FVX700 – Vortex Flow Meter

- **Self-diagnose, easy to use**
- **Optional temperature and pressure compensation**
- **4...20mA or pulse output**
- **Applicable to various pipe size**
- **Operating temperature up to 320℃**

FVX700 is based on Karman vortex effect to work. A columnar object that goes through the entire cross-section of the meter tube creates a vortex when a flow is present. The **frequency of the vortex is proportional to flow. For no moving part, FVX700 is widely used** for liquid, gas and steam measurement. Flange or wafer connection; Integral display for instantaneous and total flow; 4...20mA or pulse output. Optional temperature and pressure compensation. Interference and error signal cut off.

Specifications

Power Supply	12...32 Vdc, Ni-MH Battery(work for 3 years）
Pressure Rating	Max 78 Kg/cm2
Measuring Range	
Steam	- 1.6...540,000 Kg/Hr
Gaseous	- 3...46,000 M3/Hr
Liquid	- 0.3...4950 M3/Hr
Current Output	
Output Type	2-wire 4...20 mA
Load RA(Ω)	Max 1000Ω
Pulse Output	
Output Type	3-wire pulse
Load RA(Ω)	1000Ω...5000Ω
Accuracy	
Liquid	±0.7% of reading
Steam/Gaseous	±1.0% of reading
Repeatability	±0.2% of reading
Temperature	
Ambient Temperature	-20 ... +60℃
Medium Temperature	-40...+280℃（standard）; -40 ...+350℃ (optional)
Display	2-row LCD/5-digit instantaneous flow/8-digit total flow
Materials	301/304/316 stainless steel
Protection Class	IP65（ optional explosion proof, Exd Ⅱ C T6 ）
Process Connection	Wafer (Optional flange connection)
Nominal Diameter	DN20...DN500
Communication	RS485
Data Storage	Parameter and total flow are stored in EPROM for more than 10 years
KeyPad	4 keys
Electrical Connection	M20*1.5 (Optional 1/2" NPTF)
Others	
Pressure Sensor	Pressure compensation
Signal Output	0...30 mV DC(20 Ua power supply)
Temperature Sensor	Temperature compensation
Signal Output	PT1000 (2 wires)

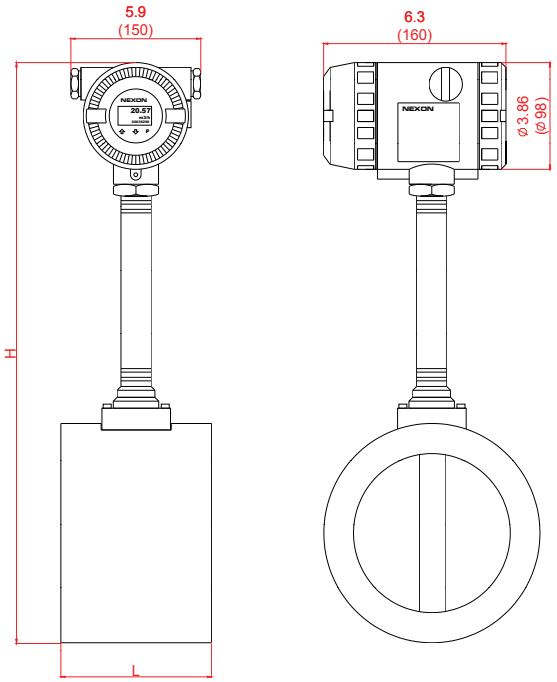
Applications

- Measuring gaseous
- Measuring steam
- Measuring liquid

Flow Range m^3/h

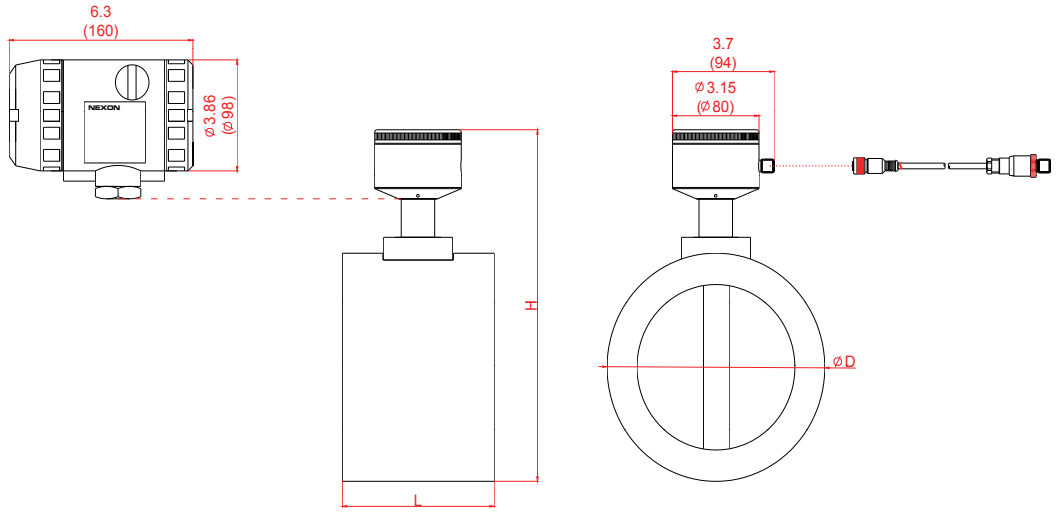
Structure	Nominal Diameter (mm)	Operating Flow Range (m^3/h)		
		Liquide	Gaseous	Steam
Full-tube Type	20	0.66-8	5-54	5.2-58
	25	0.8-12	8.8-100	9.5-110
	32	1.3-20	14-170	16-185
	40	2.0-30	18-240	22-300
	50	2.7-50	30-400	33-420
	65	4.9-72	50-600	70-840
	80	7-120	75-900	85-1080
	100	12-200	115-1400	140-1700
	125	20-300	170-2285	200-2600
	150	31-400	260-3800	330-4030
	200	50-800	460-6600	566-7715
	250	70-1200	750-10500	880-12000
	300	100-1600	1095-15160	1300-17685
	350	170-2400	2000-25000	2300-29000
	400	200-3000	25000-30000	29000-35000
	500	280-4200	30000-42400	35000-49500

Dimensions 1 in inches (mm)



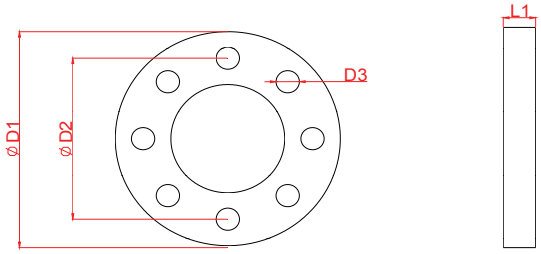
Size		H		L	
DN	inch	mm	inch	mm	inch
20	3/4"	460	18.11	65	2.5591
25	1"	460	18.11	65	2.5591
32	1-1/4"	465	18.307	70	2.7559
40	1-1/2"	470	18.504	75	2.9528
50	2"	481	18.937	75	2.9528
65	2-1/2"	497	19.567	75	2.9528
80	3"	510	20.079	80	3.1496
100	4"	544	21.417	90	3.5433
125	5"	564	22.205	100	3.937
150	6"	594	23.386	120	4.7244
200	8"	646	25.433	150	5.9055
250	10"	708	27.874	160	6.2992
300	12"	760	29.921	170	6.6929
350	14"	805	31.693	200	7.874
400	16"	835	32.874	220	8.6614
450	18"	860	33.858	240	9.4488
500	20"	895	35.236	260	10.236

Dimensions 2 in inches (mm)



Size		H		L		D	
DN	inch	mm	inch	mm	inch	mm	inch
20	3/4"	168	6.6142	65	2.5591	63	2.4803
25	1"	173	6.811	65	2.5591	68	2.6772
32	1-1/4"	180	7.0866	70	2.7559	75	2.9528
40	1-1/2"	188	7.4016	75	2.9528	83	3.2677
50	2"	198	7.7953	75	2.9528	93	3.6614
65	2-1/2"	213	8.3858	75	2.9528	108	4.252
80	3"	228	8.9764	80	3.1496	123	4.8425
100	4"	248	9.7638	90	3.5433	143	5.6299
125	5"	273	10.748	100	3.937	168	6.6142
150	6"	298	11.732	120	4.7244	193	7.5984
200	8"	348	13.701	150	5.9055	243	9.5669
250	10"	398	15.669	160	6.2992	293	11.535
300	12"	448	17.638	170	6.6929	343	13.504
350	14"	498	19.606	200	7.874	393	15.472
400	16"	548	21.575	220	8.6614	443	17.441
450	18"	598	23.543	240	9.4488	493	19.409
500	20"	648	25.512	260	10.236	543	21.378

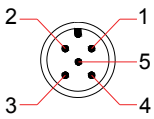
Flange Dimension



Size		D1		D2		D3		L1		HOLES
DN	inch	mm	inch	mm	inch	mm	inch	mm	inch	
20	3/4"	125	4.9213	100	3.937	14	0.5512	15	0.5906	4
25	1"	125	4.9213	100	3.937	14	0.5512	15	0.5906	4
32	1-1/4"	145	5.7087	115	4.5276	18	0.7087	15	0.5906	4
40	1-1/2"	145	5.7087	110	4.3307	18	0.7087	17	0.6693	4
50	2"	160	6.2992	125	4.9213	18	0.7087	17	0.6693	4
65	2-1/2"	180	7.0866	145	5.7087	18	0.7087	21	0.8268	4
80	3"	195	7.6772	160	6.2992	18	0.7087	21	0.8268	6
100	4"	230	9.0551	190	7.4803	18	0.7087	21	0.8268	8
125	5"	245	9.6457	210	8.2677	18	0.7087	23	0.9055	8
150	6"	280	11.024	240	9.4488	22	0.8661	25	0.9843	8
200	8"	335	13.189	295	11.614	22	0.8661	25	0.9843	12
250	10"	405	15.945	355	13.976	24	0.9449	27	1.063	12
300	12"	460	18.11	410	16.142	24	0.9449	27	1.063	16
350	14"	550	21.654	490	19.291	34	1.3386	38	1.4961	16
400	16"	610	24.016	550	21.654	34	1.3386	40	1.5748	16
450	18"	660	25.984	600	23.622	34	1.3386	42	1.6535	20
500	20"	730	28.74	660	25.984	34	1.3386	44	1.7323	24

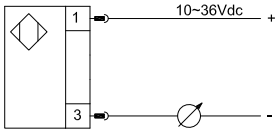
Wiring

Wiring	2-wire (3-wire) output



M12 plug

Signal	Plug	Cable
U+	1	Brown
(output)	2	White
U-	3	Blue



Order Code

FVX :	Vortex flow meter
700 :	Series #
W :	Wafer process connection (standard)
F :	Flange process connection (consult us for size)
DN25...DN1500 :	Nominal diameter 25...1500mm(1"...60")

FVX	700	W	DN25	-1	-16	-1	A	1	N	N

-1:	301 stainless steel (for wafer only)
-4:	304 stainless steel
-6:	316 stainless steel
Pressure resistance	
-16:	16 bar
-25:	25 bar
-40:	40 bar
-1:	Integral type without temperature & pressure compensation
-2:	Integral type with temperature & pressure compensation
-3:	Remote type without temperature & pressure compensation
A:	4-20 mA current output (2-wire)
B:	Battery (display only, without output)
P:	Pulse output (3-wire)
H:	4-20 mA with HART signal (2-wire)
1:	-40 to +280℃
2:	-40 to +320℃
N:	None
X:	Explosion proof, Exd IIC T6
Connect to converter	
N:	Integral type
R:	Remote type

Special Order on Request