

Mini Impeller Flowmeter

GTJ

Combined Temp & Flow sensor



**Combined Temp &
Flow Sensor**



**TFT Color Screen
High-Resolution
Display**



**EN + GUI Intuitive
Menu**



**Digital & Analog
Integrated Signals**

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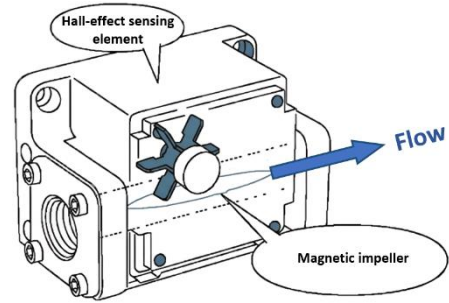
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1. Product Description

GTJ_Mini Impeller Flowmeter as shown in the schematic diagram of the flow-temperature sensor. An impeller is centrally installed in the pipeline and supported by bearings. When fluid passes through the pipeline, it impacts the impeller blades, causing rotation. The impeller's angular velocity is proportional to the fluid flow velocity.

The liquid flow drives the impeller rotation, and the rotating impeller generates a flow-proportional frequency signal through the Hall-effect switch. The transmitter then converts this frequency signal into an electrical signal.



2. Product Features



- | | |
|--|--|
| ● Temperature & flow integrated sensor | ● LED digital display high-visibility |
| ● Flow smart display alarm contact output | ● Temperature smart display alarm contact output |
| ● Wide measuring range low minimum flow rate | ● 4-20mA signal pulse output |
| ● High accuracy stable & reliable | ● Scale-resistant corrosion-resistant |
| ● Low pressure loss high repeatability | |

The **GTJ_Mini Impeller Flowmeter** features structural simplicity, high accuracy, and ease of installation/maintenance.

It enables real-time monitoring of liquid flow and temperature in pipelines, providing 4-20mA signals for both flow and temperature, along with alarm switch outputs.

Equipped with an LED digital display for real-time fluid velocity and temperature readouts, it delivers integrated flow-temperature monitoring. Widely applied in semiconductors, photovoltaic, petrochemicals, power generation, metallurgy, steel plants, paper manufacturing, food processing, water treatment, and battery production facilities.

● High precision, up to 0.5% accuracy

Excellent stability with no drift



● Simple structure, stable and reliable

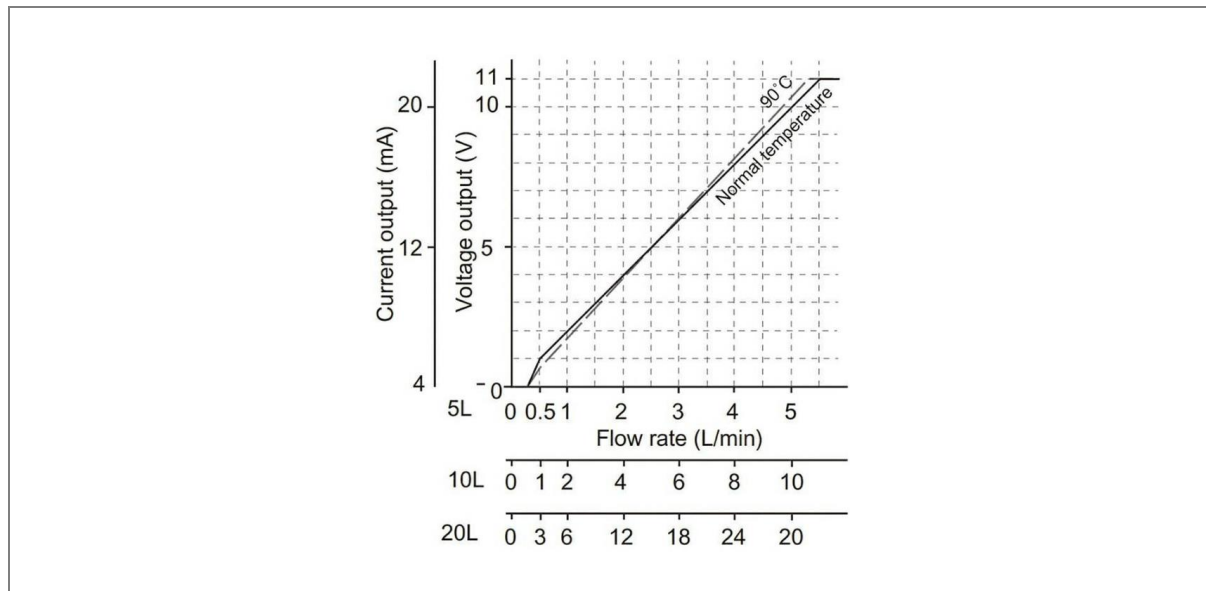
Suitable for mass deployment on equipment to reduce costs



3. Technical Specifications and Parameters

Flow	Measuring Range	0.5 ~ 15 L/min
	Accuracy	Class 0.5, Class 0.3
Temp.	Measuring Range	0 ~ 100°C (customizable)
	Resolution	≤ 0.1°C
Display Type & Resolution		3-digit LED
Power Supply & Consumption		24VDC / 3W
Switching time		On: < 2s (1~3s) / Off: < 2s (1~2s)
Output Supply & Consumption		Two alarm contacts/ 4-20mA analog / Pulse
Alarm contact type		NPN / PNP
Insulation resistance		50MΩ @ 100VDC
Contact Capacity		24V, 50mA
Interfaces		G3/8", G1/2" internal thread
Housing material		ABS
Base material		SUS304
Environmental conditions		-20 ~ 85°C, <85% RH

Output Characteristics and Temperature Stability by Flow Type

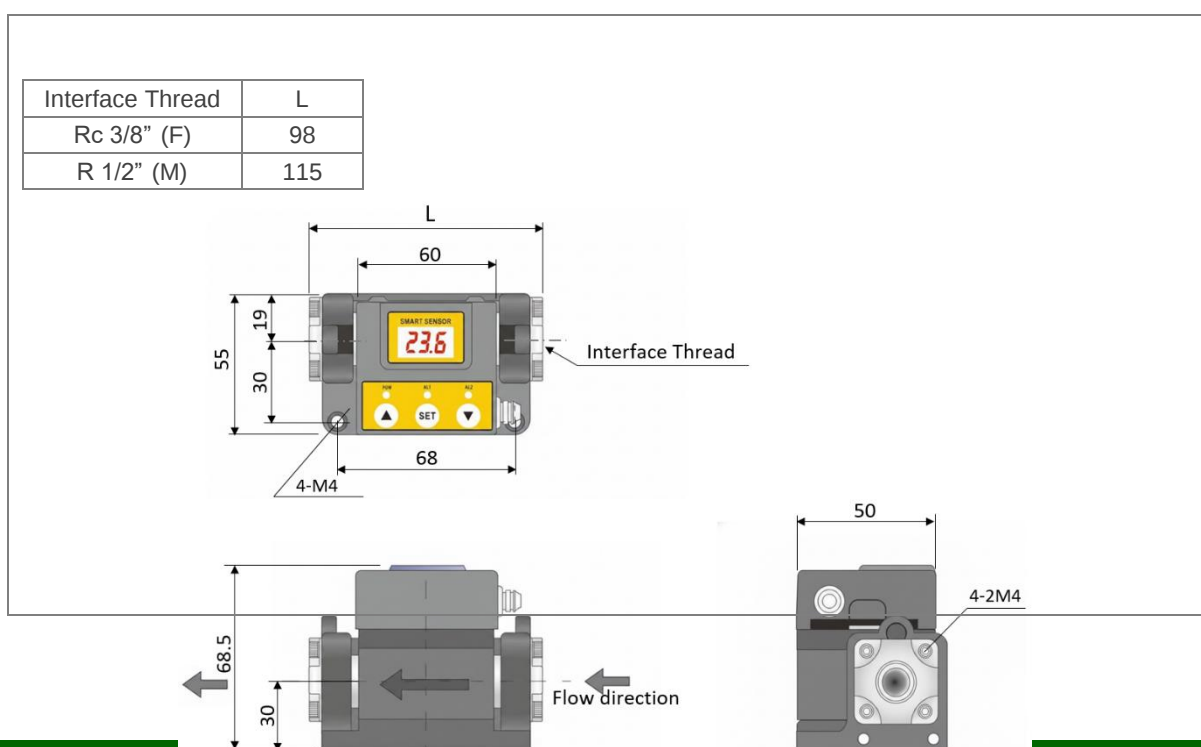


Note: This data represents measurements under standard environment and high-temperature (90°C) conditions.

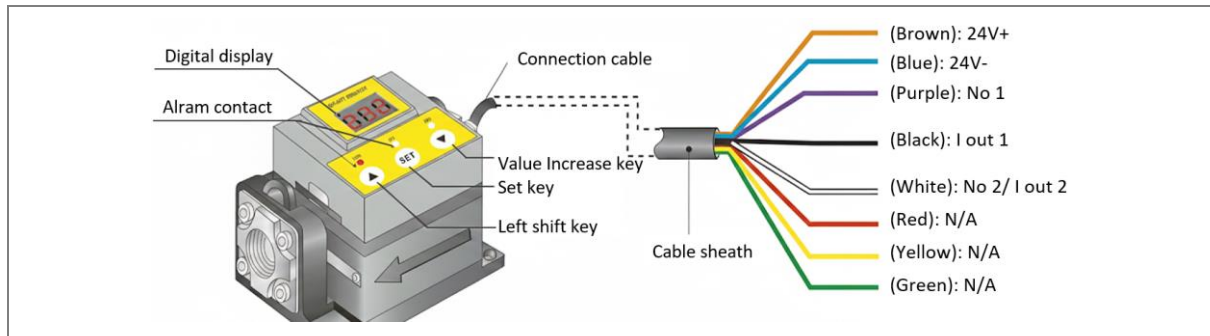
4. Application Notes



5. Structural Diagram



6. Wiring diagram



7. Ordering model selection

Code		Description
Model: GTJ		Mini Impeller Flowmeter
Flow rate range	5L	0.5 ~ 5 L/min
	10L	1.5 ~ 10 L/min
	15L	5 ~ 15 L/min
Flow/temperature alarm mode	P	3-wire DC PNP output
	N	3-wire DC NPN output