

深圳市能點科技有限公司

SHENZHEN EPT TECHNOLOGY CO., LTD.

規格書
SPECIFICATION



FS-IR32D

一體式單點光電式液位感測器

Single-point photoelectric level sensor



版本 Version : D

日期 Date : 2018.06.24

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.

2. 應用領域/Application

飲水機/Water dispenser

熱水器/Water heater

加濕器/Humidifier

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 and can be installed from any direction

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)

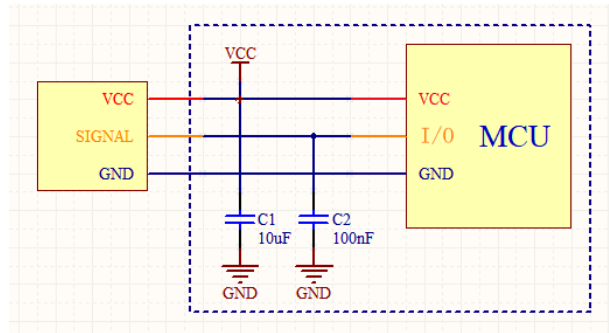
參數/Parameter	符號/Symbol	條件/Condition	最小值/Min	典型/Typ	最大值/Max	單位/Units	
直流特性/Direct-current characteristic	工作電壓/Working Voltage	VDD	4.5	5	5.5	V	
	電流/current	IDD	VDD = 5V 有水狀態/in water	10	15	20	mA
			VDD = 5V 無水狀態/in air	15	20	25	mA
	消耗功率 power consumption	PD	VDD = 5V 有水狀態/in water	50	75	100	mW
VDD = 5V 無水狀態/in air			75	100	125	mW	
輸出特性/output characteristic	有水狀態輸出電壓/output voltage in water	VO1	VDD = 5V Ta = 25°C	—	<0.30	—	V
	無水狀態輸出電壓/output voltage in air	VO2	VDD = 5V Ta = 25°C	—	>4.6	—	V
	輸出源電流/output current	IOL	VDD = 5V Ta = 25°C	—	<10	—	mA
	輸出灌電流/output current	IOH	VDD = 5V Ta = 25°C	—	<10	—	mA
	響應時間/response time		VDD = 5V Ta = 25°C	—	<1	—	S
極限值/limit value	工作溫度/Operating Temperature	Topr	VDD = 5V	-20	—	65	°C
	儲存溫度/Storage Temperature	Tstg	—	-40	—	85	°C
	工作壽命/Working Time	Wt	VDD = 5V Totg = 25°C	—	50000	—	h
	壓力範圍/pressure range			-10	5	10	bar



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5. 推薦應用電路/Recommended Application Circuit



6. 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 the treatment.

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.

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



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1 2 3 4 5 6

A

A

B

B

C

C

D

D

E

E

F

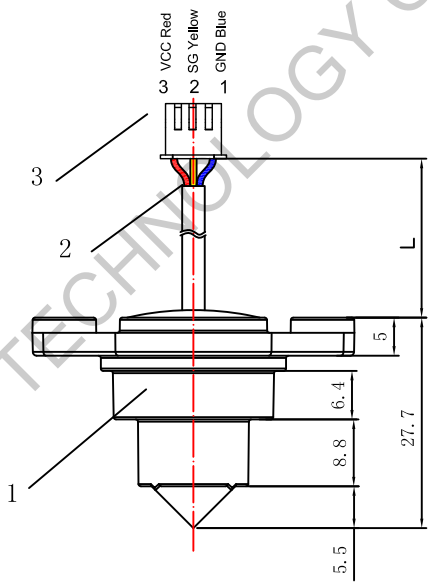
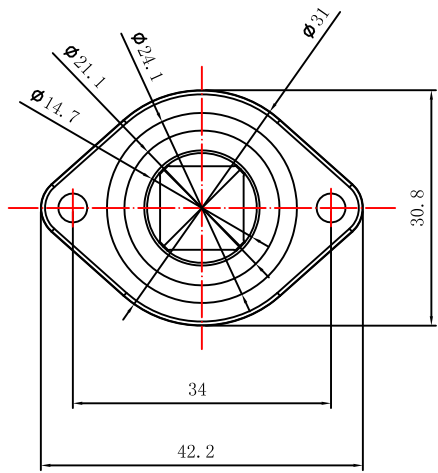
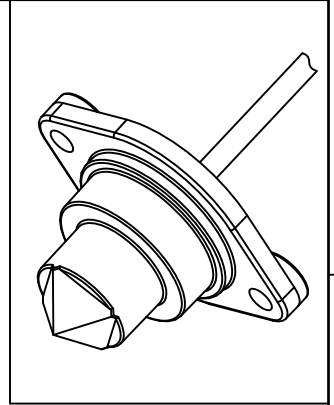
F

G

G

H

H



耐溫 Temperature resistance	*	耐壓 Withstand voltage	*
鍍錫 Tin plating	*	長度 Length	300±20
線號 Line number	*	編號 Numbering	*
顏色 Colour	Black	型號 Model	*

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

3	端子 Terminal	1	
2	線材 Wire	1	
1	感測器主體 Sensor body	1	
編號 NO.	名稱 Name	數量 QTY	備註 P.S.

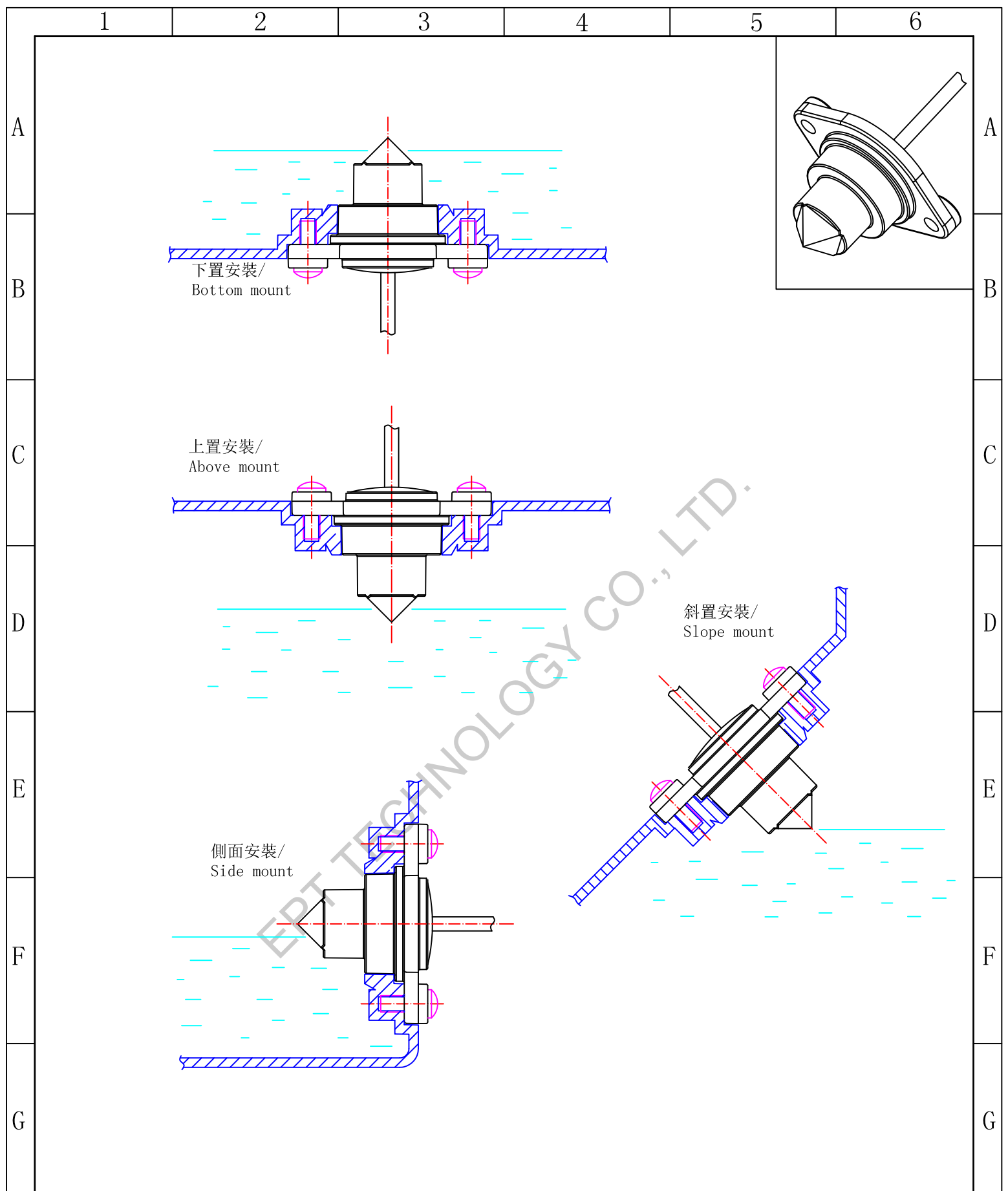
設計 Designer	Zhou	材料 Material	*	單位 Unit	mm
檢查 Checked	Zhou	表面處理 Finish	*	比例 Scale	*
審批 Approver	Wei	數量 Quantity	*	篇幅 Size	A4
一般公差 Tolerances	0-10	±0.25	0.8	備註 Remarks	*
	10-35	±0.35		視圖 View	
	35-70	±0.45			

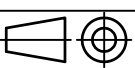


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EPT technology co., LTD

產品名 Product Name	FS-IR32D	日期 Date	18-06-24
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	 能點科技有限公司 EPT technology co., LTD			
檢查 Checked	Zhou	表面處理 Finish	*	比例 Scale	*				
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35-70	±0.45								

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