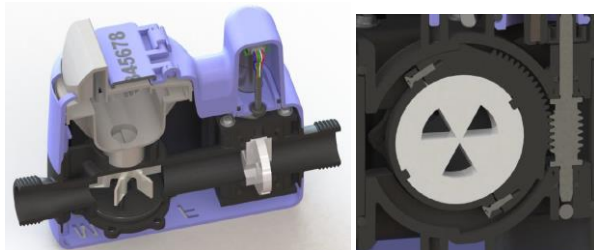


APPLICATIONS

The **Spectrum 30DV** is a durable residential single-jet meter with an integrated flow regulating valve. The meter and valve are assembled within a single, sealed housing which fits in a standard AWWA residential lay length (7.5"). The valve is a unique sliding plate design engineered to be impervious to sediment and debris for long-term operation. The valve can be set into open, closed and three reduced flow levels – trickle, limited use and irrigation restriction. An innov8-VNLTE register provides both the valve controls and the cellular communications link to the VN System. The VN System provides a direct link for each S30DV, eliminating the need for additional network infrastructure. The Waterscope portal provides the user interface for scheduling valve operations and for viewing the overall status of S30DV accounts. Email notifications are also available for normal operations and alerts.

OPERATIONS

As shown in the diagram below, the S30DV houses both a single-jet measuring chamber and a flow regulating valve. The measuring element operates identically to other Metron residential meters.



The valve is implemented with a set of sliding rotary plates actuated by a precision micro-motor and gearhead. These plates are constructed with a Teflon composite with very high tolerances. The design and materials of the valve ensure low friction/low power operations for long term performance. One of the plates rotates to adjust the aperture of the valve as shown in the diagram above.

The valve control electronics are housed in a waterproof area above the valve. The entire assembly is permanently sealed for complete tamper proofing.



DESIGN FEATURES

- Meter-Valve assembly in single housing which fits in standard 7.5" LL
- Unique valve design with sliding rotary plates
- High accuracy meter– exceeding high and low range of AWWA residential standards
- Starting flow below 1/16 gpm
- Excellent meter and valve performance in adverse water conditions
- Advanced materials for long-term durability
- Unaffected by sand or small debris in line
- No straight pipe requirements upstream or downstream of meter
- High resistance to freezing
- Lightweight, compact design for simple installations
- No strainer requirement

MATERIALS

All residential Spectrum Model-D meters are designed and manufactured to meet or exceed AWWA C712 standards design and performance specifications. All Models are maintained with NSF-61G lead-free certifications.

STANDARDS

AWWA C712 – Single-Jet Meters

NSF-61G – Drinking Water System Components Health Effects

MECHANICAL SPECIFICATIONS

Spectrum 30DV	AWWA 5/8x3/4" (15x20mm)
Construction:	Composite
Threads	1" NPSM
Lay Length	7.5" (190 mm)

MATERIALS

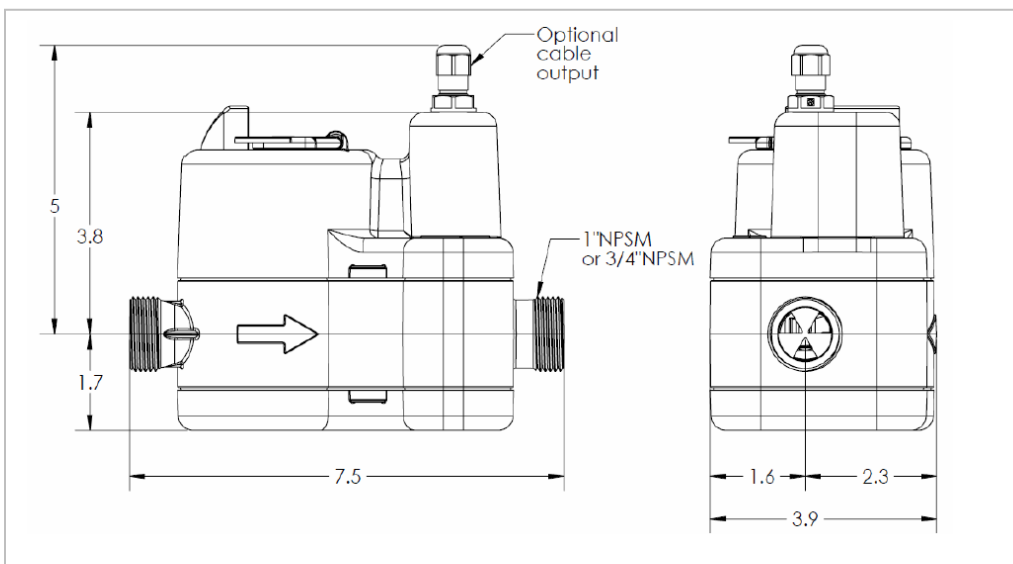
S30DV	
Composite Body & Top-plate:	Reinforced Nylon (Polyamide 12)
Impeller:	Polypropylene
Impeller Bearing:	Nivaflex
Impeller Pivot:	Sapphire
Impeller Shaft:	Tungsten Carbide
Valve	
Plates:	Teflon
Wormscrew:	AISI 303
Register Housing:	Thermoplastic

MARKINGS

Engraved on Meter Body:	Model
	Serial Number
	Date of Manufacture
	NSF-61G
	Direction of Flow

DIMENSIONS

Spectrum 30DV – 5/8x3/4"



FLOW & PRESSURE SPECIFICATIONS

Spectrum 30DV – 5/8x3/4” Model

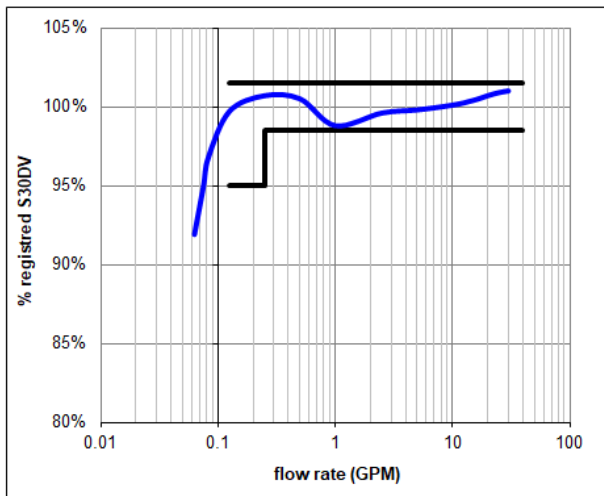
Operating characteristics with valve 100% open

Operating Range (98.5 to 101.5%)	0.25 to 30 gpm	(0.056 to 6.8 m3/hr)
Low Flow (95% min)	0.125 gpm	(0.0284 m3/hr)
Max Continuous Duty ¹	15 gpm	(3.4 m3/hr)
Max Intermittent ²	30 gpm	(6.8 m3/hr)
Typical Pressure Loss (at 15 gpm)	5.3 psi	(0.365 bar)
Max Operating Pressure	230 psi	(15.9 bar)
Max Operating Temperature	140 °F	(60 °C)

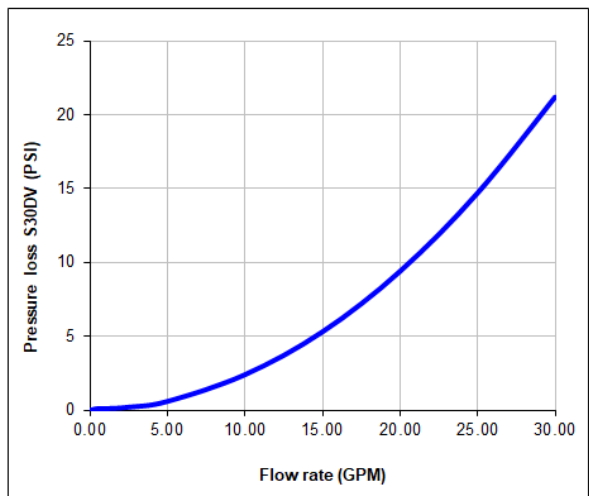
Notes

- 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

FLOW



PRESSURE LOSS



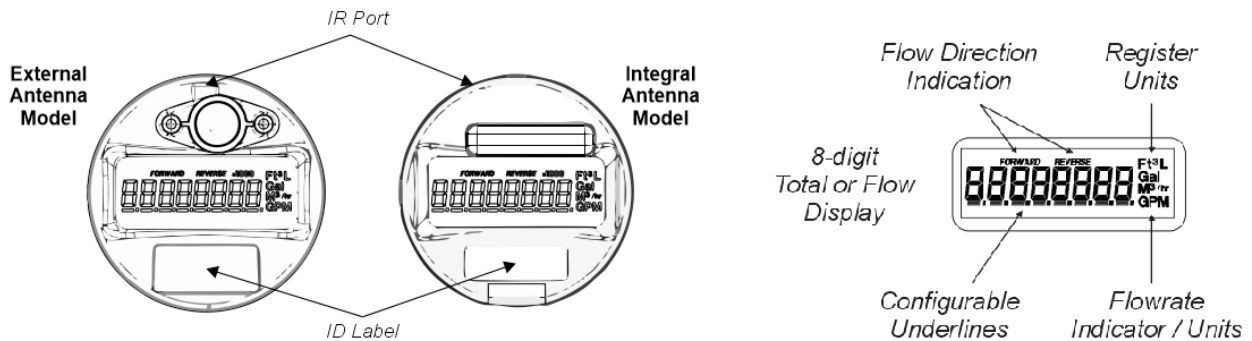
Operating characteristics with valve partially or fully closed

Notes: Full closure of the valve may still result in a small flowrate through the meter assembly
 Flowrates and pressures drop with valve partially closed will vary according to system pressure
 Meter will maintain accuracy within AWWA limits with valve open to 80% closed. Beyond 80% closed, the meter will fall within +1.5% and -20% accuracy limits.

Contact Metron-Farnier for additional technical data.

REGISTERS

The innov8 electronic register is the water industry’s new standard for register performance. The innov8 offers maximum resolution, a multitude of standard features, on-board datalogging and a variety of cellular, AMI, AMR and SCADA output options. The innov8 is designed for all environments and incorporates the largest battery available for utility applications. The innov8-VN is exclusively used for the Spectrum 30DV meter with flow regulating valve.



<p>USG Configuration 0.1 Gallon Resolution</p>	<p>USG - Residential Meters (x0.1)</p>	<p>USG Flowrate - All Meters (x0.01)</p>
<p>Ft3 Configuration 0.01 Ft3 Resolution</p>	<p>Ft3 - Residential Meters (x0.01)</p>	<p>Ft3 Flowrate - All Meters (x0.01)</p>
<p>m3 Configuration 0.001 m3 Resolution</p>	<p>m3 - Residential Meters (x0.001)</p>	<p>m3 Flowrate - All Meters (x0.001)</p>

WARRANTY

Please contact your Metron representative for formal warranty certificates.

LEGAL

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

DS version Jun-2020A