

### OverView:

The LSF22 series liquid flow switch is crafted to regulate fluctuations in liquid flow within pipes, accommodating various liquids like water, ethylene glycol, or other non-hazardous fluids. When the liquid flow exceeds or falls below the set threshold, the single-pole double-throw contacts (SPDT) can establish a connection in one circuit while simultaneously interrupting another. The LSF22 series liquid flow switch is typically employed for chain reaction or "no flow" safeguarding purposes.

#### **Feature:**

- Maximum liquid pressure: 1 MPa, facilitating versatile applications.
- Equipped with three stainless steel paddles, suitable for use in pipes ranging from 25 to 75mm in diameter.
- The number of paddles is adjustable, and the paddle length is customizable to meet customer specifications.
- With an additional 6" paddle, the FS series liquid flow switch can accommodate pipes with diameters ranging from 100 to 150mm.
- Adjustable flow setting allows users to configure the flow value according to their specific requirements.
- LSF22 flow switch provides ample space for wiring, enhancing user convenience.
- LSF22 models can be equipped with stainless steel connections, ideal for mediums such as ammonia.

#### LSF22

#### **Liquid Flow Switch**



### **Application:**

The typical application involves safeguarding the cooling system. In the event of cooling water cessation, the LSF22 flow switch efficiently interrupts compressor current, thereby protecting the freezer and the entire system from potential damage.



#### Performance Parameter

Electric load	AC250V 10A
Max working pressure	10.34 Bar
Flow temperature	0-120°C
Environment temperature	0-60°C
The endurance of bellows	500000 cycles
Ingress protection	IP53

# Application:

#### Actuate flow (m³/h)

Pipe Diameter(mm)		25	32	40	50	65	80	100	125	150	200	100*	125*	150*	200*
Min Adjustment	Flow increase (red blue closed)	0.95	1.32	1.7	3.11	4.09	6.24	14.8	28.4	43.2	85.2	8.4	12.9	16.8	46.6
	Flow decrease (red yellow closed)	0.57	0.84	1.14	2.16	2.84	4.32	11.4m	22.9	35.9	72.7	6.13	9.31	12.3	38.6
Max Adjustment	Flow increase (red blue closed)	2	3.02	4.36	6.6	7.84	12	29.1	55.6	85.2	173	13.4	26.8	32.7	94.3
	Flow decrease (red yellow closed)	1.93	2.84	4.09	6.13	7.23	11.4	27.7	35.4	81.8	166	17.3	25.2	30.7	90.9

# The paddle trimming figure



- Paddles marked with "\*" symbols are pre-installed at the factory.
- I The paddle marked with a " $\Delta$ " symbol is an additional paddle (not installed).
- The extra paddles are provided for adjustment.
- I When installing the trimmed paddles, ensure they are positioned 10-5mm away from the end of the pipe and do not cause friction with the pipe.



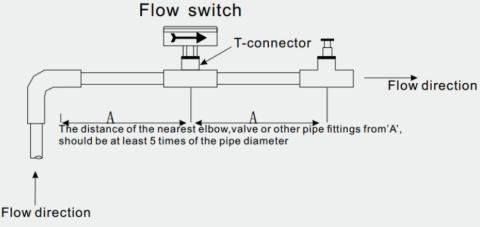
### **Order Information:**

Code	Connection Size	Remark
1	1"NPT`Size	Brass ( for water or other liquids suitable for brass)
2	2/1″NPT	Stainless steel (for ammonia and other liquids suitable for stainless steel)
3	4/3"NPT	

# **Installation:**

- Pipe Connections: LSF22 series flow switches are available with 2/1, "1", and 4/3" NPT connections.
- I The arrow direction on the cover must align with the flow direction inside the pipe.
- It is recommended to install the flow switch on horizontal pipes. If installation on vertical pipes is necessary, ensure the flow direction inside the pipe is upward; installation on vertical lines with downward flow is prohibited.
- To prevent paddle damage, flow reversal is prohibited while the flow switch is operational.

#### Typical installation drawing



### Wiring diagram

