GAS TURBINE FLOW METER

SUMMARY

The durability of the TG-1000 type gas turbine flowmeter has been raised by minimizing the flow obstacle of gas with the design through 3D CAD program and flow analysis. Also, it can be used conveniently for the measuring of the pure gas and standard volume fixed quantity by improving the accuracy with the combination of the up-to-date digital electronic technology. The TGFE type flowmeter shall be in accordance with the KS A 0515(turbine flowmeter) and JIS B 8765, 7501 (turbine flowmeter).

*PRODUCTION AUTOMATION SYSTEM

*CONTROL & INSTRUMENTATION SYSTEM

FEATURES

- High accuracy (±1%) and durability
- Excellent straightness and repeatability (±0.1%)
- Instantaneous flow rate, accumulated flow rate, accumulated flow rate
- Automatic separation function of inside and outside power supply
- RS-485, 4~20mA, Plus output(Open collect) communication and output function
- The odometer can be rotated to up, down, left, and right direction.
- Minimization of the straight tube distance between the front and the rear end by the installation of the flow stabilizer through the flow analysis

OPERATION POWER SUPPLY

- Inside power supply : 3.6V listhium battery (power consumption : average 0.7mW, continuous 2.5mW) (international standard specification : ER32L615, standby usage 7 years, continuous usage 5 years)
- Outside power supply : 12~24VDC, total power consumption is less than 4.8W

INPUT SIGNAL

- Flow signal : 0~5 KHz pulse signal, Vpp=3V

OUTPUT SIGNAL

- Flow pulse signal output (output distance less than 50m)
- 4~20mA signal output (output distance less than 200m)
- RS-485 communication connection signal (long distance data transmission)

OPERATING CONDITION

- Environmental temperature : -30℃~+60℃
- Medium temperature : -20℃~+80℃
- Atmospheric pressure : 20kPa~600kPa
- Relative humidity : 5℃~95℃

EXPLOSION-PROOF CLASS

- Interanl pressure explosion-proof : Exd ⅡB T6
- Water proof class : IP 65

PRINCIPAL SUITABLE PLACE

Natural gas	Air	Town gas	Acetylene
Methane	Helium	Ethane	Propane
Hydrogen	Nitrogen	Butane	Carbon dioxide (Dry)

◈ City gas weighhouse, Natural gas transportation weighting, Gas pressure regulation smallness etc

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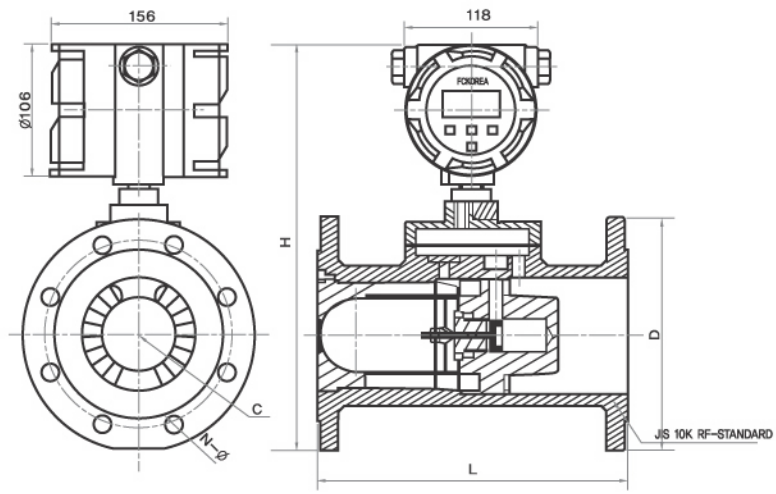
• FLOWMETER MODEL SELECTION

Model specification	Standard specification mm(in)	Flow range (m^3/h)	Accuracy (%)	Pressure loss △P(kPa)	Case Material
TG-1000-50-1	50(2)	5~100	±2.0% for Qmin to 0.2 Qmax ±1.0% for 0.2 Qmin to Qmax	0.5	1.6MPa Aluminum alloy
TG-1000-80-1	80(3)	8~160		0.2	
TG-1000-80-2	80(3)	13~250		0.6	
TG-1000-80-3	80(3)	20~400		1.4	
TG-1000-100-1	100(4)	20~400		0.4	
TG-1000-100-2	100(4)	32~650		1.0	
TG-1000-110-1	150(6)	50~1000		0.6	
TG-1000-110-2	150(6)	80~1600		1.2	
TG-1000-200-1	200(8)	80~1600		0.3	
TG-1000-200-2	200(8)	130~2500		0.8	

▶Manufacturing of higher class flowmeter is possible in accordance with the 2.5MPa of the steel specification and the demand of customer
▶Installation condition : The flowmeter and the tube are connected by flange, and the flange specification shall be in accordance with DIN standard.
▶The straight tube length of the front section and the rear section of the flowmeter : Front straight section ≥2DN ; rear straight section ≥1DN

• DIMENSION OF THE PRODUCT



Model specification	Standard specification	1.6 Mpa(mm)				
	mm(in)	L	H	D	C	n ø
TG-1000-050	50(2)	150	353	Ø155	Ø120	4-Ø19
TG-1000-080	80(3)	240	381	Ø185	Ø150	8-Ø19
TG-1000-100	100(4)	300	402	Ø210	Ø175	8-Ø19
TG-1000-150	150(6)	450	415	Ø280	Ø240	8-Ø23
TG-1000-200	200(8)	600	425	Ø330	Ø290	12-Ø23