Trusted Solutions for
Flow Monitoring

ADS TRITON+®

Flow Monitoring for Open Channel Flows

The ADS® ***TRITON+***® is the most versatile and cost-effective flow monitor on the market. The ***TRITON+*** includes connections for multiple sensor technology options and provides users with industry-standard data for a variety of applications.

The ***TRITON+*** is an intrinsically safe, "Fit-for-Purpose" open channel flow monitor for use in sanitary, combined, and storm sewers. It supports single pipe or dual pipe flow measurement installations.

Applications

The ADS ***TRITON+*** is used to gather data for use in a variety of applications:

- Sanitary sewer overflows (SSOs)
- Combined sewer overflows (CSOs)
- Infiltration and inflow (I/I)
- Sewer model validation
- Optimize cleaning process
- Lift/pump station backup
- Regulatory reporting
- Mitigate SSOs
- Bypass monitoring
- Inter-Jurisdictional Billing

Versatile and Accurate
Monitor-Level Intelligence (MLI®) enables the ***TRITON+*** to effectively operate over a wide range of hydraulic conditions. The ***TRITON+*** supports single or dual pipe/monitoring point measurement capabilities. It supports actuation of a water quality sampler for flow proportional or level-based operation.

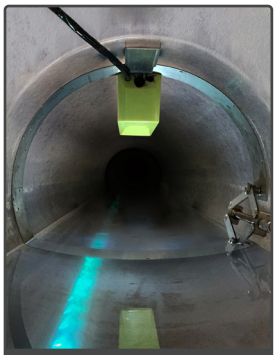
Access Data with Ease
Wireless options make it easy to collect data from your ***TRITON+***. The ADS web software **PRISM™** enables you to access all your data in one platform from any device (PC, tablet, phone).

Configure to Suit Your Budget
The ***TRITON+*** has the lowest operational cost per data sample of any ***Intrinsically Safe*** flow monitor available. The platform adapts to a wide range of customer applications and budgets, and can be configured as an economical ***single sensor monitor or dual sensor monitor.***

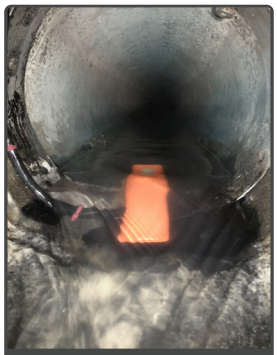
Extended Asset Life
The ***TRITON+*** has industry-leading battery life. It offers a longer battery life and fewer parts for a more reliable system, providing a lower purchase price and lower ownership cost over the life of the monitor.

www.adsenv.com/triton

ADS *TRITON*+ Sensors are Adaptable to a Wide Variety of Applications



Non-Contact Depth Sensor



Submersed Velocity Sensor

The ***TRITON+*** flow monitor is compatible with a suite of sensors designed to cover a wide range of applications and a wide range of flow conditions in sanitary sewer, combined sewer, and storm sewer applications. Choose from area-velocity (AV) sensors and depth sensors using submerged or non-contact mounting options. There is even an available inclinometer. The ***TRITON+*** is configurable with one or two sensors measuring one or two monitoring points. See the sensor specifications at ***www.adsenv.com/triton.***

ADS Sensor Technologies Include: Pressure depth, Ultrasonic depth (non-contact & submerged), Doppler velocity, Gated velocity, Surface velocity, Temperature, Inclinometer (tilt sensor)

Peak Combo™
Velocity Sensor

AV|GATED®
Gated Velocity Sensor

Surface Combo™
Area-Velocity

ParaDepth™
Depth Sensor

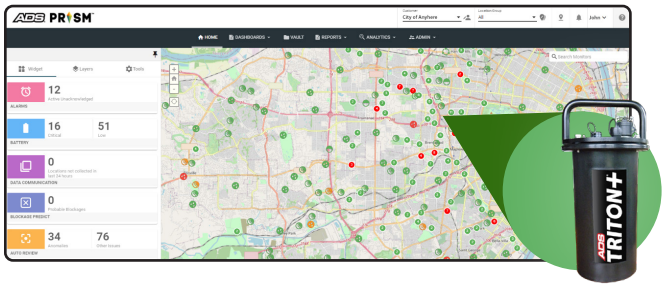
Long Range Depth™
Depth Sensor

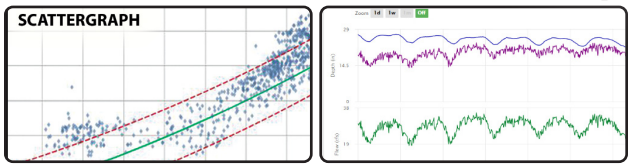
INCLINOMETER™
Tilt Sensor

ADS PRISM™ Software Enhances Understanding

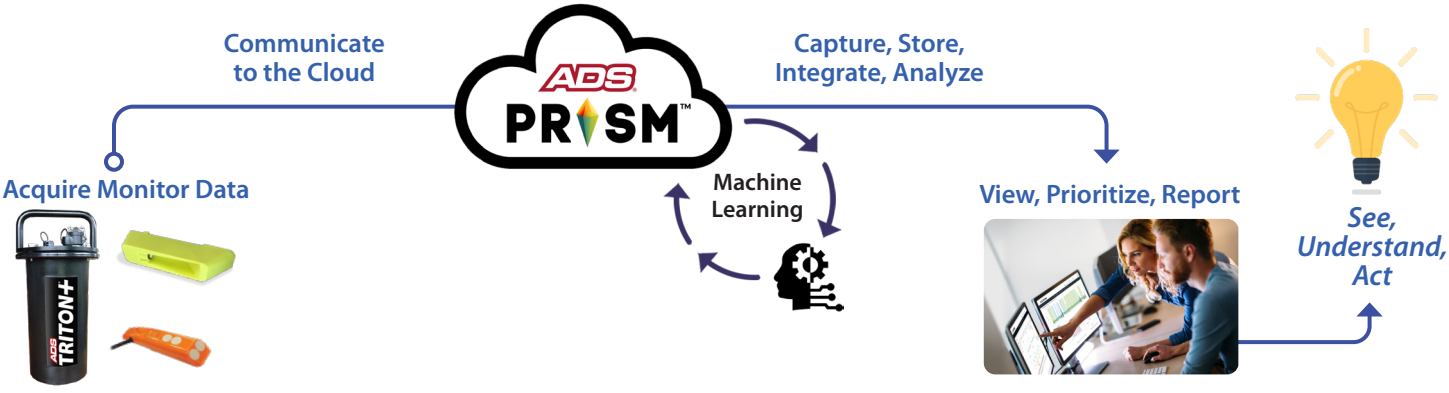
PRISM is a cloud-based, secure software system that acquires, stores and presents data with ongoing user access. The home page (right) provides a map view and a dashboard for quick access to essential parameters. Individual site details, hydrographs and remote site system settings are all accessible. **PRISM** APIs enable third party data exchange.

- Configure and activate
- Set alarms
- Manage data
- Manage blockages with **blockage PREDICT™**
- Conduct I/I studies with the *NEW* **SLiiCER™** app
- Utilize GIS





Real-time data is collected and communicated to the cloud-based **PRISM** software and analytics. With continuous user access, informed actions are enabled. Learn more about **PRISM** at ***www.adsenv.com/prism.***



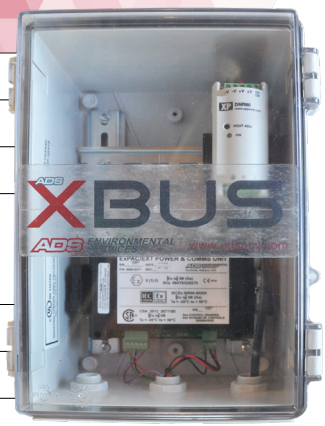
Self-Contained Solutions for Power, Communication, Analog and Digital I/O and Modbus

The ADS ***TRITON+*** COMM+EXT PWR port is used for external power via the ADS XIO, XBUS or ExPAC devices, delivery of Modbus output values as well as for on-site, direct monitor communication.

XIO Features

- Process variables measured by the ***TRITON+*** can be converted to two (2) 4-20mA loop output signals for SCADA systems or local display and control
- Logging capabilities of the ***TRITON+*** can be used for two (2) 4-20mA input process variables measured by other instrumentation
- Alarms produced by the ***TRITON+*** can be output on the two (2) XIO relay contacts for process actuation
- Two (2) switch, solid state or dry contact digital inputs can be sampled and logged
- Design facilitates easy field wiring
- Supports easy plug and play configuration and start-up
- Associated Apparatus **IECEx certification** for use with approved equipment in **Zone 0** (equivalent to Class I, Division 1, Groups C & D); **ATEX Zone 0**; and **CSA Class I**, Zone 0, IIB hazardous areas
- Rugged indoor/outdoor NEMA 4x case with hinged clear cover
- Accepts 85-264 VAC, 120-375 VDC; 47-62 Hz; 1.1A@110/0.59A @250 VAC
- Supplies 8 – 11.5 VDC, 500mA power to the ***TRITON+*** flow monitors

XBUS Features



- Supports Modbus RTU, ASCII and TCP communications
- Connects to wired networks via RS485 or RS232
- Supports easy plug and play configuration and start-up
- Associated Apparatus **IECEx certification** for use with approved equipment in **Zone 0** (equivalent to Class I, Division 1, Groups C & D); ATEX Zone 0; and CSA Class I, Zone 0, IIB hazardous areas
- Rugged indoor/outdoor NEMA 4x case with hinged clear cover
- Accepts 85-264 VAC, 120-375 VDC; 47-62 Hz; 1.1A@110/0.59A @250 VAC
- Supplies 8 – 11.5 VDC, 500mA power to the ***TRITON+*** flow monitors

ExPAC Features

- Designed to be housed in another enclosure
- Associated Apparatus **IECEx certification** for use with approved equipment in Zone 0 (equivalent to Class I, Division 1, Groups C & D); ATEX Zone 0; and CSA Class I, Zone 0, IIB hazardous areas
- Requires DC power input between 9 and 36 volts and a minimum of 15 watts
- Supplies DC power of 8 to 11.5 volts, 500mA to the ***TRITON+*** flow monitors
- RS485 and RS232 Modbus output connections to SCADA systems
- Supports Modbus RTU, ASCII and TCP/IP communications

Specifications subject to change without notice.

ADS TRITON+®

Flow Meter Specifications

Connectors	U.S. Military specification MIL-C 26482 series 1, for environmental sealing, with gold-plated contacts
Communication	Third-party, FCC/IC/EC- and carrier-approved wireless modem
	Compatible with all 4G LTE-M networks worldwide with 2G fallback (where available)
	Automatically detects installed SIM upon boot up to determine correct network
	Modem FCCID: R17ME910C1WW
Monitor Interfaces	Supports simultaneous interfaces with up to two combo sensors
	Supports optional Analog and Digital I/O with ADS XIO: two 4-20 mA inputs and outputs, two switch inputs and two relay outputs
Power	**Internal** - Battery life with a cellular modem: • Over 15 months at a 15-minute sample rate* • Over 6 months at a 5-minute sample rate*
	External - Optional external power available with ADS External Power and Communications Unit (ExPAC) with an ADS- or customer-supplied 9-36 Volt DC power supply
	* Rate based on collecting data once a day and varies according to sensor configuration and operating temperature
Connectivity	**Modbus ASCII:** Wireless; Wired using ADS ExPAC or XBUS
	Modbus RTU: Wireless; Wired using ADS ExPAC or XBUS
	Modbus TCP: Wireless only
Operating and Storage Temperature	-4° to 140° F (-20° to 60° C)
Compatibility	Attachable ADS Sensors
	Qstart™***XML*** with ADS ***TRITON+***® firmware version 6.43 and higher
	PRISM™

Mounting Options	**Mount on the manhole rung** using standard hook (ADS p/n 8000-0021)
	Mount permanently to the manhole wall using monitor mounting bracket/flange (ADS p/n I40-0009)
	Mount to the manhole rim using monitor bracket/flange (ADS p/n I40-0009)
Intrinsic Safety Certifications	**Certified under the ATEX** European Intrinsic Safety standards for Zone 0 rated hazardous areas
	Certified under IECEx (International Electrotechnical Commission) Intrinsic Safety Standards for use in Zone 0 rated hazardous areas (equivalent to Class I, Division 1, Groups C & D)
	CSA Certified to Class 225803 Process Control Equipment, Intrinsically Safe and Non-Incendive Systems – For Zone 0 Hazardous Locations, Ex ia IIB T3 (152° C) in Canada
	CSA Certified to Class 225883 Process Control Equipment, Intrinsically Safe and Non-Incendive Systems – For Class I Zone 0 Hazardous Locations, AEx ia IIB T3 (152° C) in the USA (equivalent to Class I, Division 1, Groups C & D)
Other Certifications/ Compliances	FCC Part 15 compliant
	Carries the EU CE mark
	ROHS (lead-free) compliant
	Canada IC CS-03 compliant
	IP68 compliant

Learn more about ADS *TRITON+*
www.adsenv.com/triton

Call: 800.633.7246
Email: adssales@idexcorp.com

Specifications subject to change without notice.