

# Paddle Wheel Flow Meter

## PF100T - Flow & Temperature Output

### Introduction

Medium flowing through pipe causes the spinning of the paddle wheel, and the spin of paddle wheel is proportional to the speed of the medium flowing through. The sensor on the top of the paddle wheel detects the past of each paddle and produce a pulse, the transmitter then processes the pulse signal to obtain of flow rate.



### Characteristics

DN20...DN150 / 3/4...6"

Cost-efficient

Compact design

Easy to install and maintain

One unit works with various size pipes.

2 4...20mA + 2 switching output

### Applications

Hydraulic oil/lubricating

Water / water treatment

Cooling system

Braking fluid

Oil/gas

Machine manufacturing

## Specifications

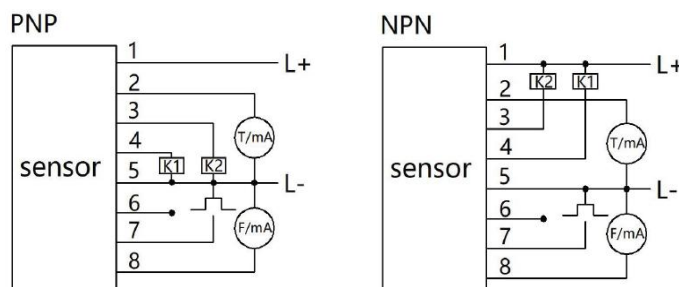
<b>Flow measuring range</b>	See below for details
<b>Temperature measuring range</b>	0...100°C (32...212°F)
<b>Applicable to pipe size</b>	DN20...DN150 (3/4...6")
<b>Accuracy</b>	2% of full span
<b>Output</b>	One 4...20mA for flow
	One 4...20mA for temperature
	One Pulse output for flow
	2 switching output (NPN / PNP)
<b>Operating voltage</b>	24VDC ± 20%
<b>Operating current</b>	<50 mA
<b>Display</b>	LCD
<b>Max. pressure resistance</b>	30 bar (435 psi)
<b>Ambient temperature</b>	-20...80°C (-4...176°F)
<b>Material</b>	Housing: Aluminum
	Body: stainless steel
	Rotor: PVDF
<b>Electrical connection</b>	8-pin M12 x 1
	4-pin M12 x 1
<b>Process connection</b>	Thread, Tri-Clamp
<b>Protection class</b>	IP65

### Measurable flow range

Pipe Size		Flow range	
DN	Inch	L/min	gal/min
20	3/4	10...114	2.7...30
25	1	16...176	4.3...46
32	1-1/4	34...379	9...100
40	1-1/2	40...452	10...120
50	2	63...706	17...186
65	2-1/2	107...1194	28...315
80	3	163...1809	43...480
100	4	254...2827	68...750
150	6	572...6361	15...1700

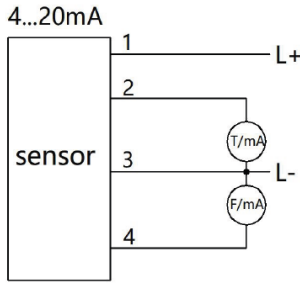
### Wiring

#### 4...20mA + switching output (8-pin cable)



PIN	Cable color	Description
1	Brown	Power +
2	Gray	Temperature output: 4...20mA
3	White	K2: switching output 2
4	Pink	K1: switching output 1
5	Blue	Power -
6	Red	/
7	Yellow	Flow output: 4...20mA
8	Green	Flow output: pulse

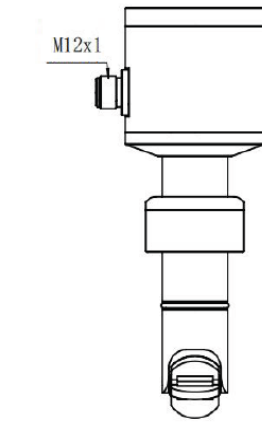
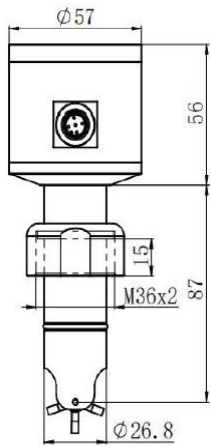
**4...20mA output (4-pin cable)**



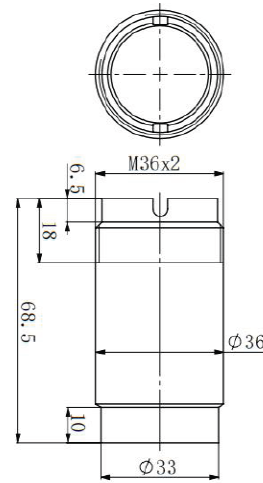
PIN	Cable color	Description
1	Brown	Power +
2	White	Temperature output: 4...20mA
3	Blue	Power -
4	Black	Flow output: 4...20mA

**Dimension in mm**

**Thread connection**

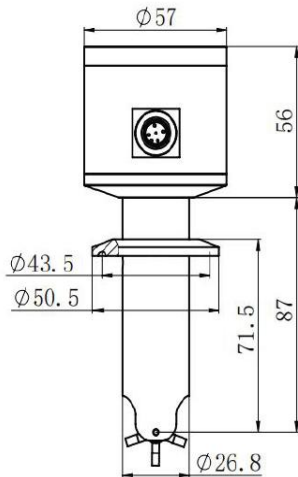


M36 x 2 thread

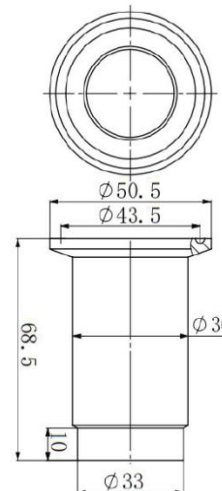
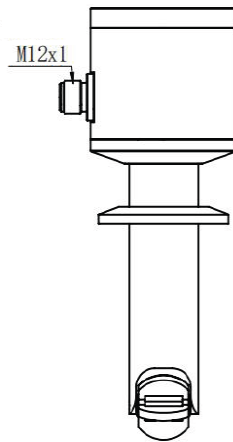


welding base

**Tri-Clamp connection**



1.5" tri-clamp



welding base

## Order Code

Example: PF100T-050PMQ

### 1. Model

PF100T- Paddle wheel flow meter with temperature output

### 2. Pipe size

50 DN20...DN150 (3/4...6")

### 3. Output

N 4...20mA + pulse + PNP

P 4...20mA + pulse + NPN

A 4...20mA

### 4. Process connection

M M36 x 2 Thread

C 1.5" Tri-Clamp

F Flange (customization)

### 5. Electrical connection

Q M12 x 1

## Accessory - Cable

ST04-	PU	2	F	G	Description
ET04-					4-pin M12 x 1 cable
ET08-					8-pin M12 x 1 cable
ST04-					Self-lock 4-pin M12 x 1 cable
ST08-					Self-lock 8-pin M12 x 1 cable
	PU				Material: PUR
		02			Length: 2m / 6.5ft (default)
		05			Length: 5m / 16.5ft
		10			Length: 10m / 33ft
			F		Female plug head
				G	Straight head
				W	Bend head

