



Internal thread type



External thread type



Cassette type



Flange type

product application

- petroleum/chemical
- hydraulic/lubrication system
- experimental equipment
- test bed
- circulating water system
- water/oil cooling system

Product features

- High voltage
- high and low temperature
- almost no pressure loss
- quick
- compact size
- high accuracy and repeatability

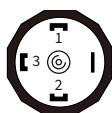
principle characteristics

The FM100 turbine flow sensor is composed of a runner and an external pulser. Liquid flows into the turbine, causing the rotor to rotate. The specific inner diameter makes the rotor speed directly proportional to the flow. The detector converts the detected rotor blade rotation into a pulse signal proportional to the flow rate.

FM100 has strong anti-impurity ability, tangential impeller can release suspended debris in fluid at any time when rotating, so that it is not wound on the blades of tangential impeller.

FM100 wheel flowmeter is a compact, modular, easy to install, high precision, good repeatability, very suitable for industrial products. Industrial runner flowmeter products can be widely used in water treatment, beverage, chemical, pharmaceutical, oil and other industries, as metering, ingredients, control purposes.

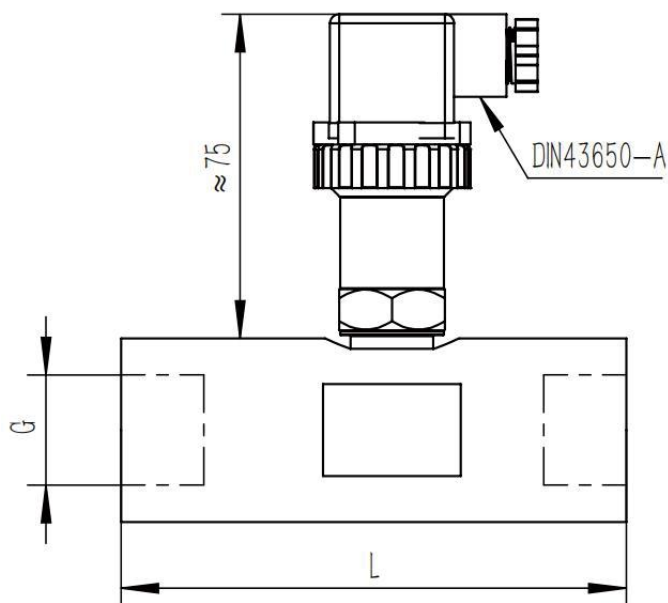
Electrical connections

Hersman joint	DIN 175301-803 A	line(pulse)
	2 line(4...20mA)	3
	U+ 1	1
	U- 2	2
	S+ -	3

Technical parameters

Measuring range	DN10-DN300
power supply voltage	12...30VDC
output signal	4...20mA 2 wire
Accuracy of	≤1.0%F.S
repetitive	< 0.5%F.S
No-load current	< 15mA
pressure	60bar 100bar 250bar 400bar
Medium temperature	-20...90℃
environment	-20...70℃
Storage temperature	-40...80℃
Protection grade	IP65 (DIN 53650-A) IP67 (straight line) IP67 (M 12*1connectors)
Electrical interface	DIN 53650-A straight line M 12*1 connectors
material	main body: 304SS runner: 304SS Shaft: hard alloy steel
Measuring the dielectric	Liquid (medium to low
Viscosity range	1...100cSt

Dimension drawing(mm)



Nominal diameter DN(mm)	Flow range (m³/h)		Nominal pressure PN(M Pa)	Maximum pressure loss (M Pa)
	lower limit	Upper limit		
10	0.2	1.2	6.3 16 25 40*	0.05
12	0.4	4		0.035
15	0.6	6		
20	0.8	8		
25	1	10		
32	1.5	15		
40	2	20	2.5	0.025
50	4	40		
65	8	80		
80	10	100		
100	20	222		
125	25	250	1.6	
150	40	400		
200	80	800		
250	120	1200		
300	180	1800		

Nominal diameter (mm)	Flange connection (1.6M Pa)					External thread			Internal thread		Clamp connection	
	flange diameter	Center distance	pitch	hole count	thickness	Body length L		Process connection G	Body length L	Process connection G	Process connection outer diameter	Body length L
						Straight pipe	no straight pipe					
10						345	65	G1/2	80	1/2	50.5	50
12	95	65	14	4	14		65	G3/4	80	1/2	50.5	50
15	95	65	14	4	14		75	G1(33.2)	110	1/2	50.5	75
20	105	75	14	4	16		85	G1(33.2)	115	3/4	50.5	85
25	115	85	14	4	16		100	G1-1/4(41.9)	140	1	50.5	100
32	140	100	18	4	18		120	G1-1/2(47.8)	172	1-1/4	50.5	120
40	150	110	18	4	18		140	G2(59.6)	180	1-1/2	64	140
50	165	125	18	4	20		150	G2-1/2(75.1)	200	2	78	150
65	185	145	18	8	20		175	G3	235	2-1/2	91	175
80	200	160	18	8	20		200		260	3	106	200
100	220	180	18	8	22		220				119	220
125	250	210	18	8	22		250					
150	285	240	22	8	24		300					
200	340	295	22	12	26		360					
250	400	355	26	12	28		400					
300	460	410	26	12	32		500					

Selection table

FM100-	015	A	M	400	-	-	detailed
FM100-							FM100 Turbine flowmeter
	010						Measure the diameter: DN10
	010B						Measure the diameter: DN10 (With straight pipe)
	012						Measure the diameter: DN12
	015						Measure the diameter: DN15
	020						Measure the diameter: DN20
	025						Measure the diameter: DN25
	032						Measure the diameter: DN32
	040						Measure the diameter: DN40
	050						Measure the diameter: DN50
	065						Measure the diameter: DN65
	080						Measure the diameter: DN80
	100						Measure the diameter: DN100
	125						Measure the diameter: DN125
	150						Measure the diameter: DN150
	200						Measure the diameter: DN200
	250						Measure the diameter: DN250
	300						Measure the diameter: DN300
		F					Pulse output
		A					4~20mA output
			M				External thread connection (Apply to $\leq$ DN50) (Standard pressure resistance: 300 bar)
			K				Internal thread connection (Apply to $\leq$ DN50) (Standard pressure resistance: 300 bar)
			RK				Internal thread R-type connection (applicable for $\geq$ 25) specially customized (standard pressure resistance 300 bar)
			F				Flanged joint (Apply to $\geq$ DN15) Applicable to $\leq$ 4Mpa Execution standard: HG/T20592-2009
			H				Sanitary clamp connection (Apply to $\leq$ DN100) Applicable to $\leq$ 1.6Mpa
				400			Resistance to pressure 400bar
					-		No display
					-1		LED display unit
						-	Standard type (-20~100°C)
						-H	High temperature type (-30~150°C)



Integrated display unit

The display table is an electronic device used for digital display of the sensor signal, which can be set to the required display range by setting the button

- Free programming via processor
- No field setup required
- With 4... Sensor with 20mA output
- Protection level IP55
- Easy to operate