METRON Spectrum JET

Small Commercial Spectrum Jet Meters

Product Datasheet

Spectrum Jet 88DL

Spectrum Jet 88DLT

Spectrum Jet 130D

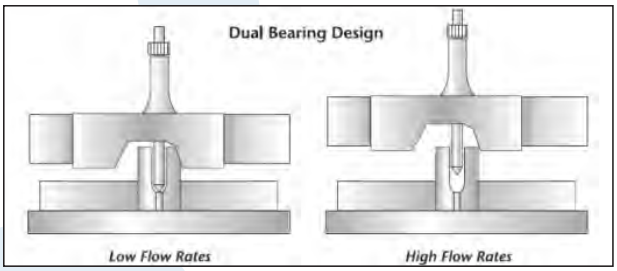
Applications

The Spectrum™ Jet single-jet meter is the widest ranged, single-measuring element meter available to U.S. utilities. The operation of the single jet element allows the meter to be applied in the vast majority of potable cold water, small commercial applications. These meters are designed with a very high range, including low flow performance equaling or exceeding all other metering technologies. Coupled with the advanced Prism registers, the Spectrum Jet single-jets are the meter of choice for your revenue assurance and water loss programs.

The Spectrum Jet Model-D meters are top-loading, chamber designs which allow for field maintenance and repairs.

Operations

Incoming water rotates a suspended impeller that is magnetically linked to the register. A low friction tungsten carbide bearing supports the impeller at low flow rates while a tungsten carbide thrust bearing provides the support at high flow rates. This unique “dual bearing” design provides unparalleled accuracy and durability at both high and low flows.



To maintain accuracy, the meter must be installed horizontally (±10°) in the direction of water flow. The Spectrum Jet 88DL and 88 DLT come with an integral test port on the outlet. Although regular maintenance is not required, the Spectrum Jet Model D meters have a top-loading measurement chamber for simple access without removing the meter from service. The chamber is bolted to the meter body and secured with a tamper seal.

All Spectrum Jet Model D meters utilize Prism registers. These sealed electronic registers provide a high resolution interface to the meter and have multiple cellular, AMR, AMI and SCADA outputs. All registers are attached with a robust tamper-resistant housing.

Design Features

- High accuracy exceeding AWWA standards
- Wide range: 1000:1 turndown ratio
- Superior low flow registration
- Compact and light
- Convenient options for various lengths and connections
- Low pressure drop
- No regular maintenance
- Excellent performance in adverse water conditions
- Unaffected by sand or small debris in line
- U0D0: No straight pipe requirements upstream or downstream
- No strainer requirement
- 20-year warranty on meter body
- Compatible with all Prism registers and associated AMR/AMI capabilities.

Materials

All Spectrum Jet Model-D meters are designed and manufactured to meet or exceed AWWA C712 standard design and performance specifications. All models are maintained with NSF/ANSI 61 and NSF/ANSI 372 lead-free certifications.

Standards

AWWA C712: Single-Jet Meters
NSF/ANSI 61: Drinking Water System Components Health Effects
NSF/ANSI 372: Lead-Free Requirements for Drinking Water Systems

Mechanical Specifications

Spectrum Jet 88D - 1 ½" (40mm)

Flanges	Lay Length	Dimensions	Weight*	Test Plug	Test Port
Oval 2-bolt	7.9" (201mm)	See Drawing	10.4lb (4.7kg)	1" Integral	Integral 1" NPT Threads

Spectrum Jet 88DL - 1 ½" (40mm)

Flanges	Lay Length	Dimensions	Weight*	Test Plug	Test Port
Oval 2-bolt	13" (330mm)	See Drawing	11.0lb (5.0kg)	1" Integral	Integral 1" NPT Threads

Spectrum Jet 88DLT - 1 ½" (40mm)

Connection	Lay Length	Dimensions	Weight*
1.5" internal NPT conforming to ASME B1.20.1	12 ⅝" (321mm)	See Drawing	9.05lb (4.1kg)

Spectrum Jet 130D - 2" (50mm)

Flanges	Lay Length	Dimensions	Weight*	Test Plug	Test Port
Oval 2-bolt	9¾" (248mm)	See Drawing	13.65lb (6.2kg)	Available on Spool	Lead-free Flanged Spools for 15 ¼" & 17" LL

Contact Metron for information on brass spools and couplers.

* Weights quoted are for the meters with the Prism register and plastic housings installed. Prism register and housings weigh 0.75lbs (0.34kg).

Materials

Body & Top-plate	Impeller	Impeller Bearings	Impeller Shaft	Register Housing
Lead-Free Brass	Polypropylene	Nylon with Carbon Fiber	AISI 303, Tungsten Carbide Tip	Thermoplastic

Tamper Features

Meter Body	Register
Wire Seal Between Meter Body and Top-Plate	Tamper-resistant Screw

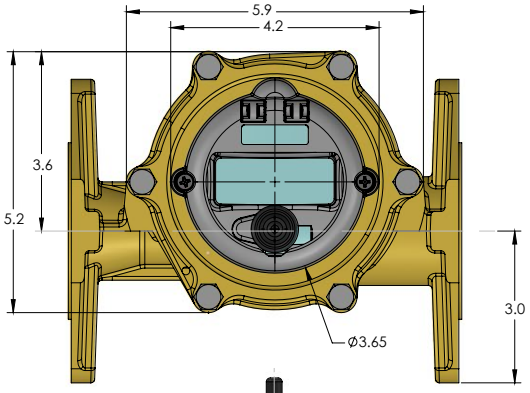
Markings

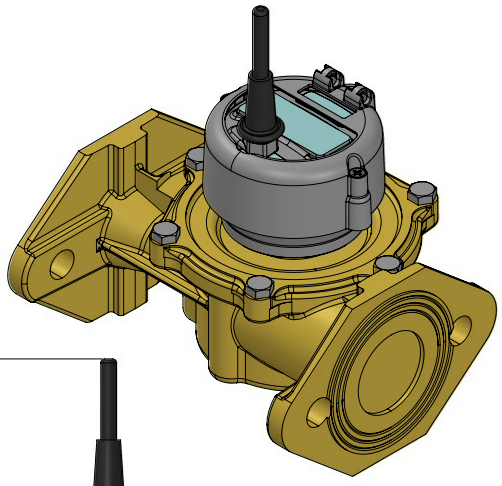
Engraved on Meter Body:

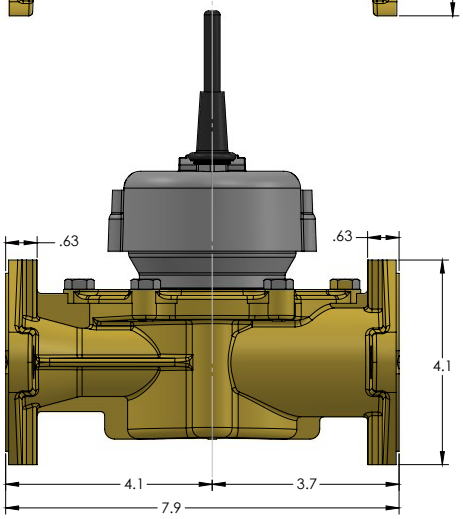
- Model
- Serial Number
- Date of Manufacture
- NSF/ANSI 61-G
- Direction of Flow

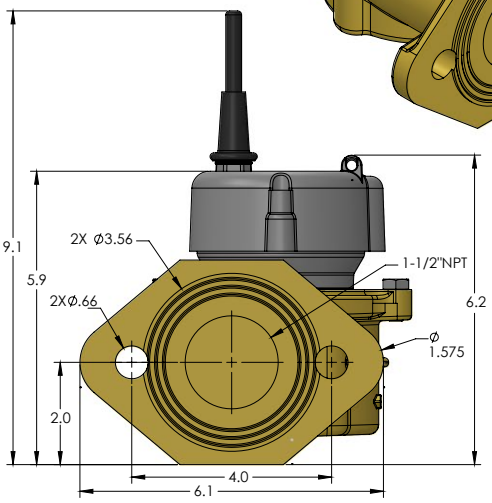
Dimensions (inches)

Spectrum Jet 88D - 1½" Model (short)

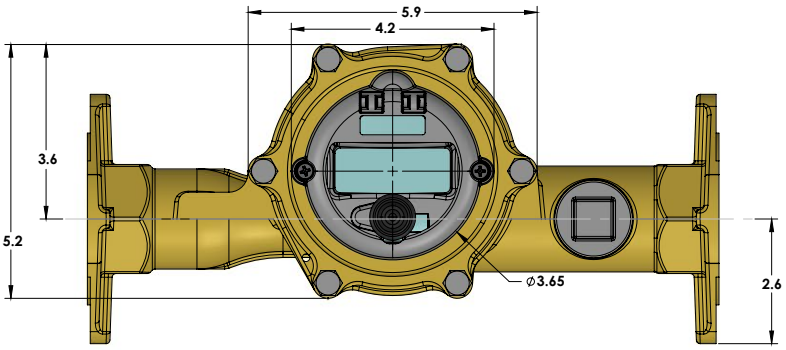


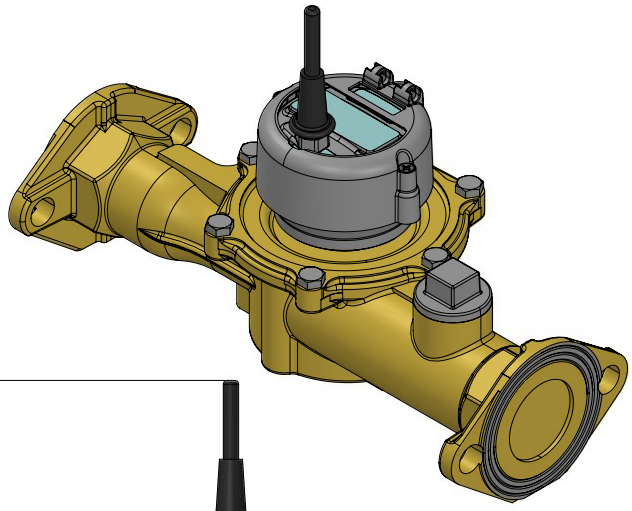


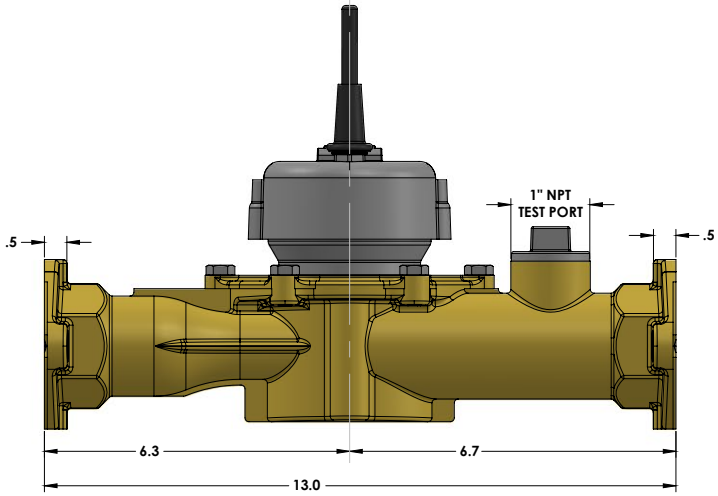


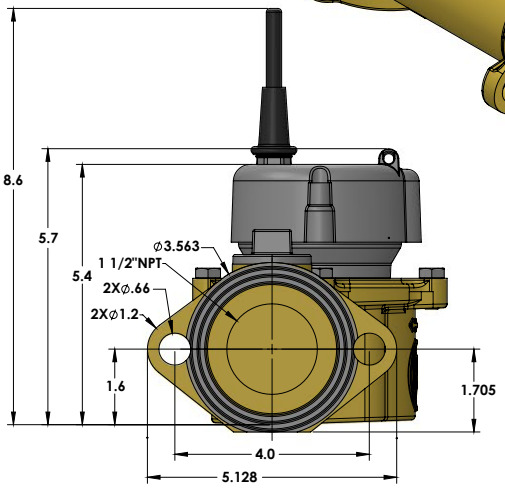


Spectrum Jet 88DL - 1½" Model



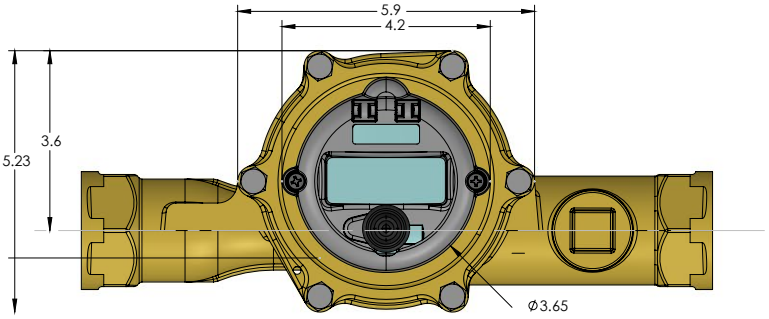


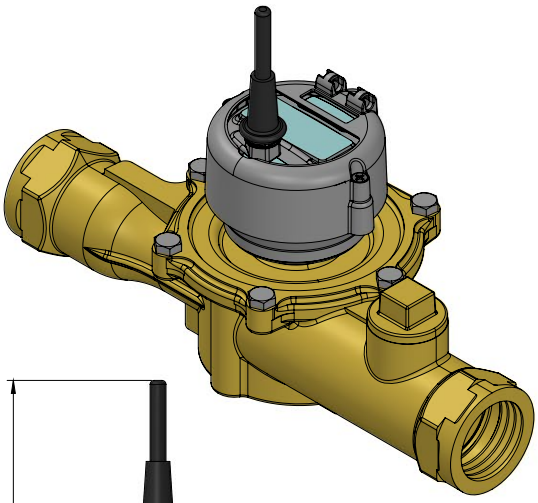


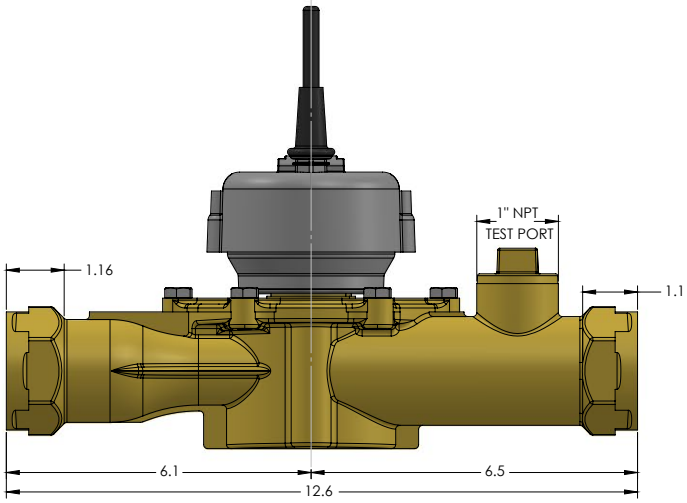


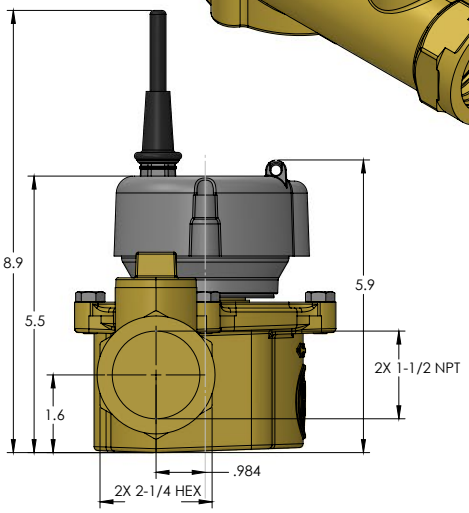
Dimensions

Spectrum Jet 88DLT - 1½" Model

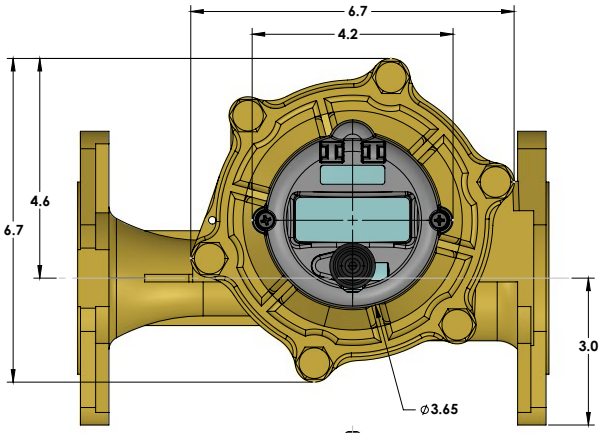


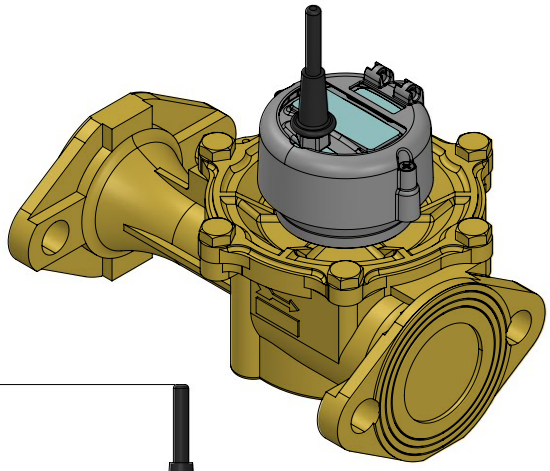


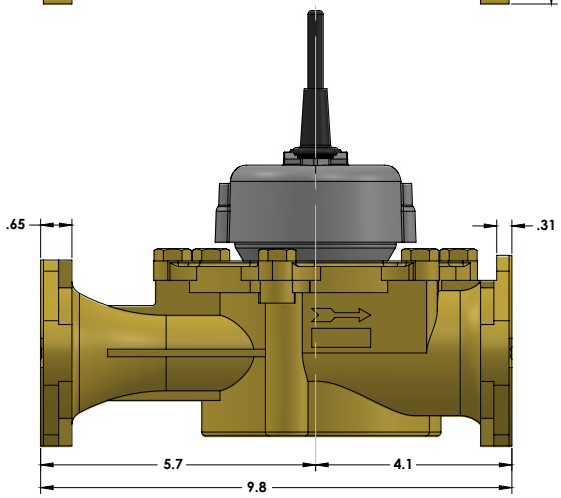


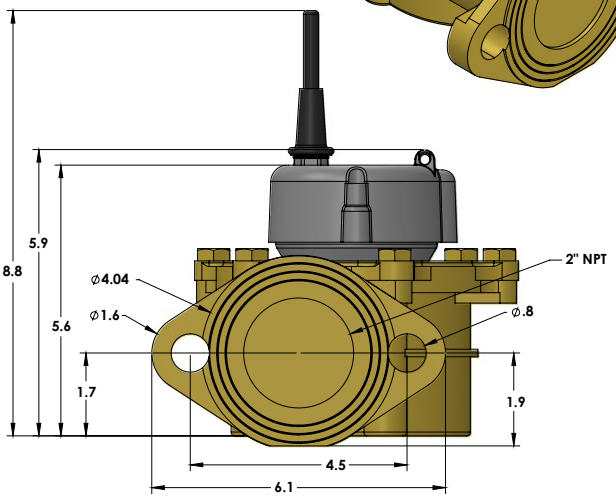


Spectrum Jet 130D - 2" Model









Flow & Pressure Specifications

Spectrum Jet 88D / 88DL / 88DLT - 1 ½" Models

Operating Range (98.5 to 101.5%)	0.5 to 105 gpm	0.11 to 24 m³/hr
Low Flow (95% min)	0.25 gpm	0.057 m³/hr
Max Continuous Flow[1]	88 gpm	20 m³/hr
Max Intermittent Flow[2]	105 gpm	24 m³/hr
Pressure Loss at Max Continuous	7.25 psi	0.5 bar
Max Operating Pressure	230 psi	15.9 bar
Max Operating Temperature	120° F	48.9° C

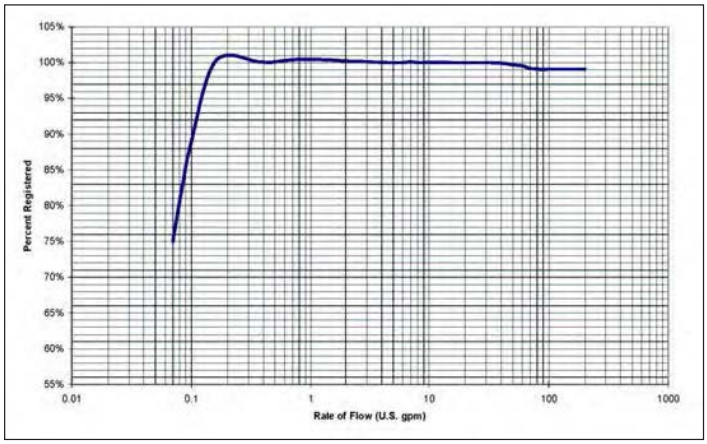
Spectrum Jet 130D - 2" Model

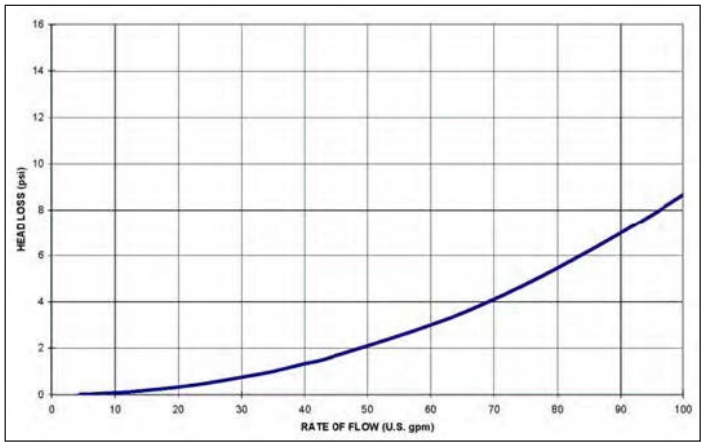
Operating Range (98.5 to 101.5%)	0.75 to 165 gpm	0.17 to 37.5 m³/hr
Low Flow (95% min)	0.25 gpm	0.057 m³/hr
Max Continuous Flow[1]	130 gpm	29.5 m³/hr
Max Intermittent Flow[2]	165 gpm	37.5 m³/hr
Pressure Loss at Max Continuous	7.25 psi	0.5 bar
Max Operating Pressure	230 psi	15.9 bar
Max Operating Temperature	120° F	48.9° C

Notes:

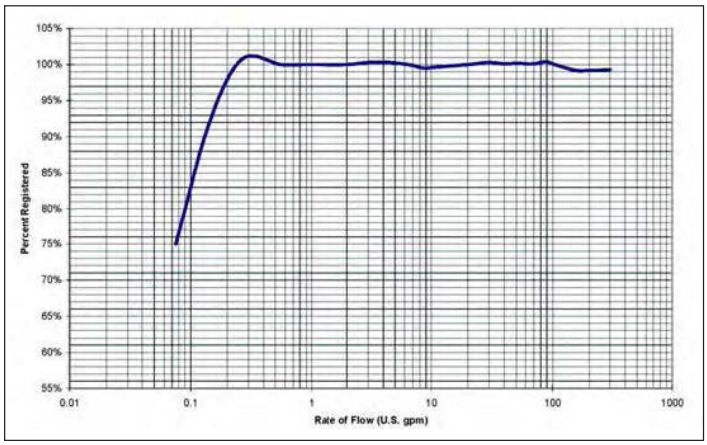
1. Max Continuous defined by AWWA as flow rate which can be maintained 24 hrs/day x 7 days/week
2. Max Intermittent defined as flow rate which can be maintained 1 hr/day average

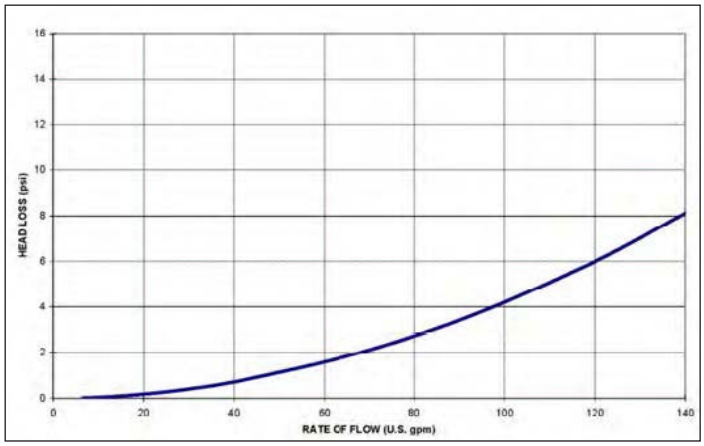
Spectrum Jet 88D / 88DL / 88 DLT





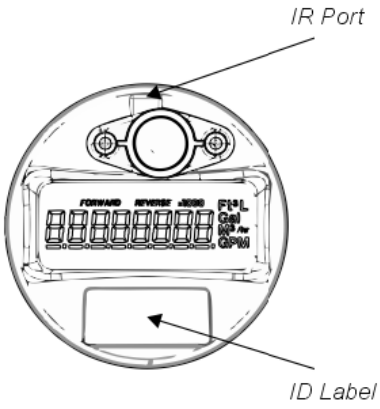
Spectrum Jet 130D

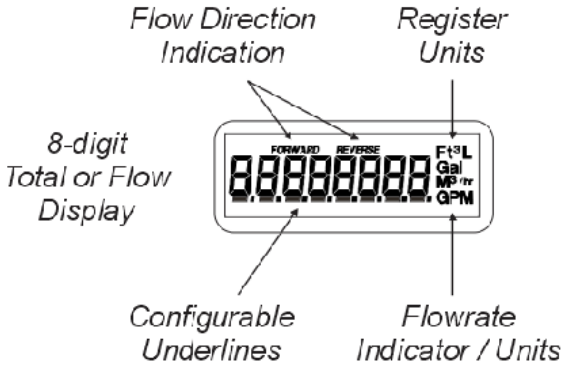




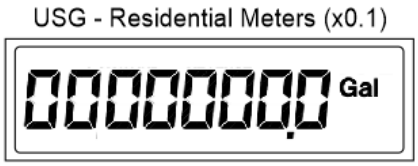
Registers

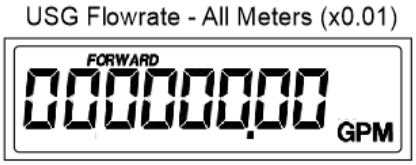
The Prism™ electronic register is the water industry's standard for register performance. The Prism offers maximum resolution, a multitude of standard features, on-board datalogging and a variety of cellular, AMI, AMR and SCADA output options. The Prism is designed for all environments and incorporates the largest battery available for utility applications. The Prism can be deployed on any Metron Spectrum Jet water meter.



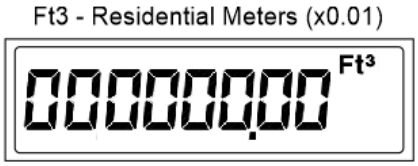


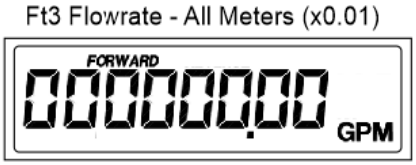
USG Configuration
0.1 Gallon Resolution



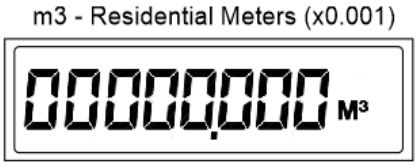


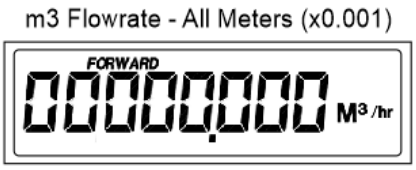
Ft3 Configuration
0.01 Ft3 Resolution





m3 Configuration
0.001 m3 Resolution





Antennas

The Prism Register is compatible with several types of antenna for various applications. Extension cables are also available.

Standard "stubby" antenna

Paddle antenna

Pit-cover mounted antenna

Warranty

Metron's current warranty documentation can be found here: https://metron-us.com/warranty

Legal

Due to updated regulations and product improvements, Metron reserves the right to change the product specifications without notice.

