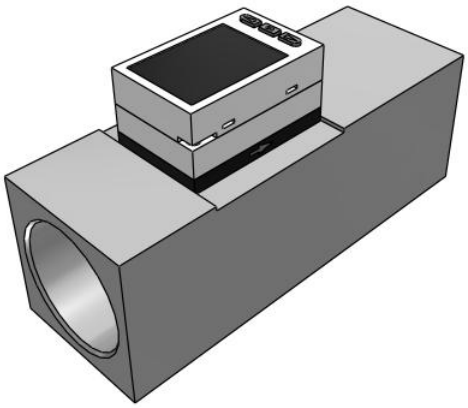


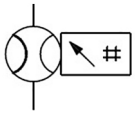
PF3A7*H-L, Digital Flow Switch for Large Flow with IO-Link

PF3A712H-F20-L4N

Datasheet

General series information

- Applicable fluid: Air, N_2, CO_2, Ar.
- Flow range: Max. 12000 L/min.
- Flow ratio: 100:1.
- 3-color/ 2-screen display.
- Port Size: 1, 1 1/2, 2.
- Outputs: IO-Link, 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 Specification	L4 [Out: IO-Link, Switch Output (N/P); Func: Analog Current Output <-> External Input; Monitor Unit Model: PFG310 Series]
Lead Wire	N (w/o Lead Wire and M12 Connector)
Unit Specification	Units Selection Function
Calibration Certificate	None, Certificate in both English and Japanese
Maximum temperature of pressure medium	50 ºC
Minimum temperature of pressure medium	0 ºC
Proof pressure	2.25 MPa
General power supply	21.6 - 30 VDC
Approvals	CE marking (EMC Directive, RoHS Directive)
Response time	3.3 ms or less, variable from 0 to 60 s/0.01 s increments
Internal voltage drop	1.5 V or less (at load current of 80 mA)

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

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Current consumption	150 mA or less
Operating humidity range	Operating/Stored: 35 to 85 % RH (No condensation)
Enclosure	IP65
Repeatability	Switch output/Display: ±1.0 % F.S. Analogue output: ±1.0 % F.S.
Applicable fluid	Air, Nitrogen
Rated pressure range	0.1 to 1.5 MPa
Maximum load current	80 mA
Flow display range	0 to 12600 l/min (Flow under 120 l/min is displayed as “0”)
Fluid contact material	Aluminum alloy, PPS, HNBR [Sensor: Pt, Au, Fe, Lead glass (exempted from the RoHS application), Al2O3]
Operating temperature range	Operating: 0 to 50 °C, Stored: -10 to 60 °C (No freezing or condensation)
Smallest settable increment	100 L
Max. applied voltage	30 V (NPN output)
Hysteresis mode	Variable from 0
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)
Display accuracy	±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 MΩ (500 VDC measured via megohmmeter) between terminals and housing
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	±2.5 % F.S. (0.1 to 1.0 MPa, 0.5 MPa standard)
Electrical protection	Polarity protection
Analogue output accuracy	±3.0 % F.S.
Accuracy temperature characteristics	±5.0 % F.S. (Ambient temperature of 0 to 50 °C, 25 °C standard)
Output mode	Select from Hysteresis, Window comparator, Accumulated output, Accumulated pulse output, Error output, or Switch output OFF modes
Analogue output type	Current output: 4 to 20 mA
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 999,999,999,90 L
Minimum display unit	10 l/min
Minimum display unit Accumulated flow	1000 L
Weight	1.720 Kg

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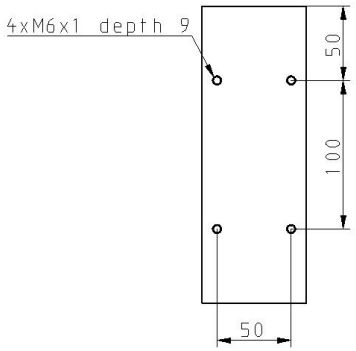
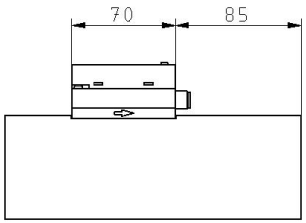
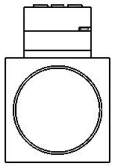
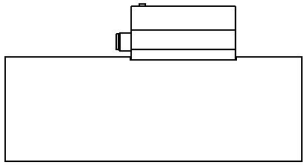
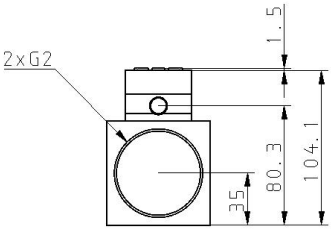
Dimensions

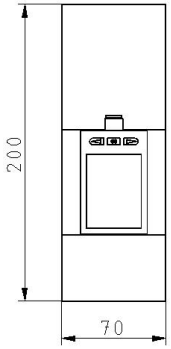












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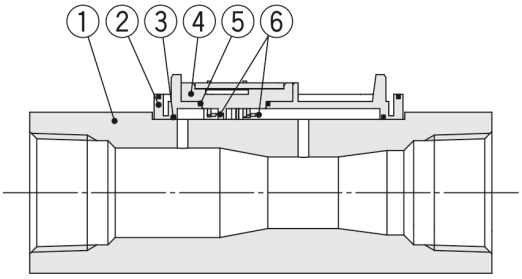
Constructions



Component Parts

No.	Description	Material	Note
1	**Body**	Aluminum alloy	Anodized
2	**Branch passage**	PPS	—
3	**Gasket**	HNBR	—
4	**Sensor base**	PPS	—
5	**Gasket**	HNBR	—
6	**Sensor**	Au, Pt, Al_2O_3	—

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Additional information

Catalogue	PF3A7_H-E_EU.pdf
Declaration of conformity	newDoC_PF3A7xH_TF1V123EN.pdf newDoC_PF3A7xH_TF124-132EN.pdf
Installation manuals	IM_PF3A7xH-L_TF2Z091EN-A.pdf IM_PF3A7xH_TF2Z086EN-A.pdf
Operation manuals	OM_PF3A7xH-L_OMX0002EN-G.pdf OM_PF3A7xH_OMU0002EN-H.pdf

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