

GTP "FM" Flow Meters Operations & Maintenance Manual



This "QUICK START" manual is supplied as a guideline for installation; please visit www.gtpcompany.com for complete instruction manual, assembly drawings and installation drawings.

GENERAL INFORMATION					
MODEL:	_____			SERIAL:	_____
MATERIAL:	<input type="checkbox"/> Bronze	<input type="checkbox"/> Nylon	<input type="checkbox"/> Cold Water	<input type="checkbox"/> Hot Water	
PORT SIZE:	<input type="checkbox"/> 1/2"	<input type="checkbox"/> 3/4"	<input type="checkbox"/> 1"	<input type="checkbox"/> 1 1/2"	<input type="checkbox"/> 2"
ACCESSORIES:	<input type="checkbox"/> "R" Reed switch		<input type="checkbox"/> "TC" Timer/Counter	<input type="checkbox"/> "WAL" Walchem Pump Conn output	

***** 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 always apply
- 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.

4.0 LOCATION AND ENVIROMENT Flow meter, mounting hardware and pulse cable 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. Some shelter, awning or shed needs to be installed to validate warranty.

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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 always be full 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
Nylon Bodies (Black Body)	104°F/40°C	104°F/40°C	100PSI/6.9BAR
Cold Water Bronze (Blue Body)	104°F/40°C	104°F/40°C	145PSI/9.9BAR
Hot Water Bronze (Red Body)	194°F/90°C	194°F/90°C	145PSI/9.9BAR

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

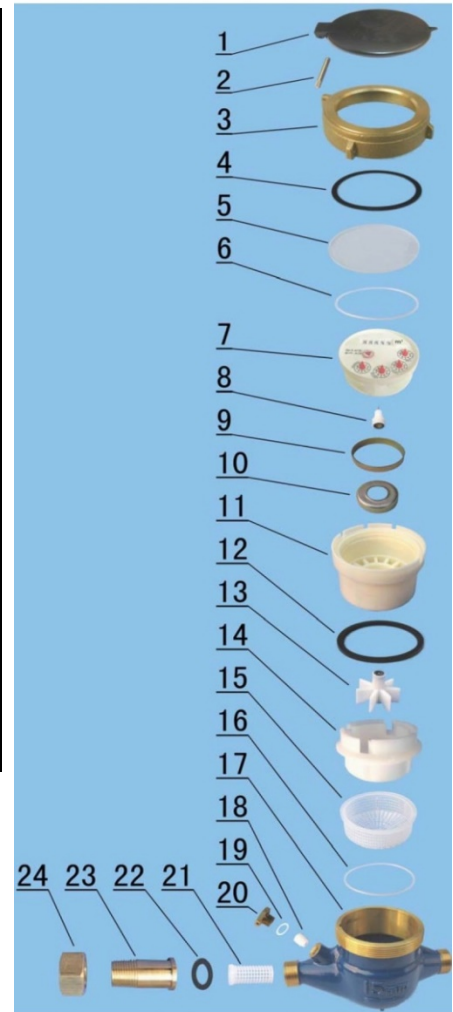
7.0 ROUTINE MAINTENANCE Routine maintenance in this section is referred to as checking a flow meter once a month until a maintenance schedule can be determined. **All fasteners should be check for proper operations.** Maintenance and care will depend upon the usage. Isolate and check inlet screen for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

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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 ½" 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 or contact customer service for assistance.

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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