

## 750 Area Velocity Module – Specifications

<b>Size (HxWxD):</b>	4.9 x 5.7 x 2.0 in (12.4 x 14.5 x 5.1 cm)
<b>Weight:</b>	0.9 lbs (0.4 kg)
<b>Material:</b>	Polystyrene
<b>Enclosure:</b>	NEMA 4X, 6 IP67
<b>Power:</b>	9 to 14V DC (provided by 6700 Series Sampler)
<b>Program Memory:</b>	Non-volatile, programmable flash; can be field updated through sampler
<b>Operating Temperature:</b>	32° to 120°F (0° to 49°C)
<b>Storage Temperature:</b>	0° to 140°F (-18° to 60°C)

### Level-to-Area Conversions

<b>Channel shapes:</b>	Round, U-shaped, rectangular, trapezoidal
<b>Data points:</b>	Four sets of 50 level-area points

### Level-to-Flow Rate Conversions

<b>Weirs:</b>	V-notch, rectangular, Cipolletti
<b>Flumes:</b>	Parshall, Palmer-Bowlus, Leopold-Lagco, Trapezoidal, H, HS, HL
<b>Manning Formula:</b>	Round, U-channel, rectangular, trapezoidal
<b>Data Points:</b>	Four sets of 50 level-flow rate points
<b>Equation:</b>	Two-term polynomial

### Area Velocity Sensor – Standard and Extended Range

<b>Size (LxWxH):</b>	6.6 x 1.6 x 1.2 inches (16.8 x 4.1 x 3.0 cm)
<b>Weight, incl. cable:</b>	2.1 lbs (0.96 kg) for standard range probe with 25 foot cable; 3.9 lbs (1.8 kg) for extended range probe with 50 ft cable.
<b>Materials:</b>	Polybutadiene-based polyurethane, stainless steel; PVC and CPVC cable
<b>Operating Temperature Range:</b>	32° to 160°F (0° to 71°C)
<b>Compensated Temperature Range:</b>	32° to 100°F (0° to 38°C)

### Velocity Measurement

<b>Method:</b>	Doppler Ultrasonic, 500 kHz
<b>Velocity range:</b>	-5 to +20 ft/s (-1.5 to 6.1 m/s)
<b>Minimum depth:</b>	0.25 ft (75mm), typical

### Level Measurement

<b>Method:</b>	Submerged pressure transducer
<b>Standard range probe:</b>	Measurement range 0.05 to 10 ft (0.015 to 3.05 m); max level 20 ft (6.1 m)
<b>Extended range probe:</b>	Measurement range 0.05 to 30 ft (0.015 to 9.1 m); max level 40 ft (12.2 m)

Level Accuracy - Standard Range Probe, for indicated level range. Includes non-linearity, repeatability, and hysteresis at 25°C (77°F)

**0.033 to 5.0 ft (0.01 to 1.52m):** ±0.008 ft/ft (±0.008 m/m)

**>5.0 ft (>1.52 m):** ±0.012 ft/ft (±0.012 m/m)

Level Accuracy - Extended Range Probe, for indicated level range. Includes non-linearity,

repeatability, and hysteresis at 25°C (77°F)	
<b>0.05 to 15ft (0.015 to 4.57m):</b>	±0.03 ft (±0.009 m)
<b>0.05 to 21ft (0.015 to 6.4m):</b>	±0.09 ft (±0.027 m)
<b>0.05 to 30ft (0.015 to 9.14m):</b>	±0.3 ft (±0.09 m)
Area Velocity Sensor – Low Profile	
<b>Size (LxWxH):</b>	6 x 1.3 x 0.75 inches (15.2 x 3.3 x 1.9 cm)
<b>Weight, incl. cable:</b>	2.1 lbs (0.96 kg)
<b>Materials:</b>	Epoxy, CPVC, stainless steel; PVC and CPVC cable
<b>Operating Temperature Range:</b>	32° to 122°F (0° to 50°C)
<b>Cable length:</b>	25 ft (8m) standard. Up to 75 ft (22.8 m) with optional extension. Up to 1000 ft (300 m) with optional Quick Disconnect Box.
Velocity Measurement	
<b>Method:</b>	Doppler Ultrasonic, 500 kHz
<b>Velocity range:</b>	-5 to +20 ft/s (-1.5 to 6.1 m/s)
<b>Minimum depth:</b>	0.08 ft (25mm), typical
Level Measurement	
<b>Method:</b>	Submerged pressure transducer
<b>Range:</b>	0.033 to 10 ft (0.01 to 3.05 m); max allowable level 20 ft (6.1 m)
<b>Level Accuracy:</b>	Depths from 0.033 to 5.0 ft (0.01 to 1.52m): ±0.008 ft/ft (±0.008 m/m); Depth >5.0 ft (>1.52 m): ±0.012 ft/ft (±0.012 m/m). Accuracy per foot of change from calibrated depth @ 77°F (25°C). Includes non-linearity and hysteresis.