



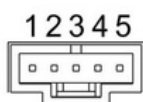
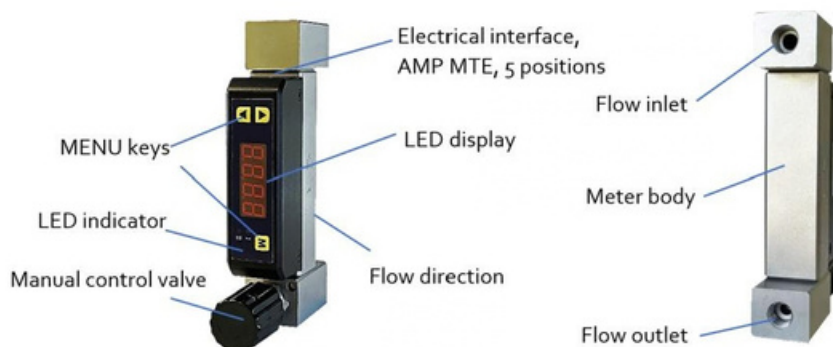
Mass Flow Controller for Gases

Model MF4600



This product is designed for general-purpose gas mass-flow measurement having a high-precision manual control valve. The product can replace a high-performance rotameter, offering mass flow, a digital data interface, and identical installation options.

- Rotameter replacement
- Metal package
- Gas process control
- Oven process
- Purge process



Wire	Color	Definition
1	Blue	RS485B (-)
2	Green	Analog output 4 ~ 20 mA /Analog output 0.5 ~ 4.5 Vdc
3	Red	Power supply, 8~24Vdc
4	Black	Ground
5	Yellow	RS485A (+)

The standard cable has an AMPMODU MTE (5-position) compatible connector and a length of 0.5 meters.



Specifications

	Value	Unit
Full-scale flow range	0~100 sccm up to 0...50 SLPM	
Accuracy	$\pm(2.0+0.5FS)$	%
Repeatability	$(0.5+0.15FS)$	%
Turn-down ratio	50:1	
Working temperature	-10 ~ +55	°C
Maximum pressure	1.0	MPa
Humidity	<95, no condensation	%RH
Power supply	8 ~ 24 (50 mA)	Vdc
Digital output	RS485 Modbus half-duplex	
Analog output	0.5 ~ 4.5 Vdc / 4 ~ 20 mA	
Electrical connector	AMPMODU MTE 5 positions	
MENU access	3 key – front face keyboard/digital	
Display	Instant flow rate, totalizer, or accumulated flow rate with LED & 2 indicators	
Control	Manual	
Mechanical connection	See Table 6.1	
Protection	IP40	
Storage temperature	-20 ~ +70	°C
Reference conditions	20°C, 101.325 kPa, air	
Fluid compatibility	Non-corrosive	
CE	EN61326-1; -2; -3	

	MF4601	MF4602	MF4603	MF4608	
Maximum overflow	2	6	30	200	SLPM
Maximum flow change	0.3	1	4	30	SLPM/sec

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

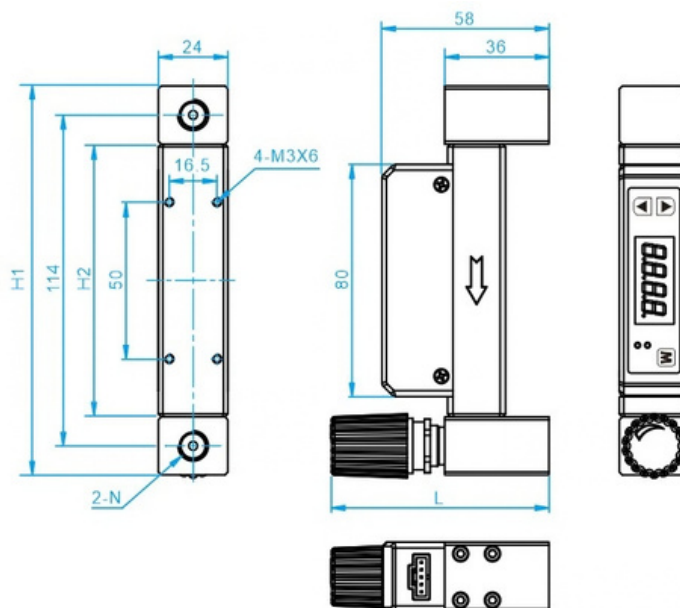
*All specifications listed in the following table, unless otherwise noted, apply for calibration conditions at 0 °C and 101.325 kPa absolute pressure with air. The product is horizontally mounted during calibration.

- Rotameter
- replacement
- Metal package
- Gas process
- control
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- Rotameter replacement
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Mechanical dimensions



Model	DN (mm)	N *	L **	H1	H2
MF4601	1.0	NPT 1/8" ~ 1/4" BSPT 1/8" ~ 1/4"	88	138	90
MF4602	2.0	NPT 1/8" ~ 1/4" BSPT 1/8" ~ 1/4"	73 ~ 80	134	94
MF4603	3.0	NPT 1/8" ~ 1/4" BSPT 1/8" ~ 1/4"	73 ~ 80	134	94
MF4608	8.0	NPT 1/4" ~ 3/8" BSPT 1/4" ~ 3/8"	73 ~ 80	138	90

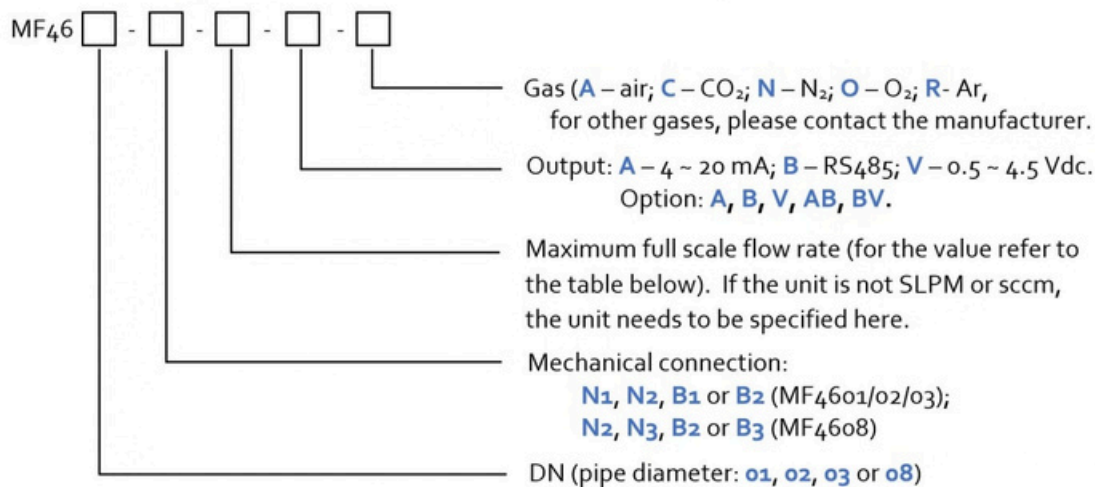
Note: * Other threads can be customized. For a barbed connection, please use a converter.

** The range is from valve closed to valve fully open.



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.



Mechanical connection and full-scale flow range of all models.

Model	DN (mm)	Mechanical Connection	Flow range		
			sccm	SLPM	SCFH
MF4601	1.0	N1 - NPT 1/8" -female, N2 - NPT 1/4" -female, B1 - BSPT 1/8" -female, B2 - BSPT 1/4" -female	0 ~ 100, 200		
MF4602	2.0		0 ~ 500, 1000	0 ~ 1	0 ~ 1, 2
MF4603	3.0			0 ~ 2, 5	0 ~ 5, 10
MF4608	8.0	N2 - NPT 1/4" -female, N3 - NPT 3/8" -female, B2 - BSPT 1/4" -female, B3 - BSPT 3/8" -female		0 ~ 10, 20, 50	0 ~ 20, 50, 100