

Thank You

Thanks for purchasing a DST mid-range pump-control ultrasonic sensor from us! We appreciate your business and your trust. Please take a moment to familiarize yourself with the product and this manual before installation. If you have any questions, at any time, don't hesitate to call us at 888-525-7300.

NOTE: Scan the QR code to the right to see the full user manual on your tablet or smartphone. Or visit <https://www.apgsensors.com/support> to find it on our website.



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1 Description

The DST series is APG's line of ultrasonic sensors used in conjunction with a DCR controller to give you a simplified, stand-alone system. The transmit and receive circuit is built into the sensor and digitally communicates the detected distance to the DCR controller. This allows the sensor to be separated from the DCR controller by up to 2000 feet (610 meters) with no signal loss.

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 your DST will look something like this:

SAMPLE: DST-2421-C10

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

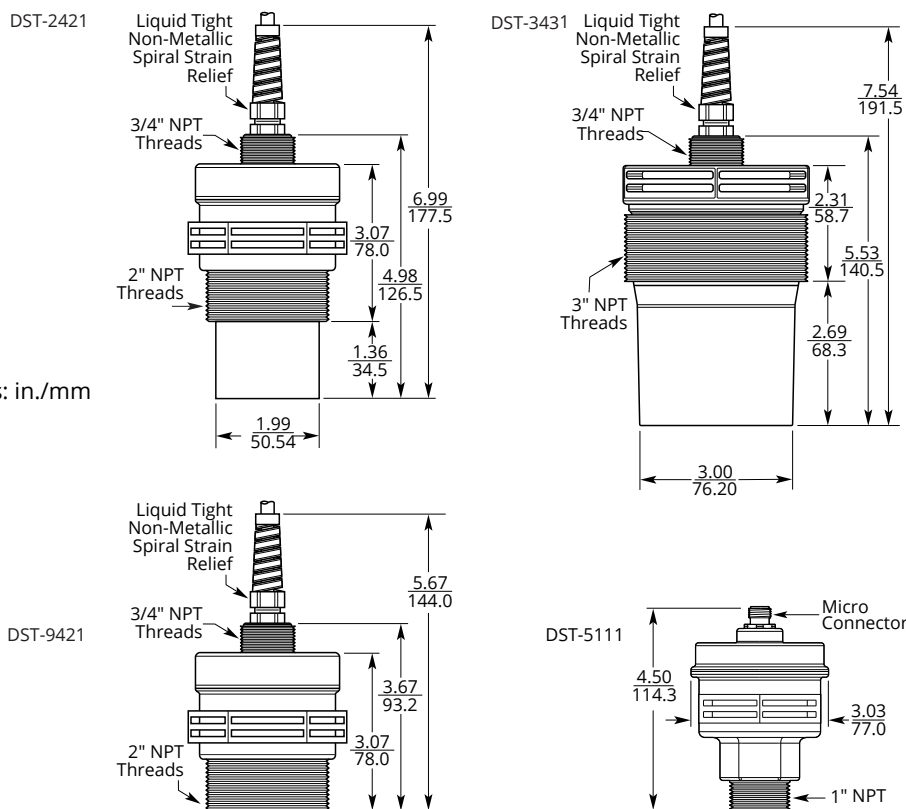
This product is covered by APG's warranty to be free from defects in material and workmanship under normal use and service of the product for 24 months. For a full explanation of our Warranty, please visit <https://www.apgsensors.com/about-us/terms-conditions>. Contact Technical Support to receive a Return Material Authorization before shipping your product back.

Scan the QR code below to read the full explanation of our Warranty on your tablet or smartphone.



4 Dimensions

Dimensions: in./mm



DST Mid-Range Ultrasonic Sensor Installation Guide

DST-2421, DST-3431, DST-5111, DST-9421



Automation Products Group, Inc.
 1025 W 1700 N Logan, UT 84321
www.apgsensors.com | phone: 888-525-7300 | email: sales@apgsensors.com

Part # 200851
 Doc #9006501 Rev A

5 Installation Guidelines

Your DST should be installed in an area--indoors or outdoors--which meets the following conditions:

- Ambient temperature between -30°C and 60°C (-22°F to +140°F)
- Ample space for maintenance and inspection

Additional care must be taken to ensure:

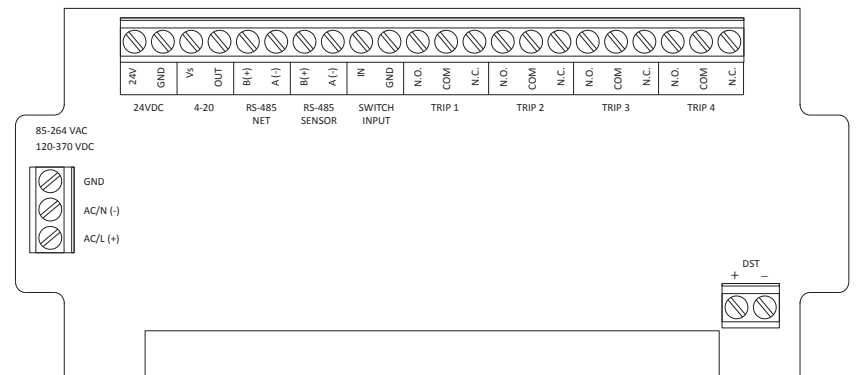
- The sensor has a clear, perpendicular sound path to the surface being monitored.
- The sensor is mounted away from tank or vessel walls and inlets.
- The sound path is free from obstructions and as open as possible for the 9° off axis beam pattern.
- The sensor is tightened by hand to avoid cross-threading.

***Important:** For user interface guide and sensor configuration, see the DCR-1006A user manual.

IMPORTANT: Refer to section 10 for Hazardous Location Wiring.

6 Connecting to a DCR

DCR-1006A wiring terminals are accessible by unscrewing and then lifting off the front (top) face.



7 Sensor Wiring

DST Sensor	DST	Standard Cable	Micro-Connector
+	+	Red	Pin 1 (Brown)
-	-	Black	Pin 3 (Blue)

NOTE: For programming the DCR-1006A controller, please see the DCR-1006A User Manual.

8 General Care

Your ultrasonic 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 DST 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.

9 Repair Information

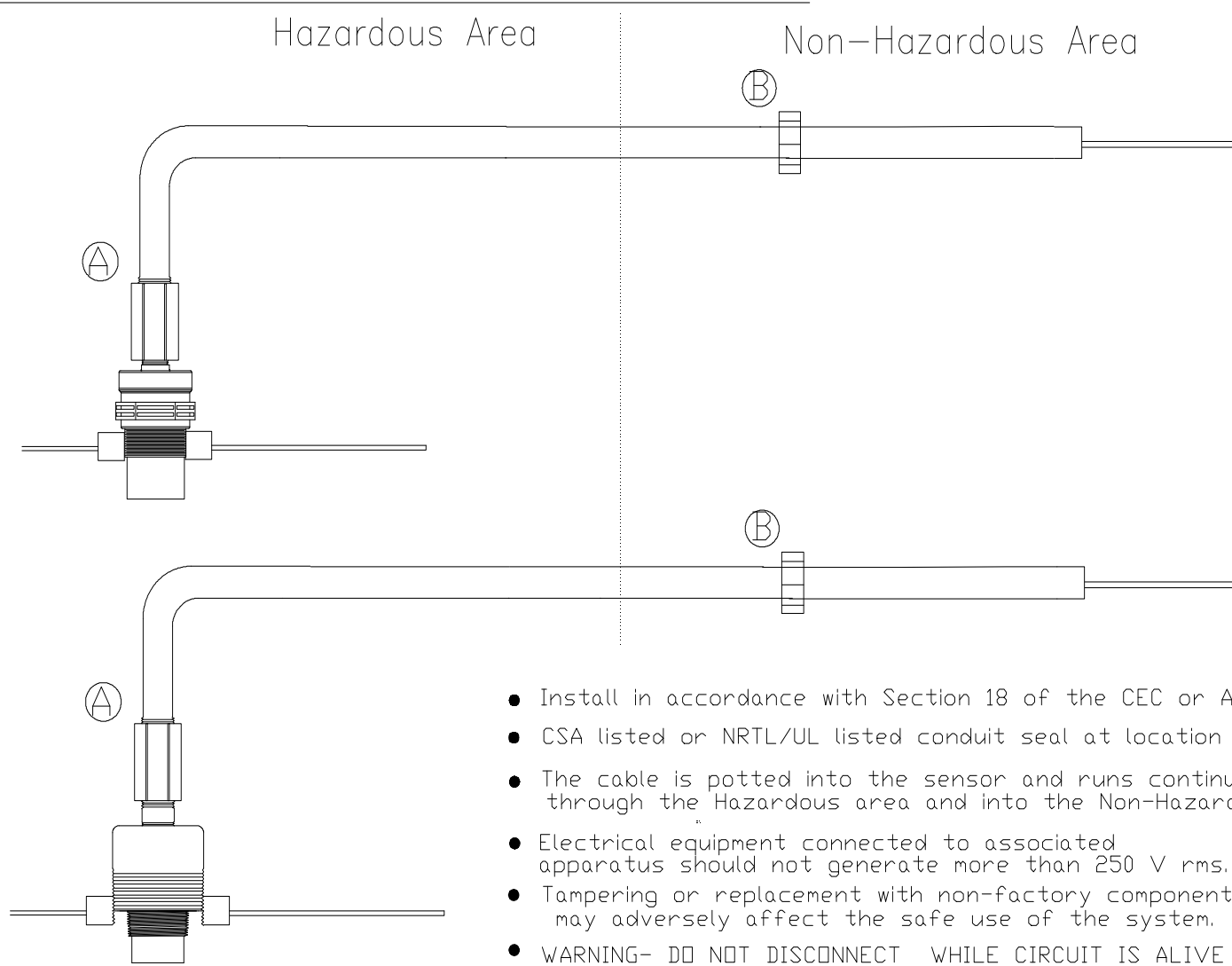
If your DST ultrasonic sensor needs repair, contact us via email, phone, or online chat on our website. We will issue you an RMA number with instructions.

- Phone: 888-525-7300
- Email: sales@apgsensors.com
- Online chat at www.apgsensors.com

10 Hazardous Location Wiring

Installation In Class I Division 2 Groups C and D
Class I Zone 2 A Ex nA IIB

REVISIONS					
ZONE	REV	DESCRIPTION	CHANGE ORDER	DATE	APPROVED
-	B1	Add French Translation	CO-	2259	4-8-15 K. REID





- 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.
- The cable is potted into 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- 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 EMBLACEMENT NON DANGEREUX

- **WARNING - POTENTIAL ELECTROSTATIC CHARGING HAZARD - Clean only with a damp cloth**

AVERTISSEMENT - surface non conductrice du boîtier peuvent être facturés par MEDIA non conductrice, CLEAN avec un chiffon humide

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		DEPT	T. BRUNSON		01/11/02		
		CHKD	K. REID		01/11/02		
		APVD	K. REID		01/11/02		
THIRD ANGLE PROJECTION		CONTRACT	SIZE	CAGE CODE	PART NO	DOCUMENT NO	REV
		MATL	C	02430		9003066	B1
		FINISH	SCALE	NONE	DO NOT SCALE DRAWING	SHEET	1 OF 1