FCLGP Nozzle Flowmeter

Overview

Standard nozzle flowmeter integrates flow, temperature and pressure detection functions, and can realize automatic compensation of temperature, pressure as a new generation flowmeter, the nozzle flowmeter uses advanced microcomputer technology and new technology of micro power consumption, with strong function, compact structure, easy to operate, easy to use.

Product Features

1. Simple structure, easy to install;
2. The pressure loss of nozzle is smaller than orifice, with no effusion, requires a short length of straight pipe;
3. No need for real flow verification, stable performance;
4. High temperature, high pressure, impact and corrosion resistance;
5. Long life;
6. High accuracy, excellent repeatability, stable flow coefficient;
7. Measurable for liquid, gas, vapor and various dirty mediums;
8. Uses forging processing technology, the size of the throttle part is customized and produced by single piece, with higher manufacturing costs.

Operating Principle

Based on the throttling principles of fluid mechanics, fluid in pipeline flowing through the nozzle in pipes, the flow rate forms a local contraction in the nozzle, and accelerate the flow speed, reduce the static pressure, so in front and back of the nozzle will be a pressure drop or differential pressure, the greater flow of medium flowing, the larger pressure around the nozzle will be, so the size of the fluid flow can be measured by measuring the differential pressure.

Technical Parameters

Inside Nominal Diameter	20mm≤DN≤630mm
Nominal Pressure	PN≤42MPa
Operating Temperature	-40℃~550℃
Accuracy Level	Grade 0.5, 1.0, 1.5, 2.0

Connection Methods	Flanged joint, weld
Reynolds number range	When $0.25 \leq \beta \leq 0.44$, $70000 \leq ReD \leq 10^7$ When $0.44 \leq \beta \leq 0.80$, $20000 \leq ReD \leq 10^7$

Ordering Model

Basic Model	Nominal Pressure	Nominal Diameter	Structure Form	Medium	Compensation Form	Illustration
FCLGP						Throttling gear (standard nozzle)
	0.01~42					PN0.01~42MPa
		20~630				DN20~630mm
			I			ISA1932 nozzle
			L			Major axis nozzle
			W			Venturi nozzle
				1		Liquid
				2		Gas
				3		Vapor
				4		High temperature liquid
					N	With no temperature and pressure compensation
					P	With pressure compensation output
					T	With temperature compensation output
					Q	With temperature and pressure compensation output