

FST300 Electronic Flow Switch

APPLICATION

Gas-liquid dual type is used for pneumatic and hydraulic systems, can be used for circulating water, cutting fluid and lubricating oil flow detection and pump idling protection.



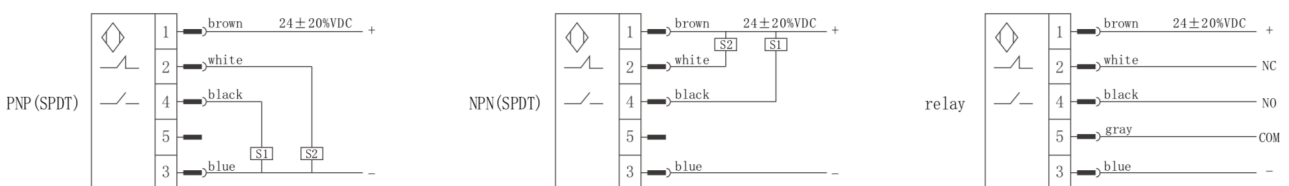
WORKING PRINCIPLE

SenTec FST300 electronic flow switch based on the thermal principle, the enclosed probe contains two resistors, one of which is heated as the detection resistance and the other is not heated as the reference resistance is taken away, the resistance value is changed, and the difference between the two resistances is used as the basis for judging the flow rates.

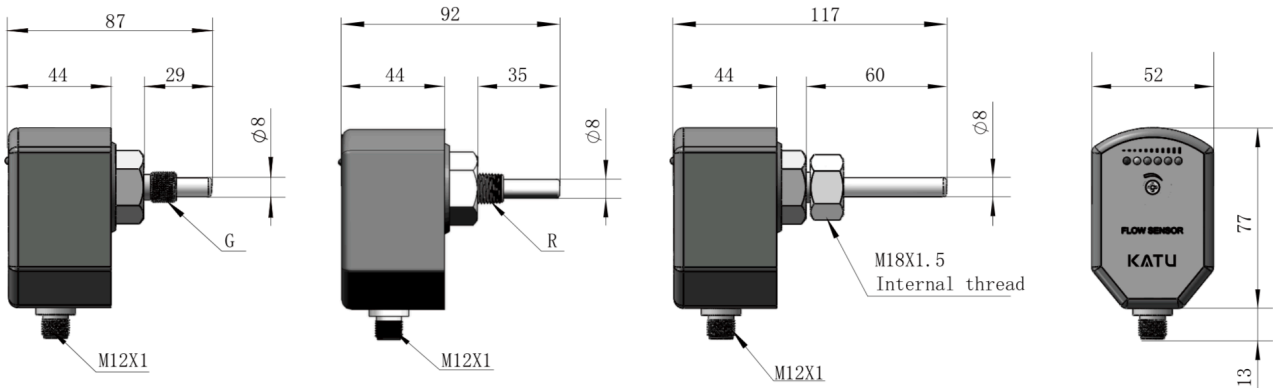
SPECIFICATION

ITEMS	PARAMETER	ITEMS	PARAMETER
Set the range	1...150cm/s(water), 3...300cm/s(oil), 20...2000cm/s(air)	Response time	1-13s, typical values 2s
Signal output	PNP, NPN, relay, Normally open+normally closed (SPDT)	Initialization time	8s
Power supply	24±20%VDC or 230V±15%VAC	Electric protection	Invert, short circuit, overload protection
Turn on the current	Max. 400mA(PNP or NPN), Max. 4A(Relay)	Protection grade	IP67
No-load current	Max. 80mA	Medium temperature	-20 ° C ~ 80 ° C
Flow indicator	LED row (6)	Environment temperature	-20 ° C ~ 80 ° C
Set way	Potentiometer setting	Storage temperature	-20 ° C ~ 100 ° C
Pressure range	100bar	Connection mode	M12 plug-in/direction attachment line
Temperature gradient	≤4 ° C/S	Material	Stainless steel(Probe), PBT(Shell)
Weight	0.4KG		

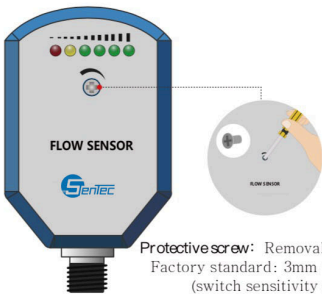
WIRING DIAGRAM



DIMENSIONS (mm)



LED FUNCTIONS AND SETTING



Protective screw: Removal before adjustment
 Factory standard: 3mm word screwdriver
 (switch sensitivity adjustment)

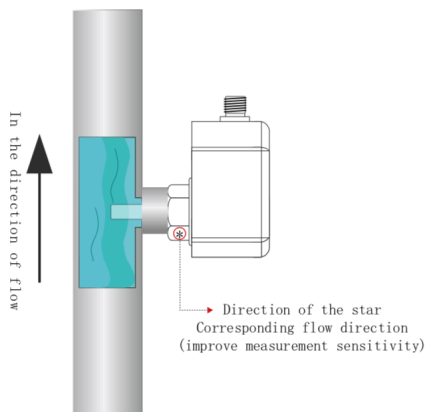
LED functions and Settings

The red LED light represents the off - flow or flow rate below the set value switch release

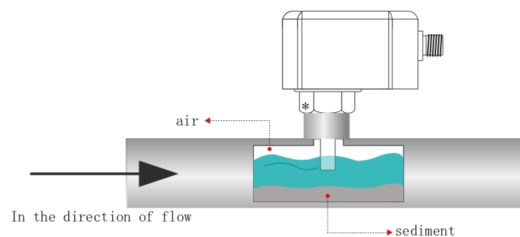
The yellow LED light indicates that the flow rate is equal to the set value

Yellow and green leds indicate that the velocity is greater than the set value, and the more the green light is, the greater the velocity is

INSTALLATION



When mounted vertically, it shall be mounted on a pipe segment flowing from bottom to top.
 When mounted horizontally, the probe should avoid air and sediment.



ORDER GUIDE

FST300	Electronic flow switch	
	CODE	Thread size
	G12	Joint thread G1/2 external thread
	G14	Joint thread G1/4 external thread
	R12	Joint thread RC1/2 external thread
	R14	Joint thread RC1/4 external thread
	M18	Joint thread M18*1.5 internal thread. It is convenient to use with the installation accessories to rotate the installation direction on site.
	CODE	Power supply
	DC	24±20%VDC electricity
	AC	230V±15%VAC electricity
	CODE	Output
	P	PNP output
	N	NPN output
	C	Relay output
	CODE	Electric connection
	M	M12*1 connector (standard zl05-pu02fg, see the attachment for details)
Z	Direction outgoing (standard with 2 meters of wire)	
CODE	Length of probe rod	
-	Standard type G thread, with thread 30mm suitable for ≤DN32 Standard type R thread, 35mm thread is suitable for ≤DN32	
50	mm (including 50 thread), suitable for ≥DN40	

- * factory standard with electrical accessories M12 connector type zl05-pu02fg
- * select M18*1.5 internal screw mounting method please note that installation accessories are selected, M18 screw does not support rod length variation
- * for electrical accessories and installation accessories, please refer to the attachment page on page -

OPTIONAL ACCESSORIES

• **Electrical accessories**

name	Outline drawing/dimension drawing (mm)	material	model	M12* 1-4pin /5Pin self-connector /size drawing (mm)	model
M12*1-5Pin (2m cable)		PUR	ZL05-PU02G		GL04 (4Pin joint)
M12*1-5Pin (5m cable)			ZL05-PU05G		
M12*1-5Pin (10m cable)		PVC	ZL05-PU010G		GL05 (5Pin joint)
M12*1-5Pin (2m cable)			ZL05-PC02G		
M12*1-5Pin (5m cable)			ZL05-PC05G		
M12*1-5Pin (10m cable)		PUR	ZL05-PC10G		WL04 (4Pin joint)
M12*1-5Pin (2m cable)			ZL05-PU02W		
M12*1-5Pin (5m cable)			ZL05-PU05W		
M12*1-5Pin (10m cable)			ZL05-PU010W		
		PVC	ZL05-PC02W		WL05 (5Pin joint)
			ZL05-PC05W		
			ZL05-PC10W		

• Installation accessories

name	contour map	Sizechart (mm)	model
G1/4Welding the base			FA002-G14 (Material: 304 stainless steel)
G1/2Welding the base			FA002-G12 (Material: 304 stainless steel)
Rc1/4Welding the base			FA002-R14 (Material: 304 stainless steel)
Rc1/2Welding the base			FA002-R12 (Material: 304 stainless steel)
M18*1.5Welding the base			FA002-M18 (Material: 304 stainless steel)

• Optional accessory -adapter

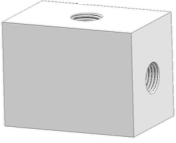
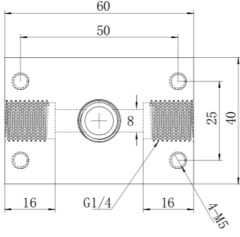
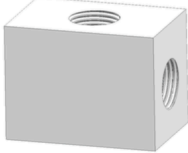
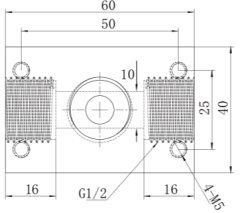
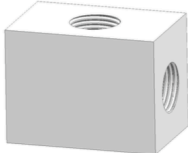
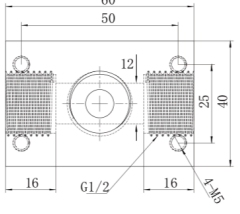
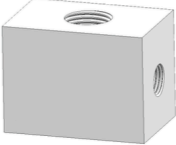
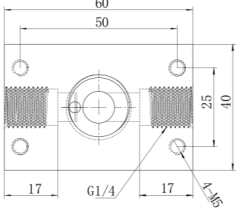
name	contour map	Size chart (mm)	model
M18 * 1.5 internal thread To g1/4 male thread, Probe insertion depth 15mm			FA004-M18G14S (Material: 304 stainless steel)
			FA004-M18G14T (Material: brass)
M18 * 1.5 internal thread To g1/2 male thread			FA004-M18G12S (Material: 304 stainless steel)
			FA004-M18G12T (Material: brass)

• Optional accessory -tee

name	contour map	Size chart (mm)	model
M18 * 1.5 internal thread Equipped with G1/4 tee			FA003-M18G14 (Material: 304 stainless steel)
M18 * 1.5 internal thread With G3/8 tee			FA003-M18G38 (Material: 304 stainless steel)
M18 * 1.5 internal thread Equipped with G1/2 tee			FA003-M18G12 (Material: 304 stainless steel)
M18 * 1.5 internal thread With G3/4 tee			FA003-M18G34 (Material: 304 stainless steel)

• Optional accessory -tee

name	contour map	Size chart (mm)	model
Type G1/4 small flow tee			FA010-04G14 (material: PP)
Type G1/4 straight hole tee			FA010-06G14 (material: PP)

<p>Type G1/4 small flow tee</p>			<p>FA010-08G14 (material: PP)</p>
<p>Type G1/2 straight hole tee</p>			<p>FA010-10G12 (material: PP)</p>
<p>Type G1/2 straight hole tee</p>			<p>FA010-12G12 (material: PP)</p>
<p>G1/4 gas only Tee adapter</p>			<p>FA012-01 (material: PP)</p>