

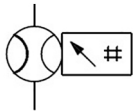
## PF3A7\*H, Digital Flow Switch for Large Flow

### PF3A712H-F20-FS

Datasheet

### General series information

- Applicable fluid: Air, N<sub>2</sub>.
- Flow range: Max. 12000 L/min.
- Flow ratio: 100:1.
- 3-color/ 2-screen display.
- Port Size: 1, 1 1/2, 2.
- Outputs: NPN/PNP and Analogue/External input.
- IP65.



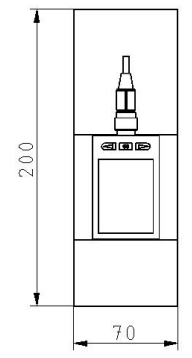
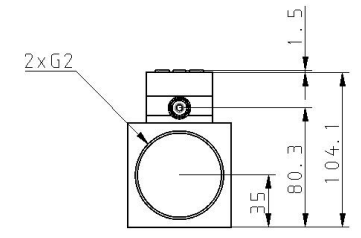
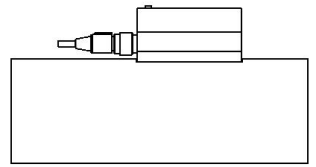
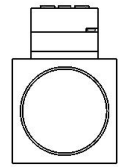
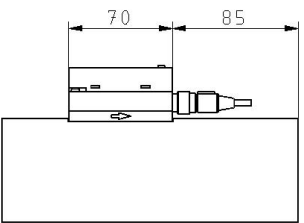
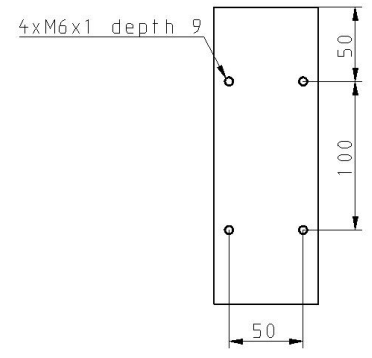
Flow meter with digital display

### Standard specifications

Rated Flow Range	12 (120 to 12000 l/min)
Thread Type	F [G (ISO 1179-1 Compliant)]
Port Size	20 (2)
Output Specifications	FS (Out: PNP; Func: Analog Current Output <-> External Input)
Lead Wire	w/Lead Wire and M12 Connector, 3m
Unit Specification	Units Selection Function
Calibration Certificate	None, Certificate in both English and Japanese
Maximum temperature of pressure medium	50 °C
Minimum temperature of pressure medium	0 °C
Proof pressure	2.25 MPa
General power supply	24 VDC ±10 %
Approvals	CE marking (EMC Directive, RoHS Directive)
Response time	Select from 1 s, 2 s, or 5 s
Internal voltage drop	PNP output type: 2 V or less (at load current of 80 mA)
Current consumption	150 mA or less

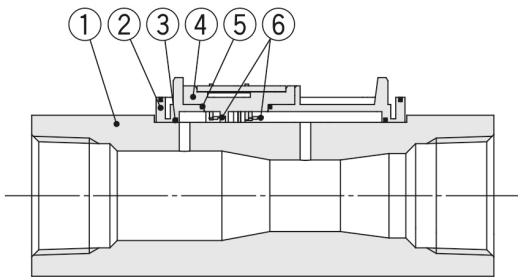
Operating humidity range	Operating/Stored: 35 to 85 % RH (No condensation)
Enclosure	IP65
Repeatability	Switch output/Display: $\pm 1.0$ % F.S Analogue output: $\pm 1.0$ % F.S
Applicable fluid	Air, Nitrogen
Rated pressure range	0.1 to 1.5 MPa
Maximum load current	80 mA
Fluid contact material	Aluminum alloy, PPS, HNBR [Sensor: Pt, Au, Fe, Lead glass (exempted from the RoHS application), Al <sub>2</sub> O <sub>3</sub> ]
Operating temperature range	Operating: 0 to 50 °C, Stored: -10 to 60 °C (No freezing or condensation)
Smallest settable increment	10 l/min
Max. applied voltage	28 VDC
Hysteresis mode	Variable from 0
Display	LCD, 2-screen display (Main screen/Sub screen) Main screen: Red/Green, Sub screen: Orange Main screen: 5 digits, 7 segment, Sub screen: 6 digits, 7 segment
Display accuracy	$\pm 3.0$ % F.S.
Indicator light	OUT indicator: Red LED is ON when output is ON
Withstand voltage	1000 VAC for 1 minute between terminals and housing
Insulation resistance	50 M $\Omega$ (500 VDC measured via megohmmeter) between terminals and housing
Maximum fluid temperature	50 °C
Minimum fluid temperature	0 °C
Flow detection method	Thermal type
Set point range Instantaneous flow	120 to 12600 l/min
Set point range Accumulated flow	0 to 999,999,999,990 L
Accumulated volume per pulse	Select from 100 L/pulse or 1000 L/pulse
Accumulated value hold function	Interval of 2 or 5 minutes can be selected
Pressure characteristics	$\pm 2.5$ % F.S. (0.1 to 1.0 MPa, 0.5 MPa standard)
Electrical protection	Polarity protection
Analogue output accuracy	$\pm 3.0$ % F.S.
Accuracy temperature characteristics	$\pm 5.0$ % F.S. (Ambient temperature of 0 to 50 °C, 25 °C standard)
Output mode	Select from Instantaneous output (Hysteresis mode or Window comparator mode), Accumulated output, or Accumulated pulse output
Switch operation	Select from Normal or Reversed output
Switch output protection	Over current protection
Analogue output type	Current output: 4 to 20 mA
Impedance	Output impedance: Approx. 1 k $\Omega$
External input type	No-voltage input: 0.4 V or less
External input mode	Select from Accumulated value external reset or Peak/Bottom value reset
External input time	30 ms or longer
Display range Accumulated flow	0 to 999,999,999,00 L
Minimum display unit	10 l/min
Minimum display unit Accumulated flow	1000 L
Length of lead wire with connector	3 m
Weight	1.992 Kg

# Dimensions



Specifications are subject to change without prior notice and any obligation on the part of the manufacturer.

## Constructions



### Component Parts

No.	Description	Material	Note
1	<b>Body</b>	Aluminum alloy	Anodized
2	<b>Branch passage</b>	PPS	—
3	<b>Gasket</b>	HNBR	—
4	<b>Sensor base</b>	PPS	—
5	<b>Gasket</b>	HNBR	—
6	<b>Sensor</b>	Au, Pt, Al <sub>2</sub> O <sub>3</sub>	—

## Additional information

Catalogue	<a href="#">PF3A7_H-D_EU.pdf</a>
Declaration of conformity	<a href="#">newDoC_PF3A7xH_TF1Y127EN.pdf</a> <a href="#">newDoC_PF3A7xH_TF1V123EN.pdf</a>
Installation manuals	<a href="#">IM_PF3A7xH_TF2Z086EN.pdf</a>
Operation manuals	<a href="#">PF3Axx_Quickguide.pdf</a> <a href="#">OM_PFxx_OMU0002EN-E.pdf</a>