

LZ

Rotameter with Metallic Tube

LZ Rotameter with metallic tube (hereafter called flow meter for short) is suitable for measuring flow rate of liquid, gas, and steam in the enclosed pipe.

This flow meter is designed with several types. Besides on-site indication type (LZZ type), types of indication plus alarm (LZK type) and indication together with output of standard current signals corresponding to relevant flow rate (LZD type) are also available. The output of LZD type flow meter contains three kinds: i. e. two wire system with 4~20 mA output, three wire system with 0~10 mA output, and four wire system with 0~20 mA output and 4~20 mA output. They can be either matched with various electric articulated unit instruments or combined with computer to form a network thus carrying out remote display, record, regulation, integration, and control. This flow meter can indicate the scales of flow rate in both normal state and actual operating state according to the parameters of measured medium provided by customer. These indicated scales would be fully linear with output signals.

This flow meter has the features of simple structure, reliable operation, and minor pressure loss with various modes as explosion-proof, heat preservation with insulated jacket, and anti-corrosion available. Therefore it has found wide application in medicine, chemistry, petroleum, light and textile industries.

Standards for this product are JB/T6844-93 and Q/YXBM 192-1997, while the inspecting regulation thereof is JJG 257-94.



□Principal Specifications

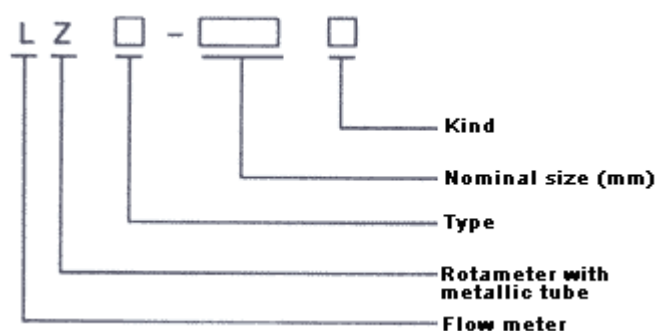
Model	Nominal size (mm)	Upper limit of flow rate (m3/h)		Range ability	Elementary error (±%)	Weight (kg)
		20℃(water)	20℃(air)			
LZZ-15 LZD-15	15	0.025	0.7	10: 1	1.5~2.5	5
		0.04	1.1			
		0.06	1.8			
		0.1	2.8			
		0.16	4			
		0.25	7			
		0.4	10			
LZZ-25 LZD-25	25	0.6	16			7.2
		1	30			
		1.6	45			
		2.5	70			
LZZ-40 LZD-40	40	4	110			10
		6	160			
LZZ-50 LZD-50	50	10	250			13
		16	400			
LZZ-80 LZD-80	80	25	750			17
		40	1100			
LZZ-100 LZD-100	100	60	1800			23
			2500			

LZZ-150	150	160	400		30
LZD-150					

Note: LZ(D)-20 (DN20), LZ(D)-65 (DN65), LZ(D)-125 (DN125) should be purchased by special order.

Ambient temperature:	-20~+50℃
Temperature of fluid:	-80~+120℃(>120℃ could be pointed out when ordered)
Operating pressure:	1.6MPa(>1.6 Mpa could be pointed out when ordered)
Electric signal of output:	Two wire system 4~20 mA, three wire system 0~10 mA Four wire system 0~20 mA、4~20 mA
Explosion-proof classification:	Intrinsic safety ibIICT4, with LB830S safety barrier
Pressure loss:	6.5kPa~38.2kPa
Connection mode:	Allocation of piping flanges complies with JB/T81-94 (PN1.6, PN2.5)or JB/T82.2~94 (PN4.0, PN6.3)
Power supply:	24V DC±20%
Operating voltage of LZK flow meter with alarm function:	12V±10%
Output signal:	Low level≤4V; high level≤9V
Transmission distance:	1 km (metal-shielded wire) with conductor resistance less than 100Ω

□Model Designation



□Model and Suffix Code

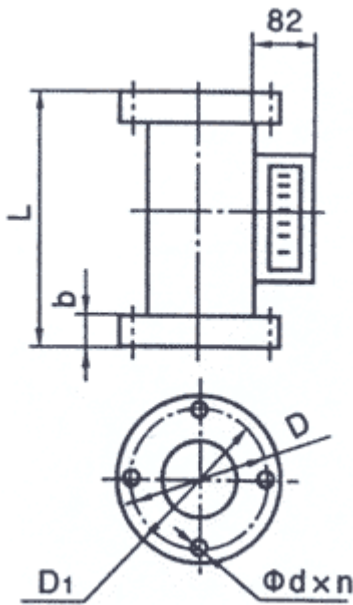
Model	Suffix Code	Description
LZ		Rotameter
Function	Z..... D..... K..... H.....	Indication type Indication with electric transmission Indication plus alarm Indication with gas
Nominal size	-15..... -25..... -40..... -50..... -80..... -100..... -150.....	Inlet and outlet size of flow meter
Material of the components in contact with measured medium	N..... M..... F.....	Stainless steel 1Cr18Ni9Ti Stainless steel 0Cr18Ni12Mo2Ti Teflon lining (Fluid temperature<80℃)

With heat insulting jacket	J.....	Heat of measured medium need to be preserved
Connection mode and dimensions for mounting	H.....	Dimension of vertical mounting
	S.....	Dimension of rectangular mounting
	E.....	Dimension of horizontal mounting

Example: For nominal size 15mm rotameter of vertical mounting with electric transmission and heat insulated jacket, its suffix code should be: LZD-15NJH.

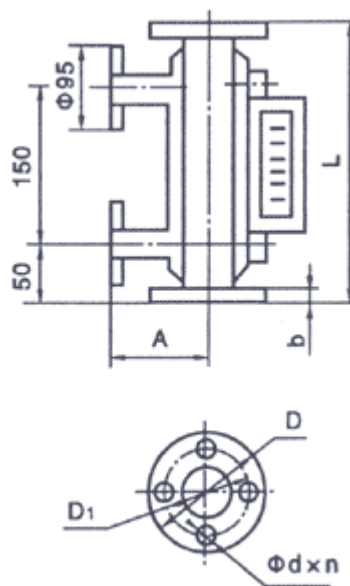
Overall Dimensions for Mounting

- H-Common type (vertical mounting)



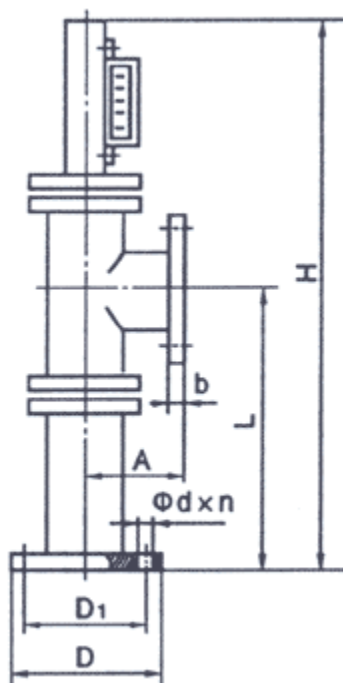
Nominal size	L	b	D	D1	d×n
15	250	14	95	65	14×4
25	250	18	115	85	14×4
40	250	20	145	110	18×4
50	250	22	160	125	18×4
80	250	24	195	160	18×8
100	250	26	215	180	18×8
150	250	28	280	240	23×8

- JH-insulating jacket type (vertical mounting)



Nominal size	L	b	D	D1	d×n	A
15	250	14	95	65	14×4	100
25	250	18	115	85	14×4	110
40	250	20	145	110	18×4	120
50	250	22	160	125	18×4	140
80	350	24	195	160	18×8	150
100	350	26	215	180	18×8	170
150	450	28	280	240	23×8	200

- S-Common type (rectangular mounting)

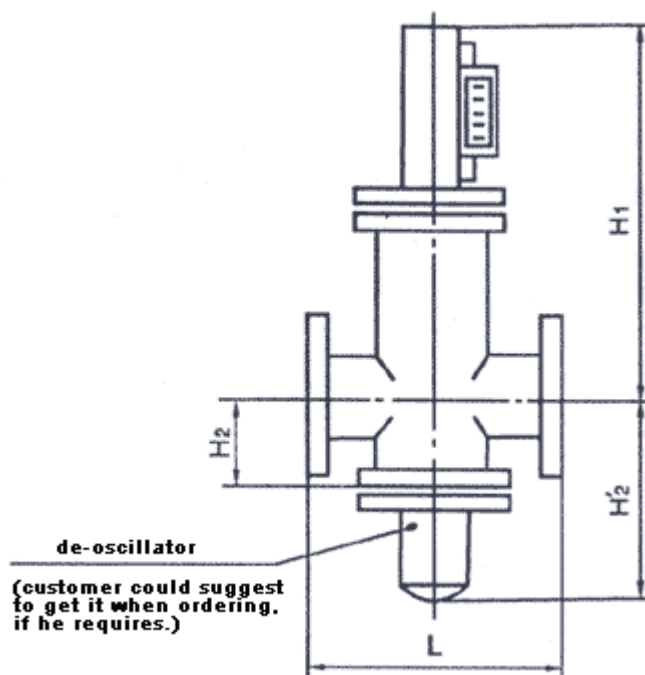


Nominal size	L	b	D	D1	H	d×n	A
15	250	14	95	65	650	14×4	100
25	250	18	115	85	650	14×4	100
40	250	20	145	110	670	18×4	100
50	250	22	160	125	680	18×4	100
80	350	24	195	160	820	18×8	150
100	350	26	215	180	840	18×8	150
150	480	28	280	240	970	23×8	250

Notes: 1. For S-Heat dissipation type, among all its mounting dimensions, only H should be plus 130, while the rest is the same as common type. 2. The inlet and outlet of flow meter can be horizontally mounted if customers desire. It should be pointed out when ordering.

Overall Dimensions for Mounting

- E-Common type (horizontal mounting)



Note:

- For flange connection and other related dimensions, if customer's dimensions for mounting are different from those shown here, it is possible to design and manufacture relevant components as customer desires.
- The flange is manufactured according to dimensions of standard JB82-59. If customer wants to select Japanese JIS standard or German DIN standard, it is possible for special order.

Unit: mm

Nominal size mm	1.0、1.6MPa			2.0、2.5MPa			4.0MPa			6.3MPa		
	H1	H2	L	H1	H2	L	H1	H2	L	H1	H2	L
		H2			H2			H2			H2	
15	≤440	≤80 ≤200	160	≤440	≤100 ≤210	160	≤440	≤100	250	≤500	≤100 ≤220	180
*20	470	70 200	160	500	120 210	160	500	120	250	520	120 220	180
25	480	80 210	180	500	120 240	180	500	120	250	520	120 250	200
40	510	80 200	240	520	120 240	240	520	120	250	550	120 250	260
50	540	80 270	260	550	100 280	260	550	100	300	580	120 290	280
*65	570	80 280	340	580	100 290	340	580	100	400			
80	610	80 290	360	620	100 310	360	620	100	400			
100	650	90 300	360	660	100 310	360	660	100	400			

*125	670	110	440										
		320											
150	720	130	440										
		340											

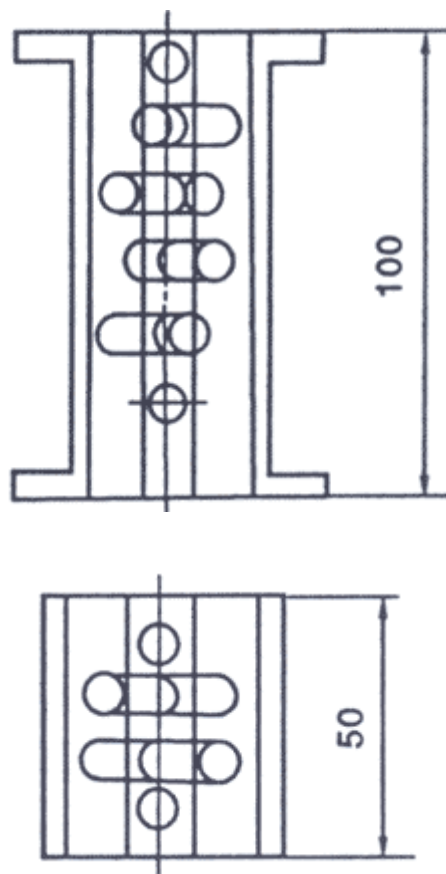
*by special order

□Ordering Information

- Please submit model、suffix code、specifications and fill in the work sheet.
- If the product might be used to measure the flow rate of steam、gas、 or pulsating flow, it could be required to add the de-oscillator.

□Magnetic Filter

As iron particles of magnetic permeability might be contained in the fluid, it should be required to mount magnetic filter at the front end of flow meter. The magnetic steel in magnetic filter could be arranged as spiral in order to ensure pressure loss up to the lowest limit. The outside of magnetic steel could be covered with fluoride plastics, and the housing inside could also be lined with fluoride plastics, with identical mounting length for various sizes and with flange dimensions all the same as flow meter in accordance with standards JB/T81-94 and JB/T82.2-94.



- Work sheet for Model LZ Rotameter with metallic tube

Model	
Name	
Nominal size	
Class of Accuracy	
Operating Pressure	MPa
Operating Temperature	℃
Output Signal	
Alarm Flow Rate	

Upper Limit of Flow Rate	m ³ /h
Normal Flow Rate	m ³ /h
Gravity	kg/m ³
Viscosity	mPa·s
Density	
Molecular Weight	
Standard Scale	
Operating Scale	
Connected Attachments	
Name	
Model and Specifications	
Quantity	