

Standard Specifications



Model	NPF2A710-01-27	NPF2A750-02-27	NPF2A711-03-27	NPF2A721-03-27	NPF2A751-04-27
Port size Rc(PT)	1/8	1/4	3/8	3/8	1/2
Measured fluid	Air, Nitrogen				
Flow rate measurement range	1~10 L/min	5~50 L/min	10~100 L/min	20~200 L/min	50~500 L/min
Minimum set unit	0.1 L/min	0.5 L/min	1 L/min	2 L/min	5 L/min
Accumulated pulse flow rate exchange value (Pulse width: 50 ms)	0.1L/pulse	0.5L/pulse	1L/pulse	2L/pulse	5L/pulse
Display units	Instantaneous flow rate	L/min,CFMx10 ³		L/min,CFMx10 ³	
	Accumulated flow	L, ft ³ x10 ³			
Operating pressure range	-50KPa~0.5MPa		-50KPa~0.75MPa		
Operating fluid temperature	0~50°C				
Power supply voltage	DC12~24V±10%				
Current consumption	150mA or less		160mA or less	170mA or less	
Accumulated flow range	0~999999L				
Detection type	Heater type				
Accuracy	±5% F.S.				
Repeatability	±1% F.S.		±2% F.S.		
Temperature characteristics	±3% F.S. (15 to 35°C, 25°C reference), ±5% F.S. (0 to 50°C, 25°C reference)				
Output specifications	Switch output	NPN open collector			
	Accumulated pulse output	NPN or PNP open collector (same as switch output)			
Hysteresis	Hysteresis mode: Variable (can be set from 0), Window comparator mode ^{Note 2} : 3-digit fixed				
Response time	Lights up when output is turned ON OUT1: Green; OUT2: Red				
Status LED's	1 sec. or less				
Environment	Enclosure	Ip65			
	Operating temperature range	Operating: 0 to 50°C, Stored: -25 to 85°C (with no freezing and condensation)			
	Withstand voltage	1000 VAC for 1 minute between terminals and housing			
	Insulation resistance	50 MΩ or more (500 VDC measured via megohmmeter) between terminals and housing			
		1000V P-P Pulse width 1 μs, duration 1 ns			
	M12 connector(3m)				

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Flow rate range

Symbol	Content
10	1~10 L/min
50	5~50 L/min
11	10~100 L/min
21	20~200 L/min
51	50~500 L/min

Thread type

Symbol	Content
Nil	Rc
N	NPT
F	G

Port size

Symbol	Port size	Rated flow range				
		10	50	11	21	51
01	1/8	●	●	—	—	—
02	1/4	●	●	—	—	—
03	3/8	—	—	●	●	—
04	1/2	—	—	—	—	●

Unit specifications

Symbol	Content
Nil	With unit switching function
M	Fixed SI unit ^{Note 1}

^{Note 1} Fixed units:
Instantaneous flow rate:
L/min Accumulated flow: L

Lead wire

Nil	N
Lead wire with M12 connector (3 m)	Without lead wire

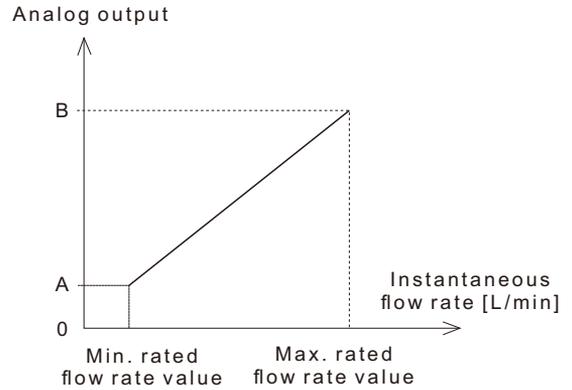
Output specifications

Symbol	Content
27	NPN open collector 2 outputs
67	PNP open collector 2 outputs
28	NPN(1output)+analog output(1-5V)
29	NPN(1output)+analog output(4-20mA)
68	PNP(1output)+analog output(1-5V)
69	PNP(1output)+analog output(4-20mA)

Mini Output Specification

	A	B
Voltage output	1V	5V
Current output	4mA	20mA

Sensor	Flow rate range	
	Min	Max
NPF2A710	1 NL/min	10 NL/min
	$3.5 \text{ CFM} \times 10^{-2}$	$35.0 \text{ CFM} \times 10^{-2}$
NPF2A750	5 NL/min	50 NL/min
	$18 \text{ CFM} \times 10^{-2}$	$176 \text{ CFM} \times 10^{-2}$
NPF2A711	10 NL/min	100 NL/min
	$3.5 \text{ CFM} \times 10^{-1}$	$35.5 \text{ CFM} \times 10^{-1}$
NPF2A721	20 NL/min	200 NL/min
	$7 \text{ CFM} \times 10^{-1}$	$71 \text{ CFM} \times 10^{-1}$
NPF2A751	50 NL/min	500 NL/min
	$18 \text{ CFM} \times 10^{-1}$	$176 \text{ CFM} \times 10^{-1}$



12Lead wire with M12 connector

