

EDC-500 Series



INTRODUCTION

In addition to continuing the advanced "temperature difference automatic balancing technology" sensor of the previous generation, the EDC-500 series also combines ultra-high stability and accuracy measurement sensors with fast, precise control valves and powerful electronic components. Together they achieve precise gas process control. High-integrity ultra-high-purity all-metal flow path and long-term effective sealing performance ensure the purity of the process. The EDC-500 series is very suitable for the semiconductor industry and high-purity gas applications.

APPLICATION AREA

Semiconductor manufacturing processes, thin film deposition systems, epitaxial process systems, precision surface coating systems, high vacuum equipment, analysis systems and other fields.

CHARACTERISTIC

- ◆ Long term zero point stability
- ◆ High-precision measurement and control
- ◆ Fast response, high repeatability
- ◆ All-metal sealed flow path
- ◆ Multi-media/multi-range adjustable function
- ◆ DeviceNet, RS-485 and analog interfaces

SPECIFICATIONS

Control range and working pressure

Model	Maximum full scale (N2 standard)	Minimum full scale (N2 standard)	Maximum working pressure
EDC-510/1	10 SLM	3 SCCM	500 Psi / 100 Bar
EDC-520/1	30 SLM	10 SCCM	500 Psi / 30 Bar

Note: SCCM (standard milliliters per minute) SLM (standard milliliters per minute) standard conditions (0°C, 101.3Kpa)

Performance

Flow Accuracy	±0.8% R.D and ±0.2% F.S
Repeatability	±0.2% F.S
Control Range	1~100% F.S
Response Time	<1s
Temperature Coefficient	Zero: <0.05% of F.S/ °C. Span: <0.1% of S.P /°C
Pressure Coefficient	0.2% of S.P/ Bar
Operating Temperature	0~50°C
Leak Rate	1x10 ⁻⁹ atm. cc/sec He
Preheat Time	5 min accuracy to ±2% F.S (30 min to achieve the best accuracy)

Electrical parameters

Power Supply	+15~24 V dc
Maximum Power Consumption	10W (MFC) ; 3W (MFV)
Digital Communication	RS-485 (modbus Rtu协议)
Analog Communication	0~5 V / 4~20mA
Fittings	9-pin D-Connector (male) / DeviceNet Connector

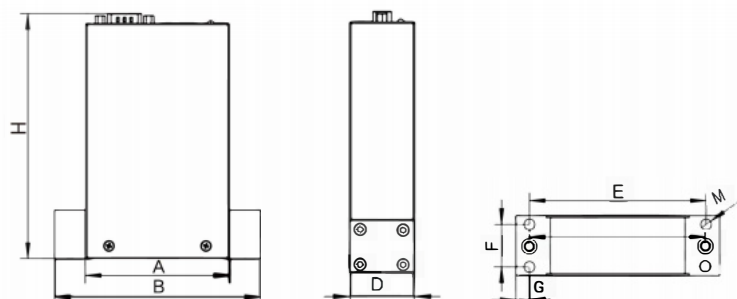
Mechanical parameters

Valve Type	Normally closed (MFM meaningless)
Substrate Material	316L stainless steel
Sealing Material	Rubber seal/metal seal
Fittings	1/4" VCR / IGS

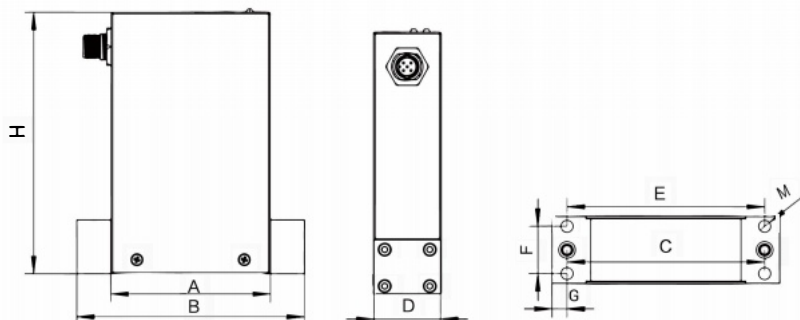


SIZE(mm)&WEIGHT(kg)

EDC 51xA/52xA



EDC-51xB/52xB



Selection table SIZE&WEIGHT

EDC	5N	N
Product Series	Full scale range	Product type
High quality digital series	Select according to the range table	0 Controller 1 Flow meter A DB9 connector B DeviceNet connector

Model	A	B	C	D	H	E	F	G	M	Weight
EDC-510A/1A	74	106	92	31	125	92	22	7	5.8	0.6
EDC-520A/1A	74	106	92	31	125	92	22	7	5.8	0.6
EDC-510B/1B	74	106	92	31	120	92	22	7	5.8	0.6
EDC-520B/1B	74	106	92	31	120	92	22	7	5.8	0.6

