

Thank You

Thanks for purchasing an LPU-2127 Loop Powered Ultrasonic Sensor from us! We appreciate your business and your trust. Please take a moment to familiarize yourself with the product and this guide before installation. If you have any questions, at any time, don’t hesitate to call us at 435-753-7300. You can also find a full list of our product install guides at:

apgsensors.com/resources/install-guides

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1 Description

- The LPU-2127 loop powered ultrasonic level sensor provides continuous level/distance measurement you can count on. It comes with a built in keypad for easy programming and is certified for installation in hazardous areas in the US and Canada by CSA for Class I, Division 2, Groups C & D and Class I, Zones 2 environments.

2 How to Read Your Label

Each label comes with a full model number, a part number, and a serial number. The model number for the LPU-2127 will look something like this:

Sample: LPU-2127

The model number tells you exactly what you have. You can also call us with the model, part, or the serial number and we can help you.

You’ll also find all hazardous certification information on the label.

3 Warranty & Return Information

This product is covered by APG’s warranty to be free from defects in material and workmanship under normal use and service of the product for 24 months. For a full explanation of our Warranty, please visit

www.apgsensors.com/warranty-returns/

Contact Technical Support to receive a Return Material Authorization (RMA) before shipping your product back.

If your product needs to be returned for evaluation, contact us via email, phone, or online chat on our website. We will issue you an RMA number with instructions. You can also find the form on our website by clicking “RMA” in the web footer, or go to

apgsensors.com/RMA-form

- Phone: (435) 753–7300
- Email: sales@apgsensors.com
- Online chat at apgsensors.com

Please have your part number and serial number available.

LPU-2127

Loop Powered Ultrasonic Sensor

INSTALLATION GUIDE



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Doc # 9004172 Rev C
Part # 122950-0008
01/2026

4 Installation Instructions

The LPU-2127 should be installed in an area—indoors or outdoors—which meets the following conditions:

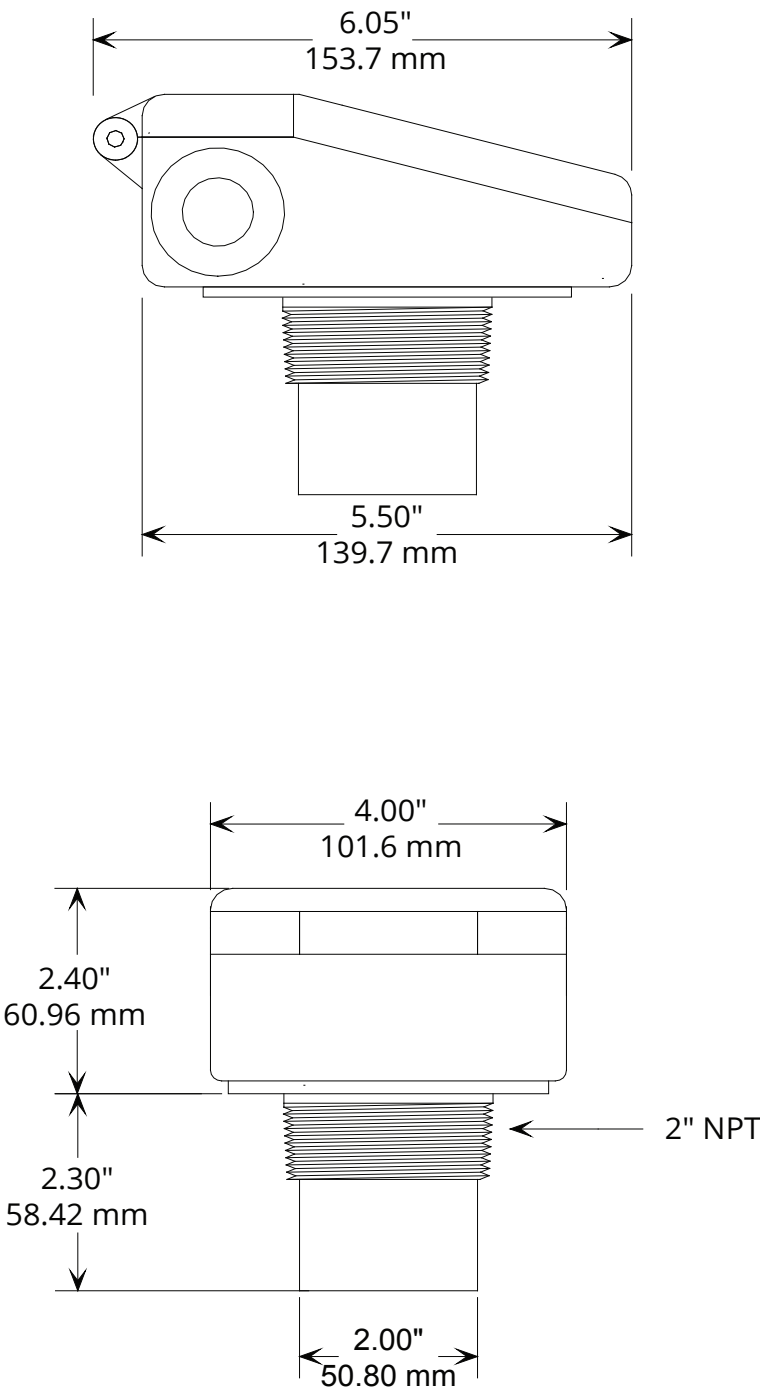
- Ambient temperature between -40°C and 60°C (-40°F to +140°F)
- Ample space for maintenance and inspection

The LPU-2127 should be installed in an area—indoors or outdoors—which meets the following conditions:

- The sensor has a clear, perpendicular sound path to the surface being monitored.
- The sensor is mounted away from tank or vessel walls and inlets.
- The sound path is free from obstructions and as open as possible for the 9° off axis beam pattern.
- The sensor is tightened by hand to avoid cross-threading.

*Important: For user interface guide and sensor configuration see the full user manual.

5 Dimensions



6 Hazardous Location Wiring

Installation in Class I Division 2 Groups C and D
Class I Zone 2 A EXnA IIB

NON-HAZARDOUS AREA

HAZARDOUS AREA

LPU-2127 / LPU-4127 Ultrasonic Sensor (4-20ma Loop Powered)

LPU-2428 / LPU-4428 Ultrasonic Sensor (4-20ma Loop Powered)

Non-Incendive Wiring for Installation in
Class I Division 2 Groups C and D, Max. Temp. 60°C

NON-HAZARDOUS AREA

HAZARDOUS AREA

Certified Associated
Non-Incendive
Field wiring Apparatus

4 to 20 ma Out
+12 to 28Vdc

Vmax = 28VDC,
Imax = 200ma,
Ci = 0nF, Li = 0

Vmax ≥ Voc,
Ca ≥ Ccable + Ci
La ≥ Lcable + Li

● Install in accordance with Section 18 of the CEC or Article 500 of the NEC.

● CSA listed or NRTL/UL listed conduit seal at location A & B as required by Local Authority.

● The cable is terminated in the sensor and runs continuously from the sensor through the Hazardous area and into the Non-Hazardous area.

● Electrical equipment connected to associated apparatus should not generate more than 250 V rms.

● Tampering or replacement with non-factory components may adversely affect the safe use of the system.

● WARNING - POTENTIAL ELECTROSTATIC CHARGING HAZARD -
Clean with only with a damp cloth
AVERTISSEMENT - surface non conductrice du boîtier peuvent être
facturés par MEDIA non conductrice , CLEAN avec un chiffon humide

● DO NOT DISCONNECT WHILE CIRCUIT IS ALIVE
UNLESS AREA IS KNOWN TO BE NON-HAZARDOUS
AVERTISSEMENT-NE PAS DEBRANCHER TANT QUE LE CIRCUIT EST SOUS
TENSION, A MOINS QU'IL NE S'AGISSE D'UN EMPLACEMENT NON DANGEREUX

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DISCLOSED TO OTHERS WITHOUT
WRITTEN CONSENT OF THE COMPANY.
IF LOANED, IT IS SUBJECT TO RETURN
UPON DEMAND AND MAY NOT BE USED
IN ANY WAY DIRECTLY OR INDIRECTLY
DETRIMENTAL TO THE COMPANY.

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
AND TOLERANCES ARE AS FOLLOWS:
TOLERANCE ON ANGLE: ±1°
2 PLACES: ±.01"
3 PLACES: ±.005"
INTERPRET DIMENSIONS AND TOLERANCES
PER ASME Y14.5-2009

THIRD ANGLE PROJECTION

APPROVALS

DATE

DRWN KNR 12-8-03

CHKD Travis B 12-10-03

APVD K. REID 12-10-03

CONTRACT

MATL N/A

FINISH N/A

1025 West 1700 North
Logan, Utah USA
888.525.7300

APG

AUTOMATION PRODUCTS GROUP, INC.

Hazardous Installation Drawing For
LPU-2127, LPU-4127, LPU-2428 & LPU-4428

SIZE B

CAGE CODE 52797

PART NO 125xxx-xxxx

DOCUMENT NO 9002745

REV D2

SCALE NONE

DO NOT SCALE DRAWING

SHEET 1 OF 1

7 Sensor and System Wiring Diagrams

LPU-2127 WIRING

Wiring Instructions:

- With the lid of your LPU closed, use a screwdriver to remove the cable knock out.
- Clear the flashing.
- Open the lid of your LPU and install cable gland or conduit connection.
- Connect 12-28 VDC supply wire to (+) Terminal.
- Connect 4-20 mA output wire to (-) Terminal.

*Note: Load resistance @ 12VDC: 150 ohms Max and @ 24VDC: 600 ohms Max.

8 General Care & Notes

Your level sensor is very low maintenance and will need little care as long as it was installed correctly. However, in general, you should periodically inspect your LPU-2127 sensor to ensure the sensor face is free of any buildup that might impede the function of the sensor. If sediment or other foreign matter becomes trapped on the sensor face, detection errors can occur.

If you need to remove the sensor, be sure to store it in a dry place at a temperature between -40° and 180° F.

IMPORTANT: Refer to section 6 for Hazardous Location Wiring.