# APG®

**Automation Products Group, Inc.**

LEVEL & PRESSURE

# MEASUREMENT SOLUTIONS

Complete APG Product Catalog

# 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. 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.

How can we help solve your level or pressure measurement challenges?

# CONTENTS

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.

# LEVEL TRANSMITTERS

APG offers both contact and non-contact level transmitters that provide continuous level measurements. APG manufactures level transmitters that can be used to determine the level of liquids at any given time. Many of the level transmitters can additionally be used for point-level detection.

## LIQUID LEVEL SOLUTIONS

- Ultrasonic Level Sensors
- Continuous Float Level Transmitters
- Radar Level Transmitters

## SOLID LEVEL SOLUTIONS

- Ultrasonic Level Sensors
- Radar Level Transmitters

## OBJECT DETECTION

- Ultrasonic Level Sensors

## COMMON APPLICATIONS

- Tank Level
- Open Channel Flow
- Water & Wastewater
- Food & Beverage
- Agriculture
- Minerals & Mining
- Chemical / Petrochemical
- Solids Processing / Handling

# ULTRASONIC LEVEL SENSORS

Ultrasonic sensors are versatile workhorses, ideal for tank-level measurement, open channel flow, reservoir monitoring, car wash object detection, and more. They offer programmable distance, level, or volume outputs.



## 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)



## 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 (pg. 22).

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



## LOE

### Web-Enabled Sensor & Controller

Designed for remote measurement, the LOE series connects to the internet to provide online monitoring via APG's Explorer (pg. 22).

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



## 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

● = Explosion Proof      ● = Intrinsically Safe

## 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-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.

**Range:** 4–79 in. | **Output:** 4-20 mA; 4-20 mA w/ 2 NPN trip points; 0-2.5V, 0-5V; RS-232 | **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 w/ 1 NPN trip point; 4-20 mA 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



## IRU-9400

### For Soft or Reflective Target Surfaces

The IRU-9400 is an indoor sensor with a more sensitive transducer to detect difficult targets such as non-reflective or soft surfaces.

**Range:** 0.5–35 ft. | **Output:** 4-20 mA; 4-20 mA with 2 NPN trips; 0-2.5V, 0-5V; RS-232 | **Enclosure Protection:** NEMA 12



## DST

### Mid-Range Pump Control

DST ultrasonic sensors pair with a DCR controller for a simple, stand-alone system, delivering accurate distance data over 2000 feet with no signal loss.

**Range:** 1–50 ft. | **Output:** DCR Controller
**Enclosure Protection:** NEMA 6P, NEMA 12, IP65

# CONTINUOUS FLOAT LEVEL TRANSMITTERS

THE MPXI-F series features Class I Zone 0/1 rating which allows for an Explosion Proof connection to a Zone 1-installed housing on top of a Zone 0-installed probe stem.

## MPXI-F (PVDF) FIG. 1

### PVDF (Kynar) 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.

● | **Length:** 10–50 ft. | **Output:** RS-485 Modbus; 4-20 mA
**Enclosure Protection:** NEMA 4X; IP66

## MPXI-F (STAINLESS STEEL) FIG. 2

### 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.

● | **Length:** 4–32 ft. | **Output:** RS-485 Modbus; 4-20 mA
**Enclosure Protection:** NEMA 4X; IP66

## MPX-F FIG. 3

### Stainless Steel Flexible Stem

The MPX-F is designed for effortless installation in tall tanks, thanks to its corrosion resistant 316L SS flexible tubing with a braided stem.

● | **Length:** 10–32 ft. | **Output:** RS-485 Modbus; 4-20 mA
**Enclosure Protection:** IP65

FIG. 1          FIG. 2          FIG. 3

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

### Float Transmitter—Low-Level Capable

With a 0.5 in.-diameter 316L SS stem available in lengths up to 12.75', the MPX-E is built to handle tough environments—while offering low-level float measurement capabilities.

● | **Length:** 1–12.75 ft. | **Output:** RS-485 Modbus; 4-20 mA **Enclosure Protection:** IP65
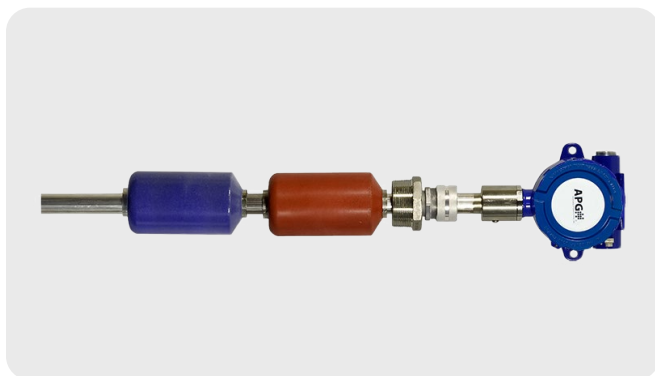


## MPX-E CHEMICAL

### Float Level Transmitter for Harsh Environments

An anti-corrosion stem sleeve, a chemically-resistant float, and Explosion-Proof ratings allow the MPX-E Chemical to handle chemicals in small-scale containers and transport settings.

● | **Length:** 1–12.75 ft. | **Output:** RS-485 Modbus; 4-20 mA **Enclosure Protection:** IP65
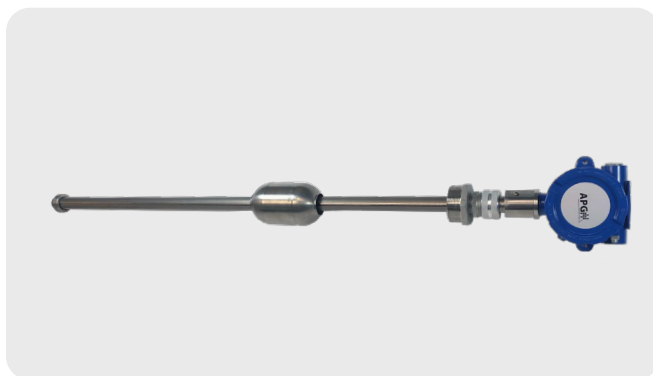


## MPX-R

### Explosion-Proof Float Level Transmitter

The MPX-R's large, buoyant, and robust float allows it to be used in harsh applications where fouling or buildup might otherwise be of concern.

● | **Length:** 4–31.5 ft. | **Output:** RS-485 Modbus; 4-20 mA **Enclosure Protection:** IP65



## MPX-T

### Titanium Float Level Transmitter

The MPX-T's 1 in. Ø titanium stem extends its chemical capabilities for use in rougher, tougher environments, including $H_2S$.

● | **Length:** 4–25 ft. | **Output:** RS-485 Modbus; 4-20 mA **Enclosure Protection:** IP65

● = Explosion Proof      ● = Intrinsically Safe

## MPX-R API 18.2

### API 18.2 Custody Transfer Level Probes

The MPX-R API 18.2 offers a 1 in.-diameter, stainless steel stem. Comes with required digital temperature sensors and feature large, robust floats that resist fouling.

● | **Length:** 10–31.5 ft. | **Output:** Modbus RS-485
**Enclosure Protection:** IP65



## MPX-T API 18.2

### API 18.2 Custody Transfer Level Probes

The MPX-T API 18.2 features a 1 in. titanium stem for enhanced chemical compatibility, robust fouling-resistant floats, and built-in digital temperature sensors.

● | **Length:** 10–25 ft. | **Output:** Modbus RS-485
**Enclosure Protection:** IP65

## PAIR WITH A PERFECT
# FLOAT



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

## MPI-E

### Float Level Transmitter for Small Tanks

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

● | **Length:** 1–12.75 ft. | **Output:** RS-485 Modbus | **Enclosure Protection:** NEMA 4X; IP65
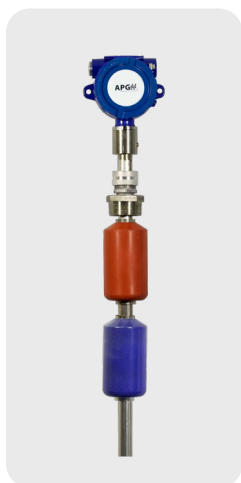
## MPI-E CHEMICAL

### Float Level Transmitter for Harsh Environments

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

● | **Length:** 1–12.75 ft. | **Output:** RS-485 Modbus | **Enclosure Protection:** NEMA 4X; IP65

## MPI-R

### Float Level Transmitter for Large Tanks

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

● | **Length:** 4–31.5 ft. | **Output:** RS-485 Modbus | **Enclosure Protection:** NEMA 4X; IP65
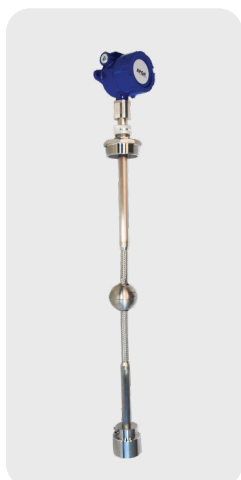
## MPI-T

### Titanium Float Level Transmitter

With a 1 in. Ø titanium stem, Class I Div 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.

● | **Length:** 4–25 ft. | **Output:** RS-485 Modbus | **Enclosure Protection:** NEMA 4X; IP65

## MPI-F/B  (STAINLESS STEEL)

### Flexible Float Level Transmitter

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

● | **Length:** 4–32 ft. | **Output:** RS-485 Modbus; 4-20 mA | **Enclosure Protection:** NEMA 4X; IP65

## MPI-F/K (PVDF)

### Float Level Transmitter for Large Tanks

The MPI-F/K features a proprietary PVDF-blend flexible stem for easy installation and wiring in the tallest of tanks.

● | **Length:** 10–50 ft. | **Output:** RS-485 Modbus; 4-20 mA | **Enclosure Protection:** NEMA 4X; IP66

Our RP (Resistive Chain) Probes are designed around two technologies that excel in the ultra-tough environments of oil and gas exploration: resistive chain and large, buoyant floats. Inside each probe stem is a chain of resistors linked by read 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 FIG. 4

### 1/2 in. Stem—Industrial Strength Level Probe

Designed with small spaces in mind, the RPE combines a 1/2 in.–diameter stainless steel stem with unsinkable floats for long-lasting, dependable continuous level readings.

**Length:** 11–153 in. | **Output:** Resistive; 4-20 mA
**Enclosure Protection:** NEMA 4X, 4, & 7; IP65; IP68

## RPX FIG. 4

### 1/2 in. 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.

● ● | **Length:** 11–96 in. | **Output:** Resistive; 4-20 mA
**Enclosure Protection:** NEMA 4 & 7; IP65

## RPM FIG. 5

### 1.25 in. Stem—Explosion Proof Liquid Level Probe

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

● ● | **Length:** 48–240 in. | **Output:** Resistive; 4-20 mA
**Enclosure Protection:** NEMA 4 & 7; IP65

## RPS FIG. 6

### Sanitary Resistive Level Probe

Made from stainless steel, the RPS probe meets 3-A compliance standards and is designed for accurate, hygienic level measurement.

**Max Length:** 96 in. | **Output:** 5–30 VDC Resistive Chain



FIG. 4          FIG. 5          FIG. 6

● = Explosion Proof          ● = Intrinsically Safe

# 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.

## PRS FIG. 6                                                                FC

### Dual-Frequency Radar for Solids

The TRUE ECHO® PRS provides accurate level readings of difficult to measure solids: powders, pellets, grains, and granules.

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

## PRL FIG. 6                                                                FC

### 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

## PRX FIG. 7                                                                FC

### Explosion-Proof Radar

TRUE ECHO® PRX makes getting dependable level readings in Class I, Division 1, and Class II/III, Division 1 hazardous locations simple.

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

FIG. 6

FIG. 7

# TRUE ECHO® Ⅺ Series



## TRUE ECHO® CR-L

### Liquid Radar Level Sensor

The TRUE ECHO® CR-L brings the accurate level readings of radar sensors to industrial liquid measurements. It can accurately measure in many adverse environments. The radar's narrow beam can detect small targets and achieve precise positioning with high resolution.

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

## TRUE ECHO® PLUS

### Radar + Pressure Dual Sensor

The TRUE ECHO® Plus dual sensor combines radar and pressure sensing into one powerful device. From overfill and flooding to rapid level changes, it delivers accurate, real-time data with seamless redundancy between technologies.

**Radar Range:** 8 in.–49 ft. | **Pressure Range:** 0–30 psia
**Output:** Modbus/RTU

# PRESSURE SENSORS

APG's pressure sensors leverage advanced piezoresistive technology to deliver precise pressure measurements for liquids. Widely trusted in the oil and gas industry, our pressure transducers excel in both process and storage applications. Our digital pressure gauges provide critical safety monitoring, ensuring accurate pressure control in any system using pressurized vessels or lines. With their user-friendly, highly accurate design, they are an indispensable tool for safety and efficiency. Globally, our Hammer Union pressure transducers monitor drilling mud pressure during drilling operations, alongside the reliable performance of our PT-400 and PT-405 models.

## PRESSURE SENSORS

- Pressure Transmitters
- Hammer Union Pressure Transmitters
- Submersible Pressure Transmitters
- Digital Pressure Gauges

## COMMON APPLICATIONS

- Oil & Gas
- Tank Level
- Pump Control/Monitoring
- Filter & Control Valve Monitoring
- Hydraulic Weight/Force
- Chemical/Petrochemical
- Pharmacy
- Minerals & Mining
- Water & Wastewater
- Food & Beverage
- Agriculture
- Medical

# PRESSURE TRANSMITTERS

APG's Pressure Transmitters are engineered and manufactured to provide accurate and reliable pressure measurements everywhere you need them. From protected pump houses to exposed oil rigs, in commercial, industrial, or hazardous environments, you can depend on APG's high-precision pressure transducers.



## PT-200

### Compact General Purpose Sensor

Series PT-200 are rugged, general purpose sensors that offer reliable and accurate measurements in versatile conditions.

**Range:** Up to 10,000 psi | **Output:** 4-20 mA | **Enclosure Protection:** IP65



## PT-300

### Enhanced Output Pressure Transmitter

The small size, integrated electronics, wide operating temperature ranges, and durability make the PT-300 a great option for pressure measurements.

**Range:** Up to 7,500 psi | **Output:** 4-20 mA



## PT-400

### For Harsh Conditions & Hazardous Locations

The PT-400 is built for harsh environments, high vibration, high-pressure spikes, and even extended temperature compensation.

● | **Range:** Up to 30,000 psi | **Output:** 4-20 mA; 0–5V, 0.5–4.5V, 1–5V, 0–10V; RS-485



## PT-405

### Explosion-Proof

The PT-405 pressure transducer offers high accuracy and reliability over a wide range of pressures with cCSAus approvals.

● | **Range:** Up to 30,000psi | **Output:** 4-20 mA; 0–5V, 0.5–4.5V, 1–5V, 0–10V; RS-485

## PT-L1/L3/L10

### Amplified Output for General Use

These compact, inexpensive pressure transducers have an amplified output and are great for a wide variety of uses, including OEM applications.

**Range:** Up to 10,000 psi | **Output:** 4-20 mA; 0–5V; 1–5V; 1–6V; 0–10V



## PT-L9/L13/L14

### Millivolt Output for General Use

Our millivolt output transducers are the economical answer for all general purpose measurements where a cost-effective, high reliability unit is required.

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

# HAMMER UNION PRESSURE TRANSMITTERS

APG's Hammer Union Pressure Transmitters are built for extreme pressure, intense vibration, and rough handling. Designed with a wider top for easy connector access, these sensors also feature large drain holes to keep water from collecting around the connector.

## HU1502I   FIG. 8

### Intrinsically Safe and Recalibratable

Combining the toughness you need with a recalibration port, the HU-1502I is field-proven and features corrosion-resistant material alongside welded construction.

● | **Range:** Up to 20,000 psi | **Output:** 4-20 mA; 0–5V
**Enclosure Protection:** IP67/IP65



FIG. 8

# SUBMERSIBLE PRESSURE TRANSMITTERS

APG's submersible pressure transmitters are incredibly versatile, often used in waste liquids. Their low current draw makes them popular for battery-powered applications. With our pressure transmitters, 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 Transmitters are the only transmitters on the market with built-in lightning transience protection, Class I Division I certification, and field-adjustable zero. The PT-500 Series is compatible with Settler and Explorer for remote monitoring via the internet.

## PT-500-P1

### 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

APG's digital pressure gauges are designed for reliability in demanding environments. Unlike traditional dial gauges with fragile moving parts, our gauges feature a durable flexible diaphragm as the sole moving component, ensuring superior performance even in high-vibration settings. Built to withstand overpressure, vibration, and water hammer, these gauges provide accurate, consistent readings without the risk of damage or display errors. With APG's digital pressure gauges, you can trust that your pump monitoring will remain precise and dependable, no matter the conditions.

## PG2  FIG. 9

### 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  FIG. 10

### 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



FIG. 9



FIG. 10

## 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

# 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.

## MND

### 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, Z1 sensor, with optional passive connection to external monitoring network.

● | **Input:** Modbus RTU | **Output:** Modbus RTU
**Enclosure Protection:** IP66

## 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



## 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



## 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



## 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

# 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 (SCT-1)



## 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° to 60°C (0° to 140°F) | **Broadcast Range:** Approximately 33 ft. (10 m) | **Interfaces:** Short-range wireless connectivity via APG Scout Communicator app; USB connectivity via APG Scout Communicator app; USB connectivity via virtual COM port

# SWITCHES

APG's level switches are contact level sensors used for point-level measurements of liquids and fluidized solids. They are also used for level indication, such as controlling pumps and alarms when a specific element must be maintained. APG's level switches come in a variety of options, from singular float switches to multi-point level switches, and can be used in a variety of places, from small, tight corners to larger silo spaces. Their durability is unmatched, making them a reliable choice for your needs.

## LIQUID LEVEL SOLUTIONS

- Float Switches
- Stem-Mounted Float Switches
- Cable Float Switches
- Pneumatic Level Switch

## SOLID LEVEL SOLUTIONS

- Paddle Wheel Switch
- Vibrating Level Switch

## COMMON APPLICATIONS

- Pump Control
- Alarm Configuration
- Tank Level
- Solids Processing/Handling
- Water & Wastewater
- Food & Beverage
- Agriculture

# FLOAT SWITCHES

An APG float switch can be found for almost every situation because of the variety of materials, arrangements, and capabilities they have. Whether complicated or straight-forward, small vessels or large reservoirs, common liquids or 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).

● = Explosion Proof      ● = Intrinsically Safe

# STEM-MOUNTED

## FL SERIES (FLE, FLR) <sup>FIG. 11</sup>

### Custom Multi-Point Level Control

The FL Series delivers linear level measurement in tight
spaces, with a single mount holding up to three (FLE) or
seven (FLR) switch points customized to your needs. The
FLE's 5/16 in. diameter stem makes it perfect for small
tanks and totes, while the FLR's 1/2 in. diameter stem
operates well in larger tanks and barrels.

**Max. Stem Length:**  48 in. (FLE); 153 in. (FLR) | **Switch Points:** Up to 3
(FLE); Up to 7 (FLR)

## FLX FIG.12

### Explosion-Proof Point-Level Control

The FLX is the float switch for use in Class I Division 1 or
2 hazardous locations in North America. Up to seven
switch points can be placed along the stem, wherever you
need them, making each FLX uniquely customized to its
intended application.

● | **Max. Stem Length:** 153 in. | **Switch Points:** Up to 7
**Enclosure Protection:** NEMA 4

FIG. 11

FIG. 11
(BRUSHED ALUMINUM)

FIG. 12

# CABLE-SUSPENDED



### KA (KARI)

## Single 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.

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



### FT-100/300

## 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

## 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

## LF SERIES

### Miniature Float Switches

These small float switches offer multiple form factors and functionalities to fit wherever needed inside a system. Their compact size is perfect for a variety of OEM applications.

**Max Temp. Range:** From 175°F–392°F (Varies per model)
**Switch Points:** 1 NO/NC

## MLS

### Mechanical Float Switch

Tailor this float switch to your needs in the field with adjustable switch point and hysteresis.

**Temp. Range:** From 32°F–176°F | **Switch Points:** 1 NO/NC Adjustable Switch Point; Adjustable Mechanical Hysteresis
**Enclosure Protection:** NEMA 1; IP42

# LEVEL SWITCHES



## NLS

### Pneumatic Level Switch

Viscous liquids can halt float switches, but NLS pneumatic sensors, with no wetted moving parts and a protected diaphragm, ensure reliable performance in the stickiest conditions.

**Temp. Range:** -4°F–158°F (-20°–70°C) | **Range:** 8 in.–200 in.



## PWS

### Mini Level Paddle Wheel Switch

With a paddle diameter of 3.15 in. and blade depths between 1.2 in. and 1.5 in., the PWS is perfect for providing level-based on-off signals in any small to medium grain piling solids.

**Switch Points:** 1 NO/NC; 1 SPTD | **Enclosure Protection:** IP65, IP40



## VBL

### Vibrating Rod Level Switch

The VBL allows you to adjust the sensitivity setting to accurately detect the presence of different types of solids, and for silos and bins of many shapes and sizes.

**Stem Length:** 10.83 in. | **Switch Points:** NO/NC
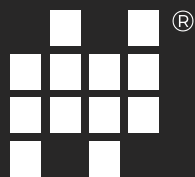**Enclosure Protection:** NEMA 4, IP65



## MAGNETIC LEVEL SWITCH

### Liquid Level Detection in Tank & Vessels

This Magnetic Level Switch is a dependable float-based device designed for liquid level detection. It's a simple solution for monitoring and controlling levels in industrial applications.

**Temp. Range:** 14°F–248°F | **Specific Gravity:** 0.7
**Enclosure Protection:** IP44

®