HORIBA

STEC Fluid Control Technology

Digital Mass Flow Controller

SEC-N100 Series

Digital/Analog model

SEC-N102 Fitting to fitting 124

SEC-N102W Fitting to fitting 106

DeviceNet™ model

DeviceNet

SEC-N104 Fitting to fitting 124

SEC-N104W Fitting to fitting 106

PROFIBUS model

24 V DC, 4 - 20 mA

SEC-N106 Fitting to fitting 124

High accuracy
±1.0% S.P.

High-speed response
1 second response at any setpoint

Flexible
Muti-gas,Multi-range

RoHS compliant product

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Automotive Test Systems | Process & Environmental | Medical | Semiconductor | Scientific

HORIBA

A variety of communication, fitting-to-fitting dimensions and flow control ranges to suit customer needs.

HORIBA STEC has built an enviable reputation in markets throughout the world by delivering products with superior performance specifications and excellent reliability.

The SEC-N100 Series of mass flow controllers from HORIBA STEC is designed for use in a wide range of applications ranging from the controlled delivery of process gases for solar cell manufacturing to high accuracy bench-top gas blending.
Our considerable experience and expertise in the measurement and control of gases for all applications is reflected in the development of our industry-leading-edge SEC-N100 Series which is available in with digital/analog, DeviceNet™ and PROFIBUS communication models as well as a variety of fittings, sizes and flow rate control ranges.

Multiple Configulation Options

Communication options include digital/analog, DeviceNet™ and PROFIBUS/analog.
A choice of two fitting-to-fitting dimensions is provided: 124 mm – and 106 mm – (W Series).
The flow rate control range extends from 10 SCCM to 200 SLM. SEC-N100 Series is suitable for a wide variety of applications where gas control is required.

Flow rate control range (Full-scale flow rate)	Digital communication RS485 F-Net Protocol / Analog communication 0 5 V DC — Power supply ±15 V DC (±5%) Dedicated power supply PE Series are aveirable.		DeviceNet™ communication — Conforming to ODVA standard		PROFIBUS communication / Analog communication 0 5 V DC, 0 10 V DC 4 20 mA — Power supply 24 V DC 13 32 V DC
	SEC-N102 Series Fitting to fitting 124	SEC-N102W Series Fitting to fitting 106	SEC-N104 Series Fitting to fitting 124	SEC-N104W Series Fitting to fitting 106	SEC-N106 Series Fitting to fitting 124
10 SCCM 10 SLM	SEC-N112	SEC-N112W	SEC-N114	SEC-N114W	SEC-N116
50 SLM	SEC-N122	SEC-N122W	SEC-N124	SEC-N124W	SEC-N126
100 SLM	SEC-N132 Fitting to fitting : 132 mm —	—	SEC-N134 Fitting to fitting : 132 mm —	—	SEC-N136 Fitting to fitting : 132 mm —
200 SLM	SEC-N142 Fitting to fitting : 132 mm —	—	SEC-N144 Fitting to fitting : 132 mm —	—	SEC-N146 Fitting to fitting : 132 mm —

- Avairable with Swagelok fittings (1/4 inch fitting to fitting dimensions : 127mm)
- Flow rate control: available from 2% of full scale flow rate

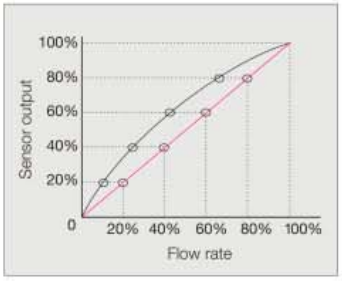
High accuracy

High S.P. accuracy

MFC' s linearity is compensated using a polynomial approximated curve. This achieves high accuracy for all flow control ranges. Each process gas is individually characterized in the HORIBA STEC standard gas measurement system using the actual gas - not a reference or surrogate gas.

Accuracy	±1.0% S.P.	: 30–100% F.S.
	±0.3% F.S.	: ≤30% F.S.

(SEC-N11X(W)/N12X(W))

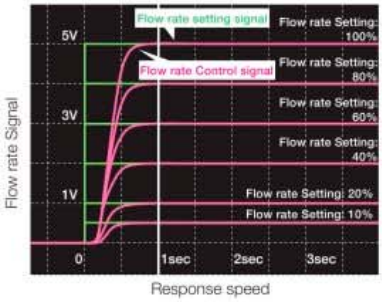


$y=ax^5+bx^4+cx^3+dx^2+ex+f$

High-speed response throughout the flow rate range

New variable PID algorithm: 1 second high-speed response

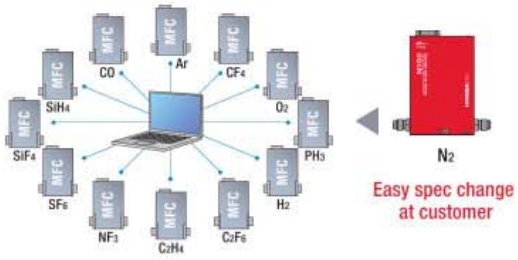
SEC-N100 Series uses the latest "Variable PID system", which enables 1 second response to all set-points. This system changes the PID continuously for optimum response to flow setting changes, ensuring fast response even when the full scale range or specified gas is changed using the SEC-Z500X Software.



Multi-range, multi-gas solution

Exclusive software allows users to easily alter MFC configuration

Users can modify the full-scale range or gas type using a simple PC connection.



Suitable for multiple type of gas

Easily change a type of gas

Example SEC-N100 MR•MG-02 — N_2 100 SCCM ▶ Ar 110 SCCM

Suitable of multiple ranges

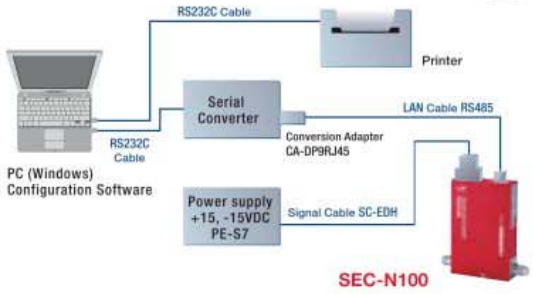
Easily change a full-scale flow rate control range.

Example SEC-N100 MR•MG-04 — N_2 1000 SCCM ▶ N_2 250 SCCM

N_2 1000 SCCM	N_2 250 SCCM
Flow rate control range 20 1000 SCCM	Flow rate control range 5 250 SCCM

Exclusive software: Configuration Software

This software makes it possible to select MR/MG numbers simply by entering the type of gas being used and the flow rate range, and also features a handy N_2 gas conversion feature for flow rate measurements using N_2 gas during receipt inspections.



To ensure that the software is used without error, HORIBA STEC offers software operation seminars, please contact your HORIBA

Product specifications

Common specifications

Mass Flow controller model	SEC-N112MGM(W) SEC-N114MGM(W) SEC-N116MGM	SEC-N112MGR(W) SEC-N114MGR(W) SEC-N116MGR	SEC-N122MGM(W) SEC-N124MGM(W) SEC-N126MGM	SEC-N122MGR(W) SEC-N124MGR(W) 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(W) SEF-N114MGM(W) SEF-N116MGM	SEF-N112MGR(W) SEF-N114MGR(W) SEF-N116MGR	SEF-N122MGM(W) SEF-N124MGM(W) SEF-N126MGM	SEF-N122MGR(W) SEF-N124MGR(W) 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_2 conversion flow rate)	R01 : 10 SCCM R1.5: 17.5 SCCM 01 : 30 SCCM 1.5 : 55 SCCM 02 : 100 SCCM 2.5 : 175 SCCM 03 : 300 SCCM 3.5 : 550 SCCM 04 : 1 SLM 4.5 : 1.75 SLM 05 : 3 SLM 5.5 : 5.5 SLM 06 : 10 SLM		6.5: 22 SLM 07 : 30 SLM 08 : 50 SLM		09: 100 SLM		10 : 200 SLM	
Valve type	C: Normally close				C: Normally close / O: Normally open			
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 300 kPa (d) MR, MG-5.5, 06:100 to 300 kPa (d)		200 to 300 kPa (d)		100 to 300 kPa (d)		200 to 300 kPa (d)	
Operating differential pressure (SEF)	≤ 300 kPa (d)							
MAX.Operating pressure	450 kPa (d)							
Pressure resistance	1000 kPa (d)							
Leak integrity *2	≤5x10^{-13}Pa•m^3/s (He)	≤1x10^{-10}Pa•m^3/s (He)	≤5x10^{-13}Pa•m^3/s (He)	≤1x10^{-10}Pa•m^3/s (He)	≤5x10^{-12}Pa•m^3/s (He)	≤1x10^{-10}Pa•m^3/s (He)	≤5x10^{-12}Pa•m^3/s (He)	≤1x10^{-10}Pa•m^3/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, 1/4 inch Swagelok equivalent *3				1/2 VCR equivalent			
Mounting orientation	Free							

*1 Guarantee temperature of flow rate accuracy is based on SEMI standards E56-1296. This is accuracy for full-scale point of MR,MG number.
*2 Per SEMI standards E16-90.
*3 1/4 Swagelok equivalent is applicable with SEC-N100W Series.
• SCCM, SLM are numbers that represents flow rate (mL/min, L/min, at 0°C101.3 kPa).
• Note that components or production methods may be modified for productivity reasons at any time without notice provided that such modification does not alter the product specifications.

Communication/power supply

Digital/Analog communication model

SEC-N102(W) Series

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

DeviceNet™ communication model

SEC-N104(W) Series

Mass Flow controller model	SEC-N114MGM(W)	SEC-N114MGR(W)	SEC-N124MGM(W)	SEC-N124MGR(W)	SEC-N134MGM	SEC-N134MGR	SEC-N144MGM	SEC-N144MGR
Mass Flow meter model	SEF-N114MGM(W)	SEF-N114MGR(W)	SEF-N124MGM(W)	SEF-N124MGR(W)	SEF-N134MGM	SEF-N134MGR	SEF-N144MGM	SEF-N144MGR
Digital interface	DeviceNet™ Protocol							
Power supply	Comforming to ODVA standards, 24 V DC 7.0 VA				Comforming to ODVA standards, 24 V DC 4.0 VA			

PROFIBUS communication/Analog communication

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 5 V DC/0.2 to 10 V DC/4.32 to 20 mA (2% to F.S.)							
Flow rate output signal	0 to 5 V DC/0 to 10 V DC/4 to 20 mA (0% to F.S.)							
Digital interface	PROFIBUS-DP Protocol							
Power supply	24 V DC (13 to 32 V DC) 7.5 VA				24 V DC (13 to 32 V DC) 4.5 VA			

Selecting a model

model						specification										
Ⓐ	Ⓑ	Ⓒ	MG	Ⓓ	Ⓔ	Ⓕ	Ⓖ	1	Ⓗ	Ⓘ	MR	Ⓙ	Ⓚ	Ⓛ	Ⓜ	Ⓝ
(ex.)SEC-N1	1	2	MG	M	W	C	T	1	—	—	MR	MG-04	1SLM	4CR	L	N_2

Ⓐ Model
SEC-N1: Mass flow controller
SEF-N1: Mass flow meter

Ⓑ Full-scale flow rate
1: 10 SLM (N_2 equivalent flow rate)
2: 50 SLM (N_2 equivalent flow rate)
3: 100 SLM (N_2 equivalent flow rate)
4: 200 SLM (N_2 equivalent flow rate)

Ⓒ Communication mode
2: Digital communication (RS-485/F-net Protocol), Analog communication (voltage signal)
4: DeviceNet™ communication
6: PROFIBUS communication , Analog communication (voltage signal/current signal)

Ⓓ Seal
M : Metal seal
R : Rubber seal

Ⓔ Width dimensions
Blank : 1.125inch
W : 1.5inch
*N-106 Series are blank only.

Ⓕ Valve type
Blank: for SEF
C : normally close
O : normally open; applicable with SEC-N13X, SEC-N14X

Ⓖ Connector position
T: Top of case (standard)
S: Side of case (applicable with SEC-N104(W))

Ⓗ DeviceNet™ output range
Blank : applicable with SEC-N102(W) and SEC-N106
1 : DeviceNet™ model
: Full-scale flow rate output 100% F.S.
3 : DeviceNet™ model
: Full-scale flow rate output 133% F.S.
5 : DeviceNet™ model
: Full-scale flow rate output 133.329% F.S.

Ⓘ PROFIBUS communication: voltage/current select
Blank : applicable with SEC-N102(W) and SEC-N104(W)
A : setting/output signal 0~5 V DC
B : setting/output signal 0~10 V DC
C : setting/output signal 4~20 mA

Ⓙ Multi-range, multi-gas (MR, MG) numbers
Please specify MR, MG numbers.
For details, please see the specifications below.

Ⓚ Full-scale flow rate
Please specify full-scale flow rate.

Ⓛ Joint
4CR: 1/4 VCR male type fitting (applicable with SEC-N11X and SEC-N12X)
8CR: 1/2 VCR male type fitting (applicable with SEC-N13X and SEC-N14X)
4IS : 1/4 Swagelok male type fitting (applicable with SEC-N100W Series)

Ⓜ Fitting to fitting dimensions
B : 106mm (1/4 VCR male type fitting. Applicable with SEC-N11XW and SEC-N12XW)
L : 124mm (1/4 VCR male type fitting. Applicable with SEC-N11X and SEC-N12X)
M: 127mm (1/4 Swagelok male type fitting. Applicable with SEC-N11XW and SEC-N12XW)
S : 132mm (1/2 VCR male type fitting. Applicable with SEC-N13X and SEC-N14X)
J : 150.4mm (1/2 VCR male type fitting. Applicable with SEC-N13X and SEC-N14X)
G : 177mm (1/2 VCR male type fitting. Applicable with SEC-N13X and SEC-N14X)

Ⓝ Types of gas
Blank : type of gas is not specified by MR,MG compatibility gas name.
ex.N_2 : gas being used

• For ultra-clean model, we recommend the SEC-Z500X Series.

Gas and full-scale flow rate table (e.g.)

type of gas / MR,MG number	N_2	Ar	H_2	He	CO_2	CH_4
SEC-N112(W), SEC-N114(W), SEC-N116						
R01	3-10	4-11	—	4-12	3-8	2-7
R1.5						
01	10-30	11-35	8-30	10-38	7-25	6-22
1.5						
02	25-100	35-110	25-100	33-120	21-83	19-75
2.5						
03	75-300	110-350	75-300	99-380	64-250	57-220
3.5						
04	250-1000	350-1100	250-1000	330-1300	210-830	190-750
4.5						
05	750-3000	1100-3500	750-3000	1100-4100	610-2400	590-2300
5.5						
06	2500-10000	3500-11000	2500-10000	3900-13000	2000-8000	2000-7800
SEC-N122(W), SEC-N124(W), SEC-N126						
6.5						
07	10000-30000	10000-30000	10000-30000	12000-30000	7300-21000	5800-22000
08	30000-50000	30000-50000	30000-50000	30000-50000	21000-35000	—
SEC-N132, SEC-N134, SEC-N136						
09	50000-100000	—	—	—	35000-75000	—
SEC-N142, SEC-N144, SEC-N146						
10	100000-200000	—	—	—	—	—

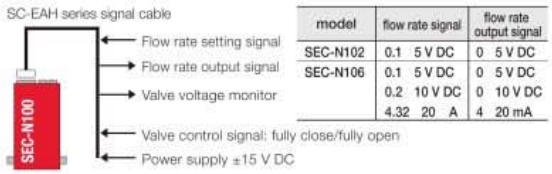
• Gases shown above are for reference only. Software includes data for gases / mixtures other than those listed above.

Unit:SCCM

Connector examples

Analog communication

Using an external power source and control signal



model	flow rate signal	flow rate output signal
SEC-N102	0.1 5 V DC	0 5 V DC
SEC-N106	0.1 5 V DC	0 5 V DC
	0.2 10 V DC	0 10 V DC
	4.32 20 A	4 20 mA

Signal cable SC-EAH Series is applicable with SEC-N102(W)

SEC-N102(W) Analog connector

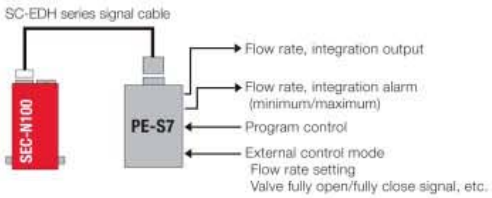
1	Compulsory valve open/close signal *1
2	Flow rate output signal 0 to 5 V DC(minimum load resistance 2kΩ)
3	Power supply : 15 V DC
4	Power supply : common *2
5	Power supply : 15 V DC
6	Flow rate setting signal : 0 to 5 V DC (input impedance 1MΩ or higher) *1
7	Signal : common *2
8	Signal : common *2
9	Valve position monitoring

Connector used: D-subminiature 9-contact-pin (with M3 fastening screws)

*1 SEF series is N.C.

*2 The pin No.4 common power source and pin No.7 common signal should be connected at the GND side of power supply for preventing change of common voltage by valve power supply.
No.7 and No.8 common signal are connected inside.

Using various functional power control unit, PE-S7



Signal cable SC-EDH Series is applicable with SEC-N102(W)

SEC-N106 Analog connector

1	Compulsory valve open/close signal *1
2	Flow rate output signal
3	Power supply (13 to 32 V DC) *2
4	Signal : common
5	Power supply : common (0 V DC) *2
6	Flow rate setting signal *1
7	Flow rate output signal :common
8	Flow rate setting signal :common
9	Valve position monitoring

Connector used: D-subminiature 9-contact-pin (with #4-40 UNC inch screws)

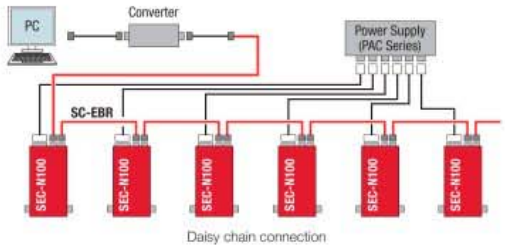
*1 SEF series is N.C.

*2 Power circuit and input-output adapter are isolated.

* Impedance of flow rate setting signal input
0 to 5 V DC, 0 to10 V DC: 1M Ω, 4 to 20 mA: 250Ω

Load resistance of flow rate output signal
0 to 5 V DC : Minimum load resistance 2kΩ, 0 to10 V DC: minimum load resistance: 5kΩ
4 to 20 mA : Maximum load resistance 250Ω

Digital communication



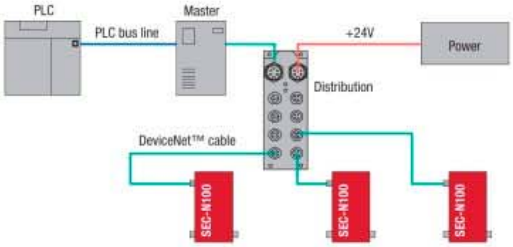
Daisy chain connection

RS485 digital communication

1	Digital signal : common
2	Digital signal : common
3	N.C.
4	Serial output ()
5	Serial output ()
6	N.C.
7	N.C.
8	N.C.

Connector used: RJ45 connector

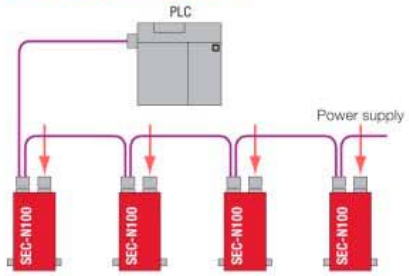
DeviceNet™communication



DeviceNet™communication

DeviceNet™ is an open and global field network that was developed by the ODVA (Open DeviceNet™ Vendors Association, Inc.) as a unique means for supporting standardization worldwide. The ODVA offers EDS (Electronic Data Sheet) specifications, which are designed to allow shared operability and programming on a multi-vendor environment. The ODVA also carries out conformance testing. Device that have passed the ODVA's conformance testing can display the DeviceNet logo.

PROFIBUS communication



PROFIBUS communication

PROFIBUS is an open field bus that is certified IEC61158. It is composed of PROFIBUS-DP for factory automation and PROFIBUS PA for process automation. PROFIBUS Organization supports standardization worldwide.

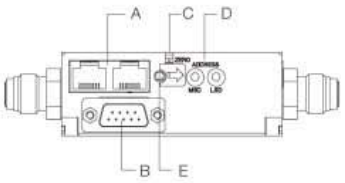
PROFIBUS communication connector

1	N.C.
2	N.C.
3	RXD/TXD-P
4	CNTR-P
5	Digital ground
6	V.P.
7	N.C.
8	RXD/TXD-N
9	N.C.

Connector used
D-subminiature 9-contact-socket connector
(with #4-40 UNC inch screws)

Digital/Analog model

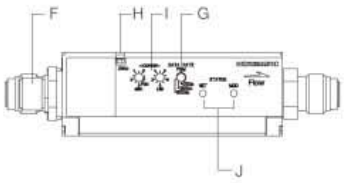
SEC-N102(W) Series



Code	Name	Account
A	Digital transmission connector	RS-485 communication. Daisy chain connection is available
B	Analog connector	Provision of power supply. For analog transmission
C	ZERO adjust switch	Switch for correcting ZERO-point
D	Address setting switch	It is possible to set in the range of 0×01 to 0×99
E	Indicator LED	While analog communication, green lights turns on. (When alarm and correct ZERO-point, red lights turn on)

DeviceNet™ model

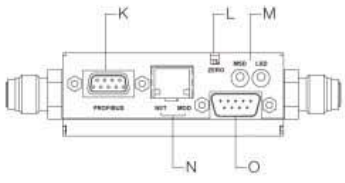
SEC-N104(W) Series



Code	Name	Account
F	DeviceNet™connector	For DeviceNet™ communication. Shield Micro-connector
G	Transmission setting switch	Transmission speed setting
H	ZERO adjust switch	Switch for correcting ZERO-point
I	Address setting switch	It is possible to set in the range of 00 to 63.
J	Indicator LED	NET: it represents condition of network. MOD: it represents conditon of node.

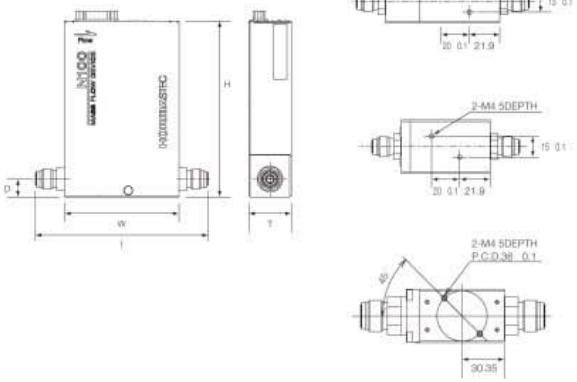
PROFIBUS/Analog model

SEC-N106 Series



Code	Name	Account
K	PROFIBUS Connector	For PROFIBUS communication
L	ZERO adjust switch	Switch for correcting ZERO-point
M	Address setting switch	It is possible to set in the range of 0×01 to 0×7D
N	Indicator LED	NET: it represents condition of network. MOD: it represents conditon of node.
O	Analog connector	Provision of power supply. For analog communication

External dimensions



model	H	T	W	I		D	position of fastened screws
				1/4VCR type	1/2VCR type		
SEC-N112	126±1	30.5±0.5	81.8	124±1 (4CRL)	—	12.7	See left diagram
SEC-N122							
SEC-N112W	126±1	38±0.5	63.8	106±1	—	12.7	See left diagram
SEC-N122W							
SEC-N132	139±1	38.3±0.5	70.4	—	132(8CRS) 150.4(8CRJ) 177(8CRG)	18.5	See left diagram
SEC-N142							
SEC-N114	126±1	30.5±0.5	81.8	124±1 (4CRL)	—	12.7	See left diagram
SEC-N124							
SEC-N114W	126±1	38±0.5	63.8	106±1	—	12.7	See left diagram
SEC-N124W							
SEC-N134	150±1	38.3±0.5	70.4	—	132(8CRS) 150.4(8CRJ) 177(8CRG)	18.5	See left diagram
SEC-N144							
SEC-N116	136±1	30.5±0.5	81.8	124±1 (4CRL)	—	12.7	See left diagram
SEC-N126							
SEC-N136	136±1	38.3±0.5	70.4	—	132(8CRS) 150.4(8CRJ) 177(8CRG)	18.5	See left diagram
SEC-N146							

(Unit mm)

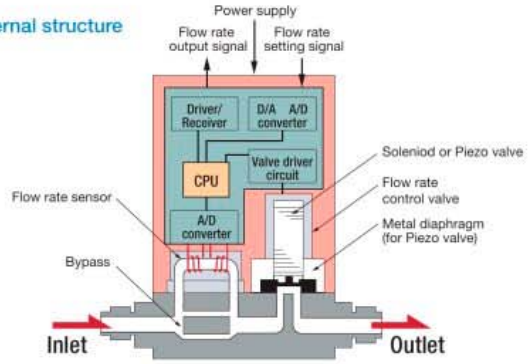
Structure and operating principles of digital mass flow controller

The general structure of the SEC-N100 Series of mass flow controller is shown in the diagram to the right. These mass flow controllers have flow rate measurement section that includes a sensor, bypass, flow rate control valve, and special circuitry. A CPU is part of the circuitry, which makes it both multi-functional and highly efficient.

The gas is input from an inlet joint, and is divided so that it flows over both the flow rate sensor and a bypass. The sensor measures the mass flow rate of the gas, and the flow rate control valve modifies the flow rate so that the difference between the measured flow rate and the flow rate received from the external flow rate setting signal is 0 (zero).

The units feature a loop circuit, so even if there is a secondary pressure change or ambient temperature change that could affect the supply pressure of the introduced gas, the flow rate is instantaneously corrected, which ensures stable flow rate control.

Internal structure



Dedicated Accessories

Multifunctional controller

PE-S7

The PE-S7, which comes with a program setting function, a preset function, and an integration function, is a RoHS-compliant multifunctional controller. Its front control panel offers improved ease of use.

Specifications

●Multi-range solution ● flow rate setting function/6 presets ● program control function ● flow rate display ● integration flow rate alarm function, external output: open connector ● soft-start function, soft-start: ≤6 second, slow-start: ≤1200 second ● flow rate output signal: 0 to 5 V DC external control function, flow rate setting signal input, flow rate control valve signal input: fully open/ fully closed ● power supply input: 100 V AC to 240 V, 50/60Hz 30 VA MAX ● dimensions: 48(W)x192(H)x190(D) mm (except projection portion) ● conforming to CE marking, EMC, FCC, and PSE. RoHS compliant ● conforming to digital/ analog transmission model

Dedicated power supply

PE Series

The PE series provides a power supply to drive mass flow controllers/meters and auto pressure regulator with a reference voltage of 5 V DC for analog control. A model supporting current control (4–20 mA), a model with a flow rate alarm output, and a model that can drive more than one unit (4 or 6 units) are also available. All the models comply with the CE marking safety standard, the EMC Directive, the FCC, the Electrical Appliance and Material Safety Act, and the RoHS Directive so as to protect the environment.

Standard model PE-20 Series

Conforming to digital/analog transmission

Power supply input:100–240 V AC 50/60Hz
1 unit drive PE-21 (30 VA MAX)
4 units drive PE-24 (90 VA MAX)
9 units drive PE-26 (140 VA MAX)

Alarm model PE-30A Series

- High/low flow rate alarms
- Digital/analog solution.

Power source: 100– 240 V AC 50/60Hz
1 unit driving PE-31A (30 VA MAX)
4 units driving PE-34A (90 VA MAX)
6 units driving PE-36A (140 VA MAX)

Current control model PE-30S Series

- Current control: 4 to 20 mA. Analog signal enable to long-distance control.
- High/low flow rate alarms
- Digital/analog solution.

Power source: 100– 240 V AC 50/60Hz
1 unit driving PE-31 S (30 VA MAX)
4 units driving PE-34 S (90VA MAX)

Note that components or production methods may be modified for productivity reasons at any time without notice provided that such modification does not alter the product specifications.

HORIBASTEC

HORIBA STEC, Co., Ltd.

http://www.semi.horiba.com

Please read the operation manual before using this product to ensure safe and proper handling of the product.

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