

Thermal Mass Flowmeter



MTF-4000 Series

Mini-thermal mass flowmeter

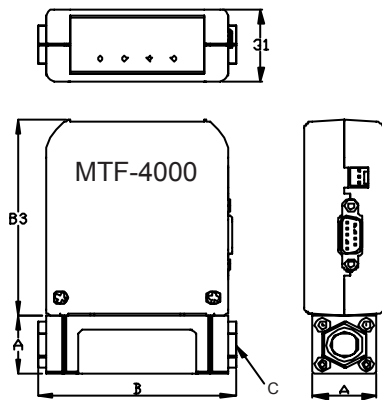
Features

- Good repeatability
- CE certification
- High sensitivity at low flowrate
- Fast response
- Totalizing pulse is available
- Good cost efficiency
- Display function is available
- RS-485 communication interface
- Temperature compensation built in

MTF-4000 series is designed for wide application including semiconductor and bio-medical industry. Low cost and high performance are achieved by using the updating circuit design, robust sensor, microprocessor technology.

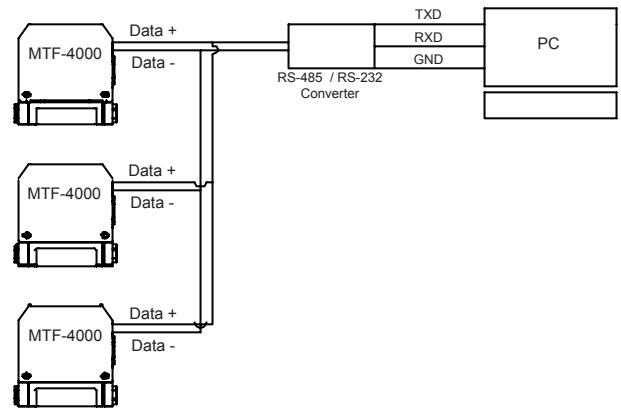
MTF-4000 has many output functions including RS-485 interface, LED display, Hi/Low alarm, open collectors and an analog output. Based on these output functions, it is very easy to handle and construct the measurement system.

Dimension

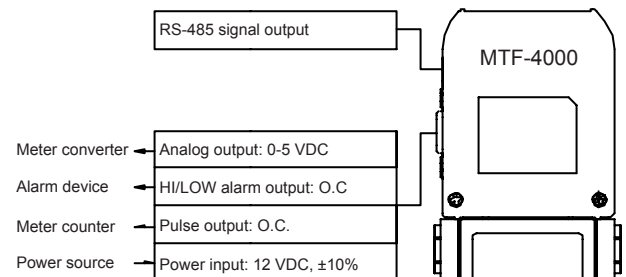


	MTF-4110 (mm)	MTF-4120 (mm)	MTF-4130 (mm)	MTF-4140 (mm)
A	25	32	38	45
B	76	76	112	136
C	Rc 1/4	Rc 3/8	Rc 1/2	Rc 3/4

RS-485 Connection Network



Power and Signal Connection



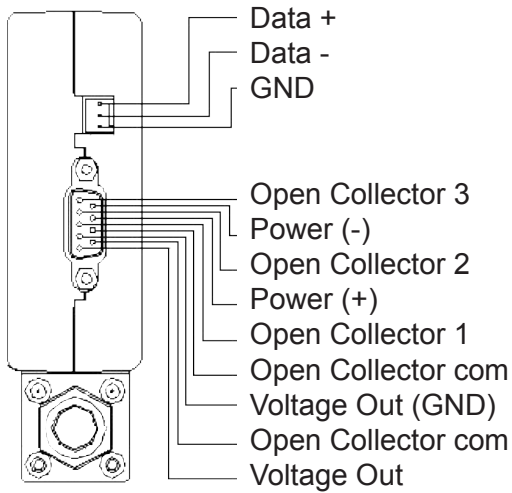
MTF-4000 Series

Specifications

Gases	All kind of gases, except gases contain more than 10%(Volume) of H ₂ or He and mixture of H ₂ or He and CnHm	
Accuracy	+/-2% F.S	
Operating Temp./ Humidity	0 to 60°C/ under 90% R.H.	
Operating Pressure	-0.07 ~ + 1.0Mpa (-0.7 to 10 Kg/cm ² G)	
Temperature Coefficient	Within +/- 0.1% of F.S. /°C	
Range ability	20:1	
Output Signal	Analog	0 to 5 VDC, or 4 to 20 mA
	Digital	RS485, 9600 baud rate
	Totalized pulse	0.1% F.S. / Pulse, Open collector (Max Capacity: 10mA/24V)
Display	Indication	5 digits 7 segment LED
	Value	Flow rate, setting value, and error
	Measuring Range	0.00 to 9.99, 10.0 to 999.9, 1000 to 1050
Alarm	LED H	ON: High Alarm OFF</=setting value
	LED L	ON: Low Alarm OFF>/= setting value
Wetted Material	Body	SCS 14
	Sensor	SUS 316, Glass, Pt, and CTFE
	Seal	Viton
Power Input	12~24 VDC Max. 200mA	
Function setting	Can be set by 4 button keys or/and with RS-485 Setting parameter: Hi/Low alarm, scaling, offset, RS-485 ID, baud rate	
Cable connector	D sub male 9 P	
RS-485 connector	3 P	
Housing Material	ABS resin (Non water proof)	

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Electrical Connection



RS 485 Communication Wire

Wire Color	Description
Red	Data(+)
Black	Data(-)
THICK Black	Shield

Output and Cable Wire

Wire Color	Description
Brown	Voltage output (+)
Red	Voltage output (-) GND
Orange	Open collector 1, upper setting alarm
Yellow	Open collector 2, lower setting alarm
Green	Open collector 3, pulse output
Blue	Open collector, COM
Purple	Open collector, COM
Black	Power (+12V)
Gray	Power (-)
THICK Black	Shield

Model Code

Model Code			Description
MTF-41	10-1	1	Pressure Gauge
Flow Ranges	10-1		0 - 2 NL/min
	10-2		0 - 5 NL/min
	10-3		0 - 10 NL/min
	10-4		0 - 30 NL/min
	10-5		0 - 50 NL/min
	10-6		0 - 80 NL/min
	10-7		0 - 100 NL/min
	20-1		0 - 150 NL/min
	20-2		0 - 200 NL/min
	20-3		0 - 250 NL/min
	30-1		0 - 300 NL/min
	30-2		0 - 400 NL/min
	30-3		0 - 500 NL/min
	40-1		0 - 600 NL/min
	40-2		0 - 800 NL/min
40-3		0 - 1000 NL/min	
Analog Output	1		0 to 5 VDC
	2		4 to 20 mA