

Type F3.10

Mini Flow Sensors

The Type F3.10 Mini Flow Sensor features compact size and low cost. It can measure flow from 0.25 to 4 m/s producing a highly repeatable frequency output signal. Rugged construction and proven Hall Effect sensor technology provides exceptional performance with little or no maintenance. A 4-blade paddle wheel without bearings generates a square wave output signal with a frequency of 15 Hz per m/s (4.6 Hz per ft./sec.).

Body Materials:	ABS, PVDF
Rotor:	ABS, PVDF
Shaft:	316L SS
Seals:	EPDM, Viton®
Pipe Sizes:	1/2"– 1-1/4"
Flow Ranges:	0.25 to 4 m/s (0.8 to 12.5 ft.sec.) Monodirectional flow

■ Features

- **Low Cost** – Ideal for water treatment equipment
- **Compact Design**
- **Submersible Rating** – NEMA 6, 6P (IP68) enclosure rating allows for outdoor or submersible applications
- **Connects to the Full Range of FlowX3 Instruments**
All models of the Flow Monitor/Transmitters and Batch Controller may be connected remotely, either panel or wall mounted.

■ Connectable FlowX3 Instruments

Sensor Type	Sensor No.	Instrument Mounting	FlowX3 Instruments*
Hall	F3.10.H	Direct	F9.00, F9.02, F9.03, F9.50, F9.51

* Power supply is normally fed from FlowX3 instruments.

Digiflow
FLOW X3



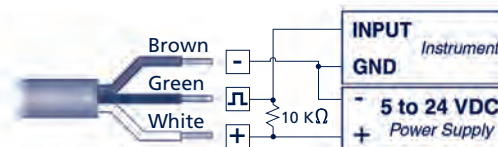
■ Wiring

F3.10 Sensor Connection to FlowX3 Instruments



SENSOR	
5	GND
6	IN
7	V+

F3.10 Sensor Connection to Other Brand Instruments



2 kΩ to 10kΩ pull-up resistor may be required.

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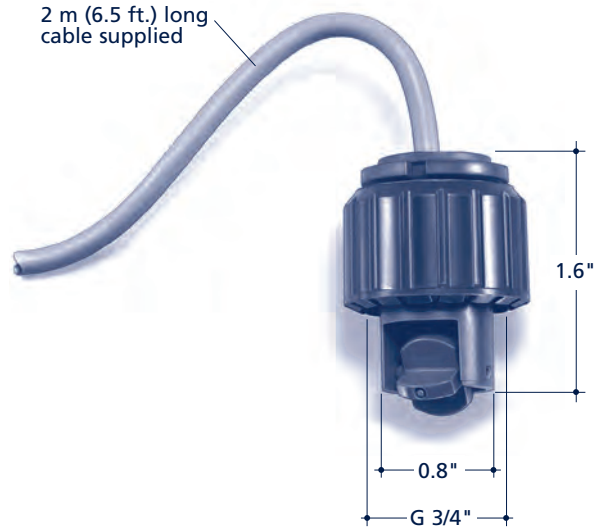
Mini Flow Sensors



■ Technical – General

Output Signal:	Square wave (pulse)
Output Frequency:	15 Hz per m/s nominal (4.6 Hz per ft./sec.)
Output Type:	NPN open collector
Output Current:	10 mA max.
Pulses per Litre:	See page 45
Electrical Class:	NEMA 6, 6P (IP68)
Accuracy:	< ± 2% of reading value after field calibration or ± 1.0% of full scale
Repeatability:	± 0.5% of full scale
Viscosity Range:	1 to 10 centistokes
Applications:	Clean non-corrosive services only, no solids recommended
Working Temperature:	-10 to 80°C (14 to 176°F)
Working Pressure:	5 bar (70 psi) max. @ 25°C (77°F)
Cable:	22 AWG, 3 conductors, 2 m (6.6 ft.) length supplied standard
Max. Cable Length:	Max. 300 m (990 ft.) recommended without signal conditioning
Supply Voltage*:	5 to 24 VDC regulated
Supply Current:	< 30 mA @ 24 VDC

* Supply voltage is normally fed from FlowX3 instruments.



Installation Fitting for Mini Flow Sensors



Tees

Sizes: 1/2" to 1-1/4"

Maximum Pressure:
70 psi @ 25°C (77°F)

DIMENSIONS INCHES

Pipe Size	B	d	E	H	PVC / EPDM / Socket
					Item No.
1/2"	1.10	0.787	1.12	2.20	TEA005ES-310
3/4"	1.18	0.984	1.30	2.60	TEA007ES-310
1"	1.28	1.260	1.61	3.11	TEA010ES-310
1-1/4"	1.50	1.575	1.96	3.78	TEA012ES-310

