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**RDWE-FPW100 Flow Sensor**  
Doc. ID: RNT201911103



## RDWE-FPW100 Flow Sensor

- ▶ 4-digit LED for flow rate or total flow
- ▶ 2 switching outputs + 1 analog output
- ▶ Optional batch control
- ▶ PNP / NPN configurable
- ▶ 2/3-wire 4 to 20mA optional
- ▶ 1 to 5V/0 to 5V optional
- ▶ All-metal housing
- ▶ 330° Rotatable indicator



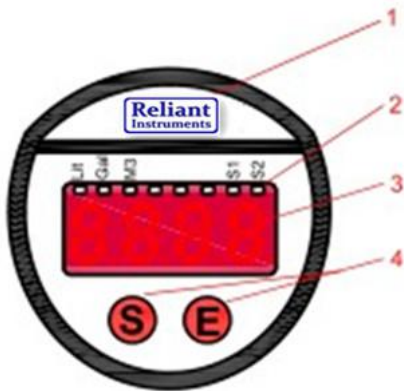
RDWE-FPW control unit displays flow rate as well as total flow, 2 independent switching outputs are compatible with NPN/PNP output. Analog output can be programmed as 2/3-wire 4 to 20mA, 3-wire 0 to 5V/1 to 5V. The unit is able to use together with RFPW100, RFPW200, RFGR200, RFTB201 and RFTB202.

## Specifications

<b>Power Supply</b>	12 to 30VDC
<b>Current Consumption</b>	25mA (power supply 24VDC, no-load)
<b>Switching Output</b>	
Output	Push-pull (compatible with PNP / NPN)
<b>Current</b>	500mA (power supply 24VDC)
<b>Current Analog Output</b>	
Output	2/3-wire 4 to 20mA programmable
Load RA (Ω)	$RA \leq (U_s - 3) V / 0.02A$
Linearity	$\leq \pm 0.5\%$ of F.S.
<b>Voltage Analog Output</b>	
Output	3-wire 0 to 5V/1 to 5V programmable
Load RA (Ω)	$RA \geq 5K\Omega$
Linearity	$\leq \pm 0.5\%$ of F.S.
<b>Accuracy</b>	$\leq \pm 0.5\%$ of F.S.
<b>Stability (Drift/year)</b>	$\leq \pm 0.3\%$ of F.S.
<b>Temperature</b>	
Ambient	-40 to 85°C
Storage	-40 to 85°C
<b>Display</b>	8mm height, red 4-digit LED
<b>Material</b>	
Display Head	Zinc alloy
Housing	304 stainless steel
<b>Protection Class</b>	IP67
<b>Electrical Connection</b>	M12×1plug

Note: Parameters above are only for DWE-F control unit.

### Set Panel



- 1 - LOGO
- 2 - 8 state lights
- 3 - 4-digit LED display window
- 4 - Keys

<b>S</b> + <b>E</b>	Press and hold for 2 seconds to enter setting mode/verification
<b>S</b>	Shift down the menu/change values
<b>E</b>	Shift up the menu/change values

### Menu

Display	Item	Description	Options
unit	unit	Unit	LPM/GPM/MPH
SP1	SP1	Set point of output 1	2% ... 100% of F.S.
rP1	rP1	Reset point of output 1	lower limit ... 98% of F.S.
out1	out1	Output mode	hysteresisNC/NO window NC/NO
SP2	SP2	Set point of output 2	2% ... 100% of F.S.
rP2	rP2	Reset point of output 2	lower limit ... 98% of F.S.
out2	out2	Output mode	hysteresisNC/NO window NC/NO
SFun	sfun	Output function	PNP / NPN
Aout	Aout	Current analog output	0...20mA or 4...20mA
		Voltage analog output	0...5V or 1...5V
ASt	ASt	Analog output start point	lower limit ... 75% of F.S.
AEd	AEd	Analog output end point	25%...100% of F.S.

Display	Item	Description	Options
EF	EF	Code for starting the total flow menu	code: 1001
Acc2	ACC2	High 4-digit of the total	0-9999
Acc1	ACC1	Middle 4-digit of the total	0-9999
Acc0	ACC0	Low 4-digit of the total	0-9999
clr	clr	Clear total	rst / no
dAP	dAP	Elimate the peak	0-8 grade
Sto	Sto	Save	Yes/No

### Functional Specifications

# RDWE-FPW100 Flow Sensor

Rev. RPW2-1.0

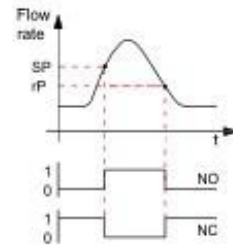
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### Hysteresis Mode

The hysteresis keeps the switching output stable if the flow rate fluctuates around the setpoint. Output switches when rising flow rate reaches set point (SP1); As flow rate falls, the output switches back only if the reset point (rP1) is reached.

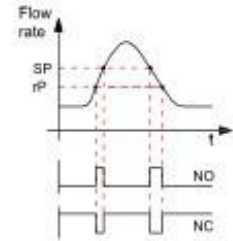
### Hysteresis Mode



### Window Mode

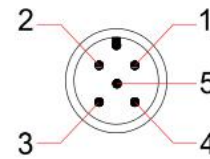
The window function allows the monitoring of a defined range. If the flow rate is between set point (SP1) and reset point (rP1), the output is activated (NO), otherwise it is deactivated (NC).

### Window Mode



## Wiring

Signal	Plug	Cable
U+	1	Brown
U-	3	Blue
Switching output 1	4	Black
Switching output 2	2	White
Analog output (Current or Voltage)	5	Gray



M12 plug

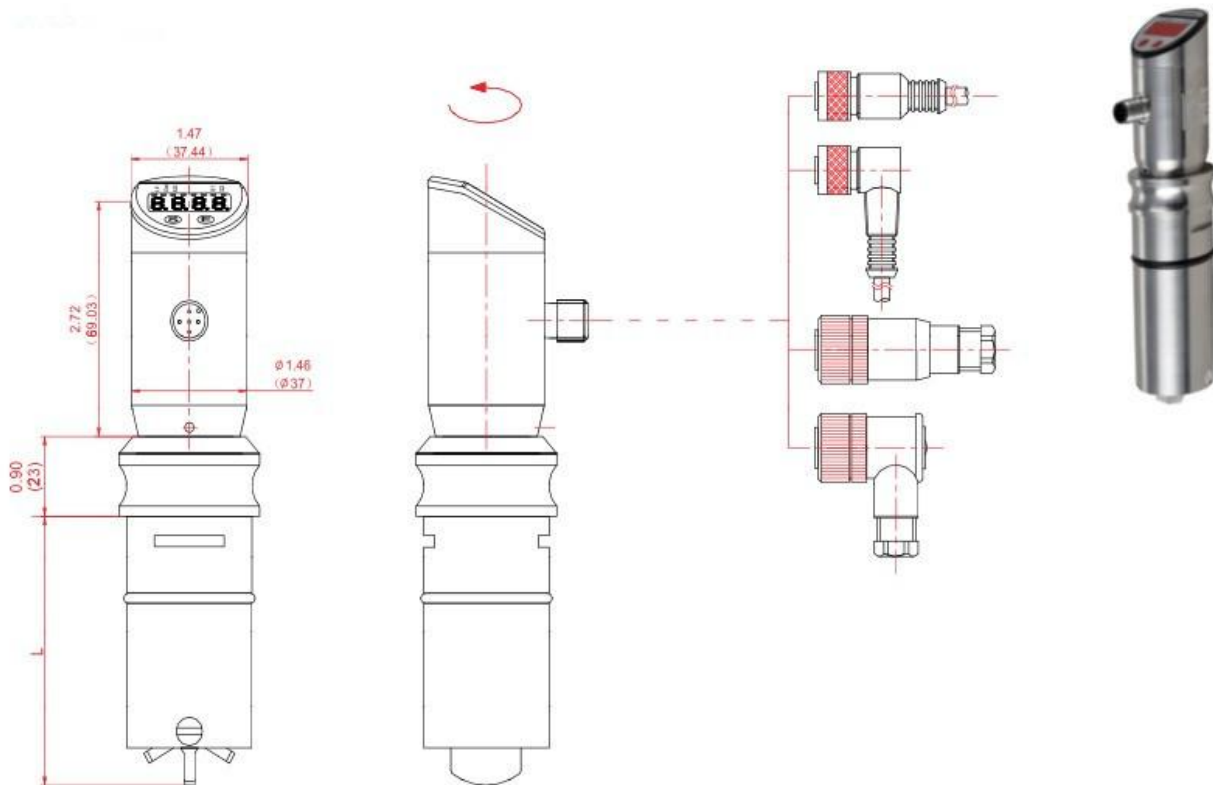
PNP output	NPN output
<p>2xPNP + analog output</p>	<p>2xNPN + analog output</p>

## Dimensions in inches (mm)

# RDWE-FPW100 Flow Sensor

Rev. RPW2-1.0

Doc. ID: RNT201911103



Nominal Diameter DN	L -inch(mm)
1/2" to 3" (DN15 to DN80)	2.67" (67.9)
4" to 8" (DN100 to DN200)	3.67" (93.3)

## Order Code

SN	Code and Description	Note
1.	<b>RDWE-FPW100:</b> Insertion Type Paddle Wheel Flow Meter With Dwe Smart Control Unit	
2.	<b>01</b> : DN15...DN80 (1/2"...3") <b>02</b> : DN100...DN200 (4"...8")	
3.	<b>S</b> : Probe housing material: 316 stainless steel <b>P</b> : Probe housing material: PVC	
4.	<b>S</b> : M12 plug	
5.	<b>A020</b> : 3-wire 0...20mA current analog output <b>A420</b> : 3-wire 4...20mA current analog output	

**Note:** For details please refer to RFPW100.

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