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Mass Flow controller model	SEC-N112MGM SEC-N114MGM SEC-N116MGM	SEC-N112MGR SEC-N114MGR SEC-N116MGR	SEC-N122MGM SEC-N124MGM SEC-N126MGM	SEC-N122MGR SEC-N124MGR SEC-N126MGR	SEC-N132MGM SEC-N134MGM SEC-N136MGM	SEC-N132MGR SEC-N134MGR SEC-N136MGR	SEC-N142MGM SEC-N144MGM SEC-N146MGM	SEC-N142MGR SEC-N144MGR SEC-N146MGR
Mass Flow meter model	SEF-N112MGM SEF-N114MGM SEF-N116MGM	SEF-N112MGR SEF-N114MGR SEF-N116MGR	SEF-N122MGM SEF-N124MGM SEF-N126MGM	SEF-N122MGR SEF-N124MGR SEF-N126MGR	SEF-N132MGM SEF-N134MGM SEF-N136MGM	SEF-N132MGR SEF-N134MGR SEF-N136MGR	SEF-N142MGM SEF-N144MGM SEF-N146MGM	SEF-N142MGR SEF-N144MGR SEF-N146MGR
Full-scale flow rate (N <sub>2</sub> conversion flow rate)	R01 : 10SCCM R1.5 : 17.5SCCM 01 : 30SCCM 1.5 : 55SCCM 02 : 100SCCM 2.5 : 175SCCM 03 : 300SCCM 3.5 : 550SCCM 04 : 1SLM 4.5 : 1.75SLM 05 : 3SLM 5.5 : 5.5SLM 06 : 10SLM		6.5: 22SLM 07 : 30SLM 08 : 50SLM		09: 100SLM		10 : 200SLM	
Valve type	C: Normally closed				O: Normally open/C: Normally closed			
Flow rate at fully closed control valve	≤2% F.S.							
Flow rate control range	2-100% of F.S.							
Flow rate measuring range (SEF)	0-100% of F.S.							
Accuracy *1	±1.0% S.P. (Flow rate > 30% F.S.) ±0.3% F.S. (Flow rate ≤ 30% F.S.)				±1.0% S.P. (Flow rate > 35% F.S.) ±0.35% F.S. (Flow rate ≤ 35% F.S.)			
Operating temperature	5 to 50°C (recommended temperature range: 15 to 45°C)							
Response	≤ 1 second: Over full flow rate range							
Linearity	≤ ±0.5% F.S.							
Repeatability	≤ ±0.2% F.S.							
Operating differential pressure	50 to 300kPa (d) MR, MG-5.5, 06:100 to 300kPa (d)		200 to 300kPa (d)		100 to 300kPa (d)		200 to 300kPa (d)	
Operating differential pressure (SEF)	≤ 300kPa (d)							
MAX. Operating pressure	450kPa (d)							
Pressure resistance	1000kPa (d)							
Leak integrity	≤5x10 <sup>-12</sup> Pa·m <sup>3</sup> /s (He)	≤1x10 <sup>-10</sup> Pa·m <sup>3</sup> /s (He)	≤5x10 <sup>-12</sup> Pa·m <sup>3</sup> /s (He)	≤1x10 <sup>-10</sup> Pa·m <sup>3</sup> /s (He)	≤5x10 <sup>-12</sup> Pa·m <sup>3</sup> /s (He)	≤1x10 <sup>-10</sup> Pa·m <sup>3</sup> /s (He)	≤5x10 <sup>-12</sup> Pa·m <sup>3</sup> /s (He)	≤1x10 <sup>-10</sup> Pa·m <sup>3</sup> /s (He)
Wetted materials	SUS316L PTFE magnetic stainless	SUS316L PTFE magnetic stainless Viton	SUS316L PTFE magnetic stainless	SUS316L PTFE magnetic stainless Viton	SUS316L	SUS316L Viton	SUS316L	SUS316L Viton
Standard fitting	1/4 inch VCR equivalent				1/2 VCR equivalent			
Mounting orientation	Free							

\*1 Guarantee temperature of 1 flow rate accuracy is based on SEMI standards E56-1296. This is accuracy for full-scale point of MR·MG number.

\* SCCM, SLM are numbers that represent flow rate (mL/min, L/min, at 0° C 101.3 kPa)

### ▶ Transmission/power supply

#### Digital/Analog transmission model

##### SEC-N102 series

Mass Flow controller model	SEC-N112MGM	SEC-N112MGR	SEC-N122MGM	SEC-N122MGR	SEC-N132MGM	SEC-N132MGR	SEC-N142MGM	SEC-N142MGR
Mass Flow meter model	SEF-N112MGM	SEF-N112MGR	SEF-N122MGM	SEF-N122MGR	SEF-N132MGM	SEF-N132MGR	SEF-N142MGM	SEF-N142MGR
Flow rate setting signal	0.1 to 5 VDC (2% to F.S.); Input impedance 1MΩ or higher							
Flow rate output signal	0 to 5 VDC (0% to F.S.); Minimum load resistance 2kΩ							
Digital interface	With address function: RS-485 (transmission speed 38400bps) F-NET Protocol							
Power supply	+15V±5% 150mA -15V±5% 200mA		+15V±5% 150mA -15V±5% 250mA		+15V±5% 150mA		-15V±5% 150mA	

#### DeviceNet™ transmission model

##### SEC-N104 series

Mass Flow controller model	SEC-N114MGM	SEC-N114MGR	SEC-N124MGM	SEC-N124MGR	SEC-N134MGM	SEC-N134MGR	SEC-N144MGM	SEC-N144MGR
Mass Flow meter model	SEF-N114MGM	SEF-N114MGR	SEF-N124MGM	SEF-N124MGR	SEF-N134MGM	SEF-N134MGR	SEF-N144MGM	SEF-N144MGR
Digital interface	DeviceNet™ Protocol							
Power supply	Comforming to ODV A standards, DC24V 7.0VA				Comforming to ODV A standards, DC24V 4.0VA			

DeviceNet

#### PROFIBUS transmission/Analog transmission

##### SEC-N106 series

Mass Flow controller model	SEC-N116MGM	SEC-N116MGR	SEC-N126MGM	SEC-N126MGR	SEC-N136MGM	SEC-N136MGR	SEC-N146MGM	SEC-N146MGR
Mass Flow meter model	SEF-N116MGM	SEF-N116MGR	SEF-N126MGM	SEF-N126MGR	SEF-N136MGM	SEF-N136MGR	SEF-N146MGM	SEF-N146MGR
Flow rate setting signal	0.1 to 5VDC/0.2 to 10VDC/4.32 to 20mA (2% to F.S.)							
Flow rate output signal	0 to 5 VDC/0 to 10VDC/4 to 20mA (0% to F.S.)							
Digital interface	PROFIBUS Protocol							
Power supply	24VDC (13 to 32VDC) 7.5VA				24VDC (13 to 32VDC) 4.5VA			

PROFIBUS