WATER & WASTEWATER

Product Catalog

APG
Automation Products Group, Inc.

WHY APG?

At APG, our primary goal is to enrich lives by providing reliable solutions and products to our customers. We are dedicated to designing and manufacturing innovative level and pressure sensors to match your application needs.

For over 5 decades, APG has built a legacy of aligning sensor solutions to your specific application needs.Our sensors are used in applications across a variety of industries including:

FOOD&BEVERAGE
OIL & GAS
WATER/WASTEWATER
CHEMICAL
AEROSPACE
CAR WASH
INDUSTRIAL AUTOMATION

As an ISO 9001:2015 certified manufacturer, quality is a commitment we make to our customers at APG. We firmly believe that we cannot succeed if our customers do not succeed.

So, what pressure or level measurement & control problems can we help you solve?

Our Team is available via phone, email, or live chat Monday through Friday, from 8 AM to 5 PM Mountain Time. You can request a quote at apgsensors.com at any time. If you prefer, you can fill out the Contact Us form on our website, or find us on LinkedIn, Facebook, Twitter, YouTube, and Instagram.

FLOAT SWITCHES

WHERE THEY WORK

An APG float switch can be found for almost every situation because of the variety of materials, configurations, and capabilities they have. Whether complicated or straight-forward, small vessels or large reservoirs, common liquids or really aggressive chemicals, there is an APG float switch fit for the job.

FS-400

Stainless Steel Vertical Float Switch

All stainless steel wetted materials, operating temperatures up to 500°F, and capable of VDC or VAC operation.

FS-410

Miniature Vertical Float Switch

Designed to measure small spaces, the FS-410 is less than 2.35" in total height and the float is just under 1.2" wide.

FS-500

Stainless Steel Horizontal Float Switch

With reversible switch orientation, three mounting choices, and CSA & NSF 169 certifications, the FS-500 switch is the go-anywhere, use-everywhere horizontal float switch.

CABLE-SUSPENDED

KA [A]

Float Switch

A single Kari float allows up to four switch points in a single float, saving you money by replacing four single-level float switches. The sensors are durable, highly chemical compatible, and come in 25 configurations, most with built-in hysteresis.

FT-100/300 [B]

Single-Point Float Switch

This inexpensive, traditional single-point switch is ideal for simple alarming applications. The sensors trigger immediately above or below horizontal, for a highly repeatable performance that you can count on.

TLS [C]

Dual-Point Float Switch with Hysteresis

The TLS series cable switches are dual-point switches with built-in hysteresis to provide high and low-level control that won't wear out your pumps with frequent on/off cycles.

	● FS-400	● FS-410	● FS-500
Material		316L SS	
Max Power		100 W	
Temp. Range		-40° F up to 500° F	
Specific Gravity	0.6	0.7	≥0.6
Certifications	VIEW DATASHEET	VIEW DATASHEET	VIEW DATASHEET

● - Explosion Proof   ● - Intrinsically Safe

	KA Series	FT-100	FT-300	TLS
Cable Length	16 ft, 49 ft, Custom	20 ft, custom 5 ft increments		20 ft, 40 ft, 60 ft
Switch Point(s)	Up to 4 NO/NC	1 NO/NC; 1 SPTD	1 NO/NC	NO/NC
Control Range	Variable	N/A	N/A	6 to 8 in
Certification	VIEW DATASHEET	VIEW DATASHEET		—
Protection Ratings	IP67, NEMA 6	—		IP68

ULTRASONIC LEVEL SENSORS

WHERE THEY WORK

Ultrasonic sensors are our workhorse level sensors because they perform well in so many places and environments. Ultrasonics are great for almost all tank-level measurement applications, open channel flow calculations, and monitoring reservoirs, retention pond, or dam tail-waters. They do well for object detection/profiling in car wash systems, and can be programmed to provide distance, level, or volume output readings.

LOE
Web Enabled Sensor and Controller

Designed for remote measurement, the LOE series connects to the Internet to provide Online monitoring via Tank Cloud for up to 10 APG Modbus sensors.

	LOE	● MNU IS	MNU	LPU-2127	● LPU-2428
Range	4" to 40 ft.	5" - 25 ft.	4" to 40 ft.	1 to 25 ft.	
Output	Modbus RS-485 Ethernet TCP/IP	Modbus RS-485		4-20mA	
Mount	2 or 3 in NPT	2 in. NPT	1, 2, or 3 in. NPT	2 in. NPT	
Certification	—	VIEW DATASHEET	—	VIEW DATASHEET	VIEW DATASHEET
Protection Rating	IP65	IP68. M12 connector only rated to IP67	NEMA 6P	IP65	

● - Explosion Proof　　　● - Intrinsically Safe

MNU IS

Intrinsically Safe Modbus Sensor

Our MNU IS brings worry-free level monitoring and remote Modbus controls to hazardous locations with its intrinsically safe design.

MNU

Web Enabled Modbus Sensor

Built for any situation that requires Modbus, the MNU is compatible with any Modbus controller, and can be monitored Online via Level & Flow.

LPU-2127

Built-In Keypad and Display

The LPU-2127 features an LCD display for easy programming performed entirely through the built-in keypad.

LPU-2428

Intrinsically Safe, Loop-Powered

Made for highly configurable measurement in linear and non-linear tanks and channels, the LPU-2428 can internally calculate distance, level, open-channel flow, or volume

IRU-2000 Series[A]

For Object Detection

The IRU-2000 mounts to a flat surface and is ideal for presence/absence detection, object profiling, and a variety of other applications.

IRU-2420, 3430, & the 5000 Series[B]

Mid-, Long-, and Short-Range Sensors

Designed with flexibility in mind, these series feature auto-sense software for quick, easy programming in a variety of applications.

IRU-6429 [C]

Data-logger Compatible

The IRU-6429 features auto sense software for quick and easy programming, and an excitation input for data-logging.

	IRU-2000 Series	IRU-2420	IRU-3430	IRU-5000 Series	IRU-6429
Range	1 to 25 ft		1.25 to 50 ft	4 to 79 in	1 to 30 ft
Output	1 SSR; Isolated 4-20 mA; RS-485 w/ 1 NPN trip point; 4-20mA w/ 2 NPN trip points	Isolated 4-20 mA, 4-20 mA w/ 2 NPN Trip Points		4-20 mA w/ (2) NPN outputs 0-2.5 V/0-5 V RS-232 options	0-2.5V, 0-5V RS-232 option
Mount	Surface Mount with 4 screws	2 in NPT	3 in NPT	1 or 2 in NPT	2 in NPT
Certification	VIEW DATASHEET	VIEW DATASHEET	VIEW DATASHEET	VIEW DATASHEET	VIEW DATASHEET
Protection Rating	NEMA 4X	IP65			

DISPLAYS & CONTROLLERS

MND
Modbus Network Display
Local display that works with up to 10 sensors as a server, client, or power source on any Modbus network.

RST-5003
Web-Enabled Controller
Connects up to 10 daisy-chained Modbus sensors and one 4-20 mA sensor to Tank Cloud for remote viewing and control.

MDI
Intrinsically Safe Modbus Display
CI, Z1 display that can power and control a CI, Z0, or CI, Z1 sensor, with optional passive connection to external monitoring network.

DDL
Large Digital Display
The DDL features 1.8" digits readable from 100 ft. with highly intensity LED's for direct sun visibility, and a NEMA 4X / IP65 rated enclosure.

LPD
Loop-Powered Display
Local display designed to be inserted into a 4-20 mA sensor current loop.

DDD/DBD
Din Mounted Digital Display
Din Mounted Digital/Bright Displays provide highly configurable, 2-line displays with NEMA 4X/IP65 front facing ratings.

	MDI	MND	LPD	RST-5003	DDD/DBD	DDL
Input	Modbus RTU	Modbus RTU	4-20 mA	4-20 mA, Modbus RS-485	0-20 mA, 4-20 mA, 0-10 V DC	
Output	Modbus RTU	4-20 mA, 0-3 VDC, Telecom Relay 5A (240 VAC/220 VDC max)	4-20 mA Loop-Powered Operation RS-485	Modbus, TCP/IP, 2 Relays, 0-2 Isolated SSR	2, or 4 SPDT Relays; Isolated 4-20 mA	
Mount	—	Handheld, Panel, Wall		Din Rail		Panel, Wall
Protection Rating	IP66	IP67/IP68		—	NEMA 4X, IP65	

RADAR LEVEL TRANSMITTERS

WHY THEY WORK

Instead of the physical sound waves used by ultrasonic sensors, radar sensors use electromagnetic waves to measure the distance between the transmitter and the surface of a substance. Thus, they are ideal for measuring difficult materials where there is foam, vapor, or dust that interferes with other non-contact-technology sensors. TRUE ECHO™ Radar Level Transmitters have a further advantage in their ability to ignore echoes from identified physical interferences, allowing them to generate a much clearer reading at a much lower power setting.

CR-L

Radar Level Sensor

The TRUE ECHO® CR-L radar sensor offers precise liquid level measurement with 80 GHz radar technology. It excels in tough conditions and features Bluetooth for easy setup.

PRL

Pulse Radar for Liquids

The TRUE ECHO® PRL provides accurate level readings from all types of liquid level measurement, including oil-water interface measurement via additional firmware.

Engineered with You in Mind.

TRUEECHO®

by APG

	CR-L	PRL
Range	49 ft.	1-17 ft., 1-50 ft., 1-100 ft.
Output	4-20 mA; RS-485	4-20 mA; HART 7
Protection Rating	IP67	IP68, NEMA 6

SUBMERSIBLE PRESSURE TRANSDUCERS

WHERE THEY WORK

APG's submersible pressure transducers are incredibly versatile, often used in waste liquids. Their low current draw makes them popular for battery-powered applications. With our pressure transducers, you can get a pressure level reading inside a tank, well, containment vessel, or outside in areas prone to running or standing liquids.

APG's PT-500 Series Submersible Pressure Transducers are the only transducers on the market with built-in lightning transience protection, Class 1, Division 1 certification, and field-adjustable zero. The PT-500 Series is Level & Flow compatible for remote monitoring via the Internet.

PRODUCT IN USE

APG's PT-503 submersible pressure transmitter aids landfill operators in managing leachate effectively. Leachate, a challenging byproduct of waste decomposition, is often corrosive and unpredictable, demanding equipment with high durability. Constructed from PVDF, the PT-503 transmitter excels in harsh conditions, outperforming stainless steel models that may require frequent replacement. This rugged build minimizes downtime, reduces maintenance costs, and ensures more reliable leachate management, contributing to both environmental compliance and operational efficiency. For more, visit our website at www.apgsensors.com.

PT-500-P1 [A]

For Clean Liquids

The PT-500-P1 has a nose cone fitting and is designed for use in clean liquids.
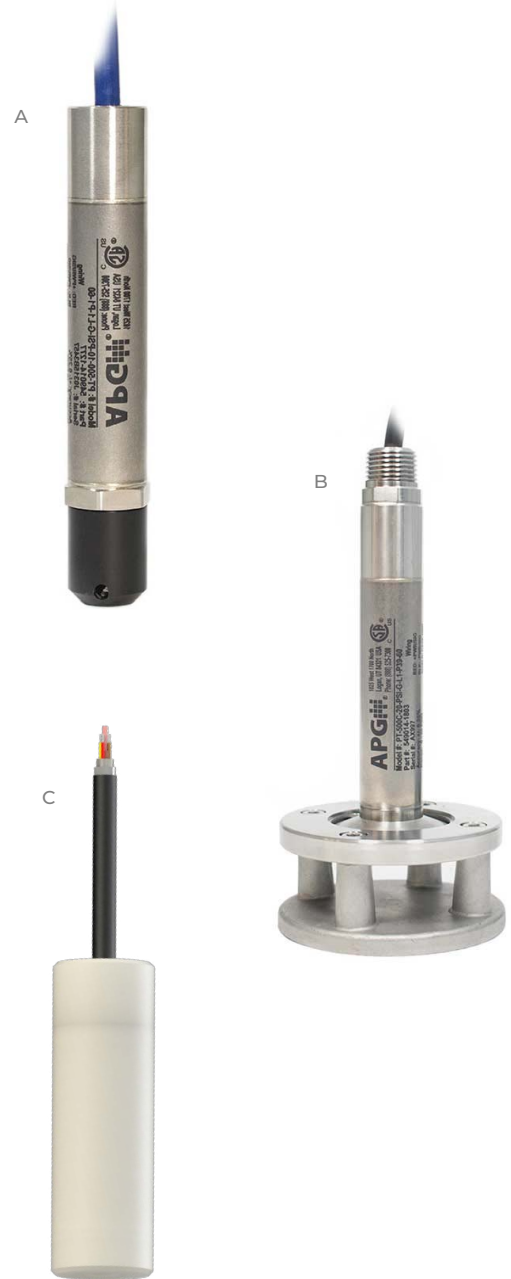
PT-500-P37/39 [B]

For Mixed Fluids

The patented, welded cage on the PT-500-P37/39 is designed to protect the sensitive diaphram in turbulent and dirty liquids. The cage is either removable and reusable, or permanently welded to the PT-500.

PT-503 [C]

For Harsh Chemicals

The PT-503 is engineered with advanced materials, with user-friendly analog output options. This device simplifies the process of obtaining dependable level measurements in challenging chemical environments.

	● PT-500-P1	● PT-500-P37/39	PT-503
Output	4-20 mA, Modbus RS-485		4-20mA, 0.5-4.5 VDC (Ratiometric)
Range	Up to 575 ft.		69 ft.
Lightning Protection	Built-in, IEC 61000-4-5		—
Body	316L SS		PVDF
Nose Cone	Delrin	—	—
Cage	—	316L SS	—
Certification	VIEW DATASHEET		—

● - Explosion Proof   ● - Intrinsically Safe

CONTINUOUS FLOAT LEVEL PROBES

WHY IT WORKS: MPXI-F

Unique among our magnetostrictive probes, the MPXI-F carries world-wide dual certifications; the housing carries Class I Division 1 / Class I Zone 1 Flameproof (Explosion-proof) rating for easy installation, while the stem electronics carry a Class I Zone 0 rating for use in any sealed environment.

MPXI-F/K [A]

PVDF Flexible Stem

The MPXI-F/K features a proprietary PVDF-blend flexible stem and optional high-level float switch for simple installation in the tallest of tall tanks.

MPXI-F/B [B]

Stainless Steel Flexible Stem

The MPXI-F/B features a 316L SS flexible tubing braided stem that uncoils easily for simple installation in tall tanks.

	● MPXI-F/K	● MPXI-F/B
Max. Length	50 ft.	32 ft.
Stem	5/8" ø Flexible Tubing, PVDF	7/8" ø Flexible Tubing with Braid, 316L SS
Output	RS-485 Modbus; 4-20 mA	
Temperature Sensor	None; Up to 7 Digital; Digital, per API 18.2 spec	
Mount	NPT; No Mount	
Certification	VIEW DATASHEET	
Protection Rating	IP66	NEMA 4X,

● - Explosion Proof   ● - Intrinsically Safe

WHY IT WORKS: MPX

Our original magnetostrictive probes carry Class I Division 1/Class I Zone 1 Flameproof (Explosion-proof) certifications for installation in hazardous areas throughout North America.

MPX-E [C]

Float Level Transmitter for Small Spaces

With a 0.5"-diameter 316L SS stem that comes in lengths up to 12.75', the MPX-E is built to handle tough environments in small spaces.

C

MPX-R [D]

Explosion-Proof Float Level Transmitter

The MPX-R's 1" diameter 316L SS stem and 31.5' max length allow it to bring precision measurement to bigger tanks and thicker liquids.

D

MPX-E CHEMICAL [E]

IS Float Level Transmitter for Harsh Environments

With a coating to keep the probe safe in corrosive liquids, and Intrinsic Safety ratings, the MPI-E Chemical is perfect for small-scale measurements in big-time nasty environments

E

MPX-T [F]

Titanium Float Level Transmitter

Designed with H2S specifically in mind, the MPX-T's 1"-diameter titanium stem can handle aggressive chemicals that other probes cannot.

F

	● MPX-E/R	● MPX-E Chemical	● MPX-T
Max Length	MPX-E: 12.75 ft. MPX-R: 31.5 ft.	12.75 ft	25 ft
Stem	304 SS or 316L SS	0.67" Ø PVDF (rigid)	1.0" ø Titanium 2
Output	RS-485 Modbus, 4-20 mA Loop Powered		RS-485 Modbus, 4-20 mA Loop Powered
Mount	NPT, No Mount	NPT	NPT, No Mount
Certification		VIEW DATASHEET	
Protection Rating		IP65	
	● - Explosion Proof	● - Intrinsically Safe	

WHY IT WORKS: MPI

Our MPI probes carry Class I Division 1 / Class I Zone 0 Intrinsically Safe certifications that are accepted for easy wiring and quick installation nearly world-wide.

MPI-E [A]

IS Float Level Transmitter for Small Tanks

With a 0.5"-diameter 316L SS stem that comes in lengths up to 12.75'. the MPI-E is built to handle tough environments in small spaces.

MPI-R [B]

IS Float Level Transmitter for Large Tanks

The MPI-R's 1"-diameter 316L SS stem and 31.5' max length to allow it to bring precision measurement to bigger tanks and thicker liquids.

MPI-E CHEMICAL [C]

IS Float Level Transmitter for Harsh Environments

With a coating to keep the probe safe in corrosive liquids, and Intrinsic Safety ratings, the MPI-E Chemical is perfect for small-scale measurements in big-time nasty environments.

MPI-T [D]

IS Titanium Float Level Transmitter

With a 1" Ø titanium stem, Class I Division 1 and Class I Zone 0 approvals, and floats that just don't get stuck, the MPI-T is built to conquer corrosive chemicals and hazardous locations.

	● MPI-R	● MPI-T	● MPI-E	● MPI-E Chemical	MPI-F/B	MPI-F/K
Max Length	31.5 ft	25 ft	12.75 ft		32 ft	50 ft
Stem	1.0" ø 316L SS	1.0" ø Titanium 2	1/2" ø 316L SS	1/2" ø 316L SS with chemical resistant coating	7/8" ø Flexible Tubing with Braid, 316L SS	5/8" ø Flexible with Tubing, PVDF
Output	RS-485 Modbus				RS-485 Modbus; 4-20 mA Loop Powered	
Temperature Sensor	None; Up to 7 Digital					
Mount	NPT; No Mount		NPT		NPT; No Mount	
Certification	VIEW DATASHEET					
Protection Rating	NEMA 4X, IP65					
	● - Explosion Proof		● - Intrinsically Safe			

A

B

C

D

WHY IT WORKS: RESISTIVE CHAIN PROBES

Our RP probes are designed around two technologies that excel in the ultra-tough environments of oil and gas exploration; resistive chains and large, buoyant floats. Inside each probe stem is a chain of resistors linked by reed switches, which are opened and closed by the magnet in the float traveling up and down the stem. No amount of physical shaking or bumping can change the state of a resistor, and the floats are designed to provide unimpeded movement in thick, viscous liquids.

RPE [A]

0.5" Stem—Industrial Strength Level Probe

Designed with small spaces in mind, the RPE combines a 0.5"-diameter stainless steel stem with unsinkable floats for long-lasting, dependable continuous level readings.

RPX [A]

0.5" Stem—Hazardous Location Level Probe

From mud tanks to meat-processing-plant waste sumps, and any hazardous location in between, the RPX doesn't flinch when called to action in challenging environments.

RPM [B]

1.25" Stem—Explosion-Proof Liquid Level Probe

The RPM is made to work for you and is completely customizable for your needs including; prove length, float type, specific gravity, and outputs.

	RPE	●● RPX	●● RPM
Max Length	12.75 ft	8 ft	20 ft
Stem	1/2" ø 316L SS		1.25" ø 316L SS
Output	Resistive; 4-20 mA		
Mount	NPT	NPT; No Mount	
Certification	—	VIEW DATASHEET	VIEW DATASHEET
Protection Rating	NEMA 4 & 7, IP65, 68	NEMA 4 & 7, IP65	

● - Explosion Proof   ● - Intrinsically Safe

PAIR WITH A PERFECT
FL⬦AT

Not scaled to size

Contact our sales team to start your customization
(435) 753-7300

DIGITAL PRESSURE GUAGES

WHERE THEY WORK

Monitoring pumps is critical, and gauges installed on or near pumps must be able to handle the associated vibrations. Dial pressure gauges are full of moving parts and small gears easily damaged by over-pressure and vibration, not to mention the reading errors inherent to a dial display. In contrast, each of APG's digital pressure gauges contain a flexible diaphragm as the sole moving part, so constant vibration hurts neither the gauge, nor the digital readout. Designed to withstand over-pressure, vibration, and even water hammer, our digital pressure gauges are accurate and readable in demanding conditions.

PG2

Low-Cost, Indoor/Outdoor Gauge

The PG2 digital gauge comes with auto-off and re-zeroing functions, user selectable units of measure, and an easy-to-read display.

PG5

Full-Feature Indoor Gauge

Serving as the foundation to our PG series of gauges, this full-feature, general purpose gauge is designed for accurate indoor pressure measurements.

● - Explosion Proof   ● - Intrinsically Safe

PG7

Rugged Full Feature Gauge

The PG7 is a rugged full-feature gauge perfect for indoor and outdoor use.

PG10

Large Display Gauge

The PG10 is our feature gauge with a large, 5-digit display, 270° radial bar, and data-logging

	PG2	PG5	PG7	PG10
Range	Up to 5,000 psi	Up to 10,000 psi	Up to 30,000 psi	Up to 10,000 psi
Output	—	4-20 mA, 0-2 VDC, 0-5 VDC	4-20mA, 0-5 VDC; RS-485	4-20mA, 0-2 VDC, 0-5 VDC; RS-485
Accuracy	Available 0.5 % of f.s.	Available 0.1 % of f.s.		
Protection Rating	IP65	—		IP65

REMOTE MONITORING

Allows you to view measurements from your sensors anywhere you have an Internet connection.
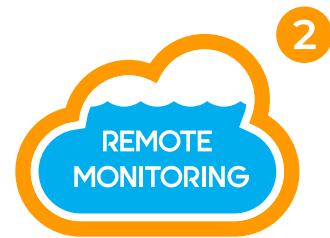
CONNECT A REMOTE SENSOR

Connect any 4-20 mA signal sensor or up to 10 daisy-chained APG Modbus sensors to a Remote Monitoring controller, such as the RST-5003 or LOE.

USE THE INTERNET BACKBONE

Connect the Remote Monitoring controller to a pre-existing Internet connection via an Ethernet cable—landline, or cellular.
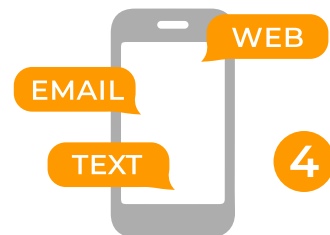
VIEW MEASUREMENTS ONLINE

Access sensor data online anytime through our secure Remote Monitoring portal at levelandflow.com. Here, you can see everything you need to know about your measurements and adjust the settings on your sensors.

GET ALERTS & LONG-TERM DATA

Program custom alarms that can be received via email and text to stay connected to your measurements even when you're away. You can also add data-logging to view trends and make informed, long-term decisions.

CONTROLLERS	SENSORS
LOE Pg. 4	MNU Pg. 5
RST-5003 Pg. 7	MNU IS Pg. 5
—	PT-500 Pg. 11
—	MPX Pg. 13
—	PG7 Pg. 19
—	PG10 Pg. 19

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