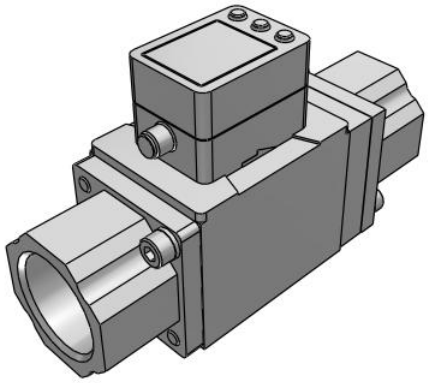


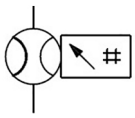
PF3W7-L, Digital Flow Switch for Water, IO-Link, 2-Screen 3-Color Display, Integrated Display, IP65

PF3W711-F10-L2TN-MZ

Datasheet

General series information

- IO-Link.
- Compact size.
- Rotary display.
- Display visibility improved.
- Built-in temperature sensor.
- IP65.



Flow meter with digital display

Standard specifications

Rated Flow Range	11 (10 to 100 l/min)
Flow Adjustment Valve	W/o Flow Adjustment Valve
Thread	F (G)
Port Size	10 (1)
Output Specification/Temperature Sensor	L2T (Out 1: IO-Link/Switch Output, N/P; Out 2: Switch Output, N/P; Temperature Sensor: Yes)
Lead Wire	N (None)
Unit Specification	M (Instantaneous Flow: L/min; Accumulated Flow: L; Temperature: °C)
Bracket	None
Calibration Certificate	None
Series	Z (Flow Range: 04: 0.5 to 4 L/min , 20: 2 to 16 L/min, 40: 5 to 40 L/min, 11: 10 to 100 L/min)
Proof pressure	1.5 Mpa
General power supply	12 to 24 VDC ±10 % When used as a switch output device, 18 to 30 VDC, including ripple (p-p) 10% When used as an IO-Link device
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	50 mA or less
Material	PPS, Stainless steel 304, FKM, SCS13, Non-grease
Operating humidity range	Operation, Storage: 35 to 85 % R.H. (No condensation)
Enclosure	IP65
Repeatability	±2 % F.S.
Applicable fluid	Water and ethylene glycol aqueous solution (with viscosity of 3 mPa·s [3 cP] or less)
Maximum load current	80 mA
Flow display range	7 to 140 l/min (Flow under 7 l/min is displayed as “0”)
Operating temperature range	0 to 50 °C (No freezing or condensation)
Pressure range	0 - 1 Mpa
Accuracy	±3 % F.S.
Smallest settable increment	1 L/min
Max. applied voltage	30 V (during NPN output)
Hysteresis mode	Variable
Display	2-screen display (Main screen: 4-digit, 7-segment, 2-colour, Red/Green Sub screen: 6-digit, 11-segment, White) Display values updated 5 times per second
Indicator light	Output 1, Output 2: Orange
Withstand voltage	1000 VAC for 1 minute between terminals and housing
Insulation resistance	50 MΩ or more (500 VDC measured via megohmmeter) between terminals and housing
Temperature characteristics	±5 % F.S. (25 °C standard)
Standards	CE
Flow detection method	Karman vortex
Set point range Instantaneous flow	7 - 140 L/min
Switch output protection	Short-circuit protection
Fluid temperature	0 to 90 °C (No freezing or condensation)
Pressure loss (without flow adjustment valve)	45 kPa or less at the maximum flow
Temperature sensor specifications	to 100°C, Smallest settable increment 1 °C, Display accuracy ±2 °C, Ambient temperature characteristics ±5 % F.S., Response time 7 s
Conversion of accumulated pulse (Pulse width: 50 ms)	4 L/pulse
Display unit	Instantaneous flow: l/min, Accumulated flow: L
Accumulated flow range	9.999.999.999 L
Switch output mode Temperature	Select from Hysteresis mode or Window comparator mode.
Switch output Delay time	3.5 ms Variable from 0 to 60 s/0.01 s increments
Communication spec. (During IO-Link mode)	IO-Link Device, V1.1, COM2 (38.4 kbps), 3.5 ms cycle time, Data storage function
Accumulated flow range increment	1 L

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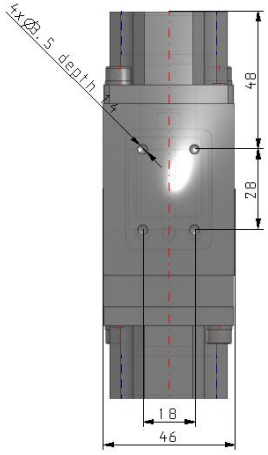
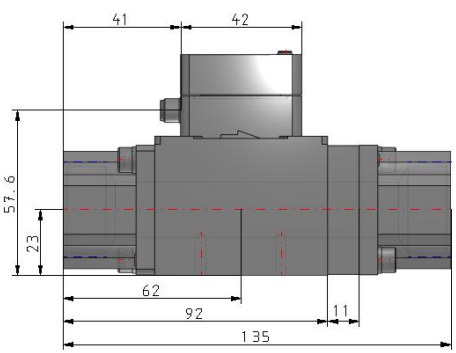
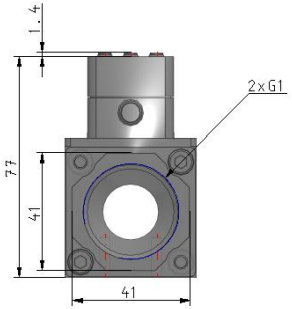
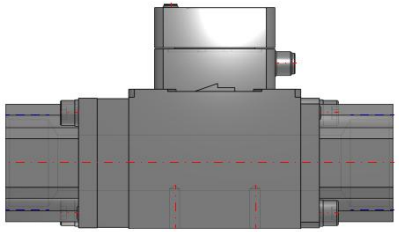
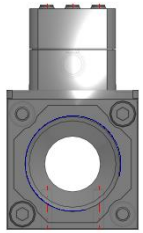
Dimensions

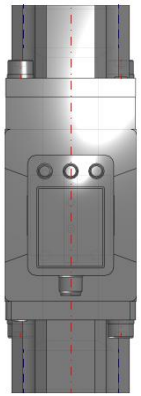












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Constructions

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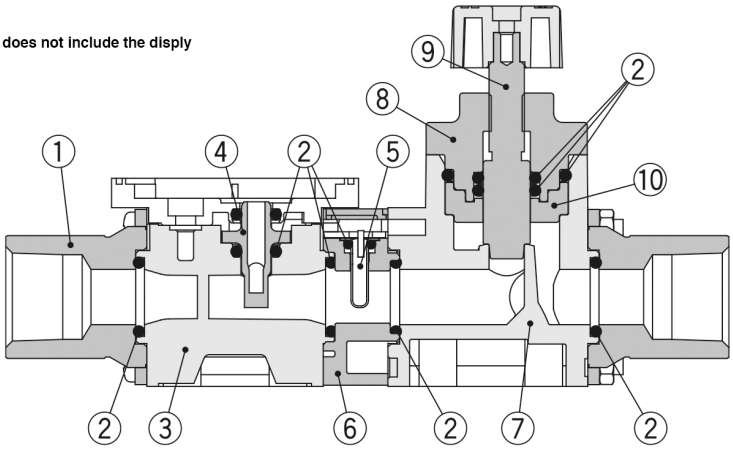

Component Parts

No.	Description	Material	Note
1	**Attachment**	Stainless steel 304	PF3W704/720/740/504/520/540
		SCS13	Stainless steel 304 equivalent, PF3W711/511
2	**Seal**	FKM	
3	**Body**	PPS	
4	**Sensor**	PPS	
5	**Temperature sensor**	Stainless steel 304	
6	**Temperature sensor body**	PPS	
7	**Flow adjustment valve body**	PPS	
8	**Flow adjustment valve cover**	PPS	
9	**Flow adjustment valve shaft**	Stainless steel 304	
10	**Shaft support**	PPS	

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Additional information

Catalogue	PF3W-Z_L-B_EU.pdf
Declaration of conformity	newdoc_pf_tf1w35en.pdf
Installation manuals	IM_PF3W7-L_TF2Z088EN.pdf
Operation manuals	OM_PF3W7_OMW0010EN-G.pdf

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