

Standard Specifications



Model		NPF2A703H	NPF2A706H	NPF2A712H
Fluid		Dry air, N2		
Detection type		Heater type		
Rated flow range Note1)		150-3000L/min	300-6000/min	600-12000/min
Minimum Setting Unit 注1)		5L/min	10L/min	
Display unit 注2)	Instantaneous flow	Limin,CFM		
	Cumulative flow	L,m ³ ,m ³ ×10 ³ ,ft ³ , ft ³ ×10 ³ ,ft ³ ×10 ⁶		
Rated pressure range		0.1~1.5MPa		
Proof pressure		2.25MPa		
Pressure loss		20kPa(maximum Flow)		
Accumulated flow Note 3)		0~9, 999, 999, 999L		
Accuracy 注4)		±1.5%F.S.(0.7MPa、 20℃时)		
Repeatability		±1.0%F.S(07MPa、 20℃时) Analog output±3.0%F.S.		
Pressure characteristics		±1.5%F.S.(0.1~1.5MPa,But based on 0.7MPa)		
Temperature characteristics		±2.0%F.S.(0~50°C、 Based on25°C)		
Output	Switch Output 注5)	Maximum load current of NPN open collector: 80mA, maximum applied voltage: 30V, internal voltage drop: below 1V (load current: 80mA)		
		Maximum load current of PNP open collector: 80mA, internal voltage array: below 1.5V (when negative current is 80mA)		
	Cumulative pulse output 注5)	NPN or PNP open collector flow rate per pulse: 100 L/pulse,10. 0ft ³ /pulse On time of each pulse: 50msec/pulse		
	Analog output 注6)	Voltage output voltage 1 ~ 5V, minimum load impedance: 100k Ω (output load group impedance 1K Ω)		
		Current output current: 4 ~ 20mA, maximum load impedance: 250 Ω		
响应时间		1sec or less		
迟滞		Hysteresis mode variable (can be set from 0), upper and lower limit comparison mode: fixed (0-3% F.S. can be set)		
电源电压		DC24V±10%		
消耗电流		450mA or less		
耐环境	保护等级	Ip65		
	使用温度范围	0~50°C(no freezing and condensation)		
	耐电压	Ac1000V 1 minute between external terminal and housing		
	绝缘阻抗	50m Ω (DC500v megohmmeter) external terminals and the shell		
	耐振动	1000vp-p 脉冲宽1u5 上升沿1ns		
认证、标准		CE、RoHS		
质量		1.1kg(不含导线)	1kg(不含导线)	2.0kg(不含导线)
配管口径 (Rc, NPT,G)		1	1½	2

注1)流量表示是在0°C、101.3kPa的基准状态,可转换至20°C、101.3kPa、65%RH的标准状态(ANR)。

注2)带单位切换功能的情况(无单位切换功能的形式, 固定在SI单位(L/min或L、m³、m³×10³。)

注3)累积流量一旦电源OFF时清除。累计值可选择不清除而保持的功能。这个场合,用4分钟间隔,把数据写入 EEPROM(记忆元件)上,按 EEPROM保证写入次数为100万次(4分钟×100万=400万次7.9年)未使用。

注4)空气大流量型对应CE标记。但噪声施加时的直线性在±5%F.S.以下。注5)开关输出和累积脉冲输出的选择用按钮(键)操作。

注6)模拟输出仅在顺流量显示时动作,对累计流量显示不能动作。

Standard Specifications

Integrated Display Type

Flow rate range

03	150 to 3000 L/min
06	300 to 6000 L/min
12	600 to 12000 L/min

Port specifications

Nil	Rc
N	NPT
F	G

Conforming to ISO228-1

Port size

Symbol	Port size	Flow rate (L/min)	Applicable model
10	1	●	PF2A703H
14	1½	●	PF2A706H
20	2	●	PF2A712H

Made to Order

X795 Wide range
Refer to page 323 for details.

Unit specifications

Nil	With unit switching function ^{Note1)}
M	Fixed SI unit ^{Note2)}

Note1) Under Japan's new Measurement Act, this is only for overseas sales (SI units are to be used inside Japan).

Note2) Fixed units: Instantaneous flow rate L/min, Accumulated flow L, m³, m³ × 10³

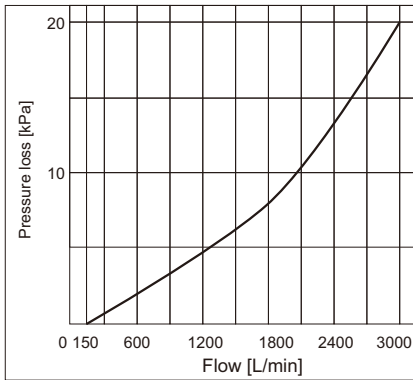
Output specifications

28	NPN open collector 1 output + Analog output (1 to 5 V)
29	NPN open collector 1 output + Analog output (4 to 20 mA)
68	PNP open collector 1 output + Analog output (1 to 5 V)
69	PNP open collector 1 output + Analog output (4 to 20 mA)

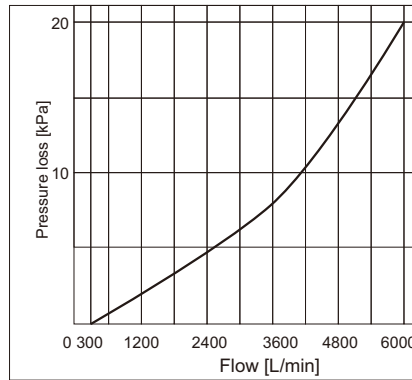
Switching of switch output and accumulated pulse output is possible with NPN or PNP open collector outputs.

Pressure Loss (Reference Data)

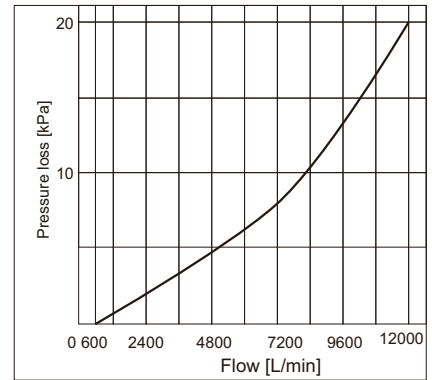
NPF2A703H



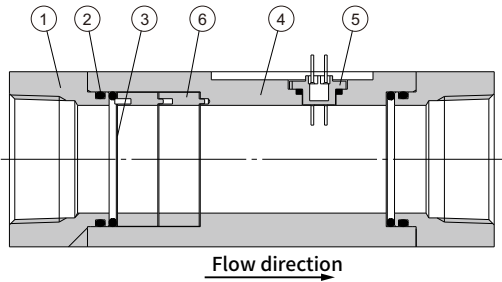
NPF2A706H



NPF2A712H



Wetted Parts Construction

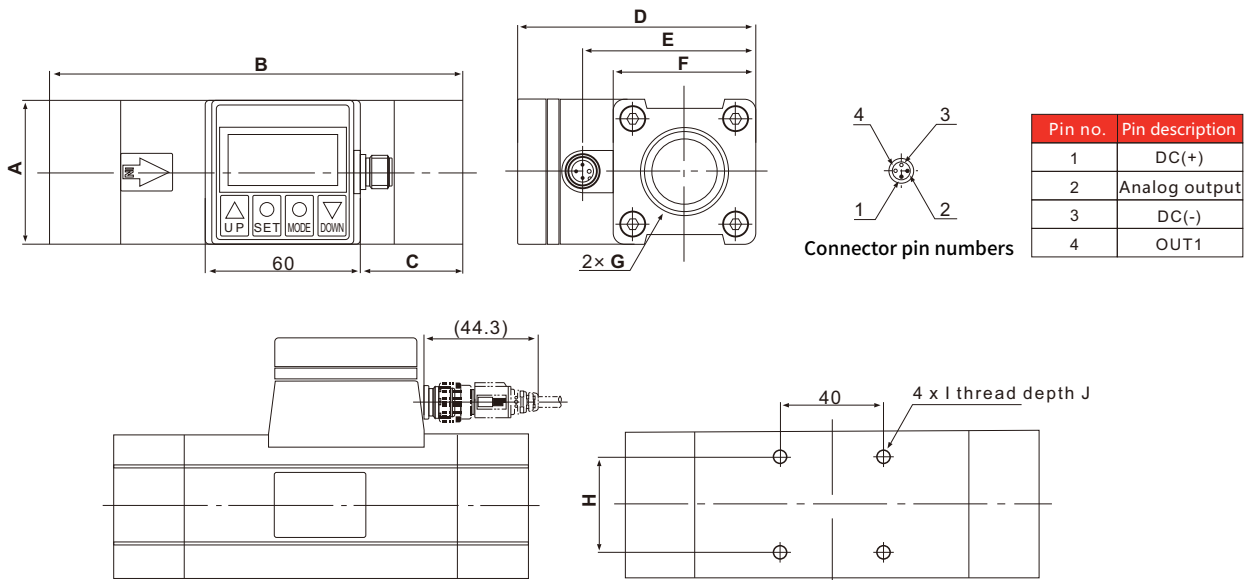


Parts list

No.	Description	Material	Note
1	Attachment	Aluminum alloy	Anodized
2	Seal	HNBR	—
3	Mesh	Stainless steel	—
4	Body	Aluminum alloy	Anodized
5	Sensor	PPS	—
6	Spacer	PBT	—

Dimensions

NPF2A703H·706H·712H

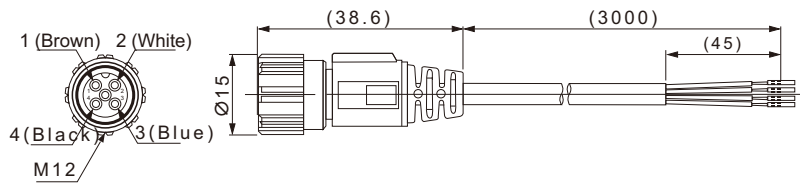


开关1次侧必须设计有配管径8倍以上的直管部。

Model	A	B	C	D	E	F	G	H	I	J
NPF2A703H	55	160	40	92	67	55	Rc1, NPT1, G1	36	M5×0.8	8
NPF2A706H	65	180	45	104	79	65	Rc1½, NPT1½, G1½	46	M6×1	9
NPF2A712H	75	220	55	114	89	75	Rc2, NPT2, G2	56	M6×1	9

ZS-37-A

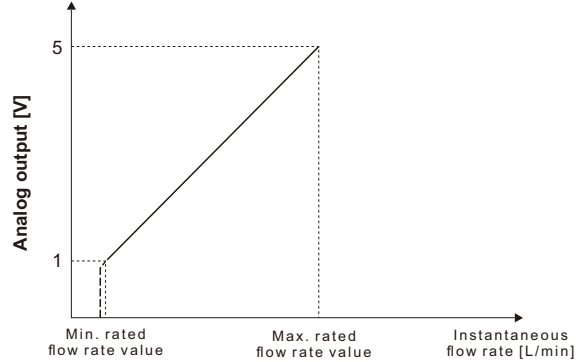
Lead wire with M12 connector



Cable Specifications

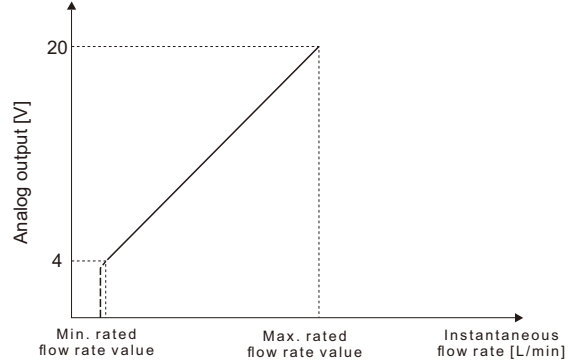
Conductor	Nominal cross section	AWG 23
	Outside diameter	Approx. 0.7 mm
Insulator	Material	Heat-resistant PVC
	Outside diameter	Approx. 1.1 mm
	Color	Brown, White, Black, Blue
Sheath	Material	Heat- and oil-resistant PVC
	Finished outside diameter	ø4

Analog output
DC1 ~ 5V



Model	Min. rated flow rate value [L/min]	Max. rated flow rate value [L/min]
NPF2A703H-□-28 NPF2A703H-□-68	150	3000
NPF2A706H-□-28 NPF2A706H-□-68	300	6000
NPF2A712H-□-28 NPF2A712H-□-68	600	12000

DC4 ~ 20mA



Model	Min. rated flow rate value [L/min]	Max. rated flow rate value [L/min]
NPF2A703H-□-29 NPF2A703H-□-69	150	3000
NPF2A706H-□-29 NPF2A706H-□-69	300	6000
NPF2A712H-□-29 NPF2A712H-□-69	600	12000