

深圳市能點科技有限公司

SHENZHEN EPT TECHNOLOGY CO., LTD.

規格書  
**SPECIFICATION**



**D2LS-A**

多點光電液位感測器

Multi-point photoelectric liquid level sensor



版本 Version : D

日期 Date : 2018.06.12

[www.eptsz.com](http://www.eptsz.com)

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本規格書為相應產品作業之標準，在客戶確認後，會作為生產、供貨的依據。如有特殊要求，可告知联系你的市场部人员，并出具承认书。

This specification is the standard for the operation of the corresponding products. It will be used as the basis for production and supply after confirmation by the customer. If you have special requirements, please contact our sales and issue an acknowledgement.

# 能點科技有限公司 EPT TEHCNOLOGY CO., LTD.

## 1.修訂記錄/Revision History

No.	日期/Date	備註/Remark	修訂/Revision
1	20140510	MP Version issue	A
2	20150909	結構細節修改/ Structural details modification	B
3	20160715	添加部分細節要求/ Adding some details	C
4	20180612	新規格書版本發行/ New Specification Version	D



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## 2. 應用領域/Application

- 飲水機 Water dispenser
- 熱水器 Water heater
- 加濕器 Humidifier
- 咖啡機 Coffee machine
- 醫療設備 Medical devices or equipment
- 需要偵測液體的電器，設備等/Electrical appliances and equipment's etc. requiring liquid-level control

## 3. 產品特徵/Product features

- 無機械運動部件、可靠性高  
No mechanical moving components and with high reliability
- 體積小、成本低  
Small in size and low in cost
- 液位控制精度高  
High liquid level control precision
- 符合 RoHS 要求  
The sensor itself satisfies RoHS requirements
- 防水等級 IP67  
Waterproofing standard IP67
- 內置數模高精度轉換晶片  
Built in ADC conversion IC

## 4. 電氣參數特性/Electrical Specification ( Ta=25°C )

	參數Parameter	符號Symbol	推薦Rating	Units單位
Input	供電電源 Operating Voltage	Vcc	5	V
	供電電流 Operating Current	Ic	45	mA
	功耗Power Dissipation	PD	220	mW
	工作溫度Operating ambient Temperature	Ta	-20~+65	°C
	存儲溫度Storage Temperature	Tstg	-40~+85	°C
	工作壽命 Working Time	Wt	>50,000	Hrs

## 5. 輸出參數特性/Output Parameters

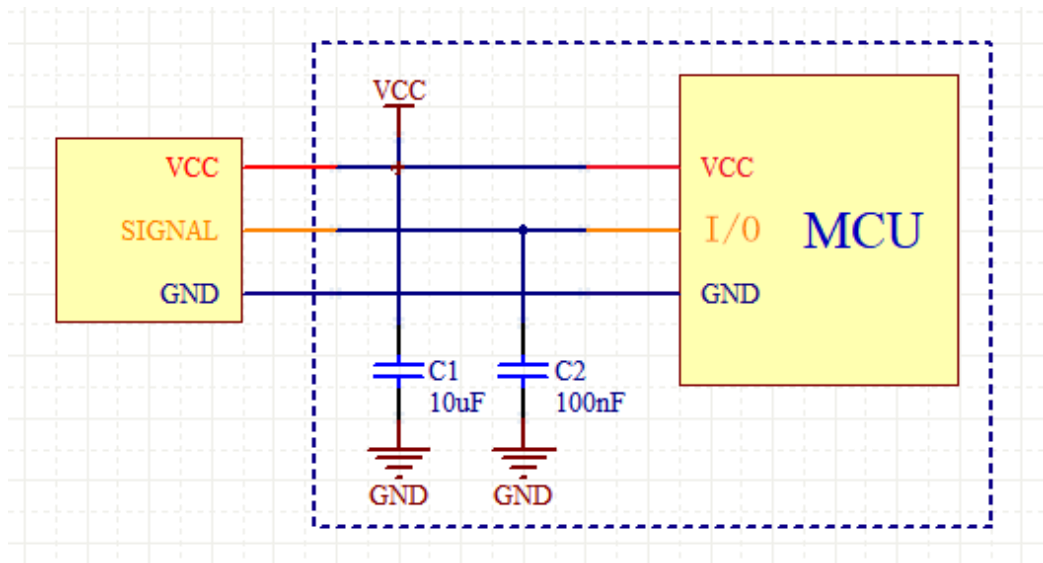
	參數/Parameter	輸出頻率/Output Frequency	單位 Units	備註/ Remarks
Output	沒有液體狀態 Without Liquid	20	Hz	In Air
	點1偵測有液體/ DP 1 With Liquid	50	Hz	DP1
	點2偵測有液體/ DP 2 With Liquid	100	Hz	DP1+DP2
	點3偵測有液體/ DP3 With Liquid	200	Hz	DP1+DP2+DP3
	點4偵測有液體/ DP4 With Liquid	400	Hz	DP1+DP2+DP3+DP4



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## 6. 推薦應用電路/Recommended Application Circuit



## 7. 注意事項/ Attention

長期使用過程中，感測器表面因液體雜質產生污垢，輕微的污垢不會影響到感測器的效能，如有嚴重的污垢產生，導致感測器整體覆蓋，則需要提前告知特殊性，以便我方技術部做優化處理。

In the long-term of using, the surface of the sensor is dirty due to liquid impurities, slight dirt will not affect the performance of the sensor.

If dirt would cover all the surface of sensor, please inform us the particularity in advance, our technical department can optimize it.

感測器在陽光直射下會受到干擾，請安裝在避免陽光照射的位置內。

The sensor will be effected when exposed to direct sunlight. Please install it away from direct sunlight.

## 8. 尺寸和推薦安裝/ Outline Drawing and Recommended installation

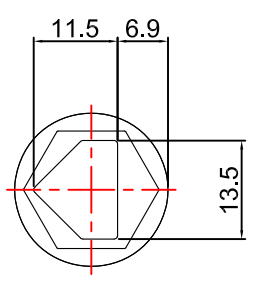
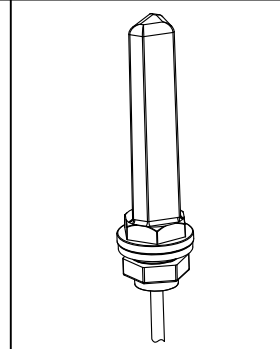
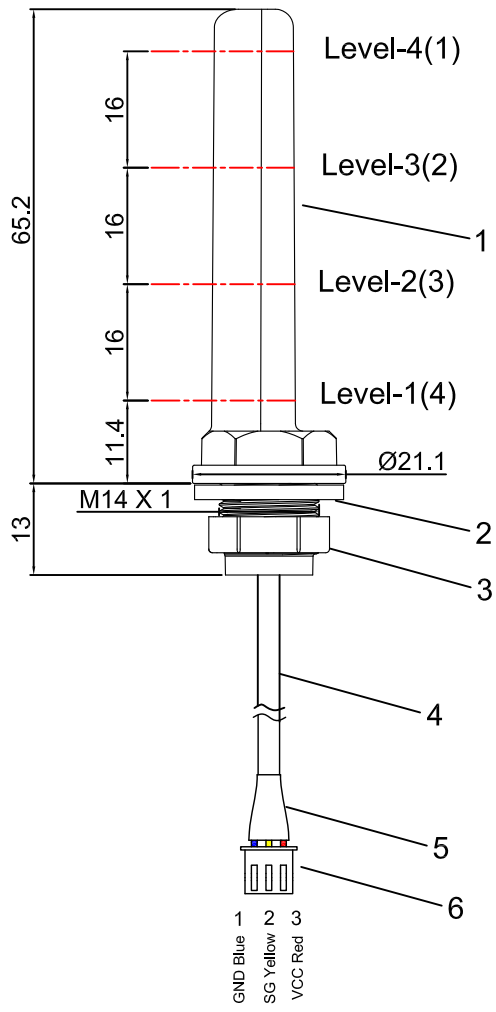


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1 2 3 4 5 6

A  
B  
C  
D  
E  
F  
G  
H



耐溫 Temperature resistance	*	耐壓 Withstand voltage	*
鍍錫 Tin plating	*	長度 Length	300±20
UL線規 UL wire gauge	*	UL編號 UL number	*
顏色 Colour	Black	線號 Line number	*

線材規格  
Wire specification

腳距 Foot distance	2.54	孔數 Number of holes	3
顏色 Colour	White	型號 Model	XH

端子規格  
Terminal Specifications

6	端子 Terminal	1	
5	熱收縮管 Heat shrink tube	1	
4	線材 Wire	1	
3	螺母 Nut	1	
2	密封圈 Sealing ring	1	
1	感測器主體 Sensor body	1	
編號 NO.	名稱 Name	數量 QTY	備註 P.S.

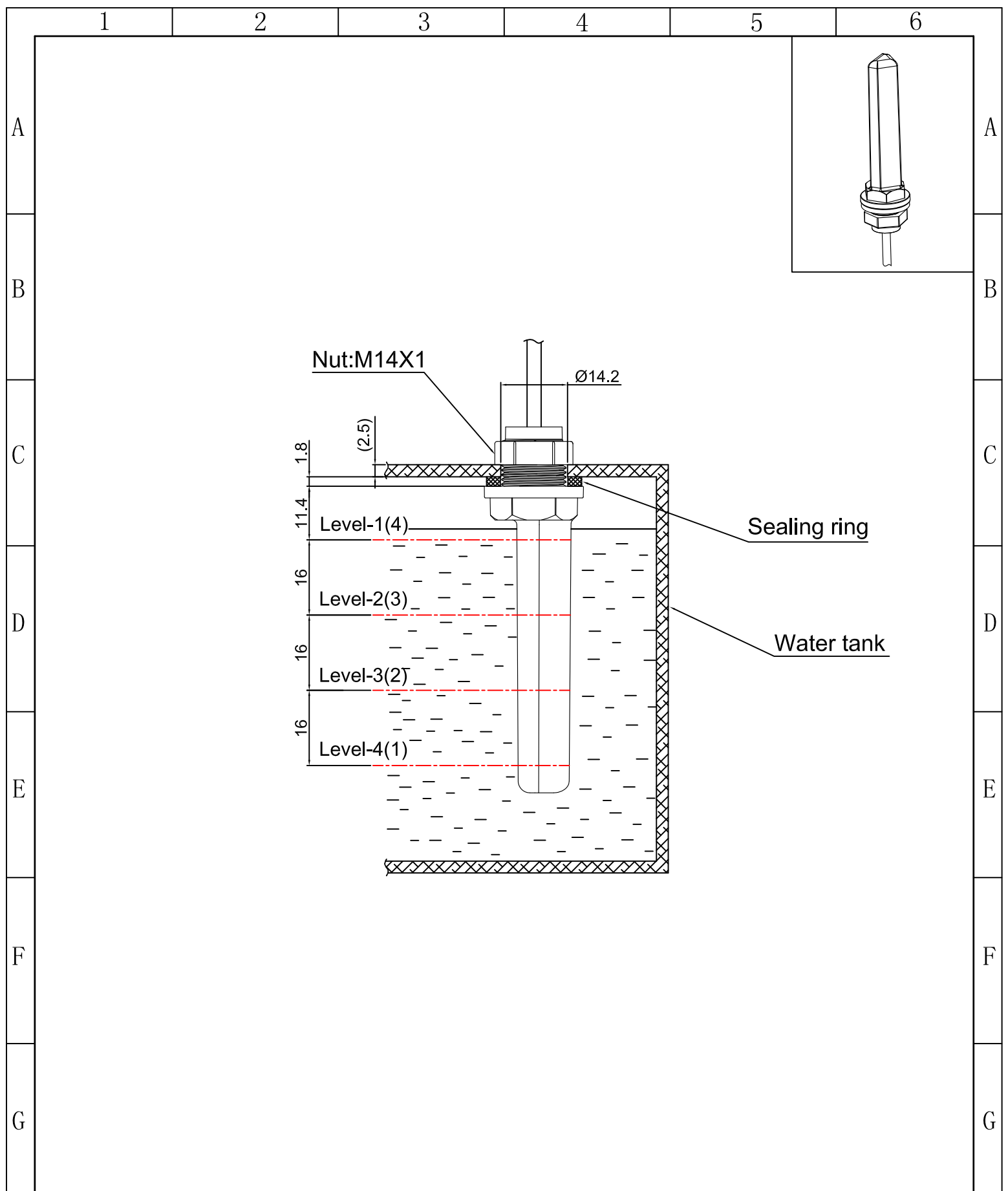
設計 Designer	Zhou	材料 Material	*	單位 Unit	mm
檢查 Checked	Zhou	表面處理 Finish	*	比例 Scale	*
審批 Approver	Wei	數量 Quantity	*	篇幅 Size	A4
一般公差 Tolerances	0-10	±0.25	0.8	備註 Remarks	*
	10-35	±0.35		視圖 View	
	35-70	±0.45			



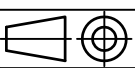


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產品名 Product Name	D2LS-A	日期 Date	18-06-12
頁面內容 Page content	產品圖	版本 REV	D
圖號 DWG NO.	*	頁數 Pages No.	1/2

1 2 3 4 5 6



設計 Designer	Zhou	材料 Material	*	單位 Unit	mm	 <b>能點科技有限公司</b> EPT technology co., LTD			
檢查 Checked	Zhou	表面處理 Finish	*	比例 Scale	*				
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	10-35	±0.35				圖號 DWG NO.	*	頁數 Pages NO.	2/2
	35-70	±0.45							

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