

FPW100 – Insertion Type PaddleWheel Flow Meter



- ▶ Low cost
- ▶ Applicable to any pipe size
- ▶ One moving part only
- ▶ Choices of wetted parts material (stainless steel / PVC)
- ▶ Measuring range 1.06...17700L/Min
- ▶ Easy to mount and unmount
- ▶ Output to PLC or other meters



Fluid flowing through FPW100 causes the paddle wheel to spin. As the magnets embedded in the paddle spin past the sensor, electrical pulses are produced in which frequency is proportional to the flow rate. The revolutions per minute and the K-factor (number of pulses/Gallon) are used to obtain the flow passing through the unit.

Specifications

Measuring Range	1.06...17700L/Min
Nominal Diameter	DN15...DN200
Applicable Medium	Liquids
Accuracy	≤±1.5 of F.S.
Pressure Rating	
Stainless Steel Probe	50bar
PVC Probe	12bar
Power Supply	10...25Vdc
Current Consumption	≤20mA
Output	PNP / NPN pulse, 0...20mA/4...20mA
Wiring Protection	Reverse polarity, Short-circuit
Ambient Temperature	-20...70°C
Medium Temperature	
Stainless Steel Probe	-25...95°C
PVC Probe	-5...70°C
Protection Class	IP65(Solenoid plug), IP67(Cable outlet / M12x1 plug)
Materials	
Electronics Housing	Stainless steel 304, anodizing aluminum
Probe Housing	Stainless steel 316 / PVC
Rotor	PVDF
Shaft / Bearings	Tungsten steel / Ruby jewel
Electrical Connection	Cable outlet 4m, M12x1 plug, Solenoid plug

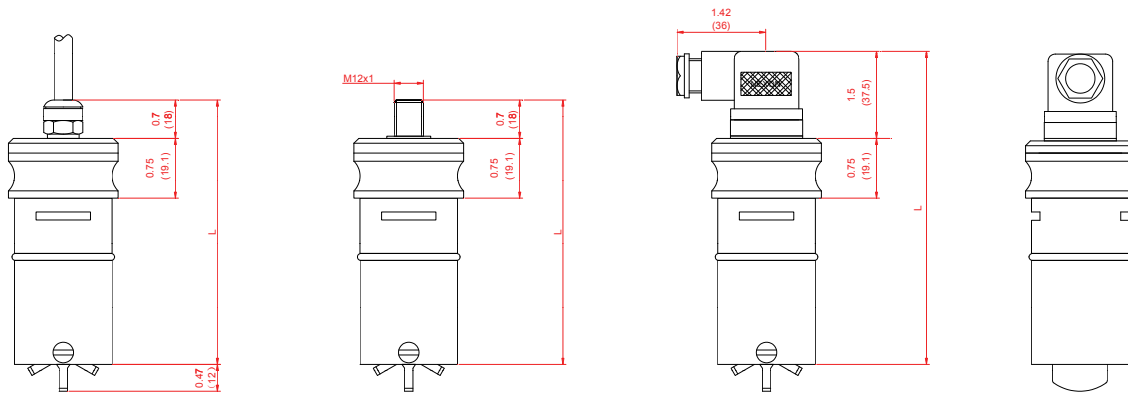
Applications

- ▶ Lubrication system
- ▶ Water treatment
- ▶ Cooling water
- ▶ circulation water monitoring

Wiring

Wiring	PNP output	NPN output	Current analog output												
<table border="1"> <tr> <th>Signal</th> <th>Plug</th> <th>Cable</th> </tr> <tr> <td>U+</td> <td>1</td> <td>Brown</td> </tr> <tr> <td>Pulse</td> <td>4</td> <td>Black</td> </tr> <tr> <td>U-</td> <td>3</td> <td>Blue</td> </tr> </table> <p>M12x1 plug / Cable outlet</p>	Signal	Plug	Cable	U+	1	Brown	Pulse	4	Black	U-	3	Blue			
Signal	Plug	Cable													
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Signal	Plug														
U+	1														
Pulse	3														
U-	2														

Dimensions in inches (mm)



Model	Cable outlet	Plug	Solenoid Plug
Nominal diameter DN	L	L	L
1/2"...3" (DN15...DN80)	4.1" (105)	4.1" (105)	4.9" (124.5)
4"...8" (DN100...DN200)	5.1" (130.4)	5.1" (130.4)	5.9" (150)

Flow Range

Flow UoM GAL/Min (L/Min)

Nominal diameter	1/2" (DN15)	3/4" (DN20)	1" (DN25)	1-1/2" (DN40)	2" (DN50)	3" (DN80)	4" (DN100)	6" (DN150)	8" (DN200)
Min. flow	0.28 (1.06)	0.5 (1.89)	0.8 (3.03)	1.9 (7.19)	3.1 (11.7)	6.9 (26.1)	12 (45.4)	27 (102)	46.8 (177)
Max. flow	28 (106)	50 (189)	80 (303)	190 (719)	314 (1188)	691 (2615)	1190 (4504)	2700 (10200)	4680 (17700)

Note : More accuracy of the flow range please refer to the meter on delivery.

Order Code

FPW :	PaddleWheel flow meter
100 :	Series# - insertion type paddlewheel
01 :	DN15...DN80 (1/2"...3")
02 :	DN100...DN200 (4"...8")
S :	Probe housing material: stainless steel 316
P :	Probe housing material: PVC

FPW	100/	01/	S	H	A4	D
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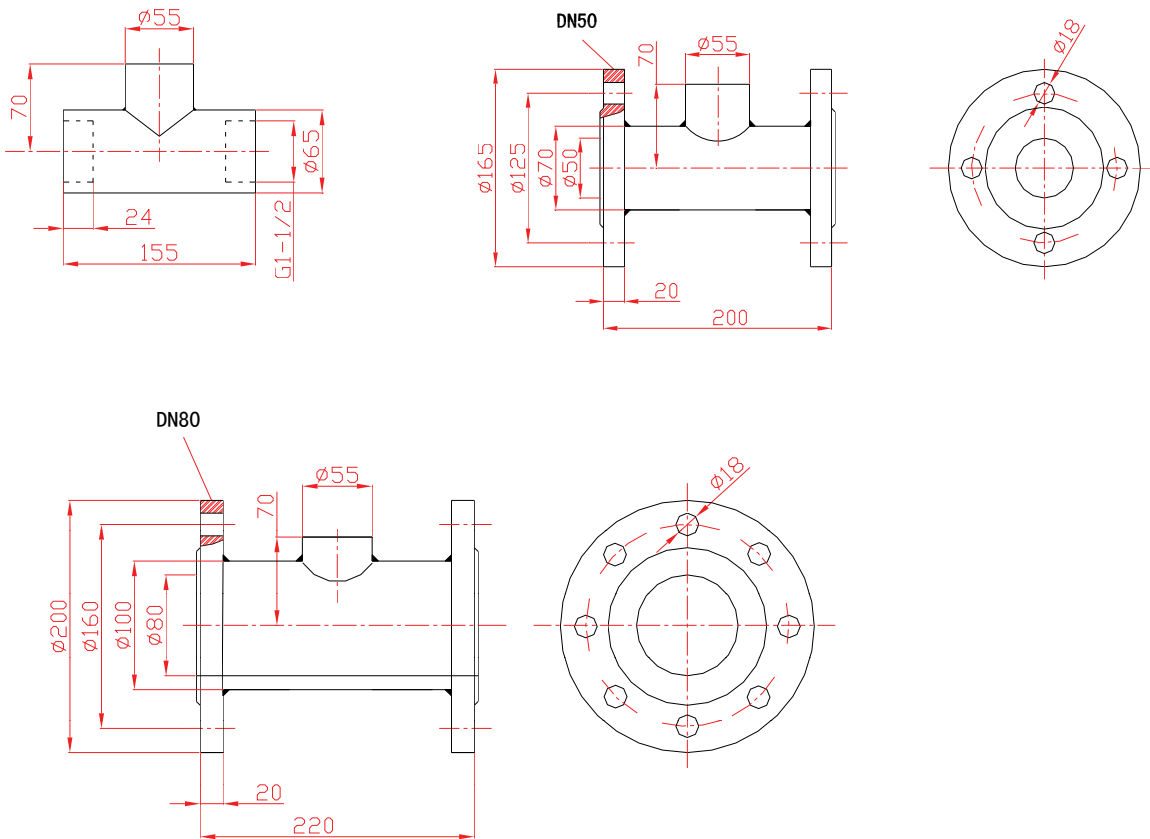
C :	Cable outlet
S :	M12 plug
H :	Solenoid plug
PO :	3-wire PNP output
N0 :	3-wire NPN output
A0 :	3-wire 0...20mA current analog output
A4 :	3-wire 4...20mA current analog output
D :	Optional LCD display and 4...20mA analog output
- :	None

Special Order on Request

- ▶ Electrical / process connection
- ▶ Housing material
- ▶ Rotor material

Accessory – Flow Adapter

An adapter can be used to ensure the right insertion depth of the flow meter. (Adapter customized)



Accessory – MF1000 Flow Display Controller



Note: For details, please refer to the parameter table of MF1000

Augmented Product – Optional LED Digital Display

	DWE-FPW100 SERIES
	2 switching outputs + 1 analog output
	Switching point set through menus
	Analog output set through menus
	Flow rate display
	Total flow display
	Batch control
	8 LED for switching state
4-digit of 7-segment red LED for flow rate or setting menus	