Model LUGB Vortex Flowmeter

Model LUGB Vortex Flowmeter is mainly used to measure the flow of medium fluids in industrial pipelines, such as gas, liquid, steam and other media. Its characteristics are low pressure loss and no movable parts. The instrument adopts piezoelectric stress sensor with high reliability. It can work in the temperature range of - 20 ~350 ~C. There are analog standard signal and digital pulse signal output, which can be easily used in conjunction with digital systems such as computers.

Measuring Principle

When a cylindrical drag body is inserted vertically in the fluid, vortices will alternately occur on both sides of the body. As the fluid moves downstream, a series of vortices will be formed, which is called Kaman Vortex Street. The drag body that produces the vortex street is called the vortex generator. Experiments show that the frequency of vortices is proportional to the velocity of flow.

When the vortex is generated on both sides of the cylinder, the sensor is induced by the alternating lift force perpendicular to the flow direction. The lift frequency is the vortex frequency. After amplifying and shaping the signal transducer, the transducer can directly output the pulse signal proportional to the flow velocity or convert it into the 4-20mA standard signal output.

Technical parameters

Standards adopted		Q/YHC0401-2001 JB/T6807-93
Measuring Medium		Gas, Liquid, Steam
Caliber Specifications	Flange Clamping Type	25，40，50，65，80，100
	Flange Mounting Type	100，125，150，200
	Insertion type	150~2000
Flow Measurement Range	Normal Velocity Measurement Range	Gas：5~50m/s Liquid：0.5~7m/s
	Normal Flow Measurement Range	See table below for details
Measuring Accuracy		Flange Clamping & Flange Mounting Type accuracy class 1 , 1.5
		Type accuracy class 2.5
The Measured Medium Temperature		-25 ℃~100 ℃ -25 ℃~150 ℃ -25 ℃~250 ℃
Operating Pressure		1.6MPa； 2.5MPa； 4.0MPa
Output Signal	Pulse Voltage Output Signal	High-level ： 8~10V Low-level ： 0.7~1.3V (Explosion proof type： High-level：4~5V Low-level ： 0.7~1.3V)
		The duty cycle of the pulse is about 50%， The transmission distance is 100

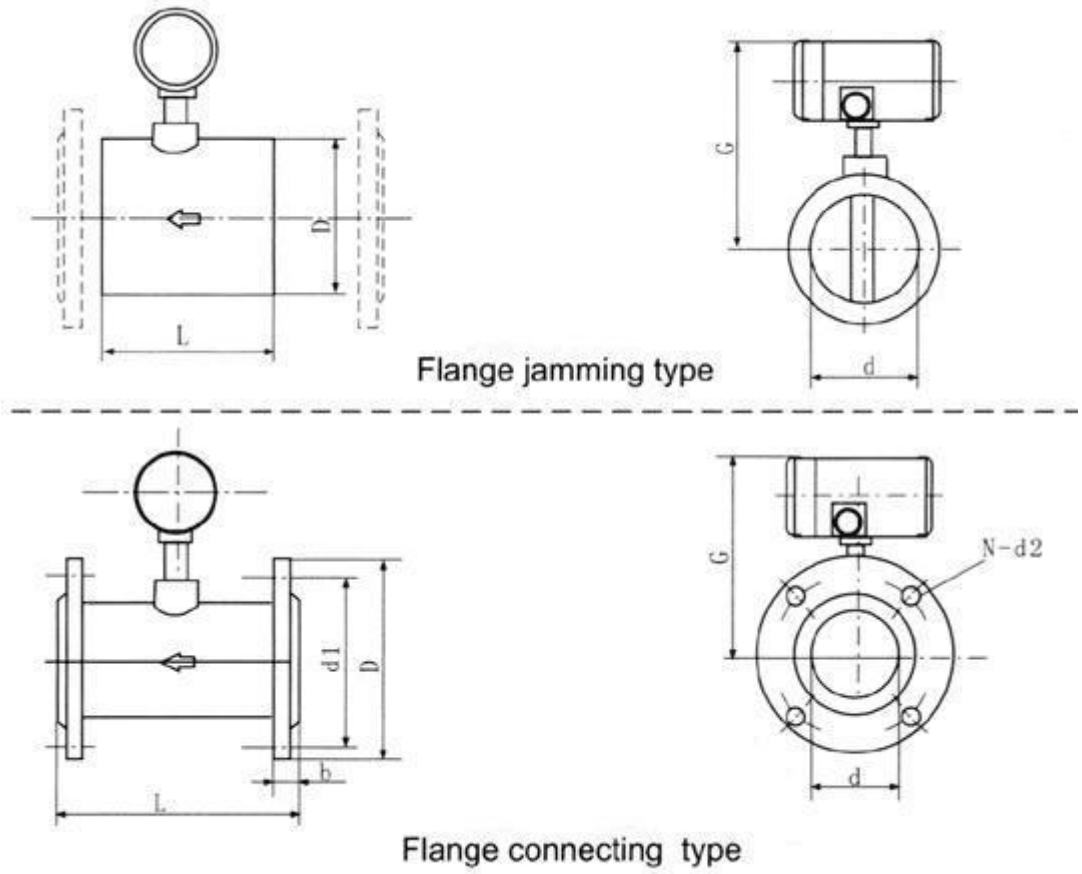
		meters.
	Standard Current Output Signal	DC4~20mA Allowable transmission distance of less than 600 Ohm (power supply 24V) is 3000 meters
Instrument Use Environment		temperature:-25 ℃~+55 ℃ humidity: 5~90% RH50 ℃
Material		Body Material :1Cr18Ni9Ti，Converter housing material: Aluminum alloy，（The body material can be produced with 00Cr17Ni14Mo2 according to the order requirements.）
Power Supply		DC12V±10%； DC24V±10%； or double lithium battery 3.6V 7.5Ah
Explosion-Proof		T1~T5
Protection Class		IP65
Requirements for front and rear straight pipe sections		Please see table below.

Flow range of Gas under Operating Conditions & Liquid

Caliber mm	DN mm	15	25	32	40	50	65	80	100	125	150	200
Liquid	m3 /h	0.3~4	1.2~16	1.5~18	2.25~30	4~55	5.9~84	9~135	14~200	22~330	32~480	56~800
Gas	m3 /h	5~30	10.2~80	15~150	22~220	35~350	60~600	90~900	140~1400	220~2200	300~3000	550~5500

The mounting dimensions of Inserted Vortex Flowmeter (mm)

DN	H	Position
ϕ200－ϕ500	950	Center Velocity
ϕ500－ϕ1000	1200	
ϕ1000－ϕ1400	1500	
ϕ1400－ϕ2000	1810	Average Velocity



Dimension

TYPE	Caliber mm	PRESS MPa	L mm	G		D mm	d1 mm	N-d2	d mm	b mm	Weight kg
				Normal TEMP	High TEMP						
Flange Clamping	15	2.5～4.0	66	280	500	65	-	-	15	-	7.5
	25	2.5～4.0	66	280	500	65	-	-	25	-	7
	32	2.5～4.0	66	285	505	72	-	-	32	-	10
	40	2.5～4.0	70	290	510	80	-	-	40	-	11
	50	2.5～4.0	85	295	515	90	-	-	50	-	12.5
	65	1.6～2.5	98	310	530	105	-	-	65	-	17
	80	1.6～2.5	110	320	540	120	-	-	80	-	20
	100	1.6～2.5	110	330	550	150	-	-	100	-	27
Flange Mounting	100	1.6	250	310	530	215	180	8-Φ18	100	26	20
	125	1.6	250	323	545	245	210	8-Φ18	125	26	22
	150	1.6	300	335	555	280	240	8-Φ23	150	28	24
	200	1.6	320	370	590	335	295	12-Φ23	200	30	31

Ordering Codes

MODEL	Basic Code										
LUGB											
Connection	-1										Flange Mounting
	-2										Flange Clamping
	-3										Insertion type
Measuring Medium		2									Liquid
		3									Gas
		4									Steam
		5									Hot Water
Caliber			-×××								
Output Signal				-2							Two-wire pulse
				-3							Three-wire pulse
				-4							4-20mA,2 wire
Meter					0						No Meter
					1						Intelligent Digital Display Indicators (Instantaneous and Cumulative)
Power Supply						X					DC12V Pulse output only
						Y					DC24V
						Z					Battery Powered
Body Material							-C				OCr18Ni12Mo2Ti
							-D				1Cr18Ni9Ti
PRESS								1			1.6MPa
								2			2.5MPa
								3			4.0MPa
Explosion-Proof									N		No explosion proof
									B		EExi