

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

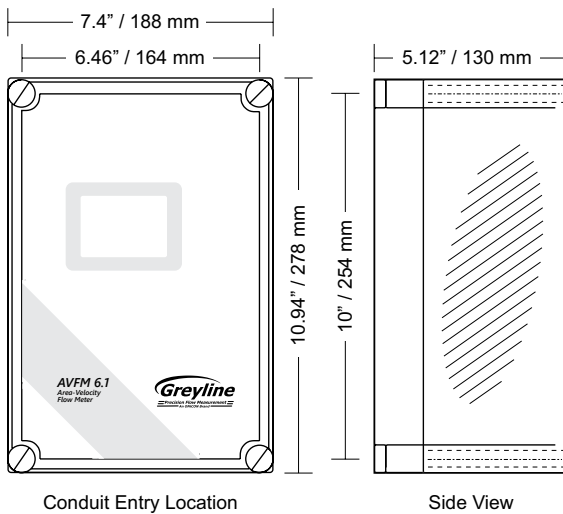
Operating Parameters:	Round pipe, rectangular, trapezoid, egg or custom shapes
Programming:	Built-in 5-key calibrator with English, French, or Spanish language selection
Electronics Enclosure:	NEMA4X (IP66) polycarbonate with clear, shatterproof cover
Accuracy:	<ul style="list-style-type: none"> Level: $\pm 0.25\%$ of reading or ± 2.03 mm (0.08 in), whichever is greater. Repeatability & Linearity 0.1%. Velocity: $\pm 2\%$ of reading or ± 12.19 mm (0.04 ft/s), whichever is greater. Requires solids or bubbles minimum size of 100 microns, minimum concentration 75 ppm. Repeatability & Linearity 0.5%
Display:	White, back-lit matrix — displays flow rate, totalizer, relay states, operating mode and calibration menu
Power Input:	<ul style="list-style-type: none"> 100-240 V AC 50/60 Hz, 10 V A maximum Optional: 9-32 V DC, 10 W maximum
Analog Output:	3 Isolated 4-20mA, 1000 Ω , (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

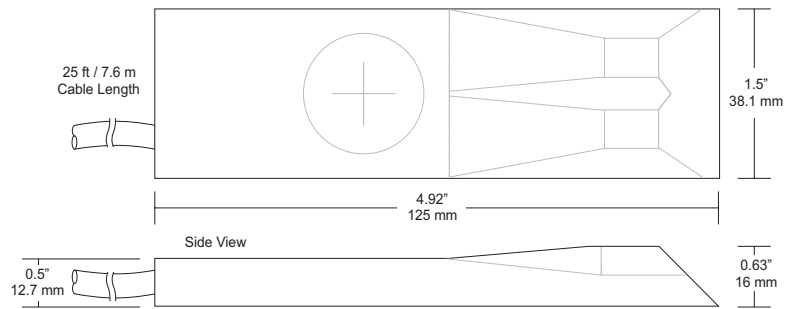
Transducer:	QZ02L submersible sensor, measures level and velocity
Level Measurement Range:	<ul style="list-style-type: none"> Minimum Head: 25.4 mm (1 in) Maximum Head: 4.57 m (15 ft)
Velocity Measurement Range:	0.03 m/s to 6.2 m/s (0.1 ft/s to 20 ft/s) and reverse flow to -1.5 m/s (-5 ft/s) in fluids containing bubbles or solids with a minimum size of 100 microns and a minimum concentration of 75 ppm to act as acoustic reflectors
Operating Temperature:	-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 RS-485 or HART (field selectable)
Transducer Cables:	15 m or 30 m (50 ft or 100 ft) submersible, continuous from sensor — or splice up to total of 150 m (500 ft) length
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 150 mm to 1,800 mm (6 in to 72 in) diameter



DFM 6.1 Front & Side View



QZ02L-UT-03-SD Velocity/Level Sensor



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