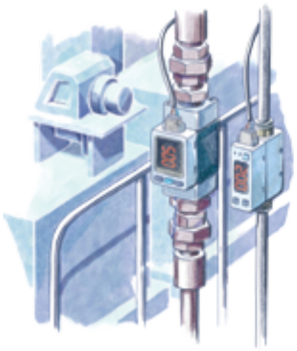


The PF3A7 is a 3 colour display digital flow switch for dry air and N^2.

FEATURES & BENEFITS

- Flow ratio 100:1
- Digital display of flow rate
- Compact and space saving
- IP65
- Accumulated total display
- Min/Max value display
- Display rotates for easy viewing
- Tri-colour display
- IO-Link option

PRODUCT CONFIGURATION

1 MATERIAL
Aluminium body - IP65 housing

2 OPERATING FLUID TEMPERATURE
' 2% F.S (15 to 35°C) ' 5% F.S (0 to 50°C)

FLUID
Dry air, N_2

RATED FLOW RANGE
5 to 500 l/min
10 to 1,000 l/min
20 to 2,000 l/min

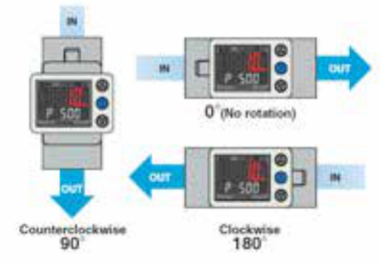
6 RATED PRESSURE RANGE
0 to 8 Bar

7 SETTING
Digital

8 POWER SUPPLY VOLTAGE
12 to 24 V DC±10%

9 OUTPUT
NPN/PNP open collector for
Alarm or pulse output
Analogue voltage or current output
Optional IO-Link

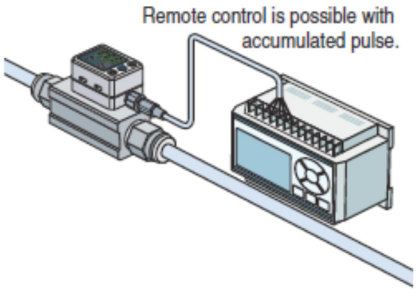
10 REPEATABILITY
±3% F.S. - Fluid: Dry and air

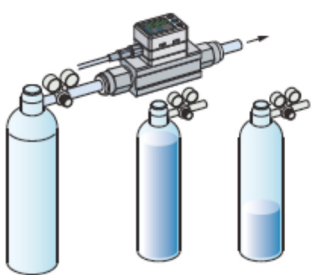


5 FUNCTIONS
Output operation, display colour, reference condition, setting of response time, display mode, selection of display on sub screen, external input function, accumulated valve hold , forced output function, analogue output free range function, selection of display OFF mode, peak/bottom value display,keylock function,error display function,orientation correction function.

APPLICATIONS

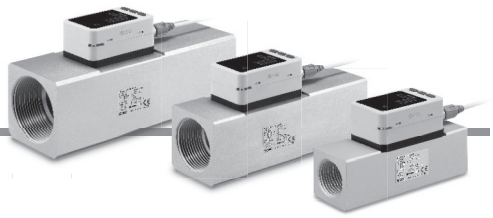
- Accumulated indication shows the operating flow rate or residual amount (of N2 etc) in a gas cylinder
- Flow control of equipment
- Flow control of the air for spray painting





SPECIFICATIONS

Model			PF3A703H	PF3A706H	PF3A712H
Fluid	Applicable fluid		Dry air,N_2 (Nitrogen)		
	Fluid temperature range		0 to 50°C		
Flow	Detection method		Thermal type		
	Rated flow range		30-3,000 L/Min	60-6,000 L/Min	120 to 12,000 L/Min
	Set point range	Instantaneous flow	30-3,150 L/Min	60-6,300 L/Min	120 to 12,600 L/Min
		Accumulated flow	0 to 999,999,999 L	0 to 999,999,999,990 L	
	Smallest settable increment	Instantaneous flow	2 L/Min	5 L/Min	10 L/Min
		Accumulated flow	10 L	100 L	
	Accumulated volume per pulse (Pulse width =50 ms)		Selectable from 100 L/pulse to 1000 L/pulse		
	Accumulated value hold function		Intervals of 2 mins or 5 mins can be selected.		
Pressure	Rated pressure range		0 to 1.5 MPa		
	Proof pressure		2.25 MPa		
	Pressure loss		Refer to “Pressure Loss” graph.		
	Pressure characteristics		±2.5% F.S.(0.1 to 1.0 MPa,0.5 MPa standard)		
Electrical	Power supply voltage		12 to 24 VDC±10% Ripple (p-p) 10% or less		
	Current consumption		150 mA or less		
	Protection		Polarity protection		
Accuracy	Display accuracy		±3% F.S.		
	Analog output accuracy		±3% F.S.		
	Repeatability		±1% F.S.(±2% F.S.when response time is set to 0.05 s)		
	Temperature characteristics		±5% F.S.(0 to 50°C,25°C standard)		
Switch output	Output type		NPN open collector PNP open collector		
	Output mode		Select from Hysteresis,Window comparator,Accumulated output or Accumulated pulse output modes.		
	Switch operation		Select from Normal or Reversed output.		
	Max.load current		80 mA		
	Max.applied voltage (NPN only)		28 VDC		
	Internal voltage drop (Residual voltage)		NPN output type: 1 V or less (at load current of 80 mA) PNP output type: 2 V or less (at load current of 80 mA)		
	Response time *3		Select from 1 s, 2 s or 5 s		
	Hysteresis *4		Variable from 0		
	Protection		Over current protection		
Analog output *5	Output type		Voltage output:1 to 5 V,Current output:4 to 20 mA		
	Impedance	Voltage output	Output impedance:Approx.1 kW		
		Current output	Maximum load impedance at power supply voltage of 24 V:600 W, at power supply voltage of 12 V:300 W Minimum load impedance:50 W		
	Response time		Linked with the response time of the switch output.		
External input *7	External input		Input voltage:0.4 V or less (Reed or Solid state) for 30 ms or longer		
	Input mode		Accumulated value external reset,Peak/Bottom value reset		
Display	Reference condition		Select from Standard condition or Normal condition.		
	Unit *9	Instantaneous flow	L/Min, CFM		
		Accumulated flow	L, CF		
	Display range	Instantaneous flow	0-3,150 L/Min (Displays [0] when under 30 L/Min)	0-6,300 L/Min (Displays [0] when under 60 L/Min)	0-12,600 L/Min (Displays [0] when under 120 L/Min)
		Accumulated flow	0 to 999,999,999 L	0 to 999,999,999,990 L	
	Minimum display unit	Instantaneous flow	2 L/Min	5 L/Min	10 L/Min
		Accumulated flow	10 L	100 L	
	Display		LCD,2-screen display (Main screen/Sub screen) Main screen: Red/Green, Sub screen: White Main screen:4 digits,7 segments,Sub screen:6 digits,11 segments		
	Indicator LED		LED ON when switch output is ON. (OUT1/OUT2: Orange)		
Environment	Enclosure		IP65		
	Withstand voltage		1,000 VAC for 1 min between terminals and housing		
	Insulation resistance		2 MOhm (500 VDC measured via mega ohmmeter) between terminals and housing		
	Operating temperature range		Operating:0 to 50°C,Stored:–10 to 60°C(No condensation or freezing)		
	Operating humidity range		Operating/Stored:35 to 85% RH (No condensation or freezing)		
Standards			CE, UL (CSA), RoHS		
Piping specification			Rc1, NPT1, G1	Rc 1.1/2, NPT1.1/2,G1.1/2	Rc 2, NPT2, G2
Materials of parts in contact with fluid			PPS, Aluminium alloy, HNBR, Si, Au, GE4F		
Weight	Piping specification	Rc thread NPT thread	610 g	1190 g	1680 g
		G thread	630 g	1220 g	1720 g
	Lead wire		+90 g		
	Bracket				



ORDERING CODES

How to Order

PF3A7 | 03 | H | F | 10 | – | CS | | – | M | |

Rated flow range

03	30 to 3,000 L/Min
06	60 to 6,000 L/Min
12	120 to 1,2000 L/Min

Thread type

-	Rc
N	NPT
F	G

Port size

Symbol	Port size	Rated flow range		
		03	06	12
10	1	●	-	-
14	1.1/2	-	●	-
20	2	-	-	●

Output specification

Symbol	OUT1	OUT2
CS	NPN	Analogue (1 to 5 V)
DS	NPN	Analogue (4 to 20 mA)
ES	PNP	Analogue (1 to 5 V)
FS	PNP	Analogue (4 to 20 mA)

Unit specifications

-	Unit selection function
M	SI unit only

Note) Fixed unit: Instantaneous flow: l/min, Accumulated flow: L

Option 1

-	With lead wire and M12 connector (3 m) 
N	Without lead wire and M12 connector

Calibration certificate

-	None
A	Yes

Service & Warranty: For technical assistance, warranty replacement or repair contact your distributor:
UK Flowtechnik Ltd. 1 Central Park, Lenton Lane, Nottingham, NG7 2NR, UK.
Tel: +44 (0) 115 901 7111. Email: sales@ukflowtechnik.com. Web: www.ukflowtechnik.com