

# Blue-White<sup>®</sup>

## Industries, Ltd.

## DigiFlo Digital Paddlewheel Meters

### Engineering and Technical Data

# MICRO-FLO

**1/4" & 1/8" F/NPT Pipe**  
**1/4" OD & 3/8" OD Tubing**

**Rate & Total display**

**On-Sensor or**  
**Panel Mounted Display**



## Features:

- High accuracy digital paddlewheel technology.
- 1/8" F/NPT, 1/4" F/NPT, 1/4"OD Tubing & 3/8"OD Tubing sizes.
- Flow rates from 30 to 7000 milliliters per minute.
- 4 model variations:
  - FS = Sensor mounted display
  - FP = Panel mounted display (includes 25' cable)
  - FV = No display. Sensor only. 5vdc current sinking output
  - FX = No electronic sensor. Visual indicator only.
- 6 digit LCD, up to 4 decimal positions.
- Displays both rate of flow and total accumulated flow.
- Open collector alarm setpoint.
- User selectable or custom programmable scale factors.
  - Flow units: Gallons, Liters, Ounces, milliliters
  - Time units: Minutes, Hours, Days
- Volumetric field calibration programming system.
- Non-volatile programming and accumulated flow memory.
- Total reset function can be disabled.
- Clear PVC viewing lens or PVDF chemical resistant lens.
- Weather resistant Valox<sup>®</sup> PBT enclosure. NEMA 4X
- LCD is not recommended for direct sunlight applications.

## Specifications:

### Max. Working Pressure:

PVC lens, ..... 130 psig (9 bar) @ 70° F (21° C)  
 PVDF lens, ..... 150 psig (10 bar) @ 70° F (21° C)

### Max. Fluid Temperature:

PVC lens, F/NPT connectors..... 130° F (54° C) @ 0 PSI  
 PVDF lens, tubing connectors... 200° F (93° C) @ 0 PSI  
 Full scale accuracy ..... +/- 6%

### Input Power requirement: .... 9 - 28 VDC

Optional AC/DC transformers available

### Sensor type: ..... Infra-red light beam

Sensor only output: ..... 5V DC digital square wave (3-wire)

Sensor output cable: ..... 3-wire shielded cable, 6ft

Enclosure: .....NEMA type 4X, (IP56)

Approximate shipping wt: ...1 lb. (.45 kg)

## Materials of Construction:

Body, Paddle, Axle material: ..... PVDF

Connector material:

F/NPT connections..... PVC

Tubing connectors: ..... PVDF

### Viewing lens material option:

Clear see through..... PVC

Opaque chemical resistant..... PVDF

O-ring seals: ..... Viton (Optional EP)

Compression seal to pump:..... PVC

## Installation Requirements:

### Mounting location

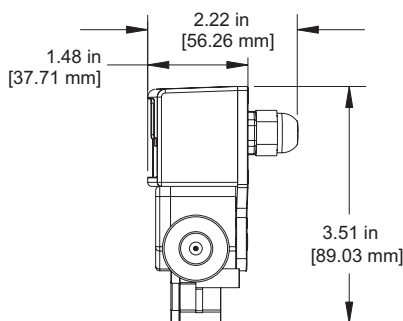
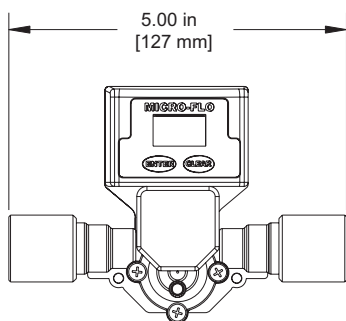
- The meter is designed to withstand outdoor conditions. A cool, dry location, where the unit can be easily serviced is recommended.
- The meter can be mounted on horizontal or vertical runs of pipe. The paddle axle must remain horizontal +/-10°.
- The meter can accurately measure flow from either direction.
- The meter can only be used with fluids that can pass infra-red light.

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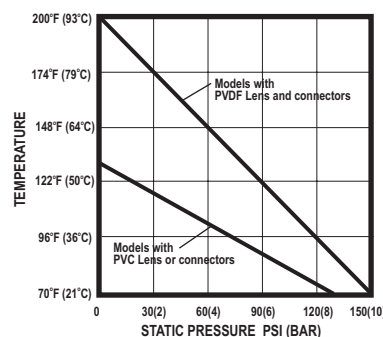
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### DigiFlo Digital Paddlewheel Meters

#### Dimensions:



Maximum Temperature vs. Pressure



#### Model Number Matrix:

##### METER FUNCTION

- FS = Flow rate and Totalizing. On-sensor mounting
- FP = Flow rate and Totalizing. Remote panel mounting
- FV = Flow sensor only (no display)
- FX = Flow indicator only (no electronics)

##### POWER SUPPLY

- 1 = Transformer U.S. 115VAC/15VDC
- 2 = Transformer E.U. 220VAC/15VDC
- 3 = Transformer U.S. 230VAC/15VDC
- None = No selection (customer supplied)

##### FLOW RANGE SELECTION

- 10 = 30-300 ml/min
- 20 = 100-1000 ml/min
- 30 = 200-2000 ml/min
- 40 = 300-3000 ml/min
- 50 = 500-5000 ml/min
- 60 = 700-7000 ml/min



##### O-RING SEAL SELECTION

- V = Viton
- E = EPDM

##### CONNECTOR SELECTION

- 4 = .250" OD tubing connection PVDF
- 5 = .125" Female NPT PVC
- 6 = .375" OD tubing connection PVDF
- 7 = .250" Female NPT PVC

##### LENS MATERIAL SELECTION

- 0 = Clear PVC
- 1 = Opaque PVDF

#### Pipe Size, Flow Range and Model Options:

##### 115V Models with 1/4" F/NPT connections and clear PVC lens

Operating Flow Range		FS Models (Sensor Mount)	FP Models (Panel Mount)	FV Models (Sensor Only)	FX Models (Indicator Only)
OZ/MIN	ML/MIN	Model Number	Model Number	Model Number	Model Number
1 to 10	30 to 300	FS1-100-7V	FP1-100-7V	FV1-100-7V	FX-100-7V
3.5 to 35	100 to 1000	FS1-200-7V	FP1-200-7V	FV1-200-7V	FX-200-7V
7 to 70	200 to 2000	FS1-300-7V	FP1-300-7V	FV1-300-7V	FX-300-7V
10 to 100	300 to 3000	FS1-400-7V	FP1-400-7V	FV1-400-7V	FX-400-7V
17 to 170	500 to 5000	FS1-500-7V	FP1-500-7V	FV1-500-7V	FX-500-7V
24 to 240	700 to 7000	FS1-600-7V	FP1-600-7V	FV1-600-7V	FX-600-7V

##### 115V Models with 1/8" F/NPT connections and clear PVC lens

Operating Flow Range		FS Models (Sensor Mount)	FP Models (Panel Mount)	FV Models (Sensor Only)	FX Models (Indicator Only)
OZ/MIN	ML/MIN	Model Number	Model Number	Model Number	Model Number
1 to 10	30 to 300	FS1-100-5V	FP1-100-5V	FV1-100-5V	FX-100-5V
3.5 to 35	100 to 1000	FS1-200-5V	FP1-200-5V	FV1-200-5V	FX-200-5V
7 to 70	200 to 2000	FS1-300-5V	FP1-300-5V	FV1-300-5V	FX-300-5V
10 to 100	300 to 3000	FS1-400-5V	FP1-400-5V	FV1-400-5V	FX-400-5V
17 to 170	500 to 5000	FS1-500-5V	FP1-500-5V	FV1-500-5V	FX-500-5V
24 to 240	700 to 7000	FS1-600-5V	FP1-600-5V	FV1-600-5V	FX-600-5V

##### 115V Models with 3/8" OD Tubing connections and clear PVC lens

Operating Flow Range		FS Models (Sensor Mount)	FP Models (Panel Mount)	FV Models (Sensor Only)	FX Models (Indicator Only)
OZ/MIN	ML/MIN	Model Number	Model Number	Model Number	Model Number
1 to 10	30 to 300	FS1-100-6V	FP1-100-6V	FV1-100-6V	FX-100-6V
3.5 to 35	100 to 1000	FS1-200-6V	FP1-200-6V	FV1-200-6V	FX-200-6V
7 to 70	200 to 2000	FS1-300-6V	FP1-300-6V	FV1-300-6V	FX-300-6V
10 to 100	300 to 3000	FS1-400-6V	FP1-400-6V	FV1-400-6V	FX-400-6V
17 to 170	500 to 5000	FS1-500-6V	FP1-500-6V	FV1-500-6V	FX-500-6V
24 to 240	700 to 7000	FS1-600-6V	FP1-600-6V	FV1-600-6V	FX-600-6V