

# Greyline **AVFM 6.1**

## Technical Specifications:

The Area-Velocity Flow Meter 6.1 measures flow through partially filled pipes, channels, canals, and turnouts without a flume or weir. Ideal for wastewater, stormwater, effluent, industrial wastewater, and irrigation water. Compute the flow volume and displays the flow rate. Measure forward and reverse flow and calibrate to channels of any shape.



#### **GENERAL SPECIFICATIONS**

<b>Operating Parameters:</b>	Round pipe, rectangular, trapezoid, egg, or custom shapes	
Programming:	Built-in 5-key calibrator with English, French, or Spanish language selection	
Electronics Enclosure:	NEMA4X (IP66) polycarbonate with clear, shatterproof cover	
Accuracy:	<ul> <li>Level: ±0.25% of reading or ±2.03 mm (0.08 in), whichever is greater. Repeatability &amp; Linearity 0.1%.</li> <li>Velocity: ±2% of reading or ±0.012 m/s (0.04 ft/s), whichever is greater. Requires solids or bubbles minimum size of 100 microns, minimum concentration 75 ppm. Repeatability &amp; Linearity 0.5%</li> </ul>	
Display:	White, back-lit matrix — displays flow rate, totalizer, relay states, operating mode, and calibration menu	
Power Input:	<ul> <li>100-240 V AC 50/60 Hz, 10 V A maximum</li> <li>Optional: 9-32 V DC, 10 W maximum</li> </ul>	
Analog Output:	3 Isolated 4-20mA, 1 k $\Omega$ , (flow, level, and velocity) or 0-5 V DC by menu selection	
Control Relays:	2 Relays, form 'C' dry contacts rated 5 A SPDT; programmable flow alarm and/or flow proportional pulse (sampler/ totalizer), flow and/or level alarm	
Data logger:	Programmable 26 million point data capacity, time and date stamped plus formatted flow reports including total, average, minimum, maximum, and times of occurrence. Includes USB output to Flash Drives and Windows software.	
Operating Temp. (Electronics):	-20 °C to 60 °C (-5 °F to 140 °F)	
Approximate Shipping Weight:	4.5 kg (10 lb)	
Approvals:	CE, CSA / UL / EN 61010-1	

### TRANSDUCER SPECIFICATIONS

Transducer:	QZ02L submersible sensor measures level and velocity
Level Measurement Range:	<ul> <li>Minimum Head: 25.4 mm (1 in)</li> <li>Maximum Head: 4.6 m (15 ft)</li> </ul>
Velocity Measurement Range:	0.031 m/s to 6.2 m/s (0.1 ft/s to 20 ft/s) and reverse flow to -1.5 m/s (-5 ft/s) in fluids containing bubbles or solids with a minimum size of 100 microns and a minimum concentration of 75 ppm to act as acoustic reflectors
<b>Operating Temperature:</b>	-15 °C to 80 °C (5 °F to 175 °F)
Exposed Materials:	316 stainless steel, epoxy resin, polyurethane
Transducer Cables:	7.6 m (25 ft) submersible polyurethane jacket, shielded, 3-coaxial
Transducer Mounting Kit:	Includes MB-QZ stainless steel mounting bracket
Temperature Compensation:	Automatic, continuous

#### **POPULAR OPTIONS**

Industrial Automation Protocols:	Modbus RTU via RS485
Transducer Cables:	15.2 m or 30.5 m (50 ft or 100 ft) submersible, continuous from sensor — or splice up to a total of 152.4 m (500 ft) lengthlength
Sensor Cable Junction Box	Watertight NEMA4 polycarbonate with connection terminal strip
Enclosure Heater:	Thermostatically controlled to -40 °F/°C — recommended for temperatures below 0 °C (32 °F)
Intrinsic Safety Barriers:	For sensor mounting in Class I, II, III, Div. I, II, Groups C, D, E, F, G hazardous locations
Transducers:	Separate non-contacting ultrasonic level sensor and submerged velocity sensor
Sensor Mounting Bands:	Stainless steel sensor mounting bands for pipes 152.4 mm to 1.8 m (6 in to 6 ft) diameter



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#### I N F O @ P U L S A R M E A S U R E M E N T . C O M

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