NEW-FLOW

ISO 9001 REGISTERED

NEW-FLOW

MANUFACTURE OF TUNING FORK VIBRATING LEVEL SWITCH

VLS5000 SERIES

AND CONTROL INSTRUMENTS

音叉式液位計操作說明書

Instruction Manual
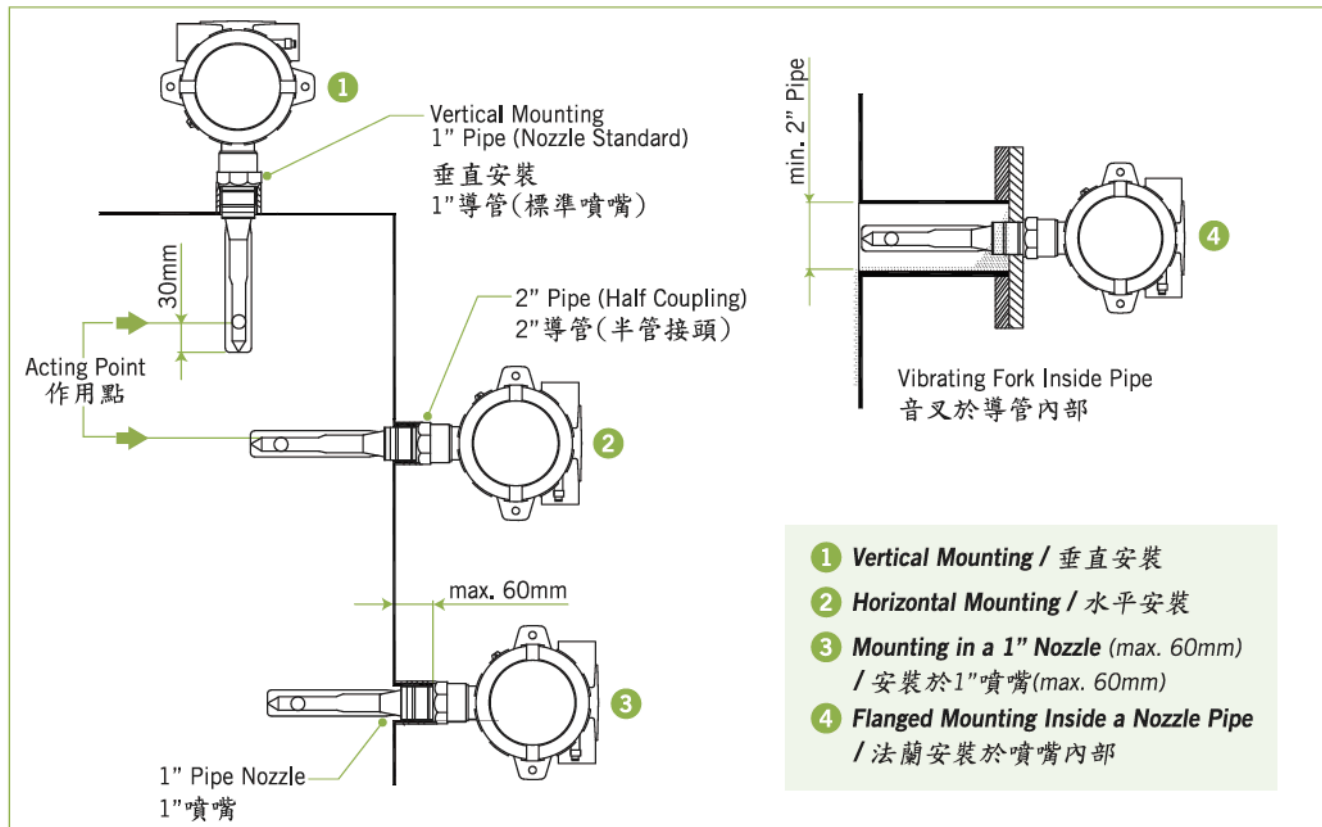

ABS
TYPE APPROVED PRODUCT

CE PCᴛ

1.0 DESCRIPTION

Instruction Manual 用法說明

VLS5000 Series are assembled with a tuning fork and energized sensor.
It vibrates frequently with mechanical resonance to detect the liquid level
when the tuning fork is immersed into process liquid.

VLS5000是由通電的傳感器及音叉組裝而成。
液位開關隨著機械共振的原理而頻率性的振動，來檢測音叉浸入流體的液位。

Installation Method 安裝方式

Vertical Mounting
1" Pipe (Nozzle Standard)
垂直安裝
1"導管（標準噴嘴）

30mm

Acting Point
作用點

2" Pipe (Half Coupling)
2"導管（半管接頭）

max. 60mm

1" Pipe Nozzle
1"噴嘴

min. 2" Pipe

Vibrating Fork Inside Pipe
音叉於導管內部

① **Vertical Mounting** / 垂直安裝
② **Horizontal Mounting** / 水平安裝
③ **Mounting in a 1" Nozzle** (max. 60mm)
/ 安裝於1"噴嘴(max. 60mm)
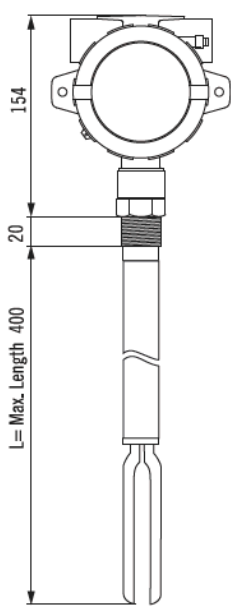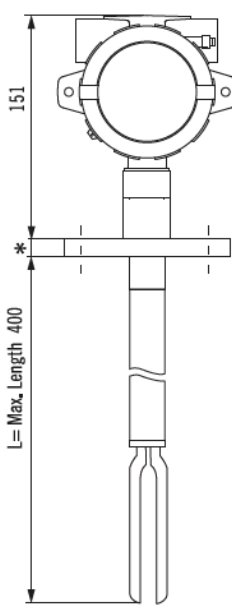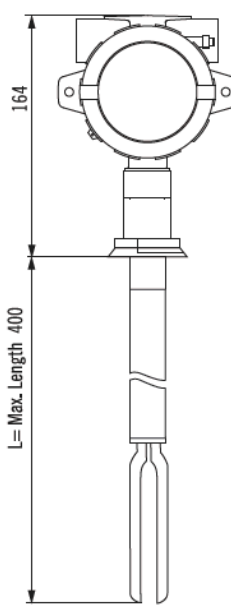④ **Flanged Mounting Inside a Nozzle Pipe**
/ 法蘭安裝於噴嘴內部

Process Connections 接續口及長度

Thread Type	Flange Type DIN, ANSI, JIS 1"~3"	Clamp Type ISO 2852 (3A) 1"~2"	Coupling Type DIN 11851 1"~2"
STANDARD LENGTH			

154
20
130

151
25
130
*

164
25
130

169
25
130

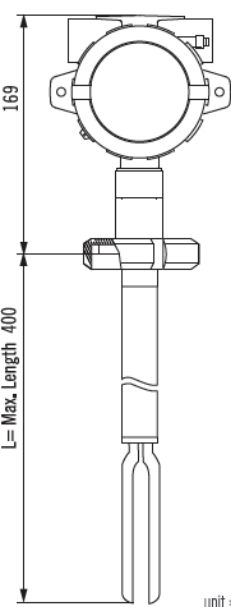unit = mm

＊Dimension varies according to flange rating
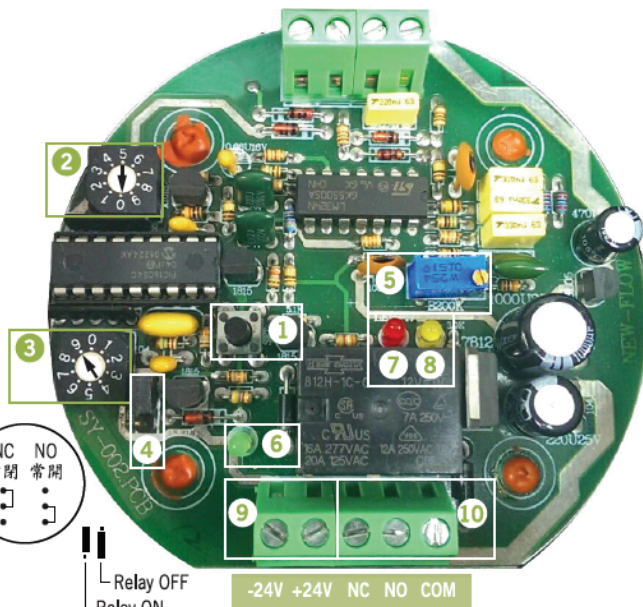
Process Connections 接續口及長度

Thread Type	Flange Type DIN, ANSI, JIS 1"~3"	Clamp Type ISO 2852 (3A) 1"~2"	Coupling Type DIN 11851 1"~2"
AVAILABLE LENGTH			

154
20
L= Max. Length 400

151
*
L= Max. Length 400

164
L= Max. Length 400

169
L= Max. Length 400

unit = mm

＊Dimension varies according to flange rating

PCB Operated Method 電路板操作說明

(A.) Power Supply: 24VDC / 電源：24VDC

NC NO
常閉 常開

Relay OFF
Relay ON

SY-002.PCB

-24V +24V NC NO COM

① Reset / 重置
② ON Delay Relay / ON延遲償還
③ OFF Delay Relay / OFF延遲償還
④ Jumper for Output Mode Setting / 跳線輸出模式設定
⑤ Sensitivity VR / 敏感度調整
⑥ Set LED (Green Light) / LED設定指示綠燈
⑦ Signal LED (Red Light) / LED訊號指示紅燈
⑧ Power LED (Yellow Light)V電源LED黃燈
⑨ Power Supply (24VDC) / 電源(24VDC)
⑩ Output (NC,NO,COM) / 輸出訊號

Step A: Start Power / 啟動電源

The Power LED (Yellow) lit when the power is ON. Press and hold the Reset button for 3~5 seconds until the Set LED (Green) and Signal LED (Red) lit, then release the Reset button, the two of lights Green and Red will be off, and the setting is completed.

開啟電源，電源(黃)燈亮後，按住Reset重置鍵3~5秒後，設定(綠)燈亮，及訊號(紅)燈亮後，鬆開Reset重置鍵，即(紅)(綠)兩燈都熄滅，即完成設定。

Step B: Adjust Sensitivity VR / 敏感度調整

Increase the Sensitivity VR by rotating clockwise; and decrease by rotating counterclockwise.
ON Delay Relay: The bigger number, the longer delay to ON relay. / OFF Delay Relay: The bigger number, the longer delay to OFF relay.

BK200順時針旋轉時靈敏度較高，逆時針則反之。
ON延遲補償：數字愈大，延遲ON的時間愈長。/ OFF延遲補償：數字愈大，延遲OFF的時間愈長。

3.0 OPERATING

Step C: Test Steps / 測試步驟

1. Adjust the sensitivity VR (BK200) by rotating clockwise until the Signal LED (Red) lit, which means it is too sensitive, and then decrease the BK200 by rotating counterclockwise until the Signal LED (Red) off.
先順時針調整BK200直到訊號(紅)燈亮，其表示太過靈敏。此時再逆時針調整讓訊號(紅)燈滅。

2. Please inserts the probe into the media liquid, if the Signal LED (Red) lit, means the relay ON and the test is completed.
插入測試液體中，如訊號(紅)燈亮即表示測示完成。

3. If the Signal LED (Red) is unlighted, please repeat the steps of 1 and 2 until completion.
如訊號(紅)燈未亮，請再重複1及2.的動作直到完成為止。

Jumper for Output Mode Setting / 跳線輸出模式設定

NC-Normal Close / 常閉
NO-Normal Open / 常開

Power Supply / 電源供應

24VDC

Output / 輸出訊號

- SPDT (NC, NO, COM)
- Dry Contact