# **3-Color Display**

# Digital Flow Switch for Large Flow Applicable fluid



IP65





The flow rate value and the device status can be figured out easily via the process data.

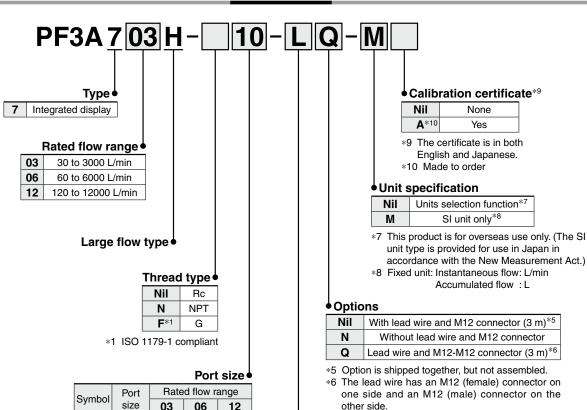
Diagnostic contents

Over current error, Rated/Accumulated flow error, Flow/Temperature sensor failure, Internal product malfunction



Air, N<sub>2</sub>

## **How to Order**



#### Options/Part Nos.

When only optional parts are required, order with the part number listed below

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1 1/2

then only optional parts are required, order with the part number noted below.			
Part no.	Option	Note	
ZS-37-A	Lead wire and M12 connector	Length: 3 m	
7S-49-A	Lead wire and M12-M12 connector	Male/female conversion Length: 3 m	

#### Output specification

Syml	OUT	FUNC*2	Applicable monitor unit model		
L	IO-Link: Switch output (N/P)	_	_		
L	IO-Link: Switch output (N/P)	Analog voltage output*3  ⇔ External input*4	PFG300 series		
L	IO-Link: Switch output (N/P)	Analog current output  ⇔ External input*4	PFG310 series		

- \*2 Analog output or external input can be selected by pressing the buttons. Analog output is set as default setting. Output signal "L" cannot be used as the FUNC terminal is not connected.
- $*3\,$  1 to 5 V or 0 to 10 V can be selected by pressing the button. The default setting is 1 to 5 V.
- \*4 The accumulated value, peak value, and bottom value can be reset.







# **Specifications (Integrated Display)**

For flow switch precautions and specific product precautions, refer to the Operation Manual on the SMC website.

Model			PF3A703H-L	PF3A706H-L	PF3A712H-L
Electrical	Power supply voltage	When used as a switch output device	24 VDC ±10%		
Electrical		When used as an IO-Link device		18 to 30 VDC ±10%	
	Output type		Select from NPN or PNP open collector output.		
	Output mode		Select from Hysteresis, Window comparator, Accumulated output, Accumulated pulse output, Error output, or Switch output OFF modes.		
Switch output	output Max. applied voltage		30 V (NPN output)		
	Internal voltage drop (Residual voltage)		1.5 V or less (at load current of 80 mA)		
	Delay time*1		3.3 ms or less, variable from 0 to 60 s/0.01 s increments		
Analog output Response time*2		time*2	Linked to the set value of the digital filter		
Display	Display		LCD, 2-screen display (Main screen/Sub screen) Main screen: Red/Green, Sub screen: Orange Main screen/Sub screen: 9 digits (7 segments 7 digits, 11 segments 2 digits)		
	Digital filter*3		Select from 1 s, 2 s, or 5 s.		
Standards			CE marking (EMC Directive, RoHS Directive)		

<sup>\*1</sup> The time from when the instantaneous flow reaches the set value to when the switch output operates can be set.

### **Communication Specifications (IO-Link mode)**

IO-Link type	Device	
IO-Link version	V 1.1	
Communication speed	COM2 (38.4 kbps)	
Configuration file	IODD file*1	
Minimum cycle time	3.3 ms	
Process data length	Input data: 4 bytes, Output data: 0 byte	
On request data communication	Yes	
Data storage function	Yes	
Event function	Yes	
Vendor ID	131 (0 x 0083)	
	PF3A703H-□□-L□-□□ : 400 (0 x 0190)	
	PF3A703H-□□-L3□-□□: 401 (0 x 0191)	
	PF3A703H-□□-L4□-□□: 402 (0 x 0192)	
	PF3A706H-□□-L□-□□ : 403 (0 x 0193)	
Device ID*2	PF3A706H-□□-L3□-□□: 404 (0 x 0194)	
	PF3A706H-□□-L4□-□□: 405 (0 x 0195)	
	PF3A712H-□□-L□-□□ : 406 (0 x 0196)	
	PF3A712H-□□-L3□-□□: 407 (0 x 0197)	
	PF3A712H-□□-L4□-□□: 408 (0 x 0198)	

 $<sup>*1 \ \</sup> The \ configuration \ file \ can \ be \ downloaded \ from \ the \ SMC \ website, \ https://www.smcworld.com$ 

Other specifications that are not listed are the same as those of the standard product. For details, refer to the Web Catalog.

↑ Safety Instructions Be sure to read the "Handling Precautions for SMC Products" (M-E03-3) and "Operation Manual" before use.

<sup>\*2</sup> The time from when the flow is changed by a step input (when the flow rate changes from 0 to the maximum value of the rated flow range instantaneously) until the analog output reaches 90% of the rated flow rate.

<sup>\*3</sup> The time for the digital filter can be set to the sensor input. The response time indicates when the set value is 90% in relation to the step input.

<sup>\*2</sup> The device ID differs according to each product type (output specification).