SZFAST®

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SZFAST®

液位传感器&变送器/浮球开关
LIQUID LEVEL SENSOR/FLOAT SWITCH

水浸传感器/漏水检测传感器
WATER DETECTION/LEAK SENSOR

流量传感器/流量开关
FLOW SENSOR/FLOW SWITCH







液位传感器/浮球开关
LIQUID LEVEL SENSOR / FLOAT SWITCH

一、标准长度或用户定义长度
STANDARD LENGTH AND CUSTOMIZED LENGTH

FAST有上百种标准的单点液位开关可供选择。从小巧的全塑料LP系列到牢固的LSS全不锈钢系列，每一款均能保证长期可靠地工作。产品的尺寸和材质都经过仔细挑选，使设计人员能在各种需要监测液位的场合使用。

FAST的用户定义长度产品范围很广，设定点可多达7个，长度由20mm至2m不等。滑竿和浮球的材料包括不锈钢、PP、NBR及其他特殊材料。

FAST has hundreds of standard single point level sensors for your choice. From small full plastic LP series to rugged full stainless LSS series, each sensor can operate reliably for long time. The dimensions and materials of sensors are all well selected to make them to be suitable for being used in all kinds of level monitoring conditions.

FAST could provide customized sensors in wide range with the setting levels up to 7 points and length from 20mm to 2m. The material of stems and floats could be selected stainless steel, PP, NBR and others.

二、工作原理
OPERATING PRINCIPLE

浮球式液位传感器是由封装在固定杆中的干簧管和封装在浮球中的永久磁铁组成，浮球环绕在固定杆周围。当浮球随液位上升或下降时，浮球产生的磁场激励安装在杆中的密封磁性干簧管。固定杆由非磁性金属或坚固的工程塑料制成。

A float type level senor consists of a reed switch in a stem and a permanent magnet in a float encircling the stem. As the float rises or lowers with liquid level, the magnetic field generated from within the float actuates a hermetically sealed, magnetic reed switch mounted within the stem. The stem is made of non-magnetic metals or rugged, engineering plastics.

三、典型应用
TYPICAL APPLICATION

液位传感器具有结构简单、无待机功率消耗、寿命长以及成本低等优点，可以可靠地监控和检测多种流体介质，包括食用油、液压油、汽柴油、水和废水、生物危害品、去离子水或饮用水等。因此被广泛应用在储水器、压缩机、水泵马达控制、家用电器、工业自动化、医疗设备、石油化工、电力、食品加工、公用工程、车辆船舶等领域。

With itself compact structure, no standby power, long life expectation and low cost, Liquid level sensors provide high-reliability monitoring and detection of a wide range of fluid media such as cooking oil, hydraulic fluids, gasoline and diesel, water and wastewater, biohazards, even deionized or potable water etc. So they are widely used in the control of Water Tanks, Compressors and Pumps, Household Appliances, Industry Automation, Medical Equipment, Petrochemical Industry, Power, Food Processing, Public Engineering, Vehicles and Ships etc.

四、材料选择
MATERIAL SELECTION

不锈钢材质：适合在高压，高温以及腐蚀性环境如食品设备，工业水箱或需要使用寿命长的场合。

Stainless Steel: Ideal for high pressures, high temperatures and in corrosive environments such as food equipment, industrial tanks or where durable long life in general use is required.

PP塑料: PP 适合使用在酸性环境、食品领域以及通用领域。价格经济，且容易模具注塑成型。

PP Plastic: Ideal for use in acids or food applications, or just for general use. They are generally most economic option and can be easily custom molded.

液体涡轮流量计
LIQUID TURBINE FLOWMETER

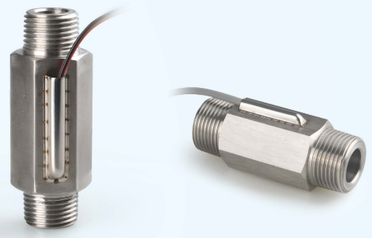
一、 特点（Feature):

- 结构简单、轻巧、精度高(Simple structure, light weight, high precision)
- 重复性好、反应灵敏(Good repeatability and sensitive response)
- 安装维护使用方便(Easy to install and maintain)

二、 技术参数（Specifications):

产品名称	液体涡轮流量计
测量介质	水、油、醇类等液体（粘度<5*10^6M2/S）
口径范围	DN4-DN200（DN4-DN40常用螺纹连接）
精度等级	标准±1%R; ±0.5%R （特殊定制）
输出信号	方波脉冲（电压型）、4-20mA、 485通讯
使用环境	.-20° C~60° C; 5%-90%RH
连接方式	外/内螺纹、法兰、卡箍
通讯方式	RS485通讯 MODBUS-RTU（智能型）
本体材质	不锈钢1CR18NI9T1 304、316L（卫生型）
防爆等级	EXIA ⅡCT4（本安型）或EXIA ⅡBT6（隔爆型）
防护等级	IP65（普通型）

FHS-1S系列 - 不锈钢流量传感器
FHS-1S Series – STAINLESS STEEL FLOW SENSORS



二、技术参数（Specifications):

进/出口接口尺寸 (代码) Inlet/Outlet Port Size (Code)	–	R1/2" (4SS)	R3/4" (6SS)	R1" (8SS)	R1 1/4" (10SS)
进/出口接口规格 Inlet/Outlet Port Adapter	–	外牙 MALE			
安装方式 Way of Mounting	–	垂直* 或 水平安装 Vertical* or Horizontal Position			
标准启动流量 Typical Starting Flow Rate	L/min	≥1	≥1	≥2	≥3
测量流量范围 Measuring Flow Range	L/min	1～30	1~60	2~100	3~150
测量精度 Accuracy	–	±5%			
流量特性 Flow Character	–	F=8N (F=Hz, N=L/min)			
适用介质 Operating Medium	–	水类、油类或其他液体 Water, Oil or other liquids			
最大工作压力 Operating Pressure – max	MPa	≤ 1.75			
工作电压 Working Voltage	V	5~18VDC			
最大工作电流 Working Current – max	mA	15			
工作温度 Operating Temperature	℃	-30~115			
外壳材质 Housing Material	–	SUS304			
电线规格 Cable Type	–	24AWG UL2464			

注：* 推荐值 Recommended value.

一、特点（Feature）:

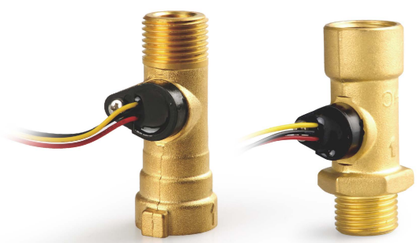
- 采用霍尔效应和涡轮结构，流量1.0至150L/min的低流量 (HALL effect Turbine structure with low Flow Rate of 1.0 to 150L/min)
- 低成本，精度为5% (Low Cost with accuracy of 5%)
- 可以循环设定动作流量，流量显示和流量累积计算，它可当流量开关使用，同时也可以起到流量计的作用用于流量累积计算 (To be used as a flow switch or a flow meter by setting alternately operating flow rate, flow indication and flow cumulative calculation)
- 不锈钢材质外壳，安装方便 (Stainless housing and Easy installation)
- 主要和PLC、单片机及控制芯片配合使用 (Operating with PLC, SCM and other controllers)

三、订购信息（Order Information）:

FHS-1S-1T30-4SS

- 4SS：接口尺寸(代码) 见技术参数表 See the Port Size (Code) in Table
- 1T30：测量流量范围Flow Range: 1~30L/min
- FHS-1S：产品型号 Product Model

FHS-2S系列 - 黄铜材质流量传感器
FHS-2S Series – BRASS FLOW SENSORS



二、技术参数（Specifications):

进/出口接口尺寸 (代码) Inlet/Outlet Port Size (Code)	–	R1/2" (4C)	R1/2" (4CB)
进/出口接口规格 Inlet/Outlet Port Adapter	–	进口Inlet:内牙FEMALE 出口Outlet:外牙MALE	进口Inlet:内牙FEMALE 出口Outlet:外牙MALE
安装方式 Way of Mounting	–	垂直* 或 水平安装 Vertical* or Horizontal Position	
标准启动流量 Typical Starting Flow Rate	L/min	≥1	
测量流量范围 Measuring Flow Range	L/min	1～30	
测量精度 Accuracy	–	±5%	
流量特性 Flow Character	–	F=8N (F=Hz, N=L/min)	
适用介质 Operating Medium	–	水类、油类或其他液体 Water, Oil or other liquids	
最大工作压力 Operating Pressure – max	MPa	≤ 1.75	
工作电压 Working Voltage	V	5~18VDC	
最大工作电流 Working Current – max	mA	15	
工作温度 Operating Temperature	℃	-30~115	
外壳材质 Housing Material	–	Brass	
电线规格 Cable Type	–	24AWG UL2464	

注：* 推荐值 Recommended value.

一、特点（Feature）:

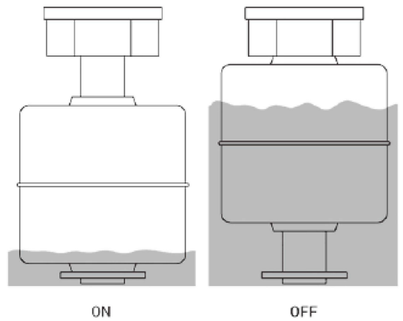
- 采用霍尔效应和涡轮结构，流量1.0至30L/min的低流量 (HALL effect Turbine structure with low Flow Rate of 1.0 to 30L/min)
- 低成本，精度为5% (Low Cost with accuracy of 5%)
- 可以循环设定动作流量，流量显示和流量累积计算，它可当流量开关使用，同时也可以起到流量计的作用用于流量累积计算 (To be used as a flow switch or a flow meter by setting alternately operating flow rate, flow indication and flow cumulative calculation)
- 黄铜材质外壳，安装方便 (Brass housing and Easy installation)
- 主要和PLC、单片机及控制芯片配合使用 (Operating with PLC,SCM and other controllers)

三、订购信息（Order Information）:

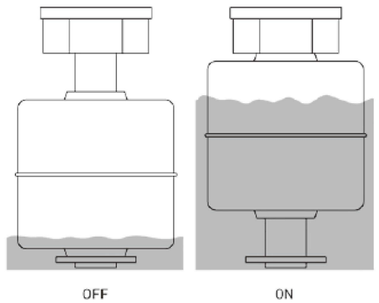
FHS-2S-1T30-4C

- 4C：接口尺寸(代码) 见技术参数表 See the Port Size (Code) in Table
- 1T30：测量流量范围Flow Range: 1~30L/min
- FHS-2S：产品型号 Product Model

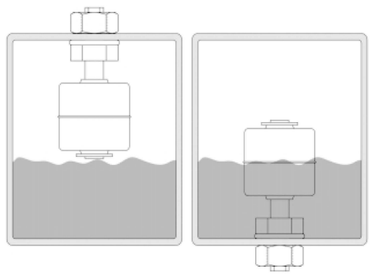
五、动作变化及安装方式
OPERATING VARIANTS & MOUNTING



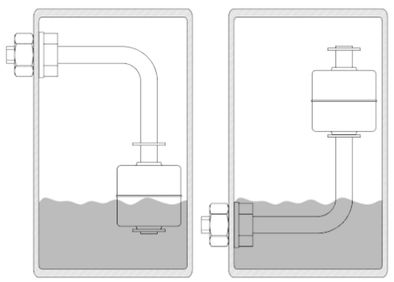
常闭型
FORM B (Normally Closed)



常开型
FORM A (Normally Open)



垂直安装
Vertical Mounting



侧装
Side Mounting

六、订购信息
ORDER INFORMATION

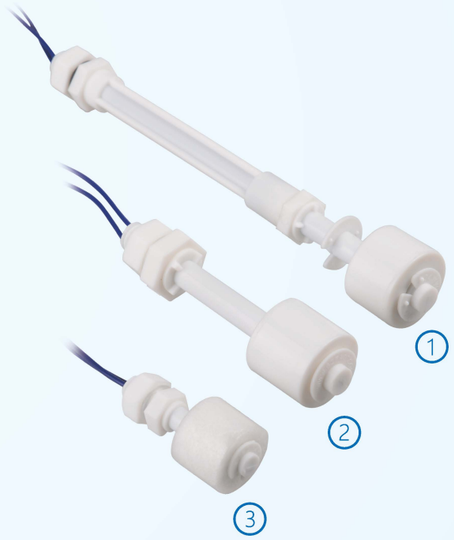
FAST - XXL P - 2 A 1

- 1：感应位置 Operating point — 1. 低点感应 1. Low Level；2. 高点感应 2. High Level；3.高低都感应 3. Both High & Low Level
- A：开关状态 Contact Form — A. 常开触点 A. NO；C. 常闭触点 C: NC
- 2：开关功率 Switch Capacity — 1. 可承受100V电压 Working at up to 100V；2. 可承受250V电压 Working at up to 250V
- P：滑杆和浮球材质 Stem & float material — P: 聚丙烯PP；S: 不锈钢Stainless Steel
- XXL：测液深度L Stem Length L — 从安装面到滑杆底部长度mm From mounting surface to stem bottom Length in mm
- FAST：法思特公司 FAST

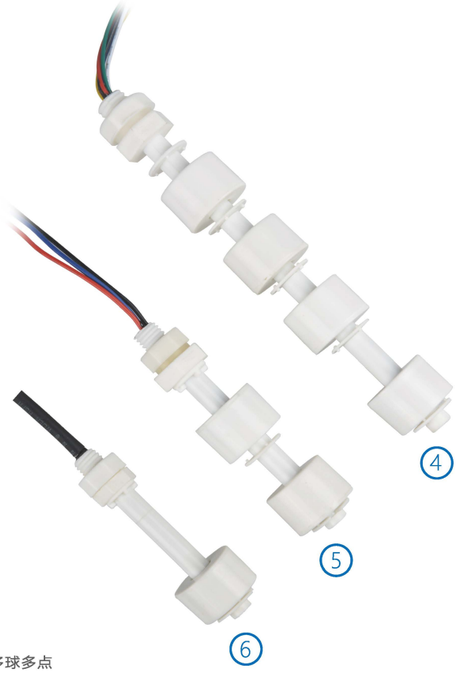
LP系列 – 垂直安装塑料液位传感器
LP Series – VERTICAL MOUNTED PLASTIC LIQUID LEVEL SENSORS

一、特点（Feature）:

- 采用进口高品质干簧管，性能稳定，寿命长；
  Adopt high quality reed switches to provide stable performance and long life expectation
- 广泛用于家电、汽车、医疗和工业控制等领域；
  Widely used in Househould appliances, Automotive,Medical and Industrial controls etc.
- 垂直安装。具有多种尺寸规格，单球单点，单球多点以及多球多点可供选择；
  Vertical mounting with various dimensions, SFSP,SFMP, MFMP for your selection
- 常开、常闭可供选择
  Form A and Form B available
- 全PP材质，耐腐蚀，可与食品接触；
  Corrosion resistant with full PP structure, suitable for food contact
- 防护等级达到IP67；
  Degree of Protection up to IP67



单球单点
Single–Float–Single–Points (SFSP)



单球多点/多球多点
Single–Float–Multi–Points (SFMP)
Multi–Float–Multi–Points (MFMP)

二、技术参数（Specifications):

最大触点功率 W – Max Switching Capacity - Max	10	70
最大开关电压Vdc/Vac – Max Switching Voltage - Max	100	200/250
最大开关电流Adc/Aac – Max Switching Current - Max	0.5	1.0
测试水压 Mpa Hydraulic Test	≤ 1.0	
工作温度 ℃ Operating Temp	–30~85	
滑杆材料 Stem Material	PP	
浮球材料 Float Material	PP, PP Foam, NBR	
安装方式 Mounting Type	M8x1.25, M10x1.25 M12x1.5	

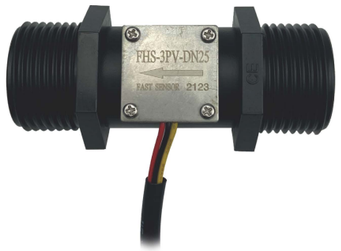
注：可按照客户要求定制
Customized types are available at request.

FHS–3P系列 – 塑料流量传感器
FHS-3P Series - PLASTIC FLOW SENSORS

二、技术参数（Specifications):

进/出口接口尺寸 (代码) Inlet/Outlet Port Size (Code)	–	G1” (8N)	G1 1/2” (12N)	G2” (16N)
进/出口接口规格 Inlet/Outlet Port Adapter	–	外牙 MALE		
安装方式 Way of Mounting	–	垂直*或水平安装 Vertical or Horizontal Position		
标准启动流量 Typical Starting Flow Rate	L/min	≥1	≥3	
测量流量范围 Measuring Flow Range	L/min	2~100	3~150	3~200
测量精度 Accuracy	–	±5%		
适用介质 Operating Medium	–	水类、油类或其他液体 Water, Oil or other liquids		
最大工作压力 Operating Pressure – max	MPa	≤ 1.75		
工作电压 Working Voltage	V	5~18VDC		
最大工作电流 Working Current – max	mA	15		
工作温度 Operating Temperature	℃	–30 ~ 85		
外壳材质 Housing Material	–	Nylon	POM	
电线规格 Cable Type	–	15AWG UL1007		

注：* 推荐值 Recommended value.



一、特点（Feature）:

- 工业级涡轮式流量传感器 (Industrial grade Turbine Flow Sensor)
- 采用霍尔效应，流量 2.0~200L/min
  (HALL effect Turbine structure with Flow Rate of 2.0~200L/min)
- 低成本，精度为5% (Low Cost with accuracy of 5%)
- 可以循环设定动作流量，流量显示和流量累积计算，它可当流量开关使用，同时也可以起到流量计的作用用于流量累积计算
  (To be used as a flow switch or a flow meter by setting alternately operating flow rate, flow indication and flow cumulative calculation.)
- 尼龙外壳结构，安装方便 (Nylon housing and Easy installation)
- 主要和PLC、单片机及控制芯片配合使用 (Operating with PLC, SCM and other controllers)

三、订购信息（Order Information）:

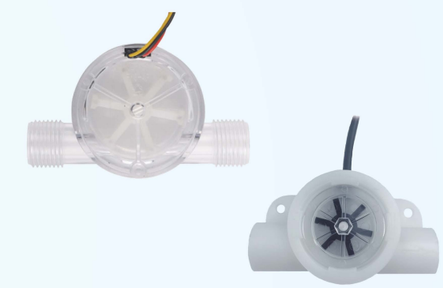
FHS-3P- 2T100-8N

- 接口尺寸(代码) 见表中接口尺寸 See the Port Size (Code) in Table
- 测量流量范围 Flow Range: 2~100L/min
- 产品型号 Product Model

FHS–4P系列 – 塑料流量传感器
FHS-4P Series - PLASTIC FLOW SENSORS

二、技术参数（Specifications):

进/出口接口尺寸 (代码) Inlet/Outlet Port Size (Code)	–	G1/4” (2N)
进/出口接口规格 Inlet/Outlet Port Adapter	–	外牙 MALE
安装方式 Way of Mounting	–	垂直或水平安装 Vertical or Horizontal Position
标准启动流量 Typical Starting Flow Rate	L/min	0.1
测量流量范围 Measuring Flow Range	L/min	0.1~5
测量精度 Accuracy	–	±3%
流量特性 Flow Character	–	F=35N (F=Hz, N=L/min)
适用介质 Operating Medium	–	透明的液体或气体 Transparent liquids or gases
最大工作压力 Operating Pressure – max	MPa	≤ 0.8
工作电压 Working Voltage	V	3VDC
最大工作电流 Working Current – max	mA	≤6
工作温度 Operating Temperature	℃	–30 ~ 85
外壳材质 Housing Material	–	Nylon
电线规格 Cable Type	–	24AWG UL1007



一、特点（Feature）:

- 采用光电原理，流量0.1至5L/min的低流量
  (Photoeletric effect with low Flow Rate of 0.1 to 5L/min)
- 低成本，高精度为3% (Low Cost but high accuracy of 3%)
- 可以循环设定动作流量，流量显示和流量累积计算，它可当流量开关使用，同时也可以起到流量计的作用用于流量累积计算
  (To be used as a flow switch or a flow meter by setting alternately operating flow rate, flow indication and flow cumulative calculation)
- 尼龙外壳结构，安装方便 (Nylon housing and Easy installation)
- 主要和PLC、单片机及控制芯片配合使用 (Operating with PLC, SCM and other controllers)

三、订购信息（Order Information）:

FPE-4P-0.1T5-2N

- 接口尺寸(代码) 见技术参数表 See the Port Size (Code) in Table
- 测量流量范围Flow Range: 0.1~5L/min
- 产品型号 Product Model

FHS-1P系列 – 塑料流量传感器
FHS-1P Series – PLASTIC FLOW SENSORS

二、技术参数（Specifications):

进/出口接口尺寸 (代码) Inlet/Outlet Port Size (Code)	–	G1/2” (4N)	⌀22mm (D22N)
进/出口接口规格 Inlet/Outlet Port Adapter	–	外牙 MALE	快速接头 Barb connector
安装方式 Way of Mounting	–	水平* 或 垂直安装 Horizontal* or Vertical Position	
标准启动流量 Typical Starting Flow Rate	L/min	⩾1	
测量流量范围 Measuring Flow Range	L/min	1~30	
测量精度 Accuracy	–	±5%	
流量特性 Flow Character	–	F=8N (F=Hz, N=L/min)	
适用介质 Operating Medium	–	水类、油类或其他液体 Water, Oil or other liquids	
最大工作压力 Operating Pressure – max	MPa	≤ 1.75	
工作电压 Working Voltage	V	5–18VDC	
最大工作电流 Working Current – max	mA	15	
工作温度 Operating Temperature	℃	0 ~ 85	
外壳材质 Housing Material	–	Nylon	
电线规格 Cable Type	–	24AWG UL1007	

注：* 推荐值 Recommended value.

一、特点（Feature）:

- 采用霍尔效应和涡轮结构，流量1.0至30L/min的低流量 (HALL effect Turbine structure with low Flow Rate of 1.0 to 30L/min)
- 低成本，精度为5% (Low Cost with accuracy of 5%)
- 可以循环设定动作流量，流量显示和流量累积计算，它可当流量开关使用，同时也可以起到流量计的作用用于流量累积计算 (To be used as a flow switch or a flow meter by setting alternately operating flow rate, flow indication and flow cumulative calculation)
- 尼龙外壳结构，安装方便 (Nylon housing and Easy installation)
- 主要和PLC、单片机及控制芯片配合使用 (Operating with PLC, SCM and other controllers)

三、订购信息（Order Information）:

FHS-1P-1T30-4N

- 接口尺寸(代码) 见技术参数表 See the Port Size (Code) in Table
- 测量流量范围 Flow Range: 1~30L/min
- 产品型号 Product Model

FHS-2P系列 – 塑料流量传感器
FHS-2P Series – PLASTIC FLOW SENSORS

一、特点（Feature）:

- 采用霍尔效应和涡轮结构，流量1.0至60L/min的低流量 (HALL effect Turbine structure with low Flow Rate of 1.0 to 60L/min)
- 低成本，精度为5% (Low Cost with accuracy of 5%)
- 可以循环设定动作流量，流量显示和流量累积计算，它可当流量
- 开关使用，同时也可以起到流量计的作用用于流量累积计算 (To be used as a flow switch or a flow meter by setting alternately operating flow rate, flow indication and flow cumulative calculation) 尼龙外壳结构，安装方便 (Nylon housing and Easy installation)
- 主要和PLC、单片机及控制芯片配合使用
- (Operating with PLC, SCM and other controllers)

三、订购信息（Order Information）:

FHS-2P-1T30-4N

- 接口尺寸(代码) 见技术参数表 See the Port Size (Code) in Table
- 测量流量范围Flow Range: 1~30L/min
- 产品型号 Product Model

二、技术参数（Specifications):

进/出口接口尺寸 (代码) Inlet/Outlet Port Size (Code)	–	G1/2” (4N)	NPT1/2”	G3/4” (6N)
进/出口接口规格 Inlet/Outlet Port Adapter	–	进口Inlet: 外牙MALE 出口Outlet: 内牙 FEMALE		
安装方式 Way of Mounting	–	垂直* 或 水平安装 Vertical* or Horizontal Position		
标准启动流量 Typical Starting Flow Rate	L/min	⩾1		
测量流量范围 Measuring Flow Range	L/min	1~30	1~60	
测量精度 Accuracy	–	±5%		
流量特性 Flow Character	–	F=8N (F=Hz, N=L/min)		
适用介质 Operating Medium	–	水类、油类或其他液体 Water, Oil or other liquids		

最大工作压力 Operating Pressure – max	MPa	≤ 1.75
工作电压 Working Voltage	V	5–18VDC
最大工作电流 Working Current – max	mA	15
工作温度 Operating Temperature	℃	0 ~ 85
外壳材质 Housing Material	–	Nylon
电线规格 Cable Type	–	22AWG UL1007

注：* 推荐值 Recommended value.

LP系列 – 侧装塑料液位传感器
LP Series – SIDE MOUNTED PLASTIC LIQUID LEVEL SENSORS

一、技术参数（Specifications):

最大触点功率 W – Max Switching Capacity - Max	10	70
最大开关电压Vdc/Vac – Max Switching Voltage - Max	100	200/250
最大开关电流Adc/Aac – Max Switching Current - Max	0.5	1.0
测试水压 Mpa Hydraulic Test	≤ 1.0	
工作温度 ℃ Operating Temp	–30~85	
滑杆材料 Stem Material	PP	
浮球材料 Float Material	PP	

FAST–41LP

⑦

FAST–32LP

⑧

FAST-25LP

⑨

二、订购信息（Order Information）:

FAST- XXL P – 2 AV

- 开关功率Switch capacity – 1:10W; 2: 70W
- 滑杆高度Stem Height – 32L / 41L

⑩

⑪

⑫

一、技术参数（Specifications):

最大触点功率 W – Max Switching Capacity - Max	10 or 70
最大开关电压Vdc/Vac – Max Switching Voltage - Max	200/250
最大开关电流Adc/Aac – Max Switching Current - Max	1.0
测试水压 Mpa Hydraulic Test	1.0
工作温度 ℃ Operating Temp	–30~85
本体材料 Body Material	PP
安装方式 Mounting Type	M12, M16, G1/2, G3/4
本体颜色 Body Color	黑色或白色 Black or White

二、订购信息（Order Information）:

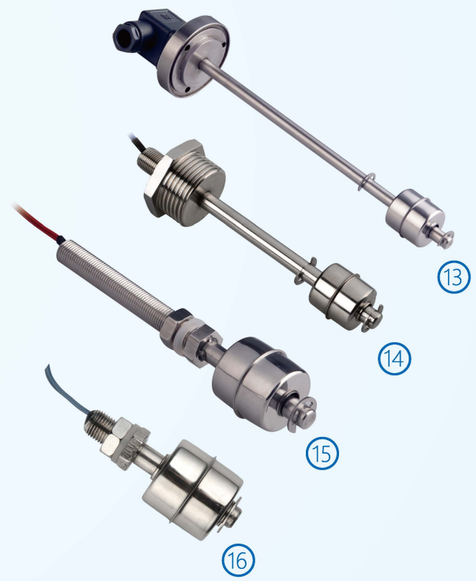
FAST-54LPP-2AY - XXX

- 安装方式 Mounting type: M12 / M16 / G1/2 / G3/4
- 产品型号Product Series

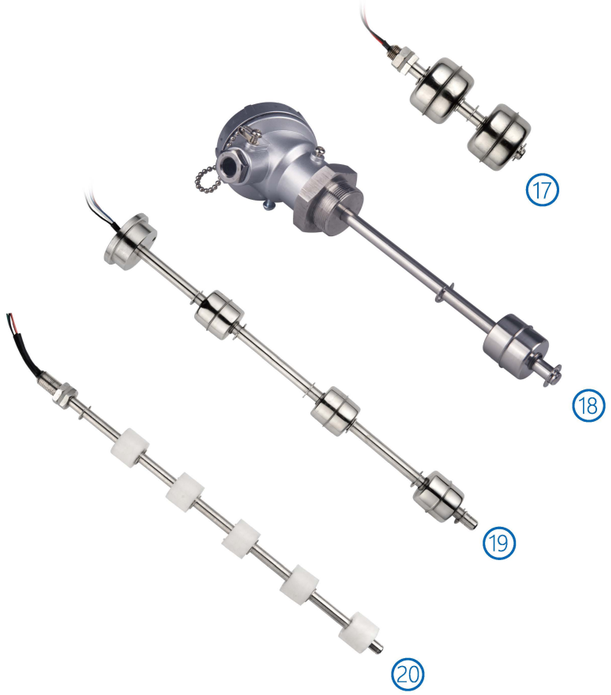
LSS系列 – 垂直安装不锈钢液位传感器
LSS Series - VERTICAL MOUNTED STAINLESS STEEL LIQUID LEVEL SENSORS

一、特点（Feature）:

- 采用进口高品质干簧管，性能稳定，寿命长；
  Adopt high quality reed switches to provide stable performance and long life expectation.
- 广泛用于家电、汽车、医疗和工业控制等领域；
  Widely used in Househould appliances, Automotive,Medical and Industrial controls etc.
- 垂直安装。设定点可多达7个，可定制任意长度, 长度由20mm至2m不等。
  Vertical mounting with the setting levels up to 7 points and customized any length from 20mm to 2m.
- 耐高温，最高工作温度可达200度；
  Working temperature up to 200℃.
- 常开、常闭可供选择；
  Form A and Form B available
- 全不锈钢材质，耐腐蚀，可与食品接触；
  Corrosion resistant with full Stainless Steel structure,suitable for food contact.
- 防护等级达到IP67；
  Degree of Protection up to IP67



单球单点
Single-Float-Single-Points (SFSP)



单球多点/多球多点
Single-Float-Multi-Points (SFMP)
Multi-Float-Multi-Points (MFMP)

二、技术参数（Specifications):

最大触点功率 W – Max Switching Capacity - Max	10W	50W	70W*
最大开关电压Vdc/Vac – Max Switching Voltage - Max	200	300	250
最大开关电流Adc/Aac – Max Switching Current - Max	0.5	1.0	1.0
测试水压 Mpa Hydraulic Test	1.5		
工作温度 ℃ Operating Temp	–40~200**		
滑杆材料 Stem Material	SUS304 / SUS316		
浮球材料 Float Material	SUS304, SUS316, PP, PP Foam, NBR		
安装方式 Mounting Type	M10, M12, G1/2, G1,*** NPT, Flange etc.		

*: 推荐值 Recommended value
**: 工作温度>120℃请在订购时说明。
Please specify before order if working temperature exceeds120℃
*** 安装方式：可按照客户要求定制
Mounting types can be customized at request.

FS–4S系列 – 黄铜材质流量开关
FS-4S Series – BRASS FLOW SWITCHES

一、技术参数（Specifications):

进/出口接口尺寸 (代码) Inlet/Outlet Port Size (Code)	–	R1/2”（4C）	
进/出口接口规格 Inlet/Outlet Port Adapter	–	进口Inlet：外牙 MALE 出口Outlet：内牙FEMALE	
标准启动流量 Typical Starting Flow Rate	L/min	2.0*、2.5	
安装方式 Way of Mounting	–	垂直安装 Vertical Position	
适用介质 Operating Medium	–	水类、油类、其它液体 Water, Oil & Other liquids	
最大工作压力 Operating Pressure – max	MPa	≤ 1.75	
最大开关功率 Switching Rating – max	W	10	70
最大开关电压 Switching Voltage – max	V	0-24VDC/AC	0-250VDC/AC
最大开关电流 Switching Current – max	A	0.5	
工作温度 Operating Temperature	℃	–40 ~ 120	
外壳材质 Housing Material	–	Brass	
电线规格 Cable Type	–	22AWG UL1007	

注：* 推荐值 Recommended value.

二、订购信息（Order Information）:

FS-4S-X-4C
- 接口尺寸(代码) 见技术参数表 See the Port Size (Code) in Table
- 启动流量 Starting Flow Rate L/min
- 产品型号 Product Model

FS–5S系列 – 桨片式流量开关
FS-5S Series – PADDLE FLOW SWITCHES

一、特点（Feature):

- 用于大口径, 高压管道有/无流量和/或渗漏监测
  (To detect Flow/No-Flow and/or leak in large, high pressures line)
- 保护高或低压泵免受空化作用，监测临界逆流并保护
  (To protect high or low pressure pumps from cavitation, sense critical reverse flow and protect)
- 双向感应
  (To sense liquid in either direction)
- 独特的机构设计，确保压降较低
  (Special mechanism design to minimize low pressure drop)

二、技术参数（Specifications):

安装接口尺寸 (代码) Mounting Port Size	–	R1/2”外牙(4SS)	
标准启动流量 Typical Starting Flow Rate	–	根据管道尺寸 Depend on the line size	
安装方式 Way of Mounting	–	垂直安装 Vertical Position	
适用介质 Operating Medium	–	水类、油类、其它液体 Water, Oil & Other liquids	
最大开关功率 Switching Rating – max	W	10	70
最大开关电压 Switching Voltage – max	V	0-24VDC/AC	0-250VDC/AC
最大开关电流 Switching Current – max	A	0.5	
工作温度 Operating Temperature	℃	–40 ~ 120	
外壳材质 Housing Material	–	SUS304 or SUS316	

三、订购信息（Order Information）:

FS-5S-X-4SS
- 接口尺寸(代码) 见技术参数表 See the Port Size (Code) in Table
- 启动流量 Starting Flow Rate L/min
- 产品型号 Product Model

FS-2S系列 – 不锈钢流量开关
FS-2S Series – STAINLESS STEEL FLOW SWITCHES

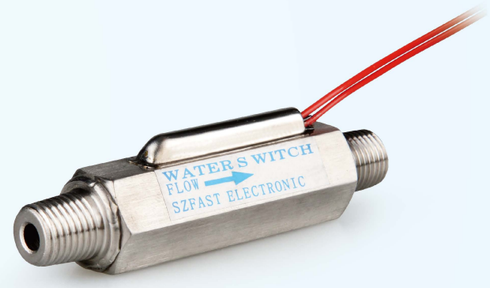
一、特点 (Feature):

- 微流量设计，精度高 (Designed for Micro flow with high precision)
- 可在液体和气体介质中使用 (Operating in liquids and gases)
- 全不锈钢外壳，弹簧加活塞结构 (Stainless Steel housing, piston plus spring structure inside)
- 密封性能好， 安装方便，牢固 (Good Sealing Property with rugged housing, easy installation)

二、技术参数 (Specifications):

进/出口接口尺寸 (代码) Inlet/Outlet Port Size (Code)	–	R1/8" (1SS)	R1/4" (2SS)
进/出口接口规格 Inlet/Outlet Port Adapter	–	外牙 MALE	
标准启动流量 Typical Starting Flow Rate	L/min	0.7、0.8*、1.0	0.8、1.0*、1.2
安装方式 Way of Mounting	–	垂直或水平安装 Vertical or Horizontal Position	
适用介质 Operating Medium	–	水类、油类、气体 Water, Oil or Gas	
最大工作压力 Operating Pressure – max	MPa	≤ 1.75	
最大开关功率 Switching Rating – max	W	15 or 70	
最大开关电压 Switching Voltage – max	V	0–24VDC 0–250VAC	
最大开关电流 Switching Current – max	A	0.5	
工作温度 Operating Temperature	℃	–40 ~ 120	
外壳材质 Housing Material	–	SUS304	
电线规格 Cable Type	–	22AWG UL1332	

注：* 推荐值 Recommended value.



三、订购信息 (Order Information):

FS-2S-X-2SS
- 接口尺寸(代码) 见技术参数表 See the Port Size (Code) in Table
- 启动流量 Starting Flow Rate L/min
- 产品型号 Product Model

FS-3S系列 – 黄铜材质流量开关
FS-3S Series – BRASS FLOW SWITCHES

一、技术参数 (Specifications):

进/出口接口尺寸 (代码) Inlet/Outlet Port Size (Code)	–	G1/2" (4C)	G3/4" (6C)
进/出口接口规格 Inlet/Outlet Port Adapter	–	外牙MALE	
标准启动流量 Typical Starting Flow Rate	L/min	2.0*、3.0、4.0	2.0、3.0*、4.0
安装方式 Way of Mounting	–	垂直或水平安装 Vertical or Horizontal Position	
适用介质 Operating Medium	–	水类、油类、其它液体 Water, Oil & Other liquids	
最大工作压力 Operating Pressure – max	MPa	≤ 1.0	
最大开关功率 Switching Rating – max	W	10	70
最大开关电压 Switching Voltage – max	V	0-24VDC/AC	0-250VDC/AC
最大开关电流 Switching Current – max	A	0.5	
工作温度 Operating Temperature	℃	–40 ~ 120	
外壳材质 Housing Material	–	Brass	
电线规格 Cable Type	–	22AWG UL1007	

注：* 推荐值 Recommended value.

二、订购信息 (Order Information):

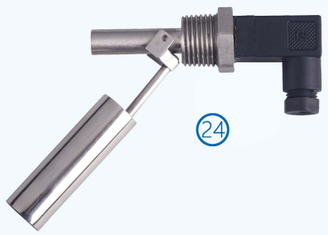
FS-3S-X-4C
- 接口尺寸(代码) 见技术参数表 See the Port Size (Code) in Table
- 启动流量 Starting Flow Rate L/min
- 产品型号 Product Model

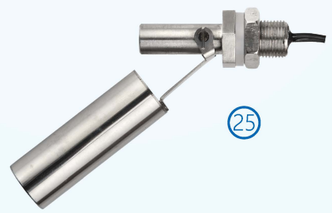
LSS系列 – 侧装不锈钢液位传感器
LSS Series - SIDE MOUNTED STAINLESS STEEL LIQUID LEVEL SENSORS

技术参数 (Specifications):

最大触点功率 W – Max Switching Capacity - Max	10W	50W	70W*
最大开关电压Vdc/Vac – Max Switching Voltage - Max	200	300	250
最大开关电流Adc/Aac – Max Switching Current - Max	0.5	2.0	1.0
测试水压 Mpa Hydraulic Test	≤ 1.75		
工作温度 ℃ Operating Temp	–40~200**		
滑杆材料 Stem Material	SUS304 / SUS316		
浮球材料 Float Material	SUS304, SUS316, PP, PP Foam, NBR		
安装方式 Mounting Type	M10, M12, G1/2, G1,*** NPT, Flange etc.		

*: 推荐值 Recommended value
**: 工作温度>120℃请在订购时说明。
Please specify before order if working temperature exceeds120℃
*** 安装方式 :可按照客户要求定制
Mounting types can be customized at request.





一、技术参数 (Specifications):

最大触点功率 W – Max Switching Capacity - Max	50W	70W*
最大开关电压Vdc/Vac – Max Switching Voltage - Max	300	250
最大开关电流Adc/Aac – Max Switching Current - Max	2.0	1.0
测试水压 Mpa Hydraulic Test	≤ 1.75	
工作温度 ℃ Operating Temp	–40~200**	
安装方式 Mounting Type	M10, M12, G1/2, G3/4	
本体材料 Body Material	SUS304, SUS316	

*: 推荐值 Recommended value
**: 工作温度>120℃请在订购时说明。
Please specify before order if working temperature exceeds 120℃

二、订购信息 (Order Information):

FAST-80LSS-2AY - XXX
- 安装方式 Mounting type: M10 / M12 / G1/2 / G3/4
- 产品型号 Product Series

其他特殊用途液位传感器
SPECIALTY FLOAT LEVEL SENSORS

车辆滤清器油水分离传感器
OIL-WATER SEPARATING SENSORS IN VEHICLES' FILTERS

- 最大功率 Rating-Max.: 10W/200V/0.5A
- 材质 Material: PP

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车辆水箱液位传感器
LIQUID LEVEL SENSORS IN VEHICLES

- 最大功率 Rating-Max.: 70W/250V/0.5A
- 材质 Material: PP

车辆、船舶油位传感器
OIL LEVEL SENSORS IN VEHICLES & SHIPS

- 最大功率 Rating-Max.:
  10W/200V/0.5A
  250W/250V/5.0A
- 材质 Material: SUS304, NBR

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FS-7P系列 – 塑料流量开关 / FS-8P系列 – 塑料流量开关
FS-7P Series – PLASTIC FLOW SWITCHES / FS-8P Series – PLASTIC FLOW SWITCHES

一、技术参数 (Specifications):

进/出口接口尺寸 (代码) Inlet/Outlet Port Size (Code)	–	G1/2" (4N)
进/出口接口规格 Inlet/Outlet Port Adapter	–	进口Inlet: 内牙FEMALE 出口Outlet: 外牙MALE
标准启动流量 Typical Starting Flow Rate	L/min	0.5±0.1
安装方式 Way of Mounting	–	垂直*或水平安装 Vertical or Horizontal Position
适用介质 Operating Medium	–	水类、油类或其他液体 Water, Oil or other liquids
最大工作压力 Operating Pressure – max	MPa	≤ 1.0
最大开关功率 Switching Rating – max	W	15
最大开关电压 Switching Voltage – max	V	200
最大开关电流 Switching Current – max	A	0.5
工作温度 Operating Temperature	℃	-30 ~ 85
外壳材质 Housing Material	–	POM
电线规格 Cable Type	–	24AWG UI2464

注：* 推荐值 Recommended value.

FS-7P系列

FS-8P系列

FS-1S系列 – 不锈钢流量开关
FS-1S Series – STAINLESS STEEL FLOW SWITCHES

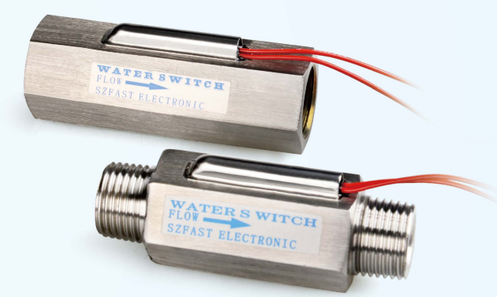
一、特点 (Feature):

- 高性价比, 使用寿命长 (High performance with low cost and long service life)
- 对水管中液体流动阻碍小，提高能效 (High energy efficiency by minimizing flow constriction)
- 可在自来水或油中使用，无须过滤器 (Operating in tap water or Oil without filter necessary)
- 全不锈钢结构，无易损，疲劳件(Full Stainless Steel structure without fatigue parts)
- 密封性能好， 安装方便，牢固 (Good Sealing Property with rugged housing, easy installation)

二、技术参数 (Specifications):

进/出口接口尺寸 (代码) Inlet/Outlet Port Size (Code)	–	R1/4" (2SS)	R3/8" (3SS)	R1/2" (4SS)	R3/4" (6SS)	R1" (8SS)	R1-1/4" (10SS)	R1-1/2" (12SS)	R2 (16SS)
进/出口接口规格 Inlet/Outlet Port Adapter	–	可选(Optional): 外牙MALE OR 内牙 FEMALE							
标准启动流量 Typical Starting Flow Rate	L/min	3.0*、5.0		3.0*、5.0	5.0、8.0*	8.0、10.0* 12.0、15.0	20.0* 30-60		
安装方式 Way of Mounting	–	垂直或水平安装 Vertical or Horizontal Position							
适用介质 Operating Medium	–	水类、油类、其它液体 Water, Oil & Other liquids							
最大工作压力 Operating Pressure – max	MPa	≤ 1.75							
最大开关功率 Switching Rating – max	W	10				70			
最大开关电压 Switching Voltage – max	V	0-24VDC/AC				0-250VDC/AC			
最大开关电流 Switching Current – max	A	0.5							
工作温度 Operating Temperature	℃	-40 ~ 120							
外壳材质 Housing Material	–	SUS304							
电线规格 Cable Type	–	22AWG UL1332							

注：* 推荐值 Recommended value.



拥有自主专利技术
patented products

专利号 Patent No.
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200530158275.X

三、订购信息 (Order Information):

FS-1S-X-4SS

- 接口尺寸(代码) 见技术参数表 See the Port Size (Code) in Table
- 启动流量 Starting Flow Rate L/min
- 产品型号 Product Model

FS-5P系列 – 塑料流量开关
FS-5P Series – PLASTIC FLOW SWITCHES

一、特点（Feature):
- 高性价比, 使用寿命长 (High performance with low cost and long service life)
- 对水管中液体流动阻碍小，提高能效
  (High energy efficiency by minimizing flow constriction)
- 可在自来水或油中使用，无须过滤器
  (Operating in tap water or Oil without filter necessary)
- 小巧紧凑的外壳，无易损，疲劳件 (Small, compact housing without fatigue parts)
- 全尼龙结构，耐腐蚀 (Corrosion resistant with full Nylon structure)

二、工作原理（Operating Principle）:
这种流量开关是在本公司不锈钢流量开关的发明专利上，为满足客户对成本控制需求而设计的塑料型流量开关。本流量开关对液体流动阻力小，并且安装方便。

This flow switch is designed on the basis of our invention patent of stainless flow switches for cost down upon clients. It is also designed for minimizing flow constriction and easy for installation.

三、技术参数（Specifications):

进/出口接口尺寸 (代码) Inlet/Outlet Port Size (Code)	–	G1/4” (2N)	G1/2” (4N)	G1” (8N)
进/出口接口规格 Inlet/Outlet Port Adapter	–	外牙MALE		
标准启动流量 Typical Starting Flow Rate	L/min	1.5	2.0	6.0*、8.0 12.0、15.0
安装方式 Way of Mounting	–	水平安装 Horizontal Position		
适用介质 Operating Medium	–	水类、油类、其它液体 Water, Oil & Other liquids		
最大工作压力 Operating Pressure – max	MPa	≤ 1.0		

注：* 推荐值 Recommended value.

FS-1PH-1.5-4N

四、订购信息((Order Information) :

FS-5P-X-8N
- 接口尺寸(代码) 见技术参数表 See the Port Size (Code) in Table
- 启动流量 Starting Flow Rate L/min
- 产品型号 Product Model

最大开关功率 Switching Rating – max	W	10	70
最大开关电压 Switching Voltage – max	V	0-24VDC/AC	0-250VDC/AC
最大开关电流 Switching Current – max	A	0.5	
工作温度 Operating Temperature	℃	−30 ~ 85	
外壳材质 Housing Material	–	尼龙 Nylon	
外壳颜色 Housing Color	–	Black	
电线规格 Cable Type	–	22AWG UL1332	

FS-6P系列 – 塑料流量开关
FS-6P Series – PLASTIC FLOW SWITCHES

一、特点（Feature):
- 高性价比, 使用寿命长 (High performance with low cost and long service life)
- 对水管中液体流动阻碍小，提高能效
  (High energy efficiency by minimizing flow constriction)
- 可在自来水或油中使用，无须过滤器，有一定逆止阀功能
  (Operating in tap water or Oil without filter necessary and preventing reverse flow)
- 小巧紧凑的外壳，无易损，疲劳件 (Small, compact housing without fatigue parts)
- 全PP结构，耐腐蚀 (Corrosion resistant with full PP structure)

二、技术参数（Specifications):

进/出口接口尺寸 (代码) Inlet/Outlet Port Size (Code)	–	G1/2” (4N)	G3/4” (6N)	⌀22mm (D22N)	G3/4” (6NT)
进/出口接口规格 Inlet/Outlet Port Adapter	–	外牙MALE		快速接头 Barb connector	内牙 FEMALE
标准启动流量 Typical Starting Flow Rate	L/min	3.3、4.0*、4.5、4.8、5.0、7.5、12.0			
安装方式 Way of Mounting	–	垂直或水平安装 Vertical or Horizontal Position			
适用介质 Operating Medium	–	水类、油类、其它液体 Water & Other liquids			
最大工作压力 Operating Pressure – max	MPa	≤ 1.0			
最大开关功率 Switching Rating – max	W	10		70	
最大开关电压 Switching Voltage – max	V	0-24VDC/AC		0-250VDC/AC	
最大开关电流 Switching Current – max	A	0.5			
工作温度 Operating Temperature	℃	−30 ~ 85			
外壳材质 Housing Material	–	PP			
外壳颜色 Housing Color	–	White			
电线规格 Cable Type	–	24AWG UL1007			

注：* 推荐值 Recommended value.

三、订购信息((Order Information) :

FS-6P-X-4N
- 接口尺寸(代码) 见技术参数表 See the Port Size (Code) in Table
- 启动流量 Starting Flow Rate L/min
- 产品型号 Product Model

其他特殊用途液位传感器
SPECIALTY FLOAT LEVEL SENSORS

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空调水位传感器
WATER LEVEL SENSORS IN AIR CONDITIONERS

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最大功率 Rating−Max.:
10W/200V/0.5A
70W/250V/0.5A

材质 Material: PP

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电子马桶水位传感器
WATER LEVEL SENSORS IN INTELLIGENT TOILETS

- 最大功率 Rating−Max.: 10W/200V/0.5A
- 材质 Material: PP

浴缸水位传感器
WATER LEVEL SENSORS IN BATHTUBS

最大功率 Rating−Max.: 10W/24VDC/0.5A

材质 Material: PP

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其他特殊用途液位传感器
SPECIALTY FLOAT LEVEL SENSORS

工业打印机油墨传感器
INK LEVEL SENSORS IN INDUSTRIAL PRINTERS

- 最大功率 Rating-Max.:
  10W/200V/0.5A
  70W/250V/0.5A
- 材质 Material: PP, SUS304

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空压机油位传感器
OIL LEVEL SENSORS IN AIR COMPRESSORS

- 耐压 Pressure resistance:48 kgf/cm2
- 最大功率 Rating-Max.: 10W/100V/0.5A
- 材质 Material: SUS304

液位变送器
LIQUID LEVEL TRANSMITTERS

技术参数

测量精度 Measurement Accuracy	10mm
输入电压 Input Voltage	24VDC (12 ~ 30VDC)
输出电流 Output Current	4~20mA DC (二线制)
负载能力 Capacity Load	0 ~ 500Ω
工作温度 ℃ Working Temperature	-20 ~ 85℃

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FS-3P系列 – 塑料流量开关
FS-3P Series – PLASTIC FLOW SWITCHES

一、特点（Feature):
- 高性价比, 使用寿命长 (High performance with low cost and long service life)
- 低流量启动 (Low starting flow rate)
- 小巧紧凑的外壳，无易损，疲劳件 (Small, compact housing without fatigue parts)
- 可在自来水或油中使用，无须过滤器，有一定逆止阀功能
  (Operating in tap water or Oil without filter necessary and preventing reverse flow)
- 全尼龙结构，耐腐蚀 (Corrosion resistant with full Nylon structure)

二、工作原理（Operating Principle）:
这种流量开关采用特殊的卡轮式结构，出水内空大，比其他同类型的流量开关大大减少了对水的流动阻力，提高了能源效率。本流量开关适合长时间在大流量的管道中长期保持工作状态，从而解决了同类弹簧结构的流量开关在大流量的冲击下，弹簧变形产生流量测试误差，以及长期处于工作状态时产生疲劳失效的问题。

This flow switch adopts special wheel type structure with hollow inside to minimize flow constriction. It can operate in a large flow pipe for long time. Unlike flow switches in spring structure, It can avoid the measurement error as the result of spring deformation under the impact of large flow and malfunction caused by spring fatigue failure under long-time working.

三、技术参数（Specifications):

进/出口接口尺寸 (代码) Inlet/Outlet Port Size (Code)	–	G1” (8N)	G1-1/4” (10N)	⌀22mm (D22N)
进/出口接口规格 Inlet/Outlet Port Adapter	–	外牙 MALE		快速接头 Barb connector
标准启动流量 Typical Starting Flow Rate	L/min	5.0、6.0、8.0 10.0*、12.0	12.0* 15.0	5.0、6.0* 8.0
安装方式 Way of Mounting	–	垂直安装 Vertical Position		
适用介质 Operating Medium	–	水类、油类、其它液体 Water, Oil & Other liquids		
最大工作压力 Operating Pressure – max	MPa	≤ 1.75		

注：* 推荐值 Recommended value.

四、订购信息（Order Information）:

FS-3P-X-8N
- 接口尺寸(代码) 见技术参数表 See the Port Size (Code) in Table
- 启动流量 Starting Flow Rate L/min
- 产品型号 Product Model

最大开关功率 Switching Rating – max	W	10	70
最大开关电压 Switching Voltage – max	V	0-24VDC/AC	0-250VDC/AC
最大开关电流 Switching Current – max	A	0.5	
工作温度 Operating Temperature	℃	-30 ~ 85	
外壳材质 Housing Material	–	尼龙 Nylon	
外壳颜色 Housing Color	–	Black	
电线规格 Cable Type	–	22AWG UL1007	

FS-4P系列 – 塑料流量开关
FS-4P Series – PLASTIC FLOW SWITCHES

一、特点（Feature):
- 高性价比, 使用寿命长 (High performance with low cost and long service life)
- 对水管中液体流动阻碍小，提高能效 (High energy efficiency by minimizing flow constriction)
- 可在自来水或油中使用，无须过滤器，有一定逆止阀功能
  (Operating in tap water or Oil without filter necessary and preventing reverse flow)
- 小巧紧凑的外壳，无易损，疲劳件 (Small, compact housing without fatigue parts)
- 全尼龙结构，耐腐蚀 (Corrosion resistant with full Nylon structure)

三、技术参数（Specifications):

进/出口接口尺寸 (代码) Inlet/Outlet Port Size (Code)	–	⌀22mm (D22N)	
进/出口接口规格 Inlet/Outlet Port Adapter	–	快速接头 Barb connector	
标准启动流量 Typical Starting Flow Rate	L/min	3.0、5.0*	
安装方式 Way of Mounting	–	垂直或水平安装 Vertical or Horizontal Position	
适用介质 Operating Medium	–	水类、油类、其它液体 Water, Oil & Other liquids	
最大工作压力 Operating Pressure – max	MPa	≤ 1.0	
最大开关功率 Switching Rating – max	W	10	70
最大开关电压 Switching Voltage – max	V	0-24VDC/AC	0-250VDC/AC
最大开关电流 Switching Current – max	A	0.5	
工作温度 Operating Temperature	℃	-30 ~ 85	
外壳材质 Housing Material	–	尼龙或PP Nylon or PP	
外壳颜色 Housing Color	–	Black	
电线规格 Cable Type	–	22AWG UI1332	

注：* 推荐值 Recommended value.

二、工作原理（Operating Principle）:
这种流量开关采用三通结构，传感部位位于旁支通道。当主通道液体流过时，将推动磁活塞进入旁支通道深处，从而减小活塞对主通道的流动阻力。本流量开关安装、清洗、维护方便，可以水平或垂直安装。

This flow switch adopts 3-way pipe structure with reed switch positioned in the bypass pipe. When liquids go through the main pipe, the piston inside will be pushed into the bypass pipe to minimize the flow constriction in the main pipe. It is designed for easy installation, cleaning and maintenance and can be positioned horizontally or vertically.

四、订购信息（Order Information）:

FS-4P-X-D22N
- 接口尺寸(代码) 见技术参数表 See the Port Size (Code) in Table
- 启动流量 Starting Flow Rate L/min
- 产品型号 Product Model

FS-1P系列 – 塑料流量开关
FS-1P Series – PLASTIC FLOW SWITCHES

一、特点（Feature):
- 高性价比, 使用寿命长 (High performance with low cost and long service life)
- 低流量启动 (Low starting flow rate)
- 小巧紧凑的外壳，无易损，疲劳件 (Small, compact housing without fatigue parts)
- 全尼龙结构，耐腐蚀 (Corrosion resistant with full Nylon structure)

二、工作原理（Operating Principle）:
这种流量开关将压降减少到最低，采用了一个独特的双直径的内径和活塞式结构，从而减少了流阻，液体能够从活塞周围流过，几乎没有压损地顺利通过开关。同时活塞自重大，在静态液体中可快速下沉。适合要求启动流量点非常小的领域，如热水器、清洁液喷洒设备等产品中。

This flow switch reduces pressure drop to a minimum. It incorporates a unique dual-diameter internal bore and piston configuration to minimize flow constriction. Liquids are able to smoothly pass around the piston and flow through the pipe with little pressure loss to the downstream line. Besides, the piston will sink quickly down in the static liquids relying on its weight. It is widely used in the products with low starting flow rates such as water heaters, spray cleaning equipments etc.

三、技术参数（Specifications):

进/出口接口尺寸 (代码) Inlet/Outlet Port Size (Code)	–	G1/2”（4N)
进/出口接口规格 Inlet/Outlet Port Adapter	–	外牙MALE
标准启动流量 Typical Starting Flow Rate	L/min	0.8、1.0*、1.2
安装方式 Way of Mounting	–	垂直安装 Vertical Position
适用介质 Operating Medium	–	水类、其它液体 Water & Other liquids
最大工作压力 Operating Pressure – max	MPa	≤ 1.75

注：* 推荐值 Recommended value.

四、订购信息（Order Information）:

FS-1P-X-4N
- 接口尺寸(代码) 见技术参数表 See the Port Size (Code) in Table
- 启动流量 Starting Flow Rate L/min
- 产品型号 Product Model

		尼龙或PP	Nylon or PP
最大开关功率 Switching Rating – max	W	10	70
最大开关电压 Switching Voltage – max	V	0-24VDC/AC	0-250VDC/AC
最大开关电流 Switching Current – max	A	0.5	
工作温度 Operating Temperature	℃	–30 ~ 85	
外壳材质 Housing Material	–	尼龙或PP Nylon or PP	
外壳颜色 Housing Color	–	Blue	
电线规格 Cable Type	–	24AWG UL 1007	

FS-2P系列 – 塑料流量开关
FS-2P Series – PLASTIC FLOW SWITCHES

一、特点（Feature):
- 高性价比, 使用寿命长 (High performance with low cost and long service life)
- 低流量启动 (Low starting flow rate)
- 小巧紧凑的外壳，无易损，疲劳件 (Small, compact housing without fatigue parts)
- 可在自来水或油中使用，无须过滤器，有一定逆止阀功能
  (Operating in tap water or Oil without filter necessary and preventing reverse flow)
- 全尼龙结构，耐腐蚀 (Corrosion resistant with full Nylon structure)

二、工作原理（Operating Principle）:
这种流量开关采用进水口小，出水口大，液体能够从活塞周围流过，几乎没有压损地顺利通过开关。同时浮子自重大，在静态液体中可快速下沉。适合要求启动流量点较小，并且流速较快的领域。为了确保功能转换时，液体不至于倒流，本流量开关有一定的逆止阀功能，可以阻止绝大部分液体回流。

This flow switch adopts different internal diameter of input to output (small to big) and allows liquids to smoothly pass around the piston and flow through the pipe with little pressure loss to the downstream line. Besides, the piston will sink quickly down in the static liquids relying on its weight. It is applied in the fields requiring low starting flow but fast flow rate. The flow switch could also act as a cut-off valve to prevent most of liquids flow back.

三、技术参数（Specifications):

进/出口接口尺寸 (代码) Inlet/Outlet Port Size (Code)	–	G1/4” (2N)	G1/2” (4N)	G3/4” (6N)	NPT1/2” (4NT)
进/出口接口规格 Inlet/Outlet Port Adapter	–	进口Inlet: 外牙MALE 出口Outlet: 内牙 FEMALE			
标准启动流量 Typical Starting Flow Rate	L/min	0.7、1.0	0.7、1.5 2.0*	3.0* 5.0	0.7、1.0 1.5、2.0*
安装方式 Way of Mounting	–	垂直安装 Vertical Position			
适用介质 Operating Medium	–	水类、油类、其它液体 Water, Oil & Other liquids			
最大工作压力 Operating Pressure – max	MPa	≤ 1.75			

注：* 推荐值 Recommended value.

四、订购信息（Order Information）:

FS-2P-X-4N
- 接口尺寸(代码) 见技术参数表 See the Port Size (Code) in Table
- 启动流量 Starting Flow Rate L/min
- 产品型号 Product Model

最大开关功率 Switching Rating – max	W	10	70
最大开关电压 Switching Voltage – max	V	0-24VDC/AC	0-250VDC/AC
最大开关电流 Switching Current – max	A	0.5	
工作温度 Operating Temperature	℃	–30 ~ 85	
外壳材质 Housing Material	–	尼龙或PP Nylon or PP	
外壳颜色 Housing Color	–	Blue or Black or White	
电线规格 Cable Type	–	22AWG UL1007	

水浸传感器/漏水检测传感器 – 专利产品(专利号：ZL 2015 3 0291477.5)
WATER DETECTION & LEAK SENSORS – Patented Product (No. ZL 2015 3 0291477.5)

一、典型应用 (Typical Application):
- 通信户外基站 Communication Outdoor Base Stations
- 电梯井 Elevator Shafts
- 电动汽车充电桩 Electric Vehicle Charging Stations
- 供电配电系统 Power Supply Distribution Systems
- 地下管网系统 Underground Pipe Network Systems

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FLWS-60S-2A LED

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FLWS-60S-2A

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FLWS-47S-2A

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FLWS-60N-2A

二、技术参数（Specifications):

适用介质 Applicable Medium	自来水、污水、离子水等导电介质 conductive mediums such as tap Water dirt water, ionized water etc.
额定工作电压 Rated Voltage	5-24V AC/DC
额定工作电流 Rated Current	< 30 mA
继电器负载能力 Relay Capacity	250VAC, 3A or 30VDC, 3A
响应时间 Response Time	< 50 ms
工作温度 Working Temperature	–5 ~ 100℃

三、订购信息（Order Information）:

FLWS – XXX - 5 - 2 - L
- 带LED指示灯 with LED indicator
- 电线长度Cable Length: 2: 2m
- 工作电压Rated Voltage: 5: 5V / 12: 12V / 24: 24V
- 外壳类型Housing Type:
  60S: 合金外壳, 外径60mm (Alloy housing, Dia. 60mm)
  60P: 塑料外壳, 外径60mm (Plastic housing, Dia. 60mm)
  47S: 合金外壳, 外径47mm (Alloy housing, Dia. 47mm)
- 产品类别 Product Series

光电水浸传感器
OPTICAL WATER LEAK SENSOR

一、典型应用 (Typical Application):

- 通信户外基站 Communication Outdoor Base Stations
- 电梯井 Elevator Shafts
- 电动汽车充电桩 Electric Vehicle Charging Stations
- 供电配电系统 Power Supply Distribution Systems
- 地下管网系统 Underground Pipe Network Systems

二、技术参数 (Specifications):

适用介质 Applicable Medium	自来水、污水、离子水等导电介质 conductive mediums such as tap Water dirt water, ionized water etc.
额定工作电压 Rated Voltage	5-24V AC/DC
额定工作电流 Rated Current	< 30 mA
继电器负载能力 Relay Capacity	250VAC, 3A or 30VDC, 3A
响应时间 Response Time	< 50 ms
工作温度 Working Temperature	−5 ~ 100℃

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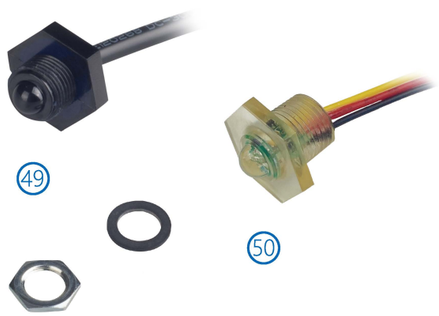
FLES-60S-2A 8-30V LED

光电液位传感器
PHOTOELECTRIC LIQUID LEVEL SENSORS



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一、特点 (Features)

- 精度高，性能稳定 Accurate & Electrically Robust
- 尺寸小易于安装 Small Size and Easy For Installation
- 数字信号输出 Digital Output
- 预置线路 Pre-wired

二、典型应用 (Typical Application)

- 家用电器 Home Appliances
- 冲浪浴缸 SPA Baths
- 自动贩卖机 Vending Machines
- 食品饮料加工设备 Food and Beverage
- 医疗设备 Medical
- 压缩机 Compressors
- 机床 Machine Tools
- 汽车 Automotive

流量传感器/流量开关
FLOW SENSOR / FLOW SWITCH

产品介绍
PRODUCT INTRODUCTION

法思特设计和生产规格齐全的流量传感器和流量开关，用途广泛，性能卓越，可用于各种液体和气体的可靠和高效测量。它们非常稳固，能够激活报警或系统自动关机，是各种预测性维护策略的重要组成部分。FAST流量传感器和流量开关通常用于旋转设备、输送机、气体采样和蒸馏、水净化系统、焊机、半导体设备、化学处理、机床和机器人等应用领域。

法思特流量传感器采用工业级设计方案，耐磨轴套，旋转球面接触，寿命长，可长期稳定工作。

所有FAST流量传感器和流量开关都采用高质量的耐腐蚀材料制成，在严苛环境下也能保证良好性能。它们使用的材料包括从不锈钢到工程塑料等，化学兼容性极高。

请查阅公司网站获取现货产品型号信息。我们还可为客户OEM设计和定制流量传感解决方案，如有需要请联系我们当地的销售和工程团队。

FAST designs and manufactures a wide range of flow sensors and flow switches for the reliable and effective measurements of various liquids and gases. Rugged FAST flow sensors and flow switches will initiate alarm actuation or automatic system shutdown, making them a vital component of any predictive maintenance strategy. FAST flow sensors and flow switches are commonly used in rotating equipment, conveyors, gas sampling and distilling, water purification systems, welders, semiconductor equipment, chemical processing, machine tool and robotics applications etc.

Designed for rugged industrial use, FAST Flow Sensors could operate for long service life by adopting wear sleeves and rotating spherical contact.

All FAST flow sensors and flow switches feature high-quality, corrosion-resistant materials, ensuring their continued performance within challenging environments. Material choices, ranging from stainless steel to engineering plastics, further offer vast chemical compatibility.

Please visit our websites for reference of models available. And we can also provide OEM design and manufacturing for your flow sensing solution. Please contact with our local sales and engineering teams for consulting.

产品应用
PRODUCT APPLICATION

- **在冷却液流量故障时，保护您昂贵的电子设备:**
  激光头 • 焊机 • 电源 • 高速主轴 • X射线管 • 半导体设备
- **确保提供适当的润滑流量，保护关键轴承或齿轮以防止系统停机:**
  冲床 • 旋转设备 • 输送机 • 机床 • 机器人
- **确保加工和配料设备的系统完整性:**
  水净化和过滤 • 饮料调配 • 化学添加剂 • 气体采样 • 蒸馏
- **Protect your expensive electronic equipment from coolant flow failure on:**
  Laser Heads • Welders • Power Supplies • High Speed Spindles • X-Ray Tubes • Semiconductor Equipment
- **Assure proper lubrication flow to critical bearings or gears to prevent system downtime on:**
  Presses • Rotating Equipment • Conveyors • Machine Tools • Robotics
- **Ensure system integrity in processing and dispensing equipment on:**
  Water Purification and Filtering • Beverage Dispensing • Chemical Additives • Gas Sampling • Distilling