

OUTLINE

The **UCUF** (Ultra-Clean Ultrasonic Flowmeter) series Ultrasonic Flowmeter is designed for very low flow rate applications.

The non-wetted Sensor design, constructed of specific grade PFA material, makes the UCUF Series an ideal choice for semiconductor industry, where extreme cleanness of pipe line inside is of primary importance.

The **SFC-720** is used as a converter for **UCUF** series ultrasonic flowmeters.

Using state-of-art signal processing technology, this converter offers stable flow measurement by minimizing adverse effects caused by the bubbles contained in the flow liquids. Thus, it has achieved the reliable flow measurement of semiconductor manufacturing process and chemical liquids handling process.

Furthermore, the stability of flow measurement at low flow rate has been improved significantly by the upgrading of time resolution and high speed signal processing compared to the existing products.



FEATURES

- ☐ New signal processing has improved anti- bubbles capability of converter.
Normally, ultrasonic flowmeter has difficulty in measuring fluid containing bubbles, because the bubbles interfere with ultrasonic signal passage. In virtue of DSP and accumulated field experience, anti-bubbles capability has been remarkably improved.
- ☐ Compact size
The converter is mounted separately from the detector, and has a compact and well-shaped housing 30% smaller than the existing product.
- ☐ Coaxial connector
General purpose BNC coaxial connector common to existing products
- ☐ Cleared EMC test conforming to EN61326
- ☐ Lead free compatible
- ☐ Optimal measurement because of zero adjustment before measuring
- ☐ Measurement of high kinetic viscosity liquids as high as 40mm²/s
- ☐ Ideal detector with clean construction
- ☐ Corrosion resistant and easy installation
- ☐ Accuracy : within $\pm 1\%$ of the reading at flow velocity 1m/s or more
- ☐ Versatile functions including followings
Indication of instantaneous and totalizing flow rate
Alarm outputs of instantaneous flow rate or totalization preset output (2 points)
Various analog outputs of instantaneous flow rate are selectable.
- ☐ Easy parameter setting

STANDARD SPECIFICATIONS

Model		SFC-720	
Power supply		DC24V \pm 10%	
Consumption current		Approx. 110mA (When turning on the backlight) 400mA at start up	
Output	Flow rate	Current output type 4 to 20mA (Load resistance: 500 Ω or less)	Voltage output type 0 to 10V (Load resistance 5k Ω or more)
	Totalized pulse	Open collector pulse output Load rating: DC30V, 50mA Pulse width: 0.5ms (Max.1000Hz), 50ms (Max.10Hz), 100ms(Max.5Hz) Pulse rate: Max.1000pulse/sec	
	Alarm / Totalization preset	Open collector output (2 points) Load rating: DC30V, 50mA Action mode: NO/NC (selectable)	
	Sensor signal	Exclusive cable (BNC connector)	
Input	Totalization reset	Contact reset (One shot)	
	Connector	Weidmuller (Orange)	

- Measurable fluid: Liquids
- Fluid temperature: 10 to 60°C
(Consult us about 61°C or more.)
- Fluid sound speed: 1000 to 2200m/s
- Fluid kinematic viscosity: 0.3 to 40mm²/s
- Flow detector and Flow range

Detector	Flow range (L/min)	
	Min.	Max.
UCUF-04MB	0 to 0.05	0 to 2.0
UCUF-04K/-04PB	0 to 0.05	0 to 3.0
UCUF-06K/-06PB	0 to 0.4	0 to 8.0
UCUF-10K	0 to 1.0	0 to 20.0
UCUF-15K	0 to 3.0	0 to 50.0
UCUF-20K	0 to 4.0	0 to 80.0

* Coaxial connector is BNC connector.

* Consult us about other models.

- Low flow cutoff: 0 to 30%FS
- Linearizer: Automatic
Manual /15 line-segment approximation (Option)
- Display: LCD / 2 line 16 digital alpha-numeric with back light
Alarm: Red LED
- Ambient condition: Temperature: 0 to 50°C,
Humidity: 30 to 80%RH
- Installation: Panel mounting
- Enclosure classification: IP20 (Indoor use)
- Materials: Front panel: ABS resin
Housing: Aluminum alloy (Black alumite)
Back panel: Stainless (Silver)
- Mass: Approx. 400g

SFC-72	<input type="checkbox"/>	–	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Description
Power supply	0					DC24V
	–					–
Sensor connection		–	1			UCUF-04, 06, 10
		–	2			UCUF-15, 20
Analog output				0		4 to 20mA
				1		0 to 10V
				2		0 to 5V (Option)
				3		1 to 5V (Option)
Special				(Blank)		Not provided
				/ Z		Provided

BNC connector

Terminal	Polarity	Description
IN	Inlet	Sensor signal input
OUT	Outlet	

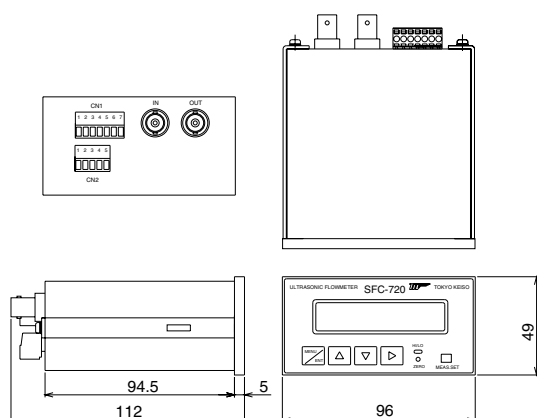
Connector 1

1	+	Power supply (DC24V)
2	–	
3	FG	Grounding
4	+	Analog output
5	–	
6	+	Reset pulse input for totalizer
7	–	

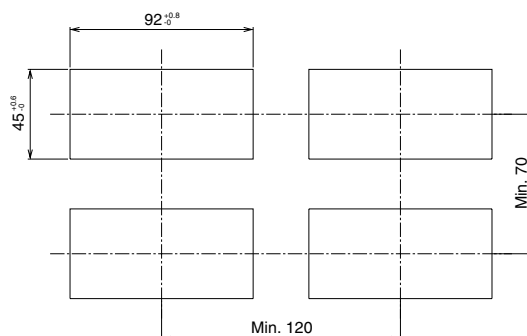
Connector 2

1	+	Pulse output
2	–	
3	+	Alarm output (Hi) / Total preset output (HH)
4	–	Alarm common
5	+	Alarm output (Lo) / Total preset output (H)

DIMENSIONS



Panel cut



* Specification is subject to change without notice.

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