Vortex Flow Meter

LWJ-D series

LWJ-V series

Description

The vortex flowmeter is used for measuring the flow velocity of gases or liquids in pipelines flowing full. The measuring principle is based on the development of a Karman vortex shedding street in the wake of a body built into the pipeline. The periodic shedding of eddies occurs first from one side and then from the other side of a bluff body (vortex-shedding body) installed perpendicular to the pipe axis. Vortex sheddir generates a so-called "Karman vortex street" with alternating pressure conditions whose frequency is proportional to the flow velocity.

Application Range	(1) Gas; (2) Liquid;(3) Steam
Measured Value	
Primary Measured Value	Flow Rate
Secondary Measured Value	Volume flow(Pressure and Temperature is available)
Temperature	
Process Temperature	T1 Level: -20...+100°C
	T2 Level: -20...+250°C
	T3 Level: -20...+350°C
Ambient Temperature	-10...+70°C
Pressure	
EN 1092-1	DN200...DN300: PN10
	DN100...DN200: PN16

	DN15...DN80: PN25
	Other pressure on request
ASME B16.5	1/2"...8":150 lb RF
	Other pressure on request
JIS	1/2"...8": 10K
	Other pressure on request
Reference Condition	Flow conditions similar to EN 29104
	Medium: Water/ Gas/ Steam
	Electrical Conductivity:≥300μS/cm
	Temperature: -10...+30°C
	Inlet Section:10DN
	Operating pressure: 1 bar/ 14.5 PSIG
Accuracy	For Liquid: ±1.0% of rate
	For Gas and Steam: ±1.5% of rate
Body Material	SS304
	SS316
Converter Material	Standard: Polyurethane coated die-cast aluminum

Model Selection

Model	Suffix Code								Description
LWJ-	1	2	3	4	5	6	7	8	Vortex Flowmeter
Fluid	L								Liquid
	G								Gas / Air
	S								Steam
Diameter		XXX							Stand for diameter 015: DN15; 050: DN50 100: DN100; 300: DN300
Structure			S						Compact type
			L						Remote type
Converter Type				N					24V DC; Pulse output; No display; Ex
				A					24V DC; 4-20mA output; No display; Ex
				B					Battery power supply; No output; Ex
				C					24V DC; 4-20mA / Pulse output
				V					24V DC; 4-20mA / Pulse output (V type is

						only for Gas/ Steam application)
	D					24V DC; 3-wire 4-20mA output; Temperature & Pressure Compensation
	NOTICE:					1)Modbus RS485 is optional for C,V,D series
						2)Dual power(24V DV+Battery) is optional for C,V,D series
Body Material		S4				SS304
		S6				SS316
Explosion Proof			BT			ExdlIBT6
			CT			ExiblICT4
			NA			No explosion proof
Connection				WAF		Water connection
				DXX		D16: DIN PN16 Flange; D25: DIN PN25 Flange...
				AXX		A15: ANSI 150# Flange; A30: ANSI 300 # Flange...
				JXX		J10: JIS 10K Flange; J20: JIS 20K Flange...
Temperature					T1	-20...+100℃
					T2	-20...+250℃
					T3	-20...+350℃

Example:

	1	2	3	4	5	6	7	8
LWJ	S	100	S	D	S4	CT	D16	T2

S:Steam application
100:DN100
S: Compact type with local display
D: 24V DC power supply; temperature and pressure compensation
S4: SS304 body material
CT: ExiblICT4
D16: Flange DIN PN16
T2:-20...+250°C

Flow range

diameter		liquid	Gas
(mm)	(inch)	flow(m^3/h)	flow(m^3/h)
15	1/2”	1.2-6.2	5-25
20	3/4”	1.5-10	8-50
25	1”	1.6-16	10-70
40	1-1/2”	2.5-26	22-220
50	2”	3.5-38	36-320
65	2-1/2”	6.2-65	50-480
80	3”	10-100	70-640
100	4”	15-150	130-1100
125	5”	25-250	200-1700
150	6”	36-380	280-2240
200	8”	62-650	580-4960
250	10”	140-1400	970-8000
300	12”	200-2000	1380-11000

Notice:The flow range as above is for reference only. Consult the factory if you have special requirement.Refer to the nameplate or certificate for actual flow range.