

# *Irrigation Saddle Meter*

FM312/FM314 Bolt-on Irrigation Saddle Propeller Meter



Specifically designed to provide accurate and reliable flow measurement to the irrigation marketplace, Sparling Instruments's saddle flow meter is the ideal solution to trouble-free water flow measurement in irrigation's severe environments. The saddle design allows the meter to be used on existing piping, and in many cases, these meters can replace other saddle flow meters.

These meters feature cast saddles and gear boxes making them robust and reliable. The simple and rugged design ensures that the meter can be maintained using standard tools.

The design is based on Sparling's proven meters that have been used in agricultural, municipal and industrial applications for decades. The meter is perfect for measuring flow in sprinkler systems and center pivot systems as well as irrigation systems used in agriculture, golf courses and nurseries.

The meter's accuracy is  $\pm 2\%$  of actual flow and each meter is certified by wet flow calibration in a NIST traceable flow lab.

The meter is available in two configurations:

- 1) Electronic, which features the reliability of fewer moving parts, permanent magnets and a digital display. Optional outputs allow for communication with data systems.
- 2) Mechanical, which features a reliable worm and gear pair that prevents slippage and error in readings.

#### **Options and accessories**

A full line of accessories is available:

- Dummy covers
- Register Extensions
- Remote mount (Electronic only)
- Straightening vanes
- Meter tubes, with plain or flanged ends
- 4-20 mA and scaled pulse outputs (Electronic only)

## Ordering Information

Table 1 - Type					
FM312 - Mechanical					
FM314 - Electronic					
		Table 2		Max Press.	Weight
		Flow Range (GPM)		(psi)	(lbs)
Size		Low	Standard		
04	4"	60 - 400	120 - 600	100	20
06	6"	100 - 900	200 - 1,600	100	25
08	8"	120 - 1,200	240 - 2,300	100	30
10	10"	160 - 1,600	320 - 3,000	100	35
12	12"	200 - 2,000	400 - 4,000	100	40
14	14"	260 - 2,500	520 - 5,000	50	50

Table 3 - Mounting	
0 - U-Bolts	

Table 4 - Register	
1 - FT191 - Totalizer only - mech. type only (FM312)	
2 - FT190 - Rate and Totalizer - mech. type only (FM312)	
4 - FT194 - Rate and Totalizer - elec. type only (FM314)	

Table 5 - Velocity (See Table 2)	
1 - Low Velocity Range	
2 - Standard Velocity Range	

Table 5 - Accessories	
0 - None	
1 - Bolting Vanes	

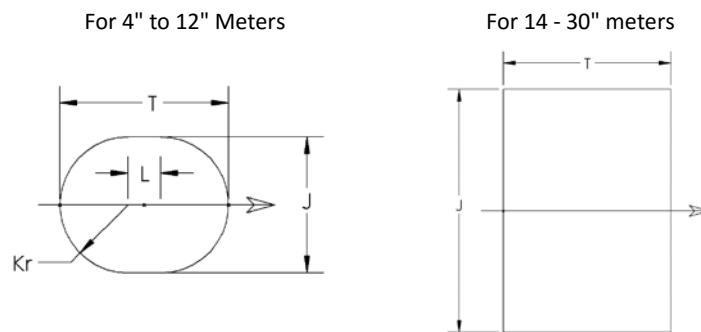
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For example, FM314-080-42-0: Sparing Electronic 8" Saddle Meter, Std Flow with FT194

Please specify pipe type and size, units of registration and indication, and minimum and maximum flow.

## Installation

To install the meterhead, prepare a template from the dimensions below. Using the template, scribe a line for cutting, and cut opening, removing all burrs and slag and burrs.



Size	J	T	Kr	L
4	4 5/8	7 3/16	2 5/16	2 9/16
6	6 5/8	6 5/8	3 5/16	0
8	6 1/4	7 3/4	3 1/8	1 1/2
10	6 3/4	8	3 3/8	1 1/4
12	8	8	4	0
14	6 3/8	14 7/8		
16	8 3/8	17 1/2		
18	8 3/8	19 1/4		
20	8 3/8	21 7/8		
24	12 1/4	23 1/2		
30	12 1/4	31		