

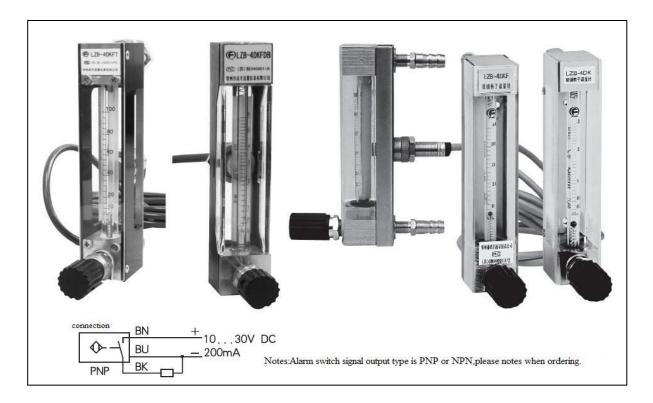
# LZB-DKSERIES GLASS ROTAMETER



ISO9001:2000

Shenzhen Liten Flow Co,.Ltd.

### **■ Summary**



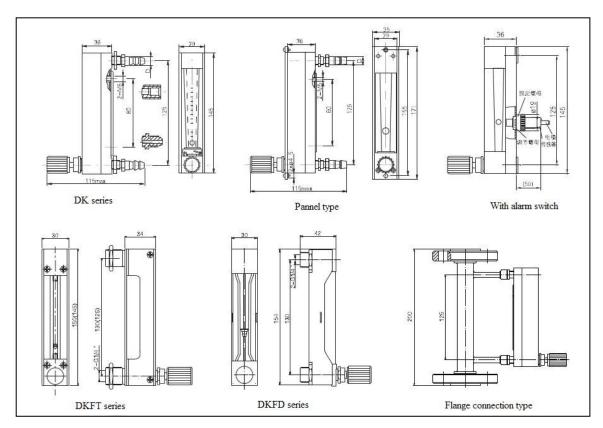
DK series glass tube rotameters are made by advanced technology, featured with light structure, nice figure, easy installation and maintenance. The taper tube and float can be replace conveniently, the scale can be read clearly and adjust sensitively. The flow meter can be widely used for measuring micro flowrate in all industries.

# **■** Outline and installation dimension

Table 1

14010 1			
Model	Size(mm)		
LZB-4DK	<b>A</b> 0		
LZB-4DKF	Φ9		
LZB-6DK	A11.5		
LZB-6DKF	Ф11.5		
LZB-10DK	A11.5		
LZB-10DKF	Ф11.5		

Unit:mm



**Drawing 1** 

**Notes**:Please note the following details in order, such as inlet and outlet type(bar connection, quick coupling, swagelok connection and etc), flange connection type with flange diameter.

# ■ Material of Process Fluid Touching Parts

Table 2

Model	Parts Materials					
Model	Floater	Base	Stop	Seal ring and shim	Needle valve	
LZB-()DK	Agate or 1Cr18Ni9Ti stainless steel	HPb59-1 brass	Nylon	NBR		
LZB-()DKF		1Cr18Ni9Ti stainless steel	Fluoroplastic	Fluorine rubber or solvent resistance rubber	1Cr18Ni9Ti	

**Notes:** Material of 316 or 316L can be ordered in special.

## ■ Model and Technical Parameter

Table 3

	Scale Range		<b>A</b>	Allowed measuring fluid state	
Model	Water 20°C	Air 20°C,101325Pa	Accurac y	Temperature(°C	Pressure(MPa)
LZB-4DK	0.4~4ml/min 0.6~6ml/min 1~10ml/min 1.6~16ml/min 2.5~25ml/min 4~40ml/min	6~60ml/min 10~100ml/min 16~160ml/min 25~250ml/min 40~400ml/min 60~600ml/min	2.5;4		≤1.0
LZB-4DKF	6~60ml/min 10~100ml/min 16~160ml/min 25~250ml/min 40~400ml/min	100~1000ml/min 160~1600ml/min 0.3~3L/min 0.6~6L/min 0.7~7L/min		<120	
LZB-6DK LZB-6DKF	0.04~0.4L/min 0.06~0.6L/min 0.1~1L/min	0.7~7L/min 1~10L/min 1.5~15L/min	1.5;2.5		
LZB-10DK LZB-10DK F	0.1~1L/min 0.16~1.6L/min	3~30L/min 5~45L/min			

**Notes:**Other flowrates can be ordered in special.

## 5. Installation and usage

#### **Installation**

- 1. Before installation, please check float measuring sharp edge (reading edge) is damaged or not. During transportation, stuffing which prevents float from run-out should be taken out of flowmeter with guide rod. To check the float can slide freely or not in the guide rod.
- 2. The flowmeter should be installed in vertical position. (Angle of flowmeter's center line and plumb line should not exceed 5°). And it has reliable supporting, and should not bear any tension and preesure from pipe. The new installed pipe should be washed clear, after that, flowmeter can be installed. The measured fluid's inlet is at the lower end and the outlet is at the upper end. Note: No flowmeter can be used in hand!
- 3. The lower end (inlet) should has five or ten times of bore of straight length. We recommend to install the flowmeter according to Fig.2. It is strongly recommended to install bypass pipe next to the flowmeter.

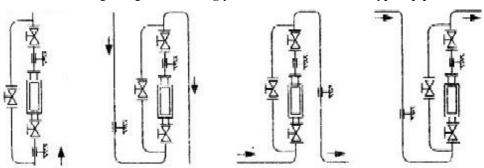


Fig.2

- 4. The measured fluid can not be mixed with a large dirt particles, otherwise float would be stuck or flow path would be blocked. Install filter in the upstream of flowmeter as required.
- 5. The measured fluid's pressure must be stable, unstable fluid's pressure will cause float fluctuation and inaccurate measurement. Buffer or valuator should be set in the upstream of flowmeter.
- 6. Backflow consists in pipeline, especially water hammering, in order to prevent flowmeter from damage, install one way stop return valve after downstream valve.
- 7. If the measured liquid contains bubbles, exhaust port should be set in the upstream of flowmeter.

#### Usage

- 1. Open flowmeter's upstream valve slowly in order to prevent float from a sudden impulse to damage glass, then regulate flow rate with downstream flow control valve. When stopping working, turn off upstream valve firstly, then turn off downstream valve. Proposed to wrap up one wire mesh outside the flowmeter in oder to enhance security.
- 2. Avoid abrupt changes in the measured fluid temperature.
- 3. If flowmeter leakage is found in use, generally sealing rings are invalid, that should be replaced.
- 4. When taper tube and float are contaminated, they should be cleaned.
- 5 Periodically check flowmeter's errors, once beyond prescribed error, float and taper tube should be replaced or recalibrated.
- 6. When measured fluid & state (temperature, pressure) are different with scale & state in the flowmeter, indication should be corrected according to measured fluid and state (including density, temperature, pressure, etc.) to get the right flow rate.
- 7. Measuring corrosive fluid should choose anti-corrosive series flowmeter.

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