

Blue-White[®]

Industries, Ltd.

DigiFlo Digital Paddlewheel Meters

Engineering and Technical Data

MICRO-FLO

Pipe Thread or
Tubing Connections

Rate & Total display

On-Sensor or
Panel Mounted Display



Features:

- High accuracy digital paddlewheel technology.
- 1/8", 1/4" or 1/2" NPT, 1/4" OD or 3/8" OD Tubing sizes.
- Flow rates from 30 to 7000 milliliters per minute.
- 5 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.
 - FA = Analog Output. Rate & Total. Sensor Mounted Display
- 6 digit LCD, up to 4 decimal positions.
- Displays both rate of flow and total accumulated flow.
- Open collector alarm set point.
- 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.
- Opaque PVDF chemical resistant lens.
- Weather resistant Valox[®] PBT enclosure. NEMA 4X
- LCD is not recommended for direct sunlight applications.

Specifications:

Max. Working Pressure: 150 psig (10 bar) @ 70° F (21° C)
Max. Fluid Temperature: 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:

- 1 = .500" ID hose barb, **PVC**
- 2 = .500" Male NPT, **PVC**
- 3 = .500" Female NPT, **PVC**
- 4 = .250" OD tubing connection, **Polypropylene**
- 5 = .125" Female NPT, **PVC**
- 6 = .375" OD tubing connection, **PVDF**
- 7 = .250" Female NPT, **PVC**

Viewing lens material: Opaque PVDF

O-ring seals: Viton (Optional EP)

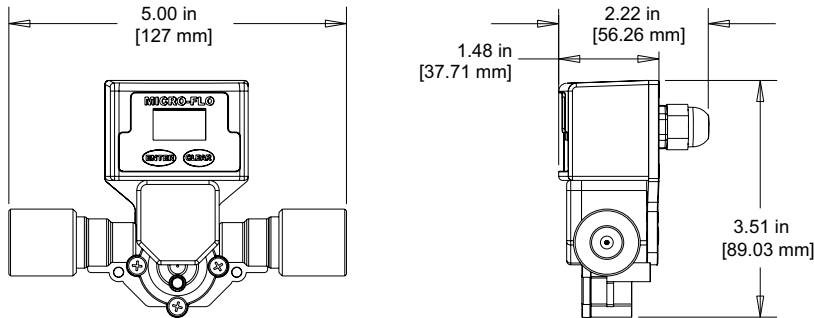
Compression seal to pump: PVC

Installation Requirements:

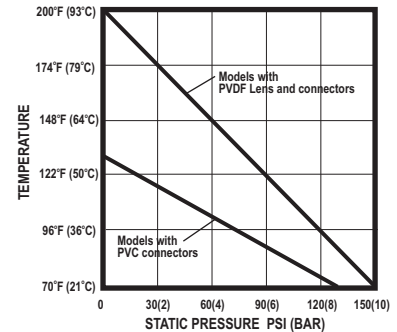
Mounting location

- 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.

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)
 FA = Analog Output, Rate & Total, Sensor Mounted Display

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

1 = .500" ID hose barb, PVC
 2 = .500" Male NPT, PVC
 3 = .500" Female NPT, PVC
 4 = .250" OD tubing connection, Polypropylene
 5 = .125" Female NPT, PVC
 6 = .375" OD tubing connection, PVDF
 7 = .250" Female NPT, PVC

LENS MATERIAL SELECTION

1 = Opaque PVDF

Pipe Size, Flow Range and Model Options:

115V Models with 1/4" F/NPT connections

Operating Flow Range		FS Models (Sensor Mount)	FP Models (Panel Mount)	FV Models (Sensor Only)	FX Models (Indicator Only)	FA Models (Indicator Only)
OZ/MIN	ML/MIN	Model Number	Model Number	Model Number	Model Number	Model Number
1 to 10	30 to 300	FS1-101-7V	FP1-101-7V	FV1-101-7V	FX-101-7V	FA1-101-7V
3.5 to 35	100 to 1000	FS1-201-7V	FP1-201-7V	FV1-201-7V	FX-201-7V	FA1-201-7V
7 to 70	200 to 2000	FS1-301-7V	FP1-301-7V	FV1-301-7V	FX-301-7V	FA1-301-7V
10 to 100	300 to 3000	FS1-401-7V	FP1-401-7V	FV1-401-7V	FX-401-7V	FA1-401-7V
17 to 170	500 to 5000	FS1-501-7V	FP1-501-7V	FV1-501-7V	FX-501-7V	FA1-501-7V
24 to 240	700 to 7000	FS1-601-7V	FP1-601-7V	FV1-601-7V	FX-601-7V	FA1-601-7V

115V Models with 1/8" F/NPT connections

Operating Flow Range		FS Models (Sensor Mount)	FP Models (Panel Mount)	FV Models (Sensor Only)	FX Models (Indicator Only)	FA Models (Indicator Only)
OZ/MIN	ML/MIN	Model Number	Model Number	Model Number	Model Number	Model Number
1 to 10	30 to 300	FS1-101-5V	FP1-101-5V	FV1-101-5V	FX-101-5V	FA1-101-5V
3.5 to 35	100 to 1000	FS1-201-5V	FP1-201-5V	FV1-201-5V	FX-201-5V	FA1-201-5V
7 to 70	200 to 2000	FS1-301-5V	FP1-301-5V	FV1-301-5V	FX-301-5V	FA1-301-5V
10 to 100	300 to 3000	FS1-401-5V	FP1-401-5V	FV1-401-5V	FX-401-5V	FA1-401-5V
17 to 170	500 to 5000	FS1-501-5V	FP1-501-5V	FV1-501-5V	FX-501-5V	FA1-501-5V
24 to 240	700 to 7000	FS1-601-5V	FP1-601-5V	FV1-601-5V	FX-601-5V	FA1-601-5V

115V Models with 3/8" OD Tubing connections

Operating Flow Range		FS Models (Sensor Mount)	FP Models (Panel Mount)	FV Models (Sensor Only)	FX Models (Indicator Only)	FA Models (Indicator Only)
OZ/MIN	ML/MIN	Model Number	Model Number	Model Number	Model Number	Model Number
1 to 10	30 to 300	FS1-101-6V	FP1-101-6V	FV1-101-6V	FX-101-6V	FA1-101-6V
3.5 to 35	100 to 1000	FS1-201-6V	FP1-201-6V	FV1-201-6V	FX-201-6V	FA1-201-6V
7 to 70	200 to 2000	FS1-301-6V	FP1-301-6V	FV1-301-6V	FX-301-6V	FA1-301-6V
10 to 100	300 to 3000	FS1-401-6V	FP1-401-6V	FV1-401-6V	FX-401-6V	FA1-401-6V
17 to 170	500 to 5000	FS1-501-6V	FP1-501-6V	FV1-501-6V	FX-501-6V	FA1-501-6V
24 to 240	700 to 7000	FS1-601-6V	FP1-601-6V	FV1-601-6V	FX-601-6V	FA1-601-6V