

DWE-F... – Flow Sensor with DWE Smart Control Unit

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

DWE-F 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...20mA, 3-wire 0...5V/1...5V. The unit is able to use together with FPW100, FPW200, FGR200, FTB200 and FTS200. All metal housing design; LED display; Dual-key, user-friendly menu design; 330° rotatable indicator.

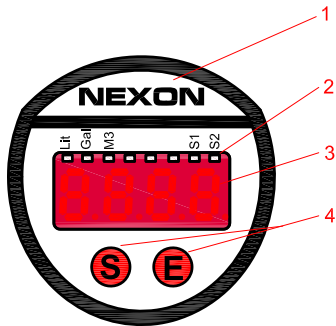


Specifications

Power Supply	12...30Vdc
Current Consumption	25mA(power supply 24Vdc, no-load)
Switching Output	
Output	Push-pull (compatible with PNP / NPN)
Current	500mA(power supply 24Vdc)
Current Analog Output	
Output	2/3-wire 4...20mA programable
Load RA (Ω)	RA ≤ (Us-3) V/0.02A
Linearity	≤ ±0.5% of F.S.
Voltage Analog Output	
Output	3-wire 0...5V/1...5V programable
Load RA (Ω)	RA ≥ 5KΩ
Linearity	≤ ±0.5% of F.S.
Accuracy	≤ ±0.5% of F.S.
Stability(Drift/year)	≤ ±0.3% of F.S.
Temperature	
Ambient	-40...85℃
Storage	-40...85℃
Display	8mm height, red 4-digit LED
Material	
Display Head	Zinc alloy
Housing	304 stainless steel
Protection Class	IP67
Electrical Connection	M12×1 plug

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

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

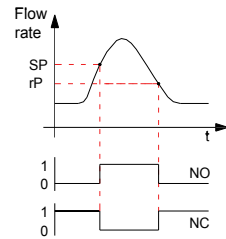
Display	Item	Description	Options
EF	EF	Code for starting the total flow menu	code: 1001
Acc2	ACC2	High 4-digit of the total	0-9999
Acc1	ACC1	Middle 4-digit of the total	0-9999
Acc0	ACC0	Low 4-digit of the total	0-9999
CLr	clr	Clear total	rst / no
dAP	dAP	Elimate the peak	0~8 grade
Sto	Sto	Save	Yes/No

Functional Specifications

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.

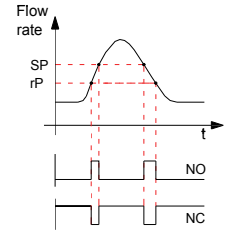
Hysteresis Mode



Window Mode

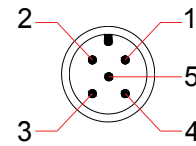
The window function allows the monitoring of a defined range. If the flow rate is between set point (SP1) and reset point (rP1), the output is activated (NO), otherwise it is deactivated (NC).

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

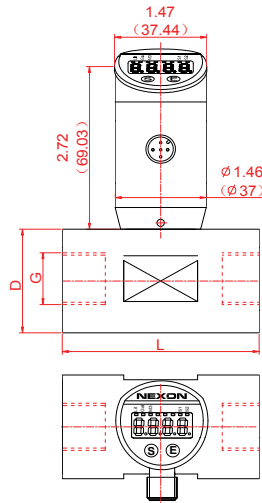


M12 plug

PNP output		NPN output	
2xPNP + analog output	<p>Wiring diagram for PNP output: Pin 1 is connected to 12-30Vdc (+). Pin 2 is connected to the common terminal of switch S2. Pin 4 is connected to the common terminal of switch S1. Pin 5 is connected to the common terminal of switch S1. Pin 3 is connected to the common terminal of switch S2. The other terminals of S1 and S2 are connected to ground (-).</p>	2xNPN + analog output	<p>Wiring diagram for NPN output: Pin 1 is connected to 12-30Vdc (+). Pin 2 is connected to the common terminal of switch S2. Pin 4 is connected to the common terminal of switch S1. Pin 5 is connected to the common terminal of switch S1. Pin 3 is connected to the common terminal of switch S2. The other terminals of S1 and S2 are connected to ground (-).</p>

DWE-FTB200 – Turbine Flow Meter with DWE Smart Control Unit

Dimensions in inches (mm) Nominal Diameter DN ≤ 40 inches (mm)



Note: For details please refer to FTB200.

Order Code

DWE-FTB :	Turbine flow meter with DWE smart control unit
200 :	Series # – magnetic turbine sensor
N :	NPT thread (applicable to pipe size ≤ DN40)
G :	BSP thread (applicable to pipe size ≤ DN40)
F :	Flange connection (applicable to pipesize ≥ DN15)
014 :	Size of process connection – 1/4" (DN4 or DN6)
038 :	Size of process connection – 3/8" (DN10)
012 :	Size of process connection – 1/2" (DN15)
034 :	Size of process connection – 3/4" (DN20)
001 :	Size of process connection – 1" (DN25)
114 :	Size of process connection – 1-1/4" (DN32)
112 :	Size of process connection – 1-1/2" (DN40)
002 :	Size of process connection – 2" (DN50)
212 :	Size of process connection – 2-1/2" (DN65)
003 :	Size of process connection – 3" (DN80)
004 :	Size of process connection – 4" (DN100)
005 :	Size of process connection – 5" (DN125)
006 :	Size of process connection – 6" (DN150)
008 :	Size of process connection – 8" (DN200)
010 :	Size of process connection – 10" (DN250)

DWE-FTB	200	G	14	3	A	S	S	100L	T
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2:	2-wire
3:	3-wire
V:	0...10V analog output
A:	4...20mA analog output
S:	M12×1 plug
H:	Solenoid plug
S:	Stainless steel body
Measuring range (please see technical data for details) :	
e.g. 1: 100L :	10...100 l/min
e.g. 2: 40M :	4...40 m ³ /h
T:	Totalizer
B:	Batch control