

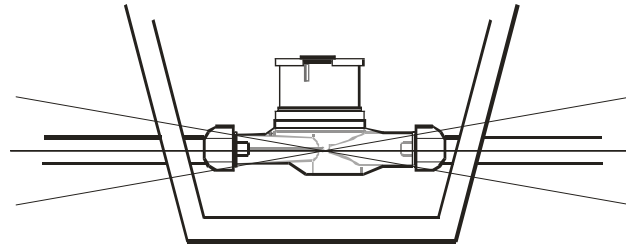
## **Meter Installation Instructions**

### **Installation Preparation**



1. Meter is intended for measuring potable, cold water in one direction only.
2. Meter must be installed in a horizontal pipeline with the register facing upward and readily accessible for reading. To meet accuracy specifications, the meter should not be mounted at more than a 10% angle (either slanted along the pipe or tilted to the side).
3. In most applications, no straight pipe length, upstream or downstream is necessary.
4. Under normal usage conditions the Spectrum is not affected by sand or suspended particles and does not require a strainer. Significant
5. Meters can be ordered with an optional integral backflow preventer. Consult your Metron sales representative for more information.

Meter must be within  
+/- 10% of horizontal  
(tilt and slant) to  
achieve specified  
accuracy.



### **Installation Procedures**

1. A suitable shut-off valve stop should be installed upstream of the meter so service may be shut off without inconvenience to the customer whenever the meter must be removed. Downstream valves are also convenient but not required.
2. Clean and flush the service line thoroughly on the inlet side of the meter before installing the meter.
3. Remove the thread protectors and set the meter with the arrow on the meter body pointed toward the outlet (customers side).
4. To insure unrestricted flow of water through the meter, use the proper size and type of gaskets. Connections to the setter, horn or yoke/box should only be sufficiently tightened to seal; do not over-tighten.
5. Do not try to install a meter in a setting which is too long for the meter or if the pipes are not properly aligned. This can damage the meter threads or casting.
6. When tightening the coupling nuts, verify that the gasket is properly seated. A crimped or folded gasket can cause a leak.
7. After the meter is installed, open the inlet shut-off valve slowly until the meter is full of water and verify that there are no leaks.
8. Open a faucet downstream of the meter slowly to evacuate air in the line and to insure that no foreign debris in the water obstructs the operation of the meter. Do not charge the line too quickly as this can damage the meter's internal components.

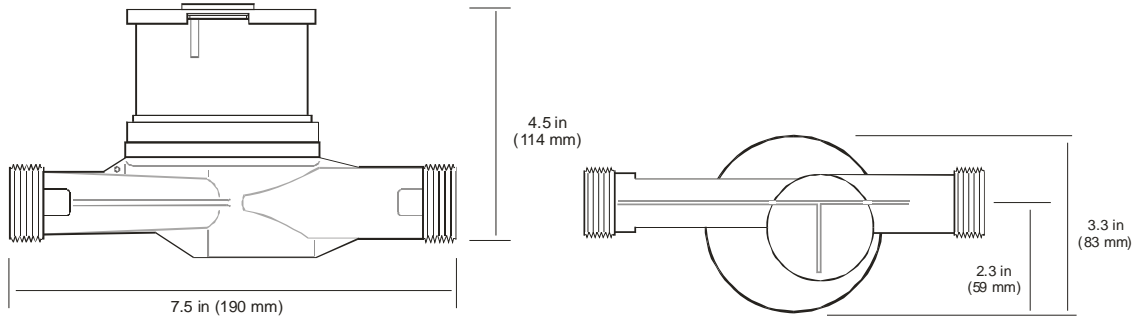
NOTE: Install an electrical grounding strap around the meter for maintenance safety while repairing or removing meter.

NOTE: Caution and proper installation techniques should be taken in areas where freezing can happen. Insulation and air space techniques can help avoid the service/meter from freezing.

NOTE: Consult the American Water Works Association (AWWA) Manual M6 for additional details on water meter installations.

**Water Meter Physical Specifications**

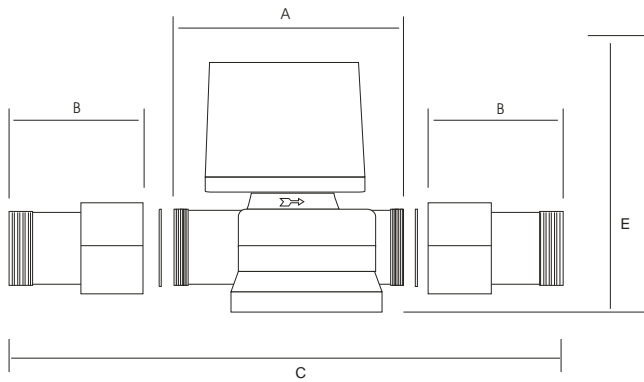
**Spectrum 22 - Model MP4 Dimensions**



Meter Type Pipe Size	Length*	Height	Center Width	Total Width	Net Weight
Spectrum 22	7.5" (160mm)	4.5" (114mm)	2.5" (59mm)	3.3" (83mm)	2.25lb. (1.02kg)

\* Length includes gaskets

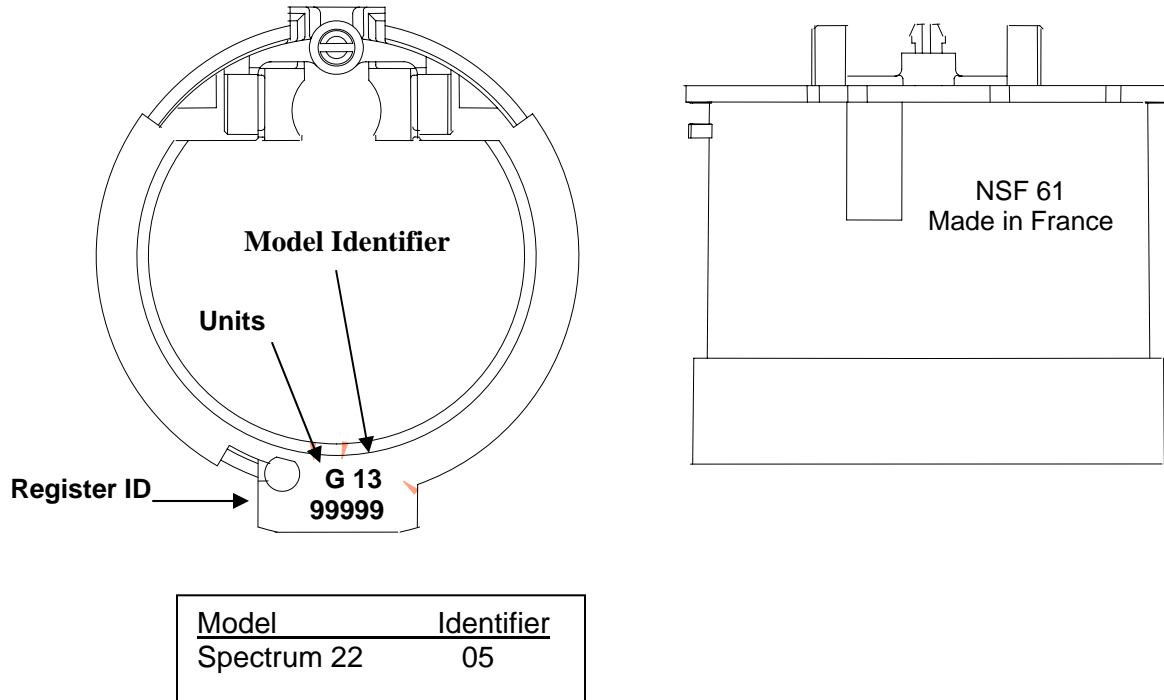
**Spectrum 22 - Model MP3 Dimensions**



Meter Type Pipe Size	Length A	Extension B	Assembled* C	Height E	Width	Net Weight
Spectrum 22 -1"	3.95" (100mm)	2.2" (56mm)	7.5" (160mm)	4.88" (124mm)	2.75" (69.7mm)	3.20lb. (1.45kg)

\* Assembled length includes gaskets

**Register Labeling & Identification**



NOTE: Older registers may have different labeling scheme. Check with Metron Customer Service for reference documentation

**Touchpad and AMR Interface**

All Residential Spectrum Water Meters come standard with a Hawkeye OER register. The optically-encoded register can be programmed to match virtually any data format. Check with Metron-Farnier Customer Service for additional information.

Electronic Output  
Model Identifier + Register ID

*Example: 5 + 99999  
1599999*

Wiring  
Touchpad Wiring:  
Red / Black  
(no polarity)

AMR Wiring:  
Red – Clock/Power  
Green – Data  
Black – Ground