# MODEL FT CABLE SUSPENDED FLOAT SENSOR



#### **Features**

- Usable in a wide range of liquids
- Available NO or NC contacts
- Adjustable switch points
- Reliable/Long switch life
- Easy installation

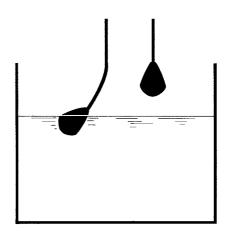
#### **General Description**

The FT series cable suspended float sensors are designed for high or low level indication. The FT series are miniature switch actuated design ideally suited to operate pumps, valves and similar equipment used in the sewage or municipal wastewater treatment plant. A high capacity micro switch in the ABS float provides a reliable long life level control.

A number of float units can be used together to give multiple level switch points in one flanged holder. Each float can be easily assembled on site and the switch operating points are adjusted by altering the length of the cable.

#### **Operational Description**

The buoyant float is weighted on one side. As the liquid rises, it tilts in a fixed direction to operate the micro switch, which uses a movable iron ball to actuate the switch.



#### **Chemical Resistance**

The ABS covered float and PVC cable are compatible with a wide range of liquids. However, there are some liquids that may damage these materials.

ABS can be quickly damaged by the following

- Aromatics (benzene, toluene, xylene) cause the float to dissolve.
- Esters and ketones cause the float to swell. PVC cable can be used with the following
- Oils, especially vegetable oils and fats, tend to absorb the plasticizer of PVC cable. Consequently the cable stiffens.

If necessary, alternative SCM cable is available with FT-3A and FT-3B. In general, the resistibility depends on concentration, duration of immersion, presence of suspended solids and/or corrosive gasses and temperature. Although these cable suspended floats are designed for long life, we recommend that they are replaced at adequate intervals

#### **Technical Notes**

- The FT-3 is ideal for direct pump control, with 2A 250V AC switch rating. For PLC and DCS usage, we recommend to use the FT-2, with 0.1A 125V AC rating.
- SCM cable is available with FT-3A and FT-3B.
- To avoid personal injury and protect the switch for electrical surges, connect the float to our relay unit Model RE7000 or similar devices.

#### **Ordering Information**

F	Γ						
		2	2 Standard				
		3	3 High Switch Rating				
			up ON actuation				
			В	down ON actuation			
			up On or down ON, C contact				
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F	Т	2	Α	= FT-2A			

## **Specifications**

Model		FT-2	FT-3	FT-5*1	FT-7*1	FT22/FT33/FT55/FT77		
Drawing		FI-2 FI-3 FI-5"1 FI-7"1				4-\$\phi\$19 Holes (00)		
Operation Char	racteristic	Liquid level Liquid level	80±10	Liquid level Liquid level	123+20	951		
Operating Tem	perature	-10 to 50°C						
Maximum Pres		200 kPa						
Allowable Impa	act	500 m/s <sup>2</sup>						
Minimum S.G.		0.9 0.8						
Operational	FT-□A	Up ON,	100±15	Up ON, 186±40				
Characteristic	FT-□B		V, 80±10	Down ON,				
	FT-□C	SP	DT	SPE				
Cable Length		6 meter (Max. 20 meter)						
Life Expectanc	V	2×10 <sup>5</sup> Operations						
Material	Cable	φ8.1, PVC*2						
	Float	ABS						
	Housing					ABS		
	Flange				PVC			
	Weight				3kg, PVC (build in steel)			
	Rope					PE		
Mounting	1000					JIS10K100A (4 holes)		
Cable Entry						G3/4		
Protection						IP45*3		
Maximum Dete	ction Points					6		
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<sup>\*1</sup> FT-5/FT-7 are only available for maintenance and repair parts of FT55/FT77.

### **Contact Rating**

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Model		FT-2 FT-3		FT-5	FT-7
May Current	AC	0.1A	2A	0.1A	2A
Max. Current	DC	0.1A	3A	0.1A	3A
May Valtage	AC	125V	250V	125V	250V
Max. Voltage	DC	30V	30V	30V	30V
Max. Load		5mW(5V DC Min.)	0.8W(5V DC Min.)	5mW(5V DC Min.)	0.8W(5V DC Min.)

# Minimum setting point

Model	Min.	ℓ 1	Min. ℓ ~ ℓ	Min.L~ ℓ n	
	↑ ON, OFF	↓ ON, OFF		↑ ON, OFF	↓ ON, OFF
FT22, FT33	270mm	290mm	300mm	260mm	240mm
FT55, FT77	200mm	260mm	275mm	160mm	140mm

<sup>\*2</sup> SCM (2-core) cable is optionally available.

<sup>\*3</sup> IP65 is optionally available.