


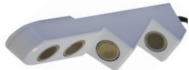






ADS TRITON+ Sensors



ADS® offers a variety of sensors for use with the ADS TRITON+ flow monitor, including area-velocity sensors, depth sensors, and an inclinometer. The TRITON+ can be configured with one or two sensors for a wide range of applications in sanitary, storm, and combined sewers. The matrix below provides an overview of each sensor, the technologies used, and typical applications.

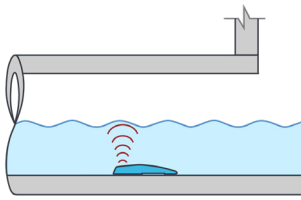
Sensors	Technologies	Depth	Velocity	Recommended Flow Conditions	
Area-Velocity Submerged  P/N: 8K-CS7-10-35	Dual depth: up-looking ultrasonic and pressure Velocity: gated Doppler, average velocity using multiple gates	Ultrasonic: 1 to 72 in. (0.025 to 1.8 m) Pressure: 0 to 277 in. (0 to 7 m)	±15 ft/s (±4.60 m/s) in Bidirectional mode or ±20 fps (6.10 m/s) in Forward and Backwards mode; minimum depth for deadband is 5 in. (0.125 m)	Recommended for deeper flow measurements. A minimum flow depth of 5 in. (0.125 m) is recommended, although it may operate in shallower flows. Gated Velocity provides a better velocity distribution across the wetted area and can reduce field confirmations.	
	AV Max™  P/N: 8K-CS9-10-35	Dual depth: up-looking ultrasonic and pressure Velocity: continuous wave Doppler, peak velocity correlated to average	Ultrasonic: 1 to 60 in. (0.025 to 1.5 m) Pressure: 0 to 277 in. (0 to 7 m)	±30 ft/s (±9.14 m/s) Deadband 1 in. (0.025 m) from the bottom of the pipe	General use sensor and recommended for most applications. Based on the Peak Combo Sensor, AV Max provides improved durability in a more ruggedized housing for harsh sewer environments.
	Peak Combo™  P/N: 8K-CS4-05-35 P/N: 8K-CS4-15-35 P/N: 8K-CS4-30-100	Dual depth: up-looking ultrasonic and pressure Velocity: continuous wave Doppler, peak velocity correlated to average	Ultrasonic: 1 to 60 in. (0.025 to 1.5 m) Pressure 0-5 psi: 0 to 138 in. (0 to 3.5 m) Pressure 0-15 psi: 0 to 415 in. (0 to 10.5 m) Pressure 0-30 psi: 0 to 830 in. (0 to 21.0 m)	±30 ft/s (±9.14 m/s) Deadband 1 in. (0.025 m) from the bottom of the pipe	General use sensor recommended for most applications including surcharge depths greater than 277 in. (7 m). Largest pressure operating range across all ADS sensors.
Area-Velocity Non-Contact  P/N: 8K-CS5-V2-05-30 P/N: 8K-CS5-V2-15-30	Dual depth: down-looking ultrasonic and surcharge pressure Velocity: surface Doppler, correlated to average Surcharge Velocity: continuous wave Doppler	Ultrasonic: 0 to 120 in. (0 to 3 m) Pressure 0-5 psi: 0 to 138 in. (0 to 3.5 m) Pressure 0-15 psi: 0 to 415 in. (0 to 10.5 m)	Surface velocity air range: 3 to 42 in. (0.075 to 1.1 m) Surface velocity range: 1.0 to 15.0 ft/s (0.3 to 4.6 m/s)	For use in shallow and fast flow conditions. Not recommended when velocity is less than 1.0 ft/s (0.3 m/s).	
	PARAFLOW™  P/N: 8K-CS8-V2-10-30-IS	Dual depth: down-looking ultrasonic and surcharge pressure Velocity: surface Doppler, correlated to average Surcharge Velocity: continuous wave Doppler	Ultrasonic: 0 to 144 in. (0 to 3.6 m) Surcharge Pressure: 0 to 277 in. (0 to 7 m)	Surface velocity air range: 0 to 42 in. (0 to 1.1 m) Surface velocity range: 1.0 to 15.0 ft/s (0.3 to 4.6 m/s)	Recommended for use in shallow and fast flow conditions. Not recommended when velocity is less than 1.0 ft/s (0.3 m/s). Improved sensing technology using parabolic focusing in a more ruggedized housing compared to the Surface Combo sensor. Easy maintenance using the Topside Retrieval System (TRS).
Depth Non-Contact  P/N: 8K-CS8-D1-00-30-IS	Depth: down-looking ultrasonic, parabolic focusing	Ultrasonic: 0 to 144 in. (0 to 3.6 m)	Not applicable	Non-contact depth sensor recommended in sewer manholes and sewer pipes and in conjunction with AV Gated, AV Max, or Peak Combo submerged sensor. Can be used with flumes or weirs. TRS option available.	
	Long Range Depth™  P/N: 8K-CS6-C1-10	Depth: down-looking ultrasonic, parabolic focusing Submersion: detects submersion when fully covered with liquid	Ultrasonic: 0 to 240 in. (0 to 6.0 m)	Not applicable	Recommended for long-range depth monitoring applications in sewer manholes, storm vaults, streams, ponds, and lagoons.
Specialty INCLINOMETER™  P/N: 8000-0528	Displacement angle from zero set point	Not applicable	Not applicable	Used to monitor status of tide gates, flow rates over bending weirs, and intrusion alarming.	

*Performance of each sensor may be affected by hydraulics specific to installed location.

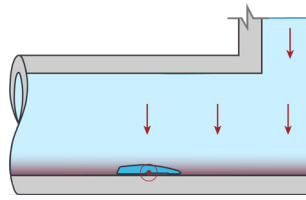
ADS TRITON+ Sensors

ADS provides a variety of sensor technologies and are selected for optimum suitability for a given application. The diagrams below provide illustrations of each technology.

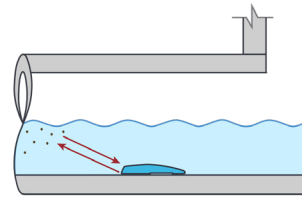
SUBMERGED SENSOR



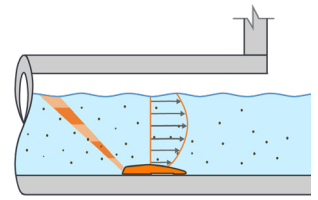
Up-looking Ultrasonic Depth



Surcharge Pressure Depth

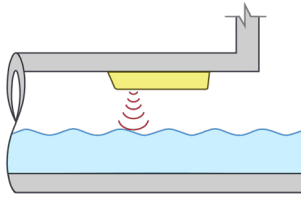


Continuous Wave Doppler Velocity

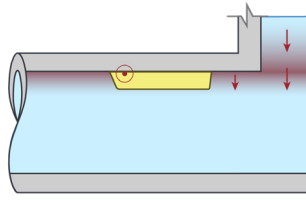


Gated Velocity

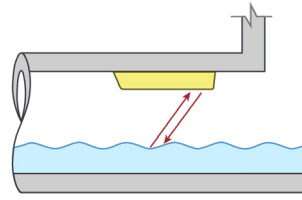
NON-CONTACT SENSOR



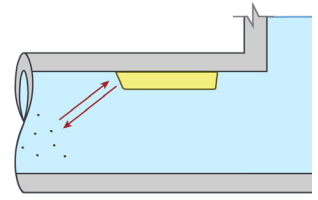
Down-looking Ultrasonic Depth



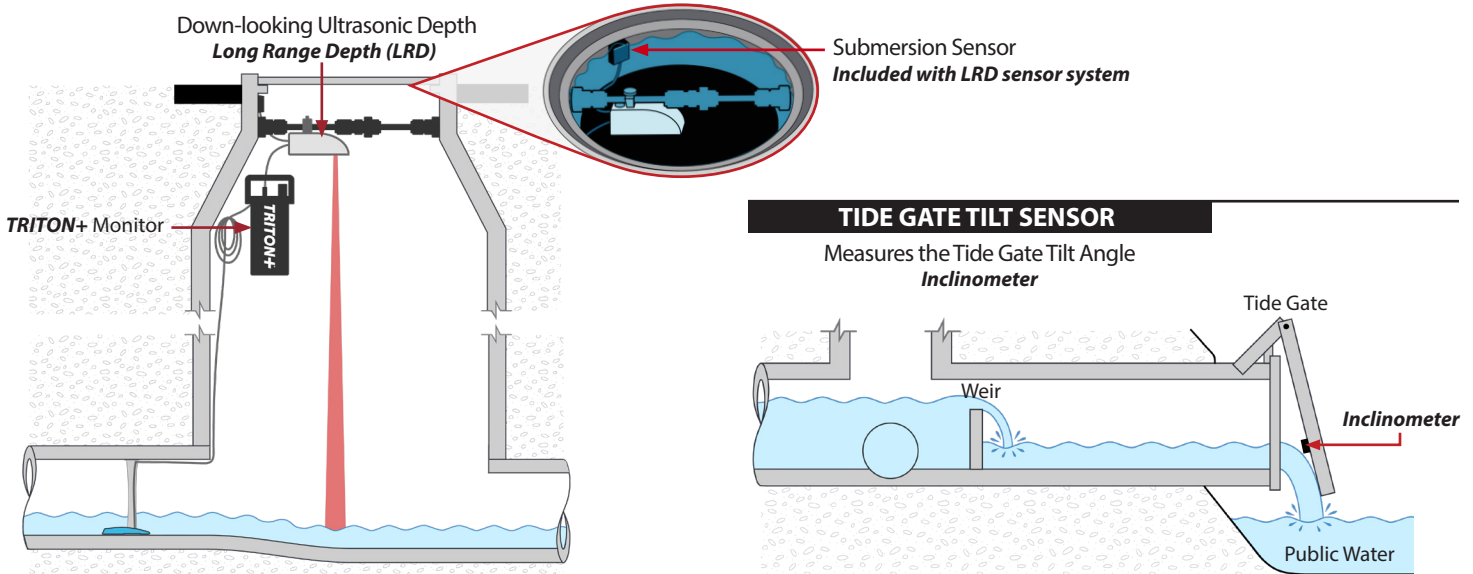
Surcharge Pressure Depth



Surface Velocity



Continuous Wave Doppler Velocity (Surcharge Velocity)



Measurement Technology	Submerged			Non-Contact				Specialty
	AV GATED™	AV MAX™	Peak Combo™	Surface Combo™	PARA FLOW™	PARA DEPTH™	Long Range Depth™ (LRD)	Inclinometer
Depth - Pressure	X	X	X	X	X			
Depth - Ultrasonic Down-Looking				X	X	X	X	
Depth - Ultrasonic Up-Looking	X	X	X					
Submersion - Capacitance							X	
Velocity - Continuous Wave Doppler		X	X	X	X			
Velocity - Surface Doppler				X	X			
Velocity - Gated Doppler	X							
Temperature	X	X	X	X	X	X	X	
Angle of Deflection								X



Learn More About TRITON+
www.adsenv.com/triton



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Sensor Matrix_03-29-2022