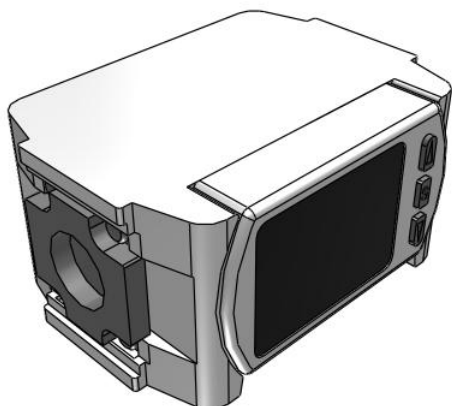


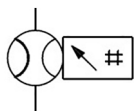


PF3A7*H-L, Modular Digital Flow Switch with IO-Link PF3A702H-L3N

Datasheet

General series information

- Can be connected to air combination unit.
- Applicable fluid: Air, N₂, CO₂, Ar.
- Flow range: Max. 8000 L/min.
- Flow ratio: 100:1.
- 3-colour/ 2-screen display.
- Port Size: 1/4, 3/8, 1/2, 3/4.
- Outputs: NPN/PNP/IO-Link and analogue/external input.
- IP65.



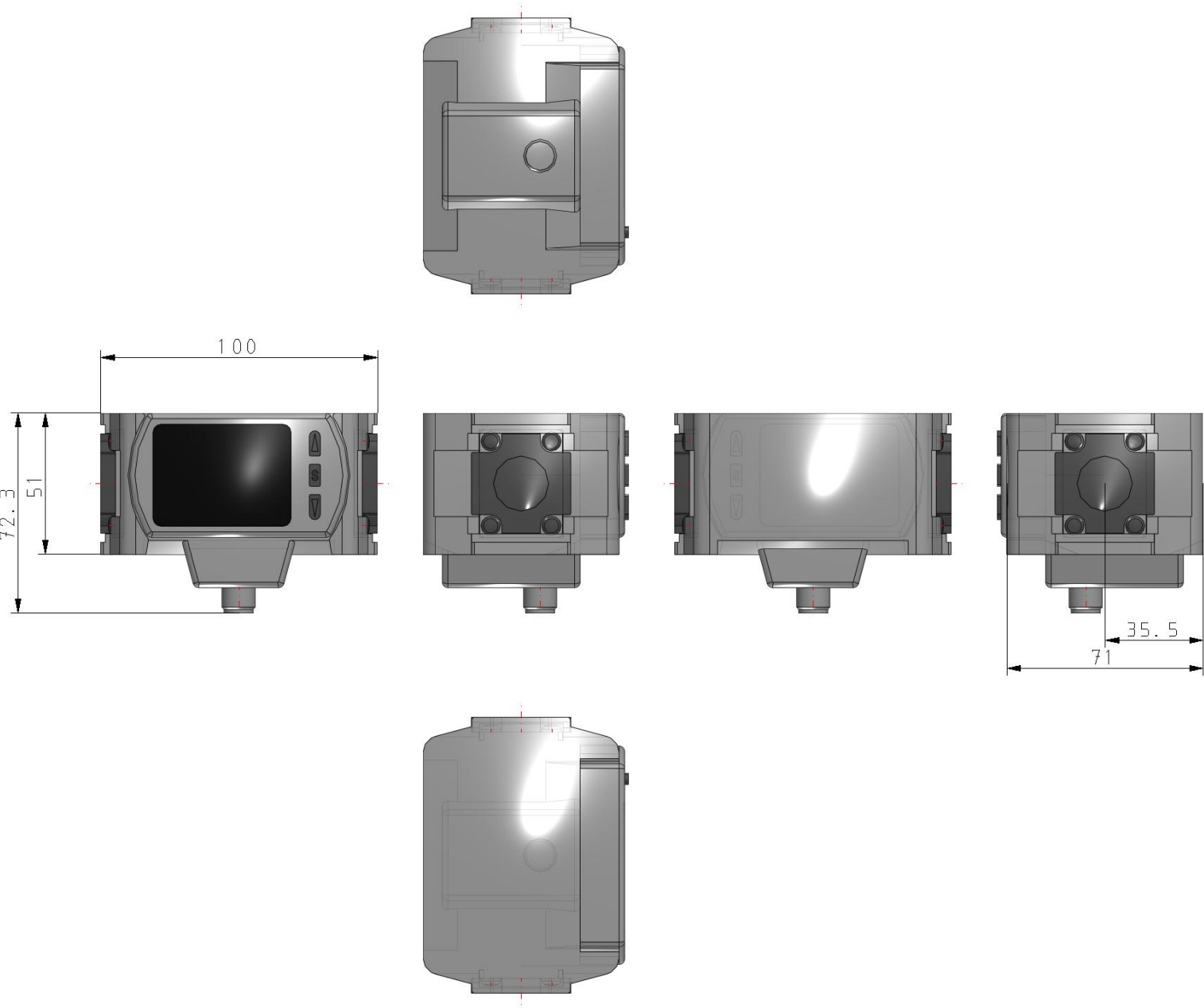
Flow meter with digital display

Standard specifications

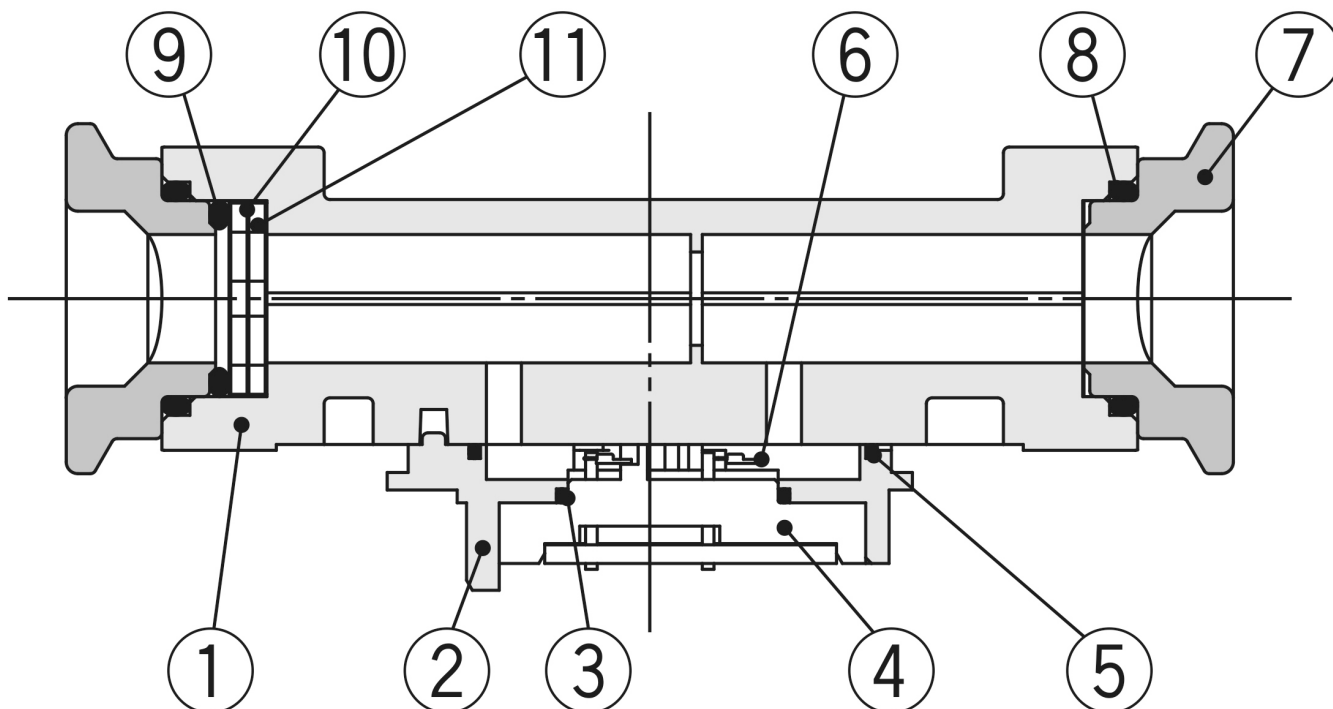
Rated Flow Range	02 (20 to 2000 l/min)
Output Specification	L3 [Out: IO-Link, Switch Output (N/P); Func: Analog Voltage Output <-> External Input; Monitor Unit Model: PFG300 Series]
Lead Wire	N (w/o Lead Wire and M12 Connector)
Unit Specification	Units Selection Function
Calibration Certificate	None, Certificate in both English and Japanese
Flow Direction	Left to Right
Proof pressure	1.5 MPa
Conform to the European RoHS Directive	Conform
Approvals	CE, EMC, RoHS
Operating humidity range	Operating/Stored: 35 to 85 % RH (No condensation)
Internal voltage drop	1.5 V or less (at load current of 80 mA)
Current consumption	150 mA or less
Enclosure	IP65

Repeatability	±1.0% F.S.
Applicable fluid	Air, Nitrogen
Rated pressure range	0 - 1 MPa
Switch output	Select from NPN or PNP open collector output
Flow display range	0 to 2100 l/min (Flow under 20 L/min is displayed as "0")
Contact material for circulating fluid	Stainless steel 304, Aluminum alloy, PPS, HNBR [Sensor: Pt, Au, Ni, Fe, Lead glass (exempted from the RoHS application), Al ₂ O ₃]
Operating temperature range	Operating: 0 to 50 °C, Stored: -10 to 60 °C (No freezing or condensation)
Smallest settable increment	2 l/min
Max. load current	80 mA
Max. applied voltage	30 V (NPN output)
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
Maximum fluid temperature	50 °C
Minimum fluid temperature	0 °C
Flow detection method	Thermal type
Set point range Instantaneous flow	20 - 2000 l/min
Smallest settable increment Accumulated flow	10 L
Accumulated volume per pulse	10 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
Switch output protection	Over current protection
Analogue output type	Voltage output: 1 to 5 V (0 to 10 V can be selected)
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 999,999,999,990 L
Minimum display unit	2 l/min
Minimum display unit Accumulated flow	10 L
Power supply voltage when used as a switch output device	24 VDC ±10%
Power supply voltage when used as an IO-Link device	21.6 to 30 VDC
Switch output response time	3.3 ms or less, variable from 0 to 60 s/0.01 s increments
Hysteresis	Variable from 0
Weight	0.490 Kg

Dimensions



Constructions



Component Parts

No.	Description	Material	Note
1	Body	ADC	
2	Branch passage	PPS	
3	Gasket	HNBR	
4	Sensor base	PPS	
5	Gasket	HNBR	
6	Sensor	Au, Pt, Al ₂ O ₃	
7	Attachment	ADC	
8	O-ring	HNBR	
9	O-ring	HNBR	
10	Mesh	Stainless steel 304	
11	Spacer	PPS	

Additional information

Catalogue	PF3A7_H-E_EU.pdf
Declaration of conformity	newDoC_PF3A7xH_TF1V123EN.pdf newDoC_PF3A7xH_TF1Y128EN.pdf
Installation manuals	IM_PF3A70xH_TF2Z092EN-A.pdf
Operation manuals	OM_PF3A70xH_OMX0007EN-D.pdf