



## **"FM" Flow Meter Operations & Maintenance Manual**



**Record Your Model, Serial Number and  
Other Information on the back of this document.**

**Manufacturing:** Bypass & Filter Feeders, Glycol Feed Packages, Separators & Separator Systems, Tanks, Tank Stands, Chemical Batch Mixers, Corrosion Coupon Racks, Packaged Feed Systems and Custom Systems

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**General Treatment Products Inc., Brea, CA 92821**  
O&M Manual INSTFM Rev. 1014, Page 1 of 4

Contents	Page
1.0 Introduction	2
2.0 Warranty	2
3.0 Unpacking	2
4.0 Location and Environment	3
5.0 Installation	3
6.0 Pressure and Temperature Limitations	3
7.0 Routine Maintenance	3
8.0 Parts Listing	3
9.0 Wiring: Standard	3
10.0 Trouble Shooting	3
11.0 Notes	3
12.0 Product Label, Model Number, Serial Number and Pressure Settings	4

**\*\*\* WARNING – BEFORE YOU GET STARTED \*\*\***

- 1) All fasteners & fittings should be inspected and secured before operation as they may be loosened in transit
- 2) Personnel safety practices should apply at all times
- 3) Safety glasses or face shields and gloves should be worn
- 4) Close isolation valve and release pressure before servicing
- 5) All liquids should be drained before servicing

**1.0 INTRODUCTION** Thank you for choosing General Treatment Products "FM" Flow Meters. **GTP** plastic & bronze meters are essential to any flow system. These long life, low maintenance and high accuracy meters come in five standard sizes, 1/2", 3/4", 1", 1 1/2" and 2". With your choice of Nylon or bronze bodies, cold and hot dry registers make these meters perfect for any application. Optional pulse outputs for signaling controllers or remote readers are also available (consult factory). See the charts on the back for available contacts.

**2.0 WARRANTY** General Treatment Products "FM" Flow Meters are guaranteed for one year from date of shipment against manufacturing defects in material and workmanship that develop in the service for which they are designed. We will repair or replace a defective part of this system when returned to our factory with freight prepaid; providing that the part is found to be defective upon inspection. We assume no liability for labor and/or other expenses in making repairs or adjustments.

**3.0 UNPACKING** Upon receipt of order, inspect package thoroughly. In the event there was damage incurred in transit you must notify the freight company within **3-5 days of receipt of order**. Once system is inspected for damage and received in good condition, and store indoors until installing.

**3.1 ORDER VERIFICATION**

MODEL				
FM	075	R		
			OPTIONS	
			WAL	Walchem Pump Connector
			R	Reed Switch Output
			TC	Flow Meter Digital Timer / Counter
			PORT SIZE	
			050	1/2" Flow Meter
			075	3/4" Flow Meter
			100	1" Flow Meter
			150	1 1/2" Flow Meter
			200	2" Flow Meter
			BASE MODEL	
			FM	Bronze Body (Blue) Cold Water Meter
			FMH	Bronze Body (Red) Hot Water Meter
			FMN	Nylon Body (Black) Cold Water Meter

**4.0 LOCATION AND ENVIROMENT** Flow meter, mounting hardware and pulse cord should not be exposed to direct elements. In most cases, there will not be a dry indoor location that is convenient to install the flow meter, a shelter, awning or shed needs to be installed to validate warranty.

**5.0 INSTALLATION** "FM" Flow Meters come standard with inlet/outlet coupling unions. **Flow meter must be mounted in a horizontal line with the dial/register facing up.** Any variation from this will cause improper bearing wear and void warranty. Flow meter must be full at all times to avoid water hammer. Have only an experienced personnel wire flow meter to pump or controls. Wiring diagrams are provided in section 9.0.

**6.0 PRESSURE AND TEMPERATURE LIMITATIONS:**

MATERIAL	MAXIMUM SHORT TERM TEMPERATURE	MAXIMUM OPERATING TEMPERATURE	MAXIMUM OPERATING PRESSURE
<b>Nylon Bodies (Black Body)</b>	104°F/40°C	104°F/40°C	100PSI/6.9BAR
<b>Cold Water Bronze (Blue Body)</b>	104°F/40°C	104°F/40°C	145PSI/9.9BAR
<b>Hot Water Bronze (Red Body)</b>	194°F/90°C	194°F/90°C	145PSI/9.9BAR

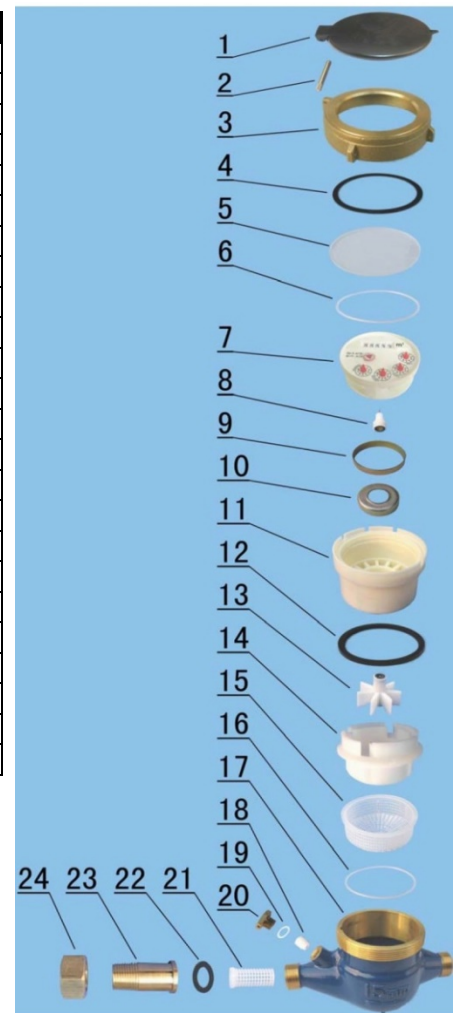
Note: Minimum Fluid Temperature is 50°F/10°C.

**7.0 ROUTINE MAINTENANCE** Routine maintenance in this section is referred to as checking a flow meter once a month until a maintenance schedule can be determined. **All fasteners should be check for proper operations.** Maintenance and care will depend upon the usage. Isolate and check inlet screen for fouling.

**8.0 PARTS LISTING**

KEY	DESCRIPTION	QTY
1	Hinged lid	1
2	Hinge roll pin	1
3	Meter crown ring	1
4	Crown gasket, slip ring	1
5	Meter lens	1
6	Lens gasket	1
7	Register	1
8	Central gear	1
9	Magnetic shield ring	1
10	Magnetic shield ring	1
11	Gearing box	1
12	Tightening gasket	1
13	Turbine component	1
14	Measuring chamber	1
15	Bottom strainer	1
16	Gasket	1
17	Body	1
18	Adjustment screw	1
19	Adjustment gasket	1
20	Adjustment plug	1
21	Inlet strainer	1
22	Coupling gasket	2
23	Coupling adapter	2
24	Coupling nut	2

Contact factory for further information. Have model and serial number ready when ordering parts.



**9.0 WIRING / PULSE RATES** The "FM" Flow Meter is a three wire dual reed switch sensor. Red and white wires are one reed switch closure, blue and white are another reed switch closure. Join red and blue wires to double switch closures.

Dial Pointer Pulse Rates:	Single Reed (Red or Blue)	Dual Reed (Red & Blue)
X0.01	10 Pulses Per Gallon	20 Pulses Per Gallon
X0.1	1 Pulse Per Gallon	2 Pulses Per Gallon
X1.0	10 Gallons Per Pulse	5 Gallons Per Pulse
X10.0	100 Gallons Per Pulse	50 Gallons Per Pulse

**Note:** X10.0 not available on 1/2" to 1" meters. X0.01 not available on 1.5" meters and larger.

**10.0 TROUBLE SHOOTING** If you are having trouble, please visit [www.gtpcompany.com](http://www.gtpcompany.com) or contact customer service for assistance.

**11.0 NOTES**

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**12.0 PRODUCT LABEL**

**Model:**

**Serial Number:**

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