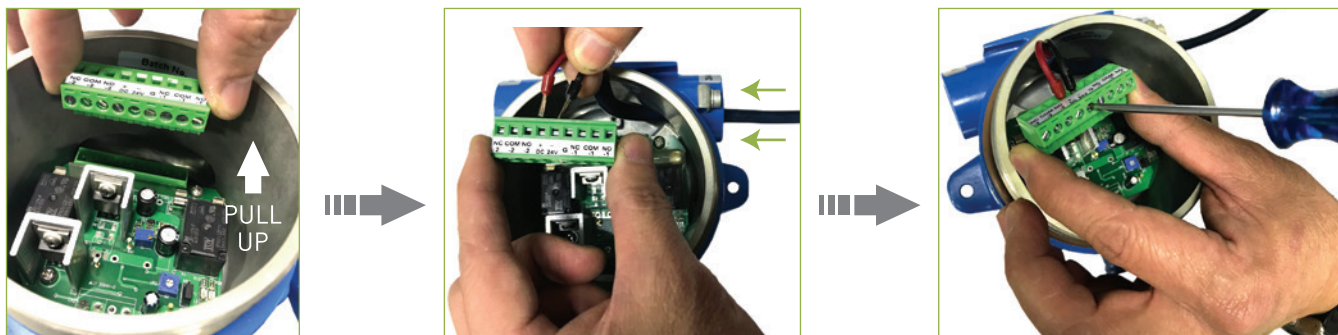
逆時針方向打開上蓋，即可看到內部電路板。



STEP 2. Connect the Power Supply / 安裝電源線

Pull the terminal block up from the PCB, and pass the cable of power supply through one side of electrical of the junction box, then insert the two wires into the holes as label marked “+” and “-”, and use a slotted screwdriver to lock them.

將端子座向上拔起後，再將電源線自接線盒一端穿入，依照端子上的標示孔“+”及“-”插入後，使用一字螺絲起子將其鎖緊。



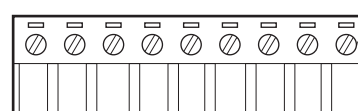
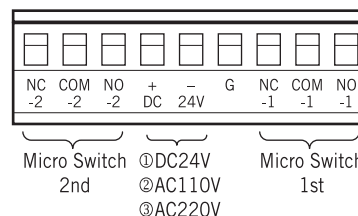
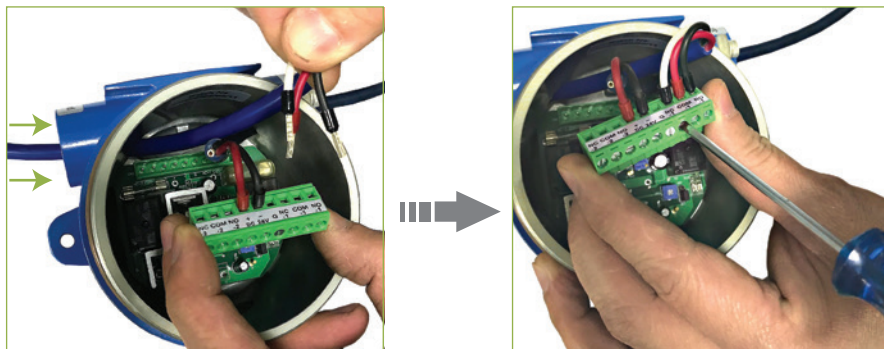
STEP 3. Connect the Micro Switch / 安裝微動開關

A set of micro switch terminal holes are available on each of the left and right sides of the terminal block.

Pass the wires of micro switch through the other side of electrical of the junction box, then insert the three wires into the holes as label marked “NC” “COM” “NO”, and use a slotted screwdriver to lock them. Ditto step for the second micro switches.

端子座的左右兩邊各有一組微動開關端子孔可供使用。

將微動開關接線自接線盒另一端穿入，依照端子上的標示孔“NC” “COM” “NO”插入後，再使用一字螺絲起子將其鎖緊。若有第二組微動開關同此步驟安裝。

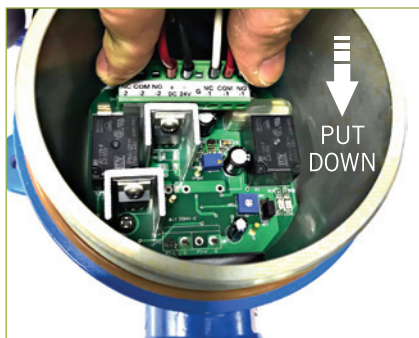


1.0 OPERATION

STEP 4.

Place the Terminal Block Back to the Position / 將端子座歸位

After completing the wiring, please remember put the terminal block back in to the place and ensure it is under firm.
完成接線後，請將端子座放回原位並壓緊。



STEP 5.

VR1: Adjust Sensitivity / 敏感度調整

Adjust the VR1 screw by a slotted screwdriver to set the sensitivity. Increase the sensitivity by rotating clockwise; and decrease by rotating counterclockwise.

VR1的旋鈕可使用一字螺絲起子調整敏感度。順時針旋轉時靈敏度較高；逆時針則反之。

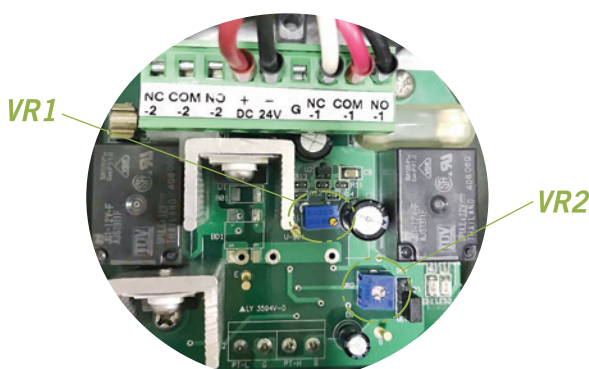


STEP 6.

VR2: Delay Relay / 延遲時間

Adjust the VR2 screw by a slotted screwdriver to set the ON/OFF delay relay. Increase the regression time by rotating clockwise; and decrease by rotating counterclockwise.

VR2的旋鈕可使用一字螺絲起子調整微動開關啟動及復歸的時間。順時針方向增加延遲時間；逆時針則減少。



STEP 7.

Lock the Top Cover Tightly / 鎖緊上蓋

Everything is completed, please remember place the top cover back and lock it by clockwise tightly.

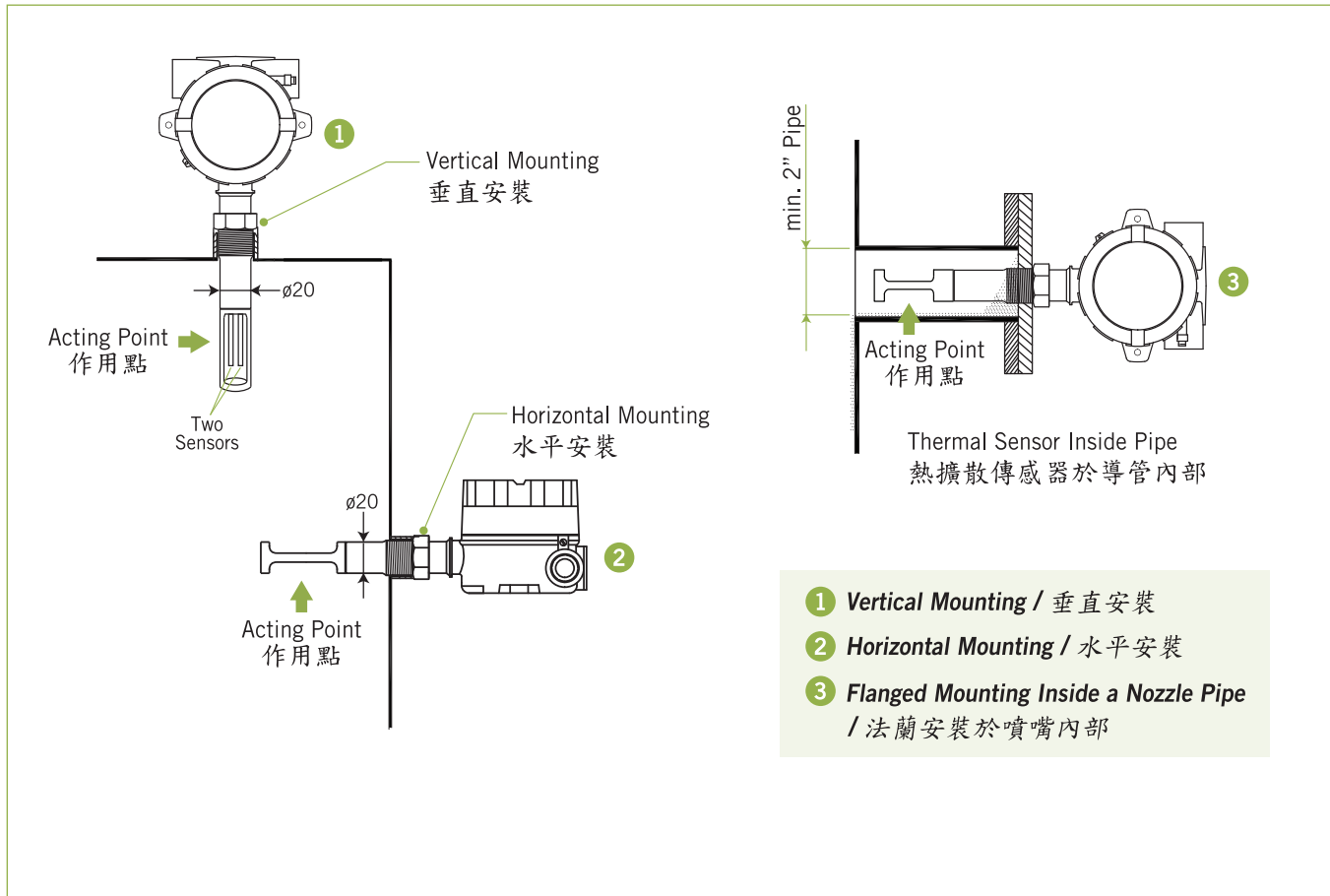
Then, please refer to the Installation Method as next page to install the TLS on the tank at the field.

一切就緒後，請將上蓋蓋回並順時針方向鎖緊。即可參考以下圖面的安裝方式，安裝於現場桶槽。

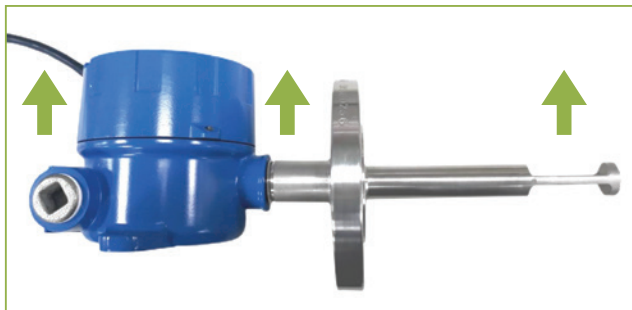


2.0 INSTALLATION

Installation Method 安裝方式



3.0 NOTICE



Notice of Horizontal Installation / 水平安裝注意事項

Under the horizontal installation, please place the housing face up to ensure the both of sensors face up, too.

側邊方向安裝時請將表頭朝上，使兩個Sensors水平朝上。