Liquid Turbine Flow Meter

GTF300

GTF300-N1 series

GTF300-N2 series

GTF300-E series

PRODUCT DESCRIPTION

GTF300 Liquid turbine flow meter is a new generation turbine flow meter which was designed with advanced flow technologies both home and aboard. The product possesses advantages of simple structure, light in weight, high accuracy, good repeatability, short response time, easy installation, etc. It could be used widely in measurement of closed pipe system for pure liquid that will not react with 1Cr18Ni9Ti, 2Cr13, Al2O3 and hard alloys. Kinematic viscosity of the medium liquid shall be smaller than 5×10-6m2/s. Measurement for medium with kinematic viscosity larger than 5×10-6m2/s will need calibration with the actual liquid. GTF300 series could also operate with specific display instruments for flow control, over flow alarm and many other functions.

FEATURES

- Accuracy: Default type: ±1%R, ±0.5%R
- Good repeatability. Repeatability of the product could reach to 0.05%~0.2% in short term. It is this advantage in repeatability that make the product a good choice in trading measurement.
- Pulse frequency output, suitable for total flow measurement and connect to computer. No zero drift and with strong anti-interference performance;
- Could output high frequency signal (3~4kHz) with high resolution;
- Wide range ratio, middle and large diameter could reach to 1:20 and small diameter could reach to 1:10;
- Compact and light structure, easy for installation and maintenance;
- Suitable for high pressure measurement. Since there is no opening on housing of the product, it could be used as a high pressure instrument.
- Could operate with multiple sensors. According to requirement of the users, GTF300 offers options with different special sensors, for example low temperature type, dual flow direction type, well type, sandy medium type, etc.;
- Offer insertion type for large diameter measurement. The insertion type possesses advantages of small pressure loss, low cost and easy installation and maintenance (could be taken out of the pipe without shut the system down).

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SPECIFICATIONS

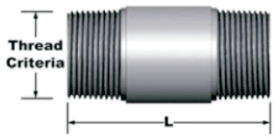
Medium	Non-corrosive low velocity liquid without impurity.
medium	Not suitable for gas and steam
Accuracy	Class 1.0, class 0.5
Flange standard	GB/T 9119-2010, DIN, ANSI, JIS
Output	Pulse, 4-20mA analog output, RS485 (Modbus-RTU protocol), HART, communication.
Diameter and installation	Flange connection DN15-DN200 Screw connection: DN4-DN50 Loose flange connection: DN4-DN200
Medium temperature	Default type T1: -20℃~+120℃（Standard) High temp. type T2: -20℃~+150℃（OEM)
Operation condition	Operating temperature: -20℃~+60℃ Related humidity: 5%~90% Atmospheric pressure: 86kPa~106kPa
Ingress protection	IP65
Explosion proof	ExdIIBT6 (explosion proof type)

Flow range

Diameter (mm)	Standard flow range (m3/h)	Extended flow range (m3/h)	Conventional endurance pressure (m3/h)
4	0.04～0.25	0.04～0.4	1.6MPa
6	0.1～0.6	0.06～0.6	1.6MPa
10	0.2～1.2	0.15～1.5	1.6MPa
15	0.6～6	0.4~8	1.6MPa
20	0.8～8	0.45～9	1.6MPa
25	1～10	0.5～10	1.6MPa
32	1.5～15	0.8～15	1.6MPa
40	2～20	1～20	1.6MPa
50	4～40	2～40	1.6MPa
65	7～70	4～70	1.6MPa
80	10～100	7～100	1.6MPa
100	20～200	10～200	1.6MPa
125	25～250	13～250	1.6MPa
150	30～300	15～300	1.6MPa
200	80～800	40～800	1.6MPa

DIMENSIONS

(1) Thread Connection

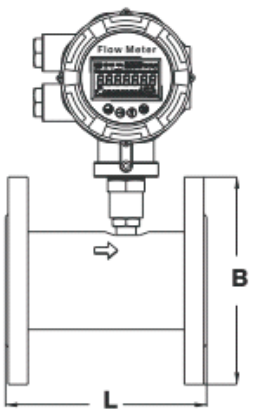


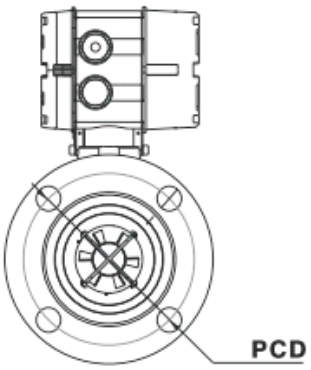
Male Thread Connection

Diameter (mm)	L (mm)	Thread Criteria
4	270	G ½ "
6	270	G ½"
10	390	G ½"
15	75	G 1"
20	80	G 1"
25	100	G 1-1/4"
32	140	G 2"
40	140	G 2"
50	150	G 2-1/2"

Notice: Other thread criteria is available on request. (Female/Male thread is Optional for G,NPT,BSP)

(2) Flange Connection





Diameter		L	B Flange Diameter	PCD Bolt Circle Diameter	Bolt Hole Quantity
(inch)	(mm)	(mm)	(mm)	(mm)	
½"	15	75	95	60	4
3/4"	20	80	105	70	4
1"	25	100	115	79	4
1-1/4"	32	140	140	89	4
1-1/2"	40	140	150	99	4
2"	50	150	165	121	4
2-1/2"	65	170	185	140	4
3"	80	200	200	152	4
4"	100	220	220	191	8
5"	125	250	250	216	8
6"	150	300	285	241	8
8"	200	360	340	298	8

Notice: Dimensions above is for DIN PN16 Flange

TYPE SELECTION

GTF300	□	□	□	□	□	□	□	□	Note
Diameter	DNXX								DN4~DN200mm
Converter Type		N1							24VDC;Pulse output,No display
		N2							24VDC;Pulse output,No display,EX
		A							24VDC;4-20mA output,No display,EX
		E1							Battery power supply,No output,Digital display,EX
		E2							24V DC; 2-wire 4-20mA output .Ex;Digital display
		E3							24V DC ;Pulse output .Ex;Digital display
		E4							24V DC ; 4-20mA output .Ex;Digital display
		E5							24V DC; 3-wire 4-20mA/Pulse output .Ex;Digital display
		G							220V AC;4-20mA output .Ex;Digital display
		Notice							1)Modubus RS485 is optical for E2,E3,E4,E5 and "G"type.
									2)Dual Power(24v DC+Battery)is optional for E2,E3,E4,E5 and G
Accuracy			10						±1.0%R
			05						±0.5%R
Flow Range				S					Standard Range
				E					Extended Range
Body Material					S4				SS304
					S6				SS316
Explosion-Proof						BT			Exd II BT6
						NA			None
Connection							THM		External thread,Apply to DN4～DN50mm
							THF		Internal thread,Apply to DN4～DN50mm
							WAF		Flange clamp
							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								T2	-20～+120℃
								T3	-20～+150℃

GTF300 DN50 E2 10 S S4 BT D16 T2
① ② ③ ④ ⑤ ⑥ ⑦ ⑧

① Diameter：DN50
② E2：24VDC，Pulse and 4-20mA output，RS485，Digital display，EX
③ 10：1.0% of rate accuracy
④ S：Standard range 4-40m³/h
⑤ S4：SS304 Body Material
⑥ BT：Exd II BT6
⑦ D16：Flange DIN PN16
⑧ T2：-20～+120℃