Ultrasonic Flowmeter

ATZTA UX

For Fuel Gas Control

High performance over a wide range
Measures the flow accurately at lower rate than ever. A wide range of 1:50 from min. to max. flow has been achieved.

Dust-proof, high durability
No filter is required.

Space saving with no straight pipe required
Measures the flow accurately even when attached to an elbow pipe, making the flowmeter suitable for installation at a small area.

Battery replaceable on site
Battery type (for five-year operation) is now available. The battery can be replaced on the site (with the dedicated lithium battery). AC power type (24VDC, 100VAC) is also available.

Various output modes
In addition to the unit pulse, 4-20mA and RS485 (Modbus/RTU compatible) are provided.

Application
- Measurement of low heat value (e.g. food)
- Small-sized furnace (e.g. melting pot)
- Flow monitoring of glass furnace (e.g. for ampoule, light bulb)
- Atmosphere control in furnace

Co-developed with Tokyo Gas
Specifications

Power supply
- External power supply 24VDC
- External power supply 100VAC
- Dedicated lithium battery *1

Target gas type 1/2
- City gas (13A), butane (butane 70% and propane 30%), propane (propane 98% and butane 2%), nitrogen

Liquid temperature
- -10 to +65 °C (no condensation)

Flow range
- 0.12 to 6 m³/h

Precision
- ±2%RD (6 m³/h or less to 0.6 m³/h or more), ±0.5%FS (6 m³/h or less to 0.12 m³/h or more)

Temperature
- ±1.5 °C

Low flow cut
- 0.024 m³/h (maximum flow rate/250)

Maximum pressure
- 100 kPa

Pressure loss
- 200Pa or less (city gas 13A, standard atmospheric pressure +2.5kPa, maximum flow rate)

Rated voltage
- 21.6 to 26.4 VDC
- 85 to 115 VAC

Power consumption
- 2W or less (26.4V/22mA)
- 10W or less (48V/22mA)

Environmental temperature
- -20 to +70 °C *No condensation

Output
- Analog 4 to 20mA (load resistance 400 Ω or less)
  - 4 to 20mADC (load resistance 4000 Ω or less) Choose from instantaneous flow rate and temperature.
  - Unit pulse (Choose from 1, 10, 100, 1000, 10000L/P, default 1000L/P), duty 20 to 80%
  - Nch open drain output (maximum load 24VDC, 50mA)

Communication
- 4 RS485 Modbus/RTU compatible (Choose from 4800/9600bps)

Measurement interval
- 0.5 sec

Display
- Main display: 4-digit decimal integer with 2 decimal places
- Sub display: 7-digit integer with 2 decimal places

Flow direction
- Left to right or right to left facing the display (Choose upon order).

Conversion function
- Simple standard *6
  - Flow rate converted from actual flow rate at conversion reference temperature and 1 atmospheric pressure
  - Flow rate converted from actual flow rate at 0°C and 1 atmospheric pressure (with arbitrary fixed pressure entered)

Main materials of gas connection part
- Aluminum alloy, PPS

Protection structure
- Indoor and outdoor IP64 (JIS C 0920)

Weight
- 1.8 kg

Technical specifications in this catalog are up-to-date as of June 2020.

Model code

<table>
<thead>
<tr>
<th>Basic model</th>
<th>Caliber</th>
<th>Pressure sensor</th>
<th>Power supply</th>
<th>Flow direction</th>
<th>Gas type</th>
<th>Description</th>
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*1 The battery life is five years (at average environmental temperature 20 °C), and the battery can be replaced on the site. * 2 The gas type can be changed on the site. *3 The actual flow rate refers to the volume flow rate (flow rate before compensation). *4 The communications specifications are available on our web site. *5 The moving average can be selected from 1 to 16 times (default: 4 times). *6 The term “simple” here means that the pressure value is compensated by an arbitrary value (fixed value).