

## Digital FlowSwitch / Wide range type

#### SMC CORPORATION

4-14-1,Soto-Kanda,Chiyoda-ku, Tokyo 101-0021, JAPAN URL: http://www.smcworld.com

### PF2A7\*H-\*-X795

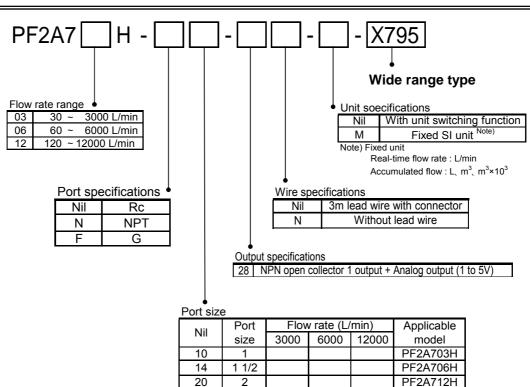
Feature: Expansion of flow rate measurement range.

Minimun measurement flow rate is expanded from 1/20(standard) of maximum flow to 1/100.

| Model           | Flow rate<br>measuring range | Reference) Standard type |  |  |
|-----------------|------------------------------|--------------------------|--|--|
| PF2A703H-*-X795 | 30 to 3000 L/min             | 150 to 3000L/min         |  |  |
| PF2A706H-*-X795 | 60 to 6000 L/min             | 300 to 6000L/min         |  |  |
| PF2A712H-*-X795 | 120 to 12000 L/min           | 600 to 12000L/min        |  |  |



### How to Order



# **Specifications**

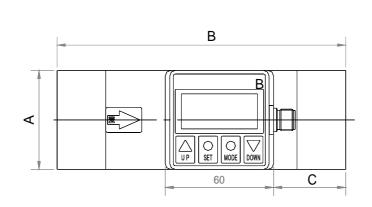
| Model  |                                 | PF2A703H-*-X795  | PF2A712H-*-X795                   |     |  |  |  |  |  |
|--|---------------------------------|--|-----------------------------------|-----|--|--|--|--|--|
| Measured fl  |                                 | Air,Nitrogen   |                                   |     |  |  |  |  |  |
| Detection type   |                                 | Heater type  |                                   |     |  |  |  |  |  |
| Flow rate mea  | suring rang NOTE1)              | 30 to 3000 L/min 60 to 6000 L/min 120 to 12000   |                                   |     |  |  |  |  |  |
| Minimum set ι  | ınit <sup>NOTE1)</sup>          | 5 L/min 10 L/min   |                                   |     |  |  |  |  |  |
| Display unit   | Real-time flow rate             | L/min,CFM  |                                   |     |  |  |  |  |  |
| NOTE2)   | Accumulated flow                | L, m <sup>3</sup> , m <sup>3</sup> ×10 <sup>3</sup> , ft <sup>3</sup> ×10 <sup>6</sup>   |                                   |     |  |  |  |  |  |
| Operating pre  | ssure range                     | 0.1 to 1.5MPa  |                                   |     |  |  |  |  |  |
| Proof pressure   | e                               | 2.25MPa  |                                   |     |  |  |  |  |  |
| Accumulated t  | flow range                      | 0 to 9,999,999 L   |                                   |     |  |  |  |  |  |
| Lincovity  | Display accuracy                |  | ±3 %F.S. or less (0.7MPa, at 20 ) |     |  |  |  |  |  |
| Linearity  | Analog output                   | ±5 %F.S. or less (0.7MPa, at 20 )  |                                   |     |  |  |  |  |  |
| Repeatability  |                                 | ±1.0 %F.S. or less(0.7MPa、at 20 )  |                                   |     |  |  |  |  |  |
| Pressure characteristics   |                                 | ±1.5 %F.S. or less<br>(0.1 to 1.5MPa, based on 0.7MPa)   |                                   |     |  |  |  |  |  |
| Temperature characteristics  |                                 | ±2.0 %F.S. or less<br>(0 to 50 、based on 25 )  |                                   |     |  |  |  |  |  |
|  | Switch output NOTE3)            | NPN open collector Max. load current : 80mA , Max. applied voltage : 30V, Internal voltage drop : 1V or less (With load current of 80mA) |                                   |     |  |  |  |  |  |
| Output specifications  | Accumulated pulse output NOTE3) | NPN open collector Flow rate per pulse : 100 L/pulse, 10.0ft³/pulse Pulse wigth : 50msec   |                                   |     |  |  |  |  |  |
|  | NOTE4)                          | Output voltage : 1 to 5V , Load impedance : $100k\Omega$ or more   |                                   |     |  |  |  |  |  |
|  | Analog output NOTE4)            | Output voltage : 4 ~ 20mA , Load impedance : $250\Omega$ or more   |                                   |     |  |  |  |  |  |
| Response time  |                                 | 1sec. Or less  |                                   |     |  |  |  |  |  |
| Power supply   | voltage                         | 24VDC ( Ripple ±10% or less )  |                                   |     |  |  |  |  |  |
| Current consumption  |                                 | 150mA or less  |                                   |     |  |  |  |  |  |
|  | Enclosure                       | IP65   |                                   |     |  |  |  |  |  |
| Resistance   | Operation tempersture range     | 0 to 50 ( No condensation )  |                                   |     |  |  |  |  |  |
|  | Withstand voltage               | 1000VAC for 1 min. between external terminal and case  |                                   |     |  |  |  |  |  |
|  | Insulation resistanc            | $50M\Omega$ (500VDC) between external terminal and case  |                                   |     |  |  |  |  |  |
|  | Vibration resistance            | 10 to 500Hz at whichever is smaller : 1.5mm amplitude or 98m/s <sup>2</sup> acceleration, in X,Y,Z directions for 2 hrs. each            |                                   |     |  |  |  |  |  |
|  | Impact resistance               | 490m./s <sup>2</sup> in X,Y,Z directions 3 time each   |                                   |     |  |  |  |  |  |
|  | Noise resistance resistance     | 1000Vp-p Pulse width 1 μs, Rise time 1 ns  |                                   |     |  |  |  |  |  |
| Weight (Witho  | ut lead wire)                   | 1.1kg  | 1.3kg                             | 2kg |  |  |  |  |  |
| Resistance  Insulation resistance  Vibration resistance  Impact resistance  Noise resistance |                                 | 1  | 1 1/2                             | 2   |  |  |  |  |  |

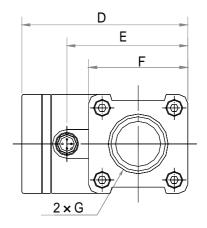
Note1) Flow rate display can be switched between the base cundition of 0 , 101.3 kPa and the standard condition(ANR) of 20 , 101.3 kPa , and 65%RH Note2) For digital flow switch with unit switching function. (Fixed SI unit [(L/min, or L, m³, m³×10³]) will be set for switch type without the unit switching function.) Note3) Switch output and accumulated pulse output selections are made using the button controls.

Note4) The analog output operates only for real-time flow rate , and does not operate for accumulated flow.

#### PF2A703H-\*-X795、PF2A706H-\*-X795、PF2A712H-\*-X795

(42.2)



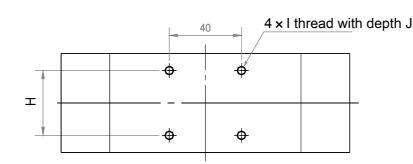


#### Connector pin numbers

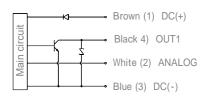




| Pin no. | Pin descriptoin |  |  |  |
|---------|-----------------|--|--|--|
| 1       | DC(+)           |  |  |  |
| 2       | アナログ出力          |  |  |  |
| 3       | DC(-)           |  |  |  |
| 4       | OUT1            |  |  |  |



X795



| 型式              | Α  | В   | С  | D   | Е  | F  | G                         | Н  | 1        | J |
|-----------------|----|-----|----|-----|----|----|---------------------------|----|----------|---|
| PF2A703H**-X795 | 55 | 160 | 40 | 92  | 67 | 55 | Rc1, NPT1, G1             | 36 | M5 × 0.8 | 8 |
| PF2A706H**-X795 | 65 | 180 | 45 | 104 | 79 | 65 | Rc1 1/2, NPT1 1/2, G1 1/2 | 46 | M6 × 1   | 9 |
| PF2A712H**-X795 | 75 | 220 | 55 | 114 | 89 | 75 | Rc2, NPT2, G2             | 56 | M6 × 1   | 9 |

Caution: To ensure the safest possible operation of this product, please be sure to read thoroughly the "Safety Instructions" in our "Best Pneumatics" general catalog before use.