# **Versatile Flow Measurement**

PENDOTECH Leading Process Analytics

## With Single-Use Rotary Flow Meters & Monitor



N:013897

:105700

### **Versatile Application**

The flow meters can measure both total flow and flow rate, making them suitable for various applications, including filtration and chromatography.

### **Robust Compatibility**

They are compatible with gamma irradiation and can be autoclaved to 140°C (284°F), ensuring they meet stringent sterilization requirements for sensitive processes.



### Scalability and Adaptability

Available in two sizes with hose barb fittings of 1/4 and 1/2 inch, these flow meters support a wide flow range (100 mL/min to 20 L/min) and can easily connect to various flow monitors, allowing for flexible integration into existing systems.

### **High Accuracy and Reliability**

With an accuracy of  $\pm 5\%$  and a wide operating temperature range of -20°C to 80°C (-4°F to 176°F), the flow meters provide reliable performance across diverse operating conditions.



## **Single-Use Rotary Flow Meters** Innovative Solutions for Liquid Measurement

METTLER TOLEDO Pendotech single-use rotary flow meters are designed for scalability and come in two different sizes. The tubing can be easily attached to the hose barb on the rotor using a cable tie or a more secure method. These flow meters feature reusable flow sensor electronics that connect to a variety of flow monitors through a 3-foot (1 meter) electrical cable, with extensions available for added convenience. They are capable of measuring both total flow and flow rate, which makes them versatile for a range of applications. Furthermore, these flow meters are constructed from fluid path materials that comply with USP Class VI and ADCF standards, ensuring safety and reliability in their usage.



### **Flow Monitor**

The METTLER TOLEDO Pendotech Flow Monitor is a reliable, high-quality microcomputer-based instrument designed for precise liquid measurement, value monitoring, and data communication across various applications. It can measure both the current flow rate and totalized volume, making it ideal for processes such as filtration and chromatography, and serving as an alternative to scales for total flow measurement. Monitor: The pulse constant is stored permanently in non-volatile memory. Users can access all unit functions through the integrated keypad and LCD, which are menu driven. The device features onboard audio alerts for alarms and key activations. Additionally, a panel-mount kit and DIN rail mounting kit are available. Transmitter: Data can be transmitted to a PC through the RS-232 serial port, while the 4-20mA output allows for integration with process control systems like PLCs or DeltaV.



FMT-S

#### **Flow Meter Specifications**

(based on water at 68°F)	FM-22WV	FM-23WV	
Connection	1/4 inch / 7 mm hose barb	1/2 inch / 12 mm hose barb	
Fluids	Liquids	Liquids	
Flow Range	0.1 to 2 L/min	1.0 to 20 L/min	
Fluid Path Materials	PVDF, ruby glass bearing	PVDF, ruby glass bearing	
Accuracy (linearity deviation) of Reading	+/-5%	+/-5%	
Repeatability	<1%	<1%	
Normal Pulse Constant	100,000 pulses/L	4,500 pulses/L	
Operating Temperature	-20°C to 80°C	-20°C to 80°C	
	(-4°F to 176°F)	(-4°F to 176°F)	
Viscosity Range	0.8 to 10 cP	0.8 to 10 cP	
Max. Operating Pressure @ 20°C	25 bar	15 bar	
Length	2 inch (53 mm)	2.5 inch (63 mm)	
Electronic Assembly 3 ft (1 meter) with integral 1/4 inch earph		/4 inch earphone plug	
	(3) wires: +5 VDC Power (Red), Common Ground (Black or		
	Silver), Output (White), 34 mA Power		

### Flow Monitor FMT-S Specifications

Enclosure	Size - 4.70 x 4.70 x 2.25 inch (11.94 x 11.94 x 5.72 cm)
	Approx weight: 0.86 lbs (0.39 kg)
	ABS enclosure
	NEMA 4X front panel/surface mount
Power Inlet	2.1 mm center pos 12-24 VDC
Sensor Input	Flow meter input to measure 5 V square wave via M8 connector
	(includes 6 ft (2 meters) extension cable with 1/4 inch earphone receptacle)
Analog Output (4-20mA)	4-20 mA accuracy = +/- 0.016 mA
RS232 Serial Output	Data output to a PC at frequency up to approx. every 2 seconds
Environment	0°C to 55°C (32°F-131°F), 0–95% RH non-condense, ship-store
	-20°C to 85°C ( -4°F to 185°F)
Regulatory Compliances	CE Mark EN61326-1:2013; EN61010-1:2010;
	EN/IS013489-1:2009; EN60204-1:2009
	FCC Part 15 Class B verified
	FCC Part 68 5TUUSA-23969-DT-E
	RoHS and REACH Compliant UL Listed

Ordering Information	Order Number
Pendotech premium flow meter monitor with LCD and white backlit display,	FMT-S
4-20 mA output, serial port, 12-24 VDC power input range	
Single-Use Rotary Flow Meter, non-sterile, PVDF, 1/4 inch hose barb, 0.1-2 lpm,	FM-22WV
Electronic assembly for one PVDF rotor with 1/4 inch hose barb (includes one rotor)	FM-22WV-E
Single-Use Rotary Flow Meter, non-sterile, PVDF, 1/2 inch hose barb, 1.0 - 20.0 lpm, clip mount. With individual calibration.	FM-23WV
Electronic assembly for one PVDF rotor with 1/2 inch hose barb (includes one rotor)	FM-23WV-E
Rotary flow meter adapter cable for FMT-S (3 ft)	PDKT-FM-FMT
Data Acquisition and Trending Software for PressureMAT™ and CMONT with 2 USB/serial cables to connect to a PC	PMATP-GUI
PressureMAT benchtop stand	PMAT-STND
DIN rail mounting kit	PMAT-S-DIN
PMAT-S panel mount kit UPGRADE- 2 gaskets, 4 mounting brackets, sensor	PMAT-PANEL-S-U
power	
PMAT panel mount kit - 2 gaskets, 4 mounting brackets, 1 sensor cable, and input connectors for sensor and power	PMAT-PANEL-S-C

### METTLER TOLEDO Pendotech Process Analytics

### www.pendotech.com

For more information

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