

Product Data Sheet
PDS-112/114
2021-01-09

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%.

Certified Accuracy

Accuracy is within 2% of actual flow for the specified meter range. This accuracy is guaranteed by certified wet calibration at three test points in Sparling's NIST traceable primary flow laboratory. Each meter is tested at low flow, mid-range, and high flow. A test certificate is provided with each meter.

Installation

Meters must be installed in full flowing suction or discharge lines. Avoid valves, fittings or obstructions immediately upstream of the meter which may cause jetting or non-symmetrical flow profiles. It is recommended that a minimum of five straight pipe diameters be maintained upstream and one diameter downstream of the flow meter.

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 FM112 please specify a FT191 or FT193. For FM114 please specify a FT194-II.

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

How to Order a FM112 or FM114

Table 1: Base Model Number FM112 - Direct Drive Propeller Meter Replacement FM114 - Electronic Propeller Meter Replacement						
	Table 2: Size 04 - 4" 06 - 6" 08 - 8" 10 - 10" 12 - 12" 14 - 14" 16 - 16" 18 - 18" 20 - 20" 24 - 24"					
		Table 3: Pressure Rating 1 - 150 psi 2 - 300 psi				
		Table 4: "M" Dimension 1 - Standard (See Table)				
			Table 5: Flow Range 1 - Low Range 2 - High Range			
			Table 6: Readouts 0 - 3 Blade HV (16-24") 1 - 6 Blade 2 - 3 Blade (4-14")			
			Table 7: Accessories 0 - None 1 - Register Extension			
Model	Size	Pressure	M Dim	Flow	Readouts	Access.
FM112	04	1	1	1	2	0

Size (in)	Low Range (GPM)		High Range (GPM)		M Dim (in)
	Min	Max	Min	Max	
4	50.0	400	400	600	3 $\frac{7}{16}$
6	90.0	900	900	1600	5
8	100	1200	1200	2300	5
10	125	1600	1600	3000	7 $\frac{11}{16}$
12	150	2200	2200	4000	7 $\frac{11}{16}$
14	250	3000	3000	5000	7 $\frac{7}{8}$
16	350	3800	3800	6800	11 $\frac{9}{16}$
18	450	4500	4500	8100	11 $\frac{9}{16}$
20	550	5500	5500	9900	11 $\frac{9}{16}$
24	800	8500	8500	15000	13 $\frac{9}{16}$