

Mainline Propeller Meters

FM112 Direct Drive and FM114 Electronic Propeller Meters

‘Drop in’ replacement for
Masterflo Propeller Meters

DESCRIPTION

The FM112 and FM114 Propeller meters are drop-in replacements for Sparling’s Masterflo meters.

The FM112 is identical in construction to Sparling’s FM102 and FM182 meters except that the FM112 features a custom coverplate and propeller center line dimension (‘M Dimension’) to allow this unit to replace Masterflo propeller meters without any changes to the piping or meter tube. The FM114 is identical in construction to Sparling’s FM104 and FM184 meters except that the FM114 features a custom coverplate and propeller center line dimension (‘M Dimension’) to allow this unit to replace Masterflo propeller meters without any changes to the piping or meter tube

These meters are designed to provide accurate and reliable flow measurements where mainline service is required in municipal and industrial environments. These meters have a proven design and a reputation for rugged, continuous, duty with minimal required maintenance.

Sparling’s propeller meters are ideally suited for clean water applications where the temperature of the water does not exceed 100° F and suspended solids do not exceed 0.5%.

The accuracy of Sparling’s propeller meters is +/- 2% of actual flow for the specified range.

This accuracy is guaranteed by a certified wet calibration at three test points in Sparling’s hydraulic test laboratory which is traceable to NIST. A test certificate is provided. These meters measure accurately over a wide flow range of 10:1 or greater. The maximum flow ranges can be safely exceeded by 50% intermittently.

Registration of flow is shown on a register which can be furnished in any standard units (i.e.: gallons, cubic feet, acre-feet, etc.). This register is a separate item. For the FM112, please specify if a FT19-, Ft191 or FT193 is required. For a FM114 please specify a FT194.

INSTALLATION

The meter must be installed in a full flowing suction or discharge line. Avoid valves, fittings or obstructions immediately upstream of the meter. It is recommended that a minimum of five straight pipe diameters be maintained upstream and one diameter downstream of the meter.

Note if a new meter tube is required, please specify FM102 / FM182 / FM104 / FM184 meters.

How to Specify the FM112 or FM114 Propeller Meter

Table 1 - Base Model Number
FM112 Direct Drive Propeller Meter Replacement
FM114 Electronic Propeller Meter Replacement

Nominal Size		Low Range (GPM)		High Range (GPM)		M Dim
Code	Inches	Min	Max	Min	Max	Inches
04	4	50	400	120	600	3 7/16
06	6	90	900	200	1,600	5
08	8	100	1,200	240	2,300	5
10	10	125	1,600	320	3,000	7 11/16
12	12	150	2,200	400	4,000	7 11/16
14	14	250	3,000	520	5,000	7 7/8
16	16	350	3,800	700	6,800	11 9/16
18	18	450	4,500	900	8,100	11 9/16
20	20	550	5,500	1,100	9,900	11 9/16
24	24	800	8,500	1,600	15,000	13 9/16

1	150 psi
2	300 psi

1	Standard (see Table 2)
---	------------------------

1	Low
2	High

0	3 Blade HV (16" - 24")
1	6 Blade
2	3 Blade (4" to 14")

0	None
1	Register Ext.

FM112 - Size (XX) Pressure - 1 - Flow - Type accessories

Example: FM112-121-1-1-20: replacement for a 12" Masterflo, 150 psi, low flow, with no extension