

### AT APG, WE'RE DEDICATED TO YOUR SUCCESS

We design and manufacture innovative level and pressure sensors to solve real-world, niche problems across industries. At APG, we don't just offer products—we work closely with our customers to tailor solutions that meet their specific application needs.

APG's mission is to design, develop, and manufacture top quality and highly valued industrial measurement equipment and data service.

APG sensors are trusted in applications across many industries, including:

Water/Wastewater
Food & Beverage
Chemical & Petrochemical
Mining & Minerals
Medical & Pharmaceutical
Aerospace
Oil & Gas
Car Wash
Agriculture

As an ISO 9001:2015-certified manufacturer, quality is at the heart of everything we do. We believe our success is tied to yours—because when you thrive, we thrive.

# CONTENTS

FLOAT SWITCHES	2
Cable-Suspended	3
LEVEL TRANSMITTERS	4
Ultrasonic Level Sensors	4
Radar Level Transmitters	7
CONTROLLERS & DISPLAYS	
Settler & Explorer	10
Modbus Scout	11
SUBMERSIBLE PRESSURE TRANSMITTERS	12
DIGITAL PRESSURE GAUGES	13

Our solution experts are ready to assist you.

Phone, Email, or Live Web Chat: Monday–Friday, 8 AM to 5 PM MT Connect with Us: LinkedIn, Facebook, YouTube, Instagram You can also visit our website and fill out our Contact Us form anytime.

At APG, we're here to support you every step of the way.

# FLOAT SWITCHES

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





#### Vertical Stainless Steel Float Switch

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

• \* | Temp. Range: -40°F–500°F | Specific Gravity: 0.6



#### FS-410





#### Miniature Vertical Float Switch

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

•\* | Temp. Range: -40°F-500°F | Specific Gravity: 0.7



#### 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 float switch.

• \* | Temp. Range: -40°F–500°F | Specific Gravity: 0.6

\*Above models are no longer Explosion Proof when configured in the High Temp (HT) model option (over 187°C).

## **CABLE-SUSPENDED**

#### KA (KARI) Fig. 1



#### Single Float Switch

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

Cable Length: 16 ft. 49 ft. and Custom | Switch Points: Up to 4 NO/NC Enclosure Protection: IP67, NEMA 6

#### FT-100/300 Fig. 2



#### 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.

Cable Length: 20 ft. and Custom | Switch Points: 1 NO/NC; 1 SPTD

#### TLS Fig. 3

#### **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 pumps with frequent on/off cycles.

Cable Length: 20 ft., 40 ft., 60 ft. | Switch Points: NO/NC | Enclosure Protection: IP68





= Explosion Proof = Intrinsically Safe apgsensors.com

# LEVEL TRANSMITTERS

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 detections/profiling in car wash systems, and can be programmed to provide distance, level, or volume output readings.

## **ULTRASONIC LEVEL SENSORS**

Ultrasonic sensors are ideal for tank-level monitoring, sump control, and flow measurement in oil and gas operations. They offer reliable, non-contact measurement with programmable outputs for distance, level, or volume.



#### IRU-2420



#### Non-Incendive Mid-Range Sensor

The IRU-2420 series provides a non-contact method of detecting distance or proximity, with on-board level or volume calculations.

Range: 1-25 ft. | Output: 4-20 mA; 4-20 mA w/ 2 NPN trip points | Enclosure Protection: IP65



#### IRU-3430



#### Non-Incendive Long-Range Sensor

With built-in technology to compensate for unpredictable variables, the IRU-3430 is designed to excel in long-range applications, like crane collision-avoidance.

Range: 1.25-50 ft. | Output: 4-20 mA; 4-20 mA w/ 2 NPN trip points | Enclosure Protection: IP65



#### IRU-5000



#### Non-Incendive Short-Range Sensor

IRU-5000s have the smallest blanking distance in APG's ultrasonic sensors at 4 in., making them perfect for precise use in tight quarters, such as small container level measurement.

 $\textbf{Range:} \ 4-79 \ \text{in.} \ | \ \textbf{Output:} \ 4-20 \ \text{mA}; \ 4-20 \ \text{mA} \ \text{w/} \ 2 \ \text{NPN trip points}; \ 0-2.5V; \ 0-5V; \ \text{RS}-232 \ | \ \textbf{Enclosure Protection:} \ 1P65 \ \text{NPN trip points}; \ 0-2.5V; \ 0-5V; \ \text{RS}-232 \ | \ \textbf{Enclosure Protection:} \ 1P65 \ \text{NPN trip points}; \ 0-2.5V; \ 0-5V; \ \text{RS}-232 \ | \ \textbf{Enclosure Protection:} \ 1P65 \ \text{NPN trip points}; \ 0-2.5V; \ 0-5V; \ \text{RS}-232 \ | \ \textbf{Enclosure Protection:} \ 1P65 \ \text{NPN trip points}; \ 0-2.5V; \ 0-5V; \ \text{RS}-232 \ | \ \textbf{Enclosure Protection:} \ 1P65 \ \text{NPN trip points}; \ 0-2.5V; \ 0-5V; \ \text{RS}-232 \ | \ \textbf{Enclosure Protection:} \ 1P65 \ \text{NPN trip points}; \ 0-2.5V; \ 0-5V; \ \text{RS}-232 \ | \ \textbf{Enclosure Protection:} \ 1P65 \ \text{NPN trip points}; \ 0-2.5V; \ 0-5V; \ \text{RS}-232 \ | \ \textbf{Enclosure Protection:} \ 1P65 \ \text{NPN trip points}; \ 0-2.5V; \ 0-5V; \ \text{RS}-232 \ | \ \textbf{Enclosure Protection:} \ 1P65 \ \text{RS}-232 \ | \ \textbf{Enclosure Protection:} \ 1P65 \ \text{RS}-232 \ | \ \textbf{Enclosure Protection:} \ 1P65 \ \text{RS}-232 \ | \ \textbf{Enclosure Protection:} \ 1P65 \ \text{RS}-232 \ | \ \textbf{Enclosure Protection:} \ 1P65 \ \text{RS}-232 \ | \ \textbf{Enclosure Protection:} \ 1P65 \ \text{RS}-232 \ | \ \textbf{Enclosure Protection:} \ 1P65 \ \text{RS}-232 \ | \ \textbf{Enclosure Protection:} \ 1P65 \ \text{RS}-232 \ | \ \textbf{Enclosure Protection:} \ 1P65 \ \text{RS}-232 \ | \ \textbf{Enclosure Protection:} \ 1P65 \ \text{RS}-232 \ | \ \textbf{Enclosure Protection:} \ 1P65 \ \text{RS}-232 \ | \ \textbf{Enclosure Protection:} \ 1P65 \ \text{RS}-232 \ | \ \textbf{Enclosure Protection:} \ 1P65 \ \text{RS}-232 \ | \ \textbf{Enclosure Protection:} \ 1P65 \ \text{RS}-232 \ | \ \textbf{Enclosure Protection:} \ 1P65 \ \text{RS}-232 \ | \ \textbf{Enclosure Protection:} \ 1P65 \ \text{RS}-232 \ | \ \textbf{Enclosure Protection:} \ 1P65 \ \text{RS}-232 \ | \ \textbf{Enclosure Protection:} \ 1P65 \ \text{RS}-232 \ | \ \textbf{Enclosure Protection:} \ 1P65 \ | \ \textbf{RS}-232 \ | \ \textbf{Enclosure Protection:} \ 1P65 \ | \ \textbf{RS}-232 \$ 





#### MNU-IS





#### Intrinsically Safe Modbus Sensor

MNU-IS offers Intrinsically Safe, power-saving ultrasonic sensing with QuickMode, optional surge protection, and easy RS-485 Modbus integration.

• | Range: 5 in.-25 ft. | Output: Modbus RS-485 Enclosure Protection: IP68 (M12 connector only rated IP67)



**(1)** 

#### LOE

#### Web-Enabled Sensor & Controller

Designed for remote measurement, the LOE series connects to the internet to provide online monitoring via APG's Explorer.

Range: 7 in.-40 ft. | Output: TCP/IP; Up to 2 Isolated Solid State Relays (120V / 120 mA max) | Enclosure Protection: IP65

#### MNU

#### Web-Enabled Modbus Sensor

Built for any Modbus application, the MNU is compatible with any Modbus controller and can be monitored online when paired with Settler and Explorer.

Range: 4 in.-40 ft. | Output: Modbus RS-485 Enclosure Protection: NEMA 6P



#### LPU-2127



#### Built-In Keypad & Display

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

Range: 1–25 ft. | Output: 4-20mA; 600 ohms @ 24 VDC; 150 ohms @ 12 VDC | Enclosure Protection: IP65



#### 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.

• | Range: 1–25 ft. | Output: 4-20 mA | Enclosure Protection: IP65



#### IRU-2000



#### For Object Detection

IRU-2000 Series ultrasonic sensors are ideal for presence/ absence detection, proximity detection or measurement, object profiling, and more.

Range: 1–25 ft. | Output: 1 SSR; Isolated 4-20 mA; RS-485  $\pm$  W/1 NPN trip point; 4-20 mA  $\pm$  W/2 NPN trip points **Enclosure Protection**: NEMA 4X



#### IRU-6429



#### **Datalogger Compatible**

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

**Range:** 1–30 ft. | **Output:** 0-2.5V, 0-5V; RS-232

Enclosure Protection: IP65

## RADAR LEVEL TRANSMITTERS

Radar sensors use electromagnetic waves, not physical sound waves like ultrasonics, to measure distances. This makes them ideal for challenging materials. TRUE ECHO® Radar Level Transmitters further enhance performance by ignoring echoes from physical interferences, delivering clearer readings with lower power.





CR-L

Liquid Radar Level Sensor

The TRUE ECHO® CR-L delivers precise radarlevel readings for industrial liquids, even in tough environments, with a narrow beam for accurate readings.

Range: 7.87 in.–49.21 ft. | Output: 4–20 mA; RS-485 Enclosure Protection: IP67

PRL F©

#### Pulse Radar for Liquids

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

Range: 1–100 ft. | Output: 4-20 mA (shared common or isolated); HART 7; RS-485; RS-232 | Enclosure Protection: NEMA 6

ISED CE F©

# **CONTROLLERS & DISPLAYS**

APG's controllers and displays simplify remote applications by supporting up to 10 Modbus sensors with centralized monitoring. With features like sensor power supply, easy programming, and tank level management, they're ideal for standalone and compact setups.





#### Modbus Digital Display

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

Input: Modbus RTU | Output: 4-20 mA; 0-3V; 1 SPDT Relay; 2 NO or NC Relays | Enclosure Protection: IP67/IP68



#### MDI







#### Intrinsically Safe Modbus Display

CI, Z1 display that can power and control a CI, Z0 or CI, ZI sensor, with optional passive connection to external monitoring network.

• | Range: Up to 5,000 psi | Output: mV/V



#### DDD/DBD

#### Din Mounted Digital Display

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

Input: 0-20 mA, 4-20 mA; 0-5 VDC, 1-5 VDC, 0-10 VDC | Output: 0, 2, or 4 SPDT Relays; Isolated 4-20 mA | Enclosure Protection: NEMA 4X, IP65



#### **LPD**

#### Loop-Powered Display

The LPD features a simple three-button interface with a large LCD and supports optional Modbus RTU programming for easy setup.

Input: 4-20 mA | Output: 4-20 mA; RS-485 | Enclosure Protection: IP67, IP68



#### **DDL**

#### Large Digital Display

The DDL features 2.8 in. digits readable from 100 ft. with high intensity LED's for direct sun visibility, and a NEMA 4X/IP65 rated enclosure.

Input: 0-20 mA, 4-20 mA; 0-5 VDC, 1-5 VDC, 0-10 VDC | Output: 0, 2, or 4 SPDT Relays; Isolated 4-20 mA points | Enclosure Protection: NEMA 4X, IP65



#### **DCR-1006A**

#### Full Controller with 4 Relays & Signal Outputs

The DCR-1006A is a capable stand alone controller for select APG Modbus level sensors.

Input: MNU/MPX Sensor (RS-485), DST Sensor, 1 Dry Contact Output: 4 Relays, 4-20 mA, RS-485 (Modbus RTU) interface | Enclosure Protection: NEMA 4X, IP66

• = Explosion Proof • = Intrinsically Safe apgsensors.com

## **SETTLER & EXPLORER**



#### Remote Monitoring Gateway & Software

Settler is a powerful remote monitoring gateway that works worldwide, effortlessly collecting and transmitting data from any Modbus and 4-20 mA sensor to APG's Explorer platform via MQTT with AES (Advanced Encryption Standard). With reliable Ethernet connectivity, and easy setup, and the ability to monitor anything, it ensures real-time insights, robust data security, and seamless industrial monitoring.

Temp. Range: -20° to 85°C (-4° to 185°F) | Input/Output: Modbus RS485 input; 4x 4-20 mA analog inputs (active loop power provided) Enclosure Protection: IP40

\*Settler is not intended for use in hazardous environments.

## **MODBUS SCOUT**



#### Portable RS485 Modbus Communicator

Modbus Scout is a compact RS485 Modbus communication device. The simple design allows users to connect to their Modbus sensor in the field via an easy-to-use app or a convenient USB port. Additionally, Modbus Scout can broadcast simple readings to the app, so users can quickly check the status of several devices within range at once.

Operating Temp: -18 $^{\circ}$  to 60 $^{\circ}$ C (0 $^{\circ}$  to 140 $^{\circ}$ F) | Broadcast Range: Approximately 33 ft. (10 m) | Interfaces: Bluetooth connectivity via APG Scout Communicator app; USB connectivity via APG Scout Communicator app; USB connectivity via virtual COM port

• = Explosion Proof • = Intrinsically Safe apgsensors.com

# SUBMERSIBLE PRESSURE TRANSMITTERS

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.



#### PT-500-P1

#### **(P**

#### For Clean Liquids

The PT-500-P1 for clean liquids offers unparalleled reliability and accuracy in industrial applications. Features field-adjustable zero for flexible and easy installation.

• | Range: 250 psi | Output: 4-20 mA; 0-5, 1-5, 1-10 VDC; mV/V; Modbus RS-485



#### PT-500-E





#### NSF/ANSI/CAN 61 & NSF/ANSI/CAN 372-Certified

The PT-500-E offers accurate and reliable level measurement in municipal water systems, reservoirs, and storage tanks. Its durable, corrosion-resistant design and multiple analog output options make it a dependable choice.

Range: Up to 575 ft. | Output: 4-20 mA; 0-5, 1-5, 1-10 VDC; mV/V; Modbus RTU



#### PT-500-P38/39



#### For Harsh, Dirty Liquids

The patented, welded cage on the PT-500-P38/39 is designed to protect the sensitive diaphragm in turbulent and dirty liquids. The cage is either removable and reusable, or permanently welded to the PT-500.

| Range: Up to 575 ft. | Output: 4-20 mA; 0-5, 1-5, 1-10 VDC; mV/V; Modbus RS-485



#### PT-503

#### For Chemical Applications

The PT-503, made with durable PVDF, excels in harsh chemical environments with precise performance and unmatched reliability.

Range: 30 psig | Output: 4-20 mA; 0.5-4.5 VDC (Ratiometric)

# DIGITAL PRESSURE GAUGES

Our digital pressure gauges deliver reliable, accurate readings in harsh environments. Designed without the fragile mechanisms of dial gauges, they withstand overpressure, vibration, and water hammer. Count on APG for dependable pump monitoring in any condition.



#### PG<sub>2</sub>

#### 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.

Range: Up to 5,000 psi | | Enclosure Protection: IP65



#### 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.

Range: Up to 10,000 psi | Output: 4-20 mA; 0-2V, 0-5V



#### PG7

#### Rugged Full-Feature Gauge

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

Range: Up to 10,000 psi | Output: 4-20 mA; 0-2V, 0-5V



#### **PG10**

#### Large Display Gauge

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

Range: Up to 10,000 psi | Output: 4-20 mA; 0-2 VDC, 0-5 VDC; RS-485

#### FIND MORE ONLINE

Visit our website:

apgsensors.com

Where you will find more product specifications, customization options, accessories, and more. Our knowledgeable sales team is ready to assist and help tailor a solution to meet your specific needs.

Automation Products Group, Inc.

sales@apgsensors.com www.apgsensors.com

Logan, UT 84321







