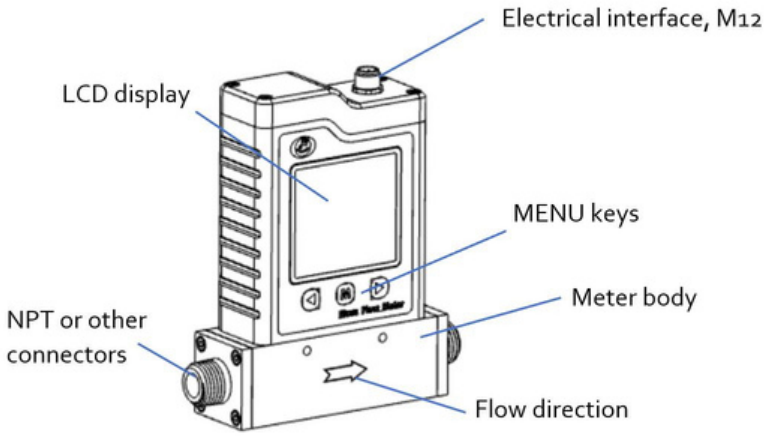
Mass Flow Meter for Gases

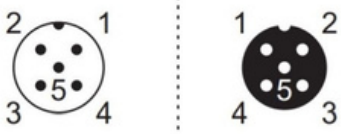
Model MF5000



This product is designed for general -purpose gas mass -flow measurement, with a metal package for high -pressure compatibility, and is rated for use in a hazardous zone. The product can be used in a variety of applications, in particular for fuel efficiency and process monitoring.

- Mass flow meter
- Metal package
- Exia IIC T4 Gb
- Gas mixing
- Fuel efficiency
- Fermentation
- Welding gas
- Medical gases





Wire	Color	Definition
1	Brown	12 ~ 24 Vdc
2	White	RS485 B (-)
3	Blue	GND, common ground
4	Black	RS485 A (+)
5	Gray	4 ~ 20 mA output

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- Mass flow meter
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Specifications

	Value	Unit
Full-scale flow range	See Table 6.1	SLPM
Accuracy	±(1.5+0.20FS)	%
Repeatability	(0.5+0.05FS)	%
Turn-down ratio	100:1	
Working temperature	-20 ~ +60	°C
Maximum pressure	1.5	MPa
Humidity	<95, no condensation	%RH
Power supply	12 ~ 24 (50 mA)	Vdc
Output*	RS485 Modbus half-duplex / 4 ~ 20 mA	
MENU access	3 key – front face keyboard/digital	
Display	Instant flow rate, Accumulated or totalized flow rate	
Mechanical connection	NPT or customized	
Hazardous rating	Ex ia IIC T4 Gb / Class I, Div. 1, zone 0, Group A, T4	
Protection	IP66	
Storage temperature	-20 ~ +70	°C
Reference conditions	20°C, 101.325 kPa, air	
Fluid compatibility	Non-corrosive	
CE	EN61326-1; -2; -3	

	MF5003	MF5006	MF5008	MF5012	MF5019	
Max. overflow	30	120	200	450	1200	SLPM
Max. flow change	4	15	30	60	150	SLPM/sec

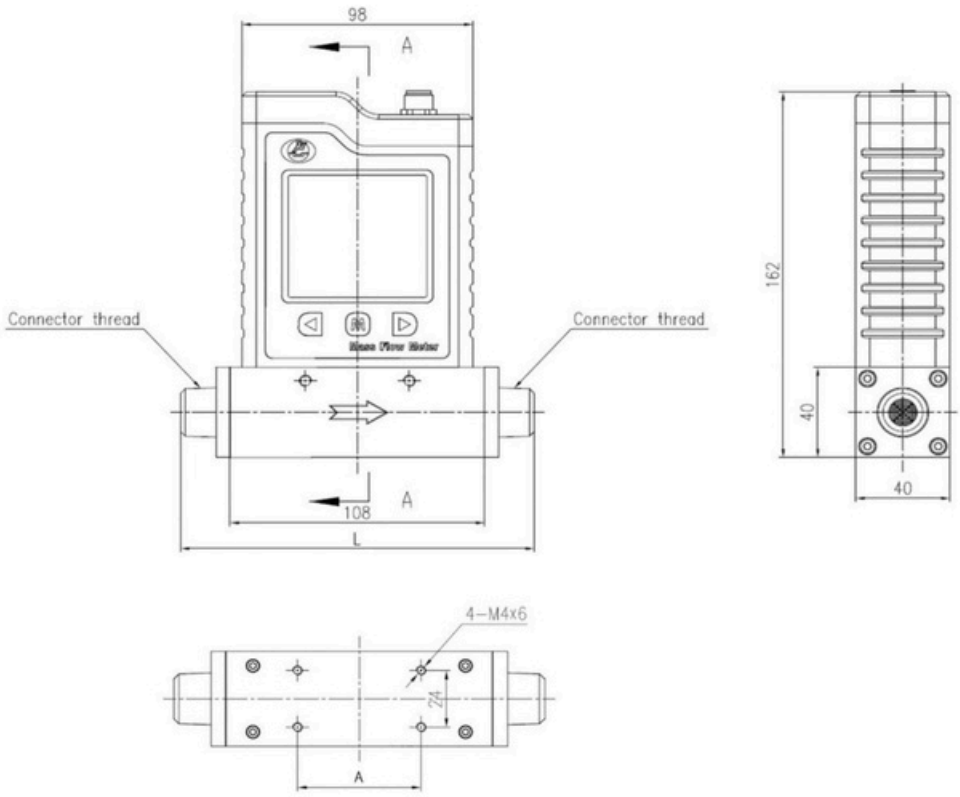
Note: For other features or specifications not listed, contact the manufacturer.

*All specifications listed in the following table, unless otherwise noted, apply for calibration conditions at 0 °C and 101.325 kPa absolute pressure with air. The product is horizontally mounted during calibration.

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Mechanical dimensions



Model	DN (mm)	D (NPTM)	L	A
MF5003	3	1/8”	138	50
MF5006	6	1/4”	144	50
MF5008	8	3/8”	144	50
MF5012	12	1/2”	150	50
MF5019	19	3/4”	182.5	70

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Product selection and order

The product part number consists of the product model number and suffixes indicating the full-scale flow rate, as well as other parameters. Refer to the following for details.

MF50 □-□-□-□-□-□-□-□-□

- Gas (**A** - air; **C** - CO_2; **E** - He; **H** - H_2; **N** - N_2; **O** - O_2; **R**- Ar. For other gases, please contact the manufacturer.)
- Display (**D** - LCD; **N** - null.)
- Output (**A** - 4 ~ 20 mA, **B** - RS485 Modbus, **N** - null. Option: **N**, **B** or **AB**.)
- Maximum working pressure (**15** - 15 bar or 1.5 MPa)
- Maximum flow rate: Refer to table 6.1.
- Minimum flow rate: Refer to table 6.1.
- Hazardous rating (**E** - Ex proof; **e** - Null.)
- Mechanical connection: Refer to table 6.1.
- DN: Refer to the Table below.

Note: Explosive proof: Ex ia IIC T_4 Gb.

Mechanical connection and flow range of all models.

Model	DN (mm)	Mechanical connection	Flow range		
			SLPM	m³/h	SCFM
MF5003	3.0	N1M: NPT 1/8 male N1F: NPT 1/8 female	0.15 ~ 15		-
MF5006	6.0	N2M: NPT 1/4 male N2F: NPT 1/4 female	0.5 ~ 50	0.03 ~ 3	0.02 ~ 2
MF5008	8.0	N3M: NPT 3/8 male N3F: NPT 3/8 female	1.2 ~ 120	0.072 ~ 7.2	0.05 ~ 5
MF5012	12.0	N4M: NPT 1/2 male N4F: NPT 1/2 female	3 ~ 300	0.18 ~ 18	0.1 ~ 10
MF5019	19.0	N6M: NPT 3/4 male N6F: NPT 3/4 female	8 ~ 800	0.48 ~ 48	0.3 ~ 30

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