

CLS2 Calibrator Instruction



Version: 1.0

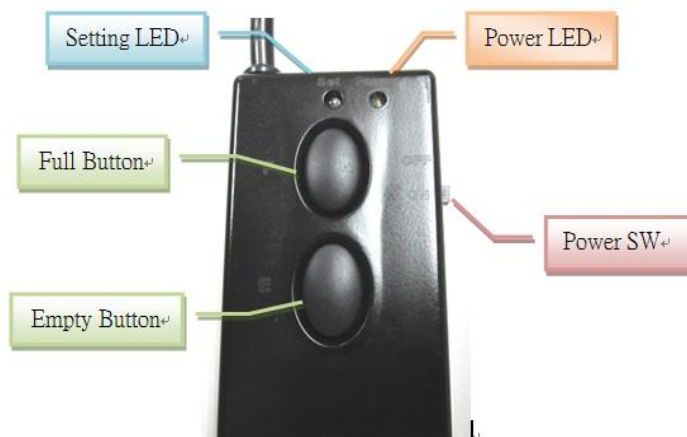
Release	2015.10.10

1 Illustration

CLS2 sensor has been passed the standard procedure calibration and test before delivery, but the customer should still need to recalibrate the E&F with the specialized calibrator when installed on site to reach the exact and high precision level measurement.

2 Calibrator Introduction

2.1 buttons and LED introduction



- a) Use one 12V/23A battery, which can only supply to the calibration for 8-15pcs of sensor.
But the power consumption depends on the calibration time consuming.



- b) If more than 8-10 pcs of sensors needing to be calibrated, extra batteries shall be prepared in advance.

3 Calibrating Procedure

3.1 Sensors wire connection

- a) Open the CLS2 upper cover, connect the calibrator. Refer to the picture below:



- b) Switch on the calibrator button “ON” to supply the power for CLS2 sensor.

3.2 Calibrating

A. Full level calibrating

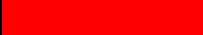
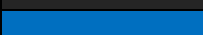
- a) Fill oil into tank/container fully and place sensor into tank, waiting for 30s to make sensor full of oil. Press “F” button until the green LED is flashing. Full level calibration is finished after 10s when light lights off, at the same time, it continues to supply power until finishing Empty level calibration.

B. Empty level calibrating

- a) Take sensor out of the tank, waiting for 5min after the oil is discharged from the sensor completely. Press “E” button until the green LED is flashing. The Empty level calibration is finished after 10 seconds when the green light lights off.

C. Calibrating Completion

- a) Remove calibrator after calibration is completed, then connect the CLS2 RED(V+) and BLACK(GND) with the 10-32V car power or other stable and durable 10-32V power-supply, the setting will take into effect.

Wire Color	Output Signal		
	Analog	RS232	RS485
	V+ (10-32V)	V+ (10-32V)	V+ (10-32V)
	GND	GND	GND
	Vout	RS232_RX	RS485_B
	--	RS232_TX	RS485_A



Notes: If there is any difference for the color of Analog output-signal wire, please check with the label attached.

D. Testing

- a) Test After finishing the E&F level calibration. If the output signal is closed to the corresponding voltage in the below chart, it means the calibration is successful and the sensor can work, otherwise pls do recalibration accordingly.

Volt	Full Level	1/2 Level	Empty Level
0 - 5V	5V	2.5V	0V
0.5 - 4.5V	4.5V	2.5V	0.5V
0 - 3.3V	3.3V	1.65V	0V



Notes:

1. Confirm the length firstly and cut properly, and then the calibration shall be performed;
2. If you operate wrongly during the process, pls turn off the power and re-calibrate.
3. If the battery runs out of power during calibration, pls change the battery and re-calibrate;
4. The sensor should be supplied power continuously, or it would have to be recalibrated.