

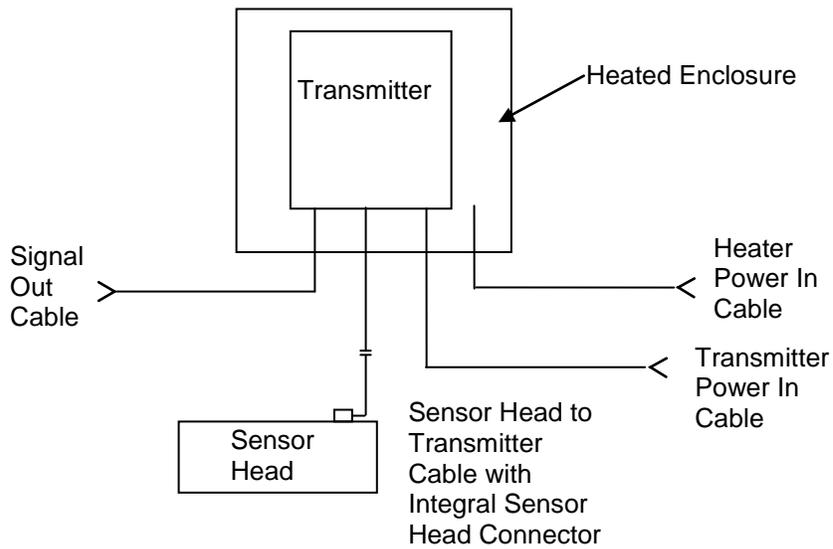
	SONARtrac[®] Technical Note	
	TN0020	
	Subject: SONARtrac VF-100 System Single Line Electrical Diagram with Heated Enclosure	
	Date: 19Aug10	
	Revision	02
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Question:

Please provide a single line electrical drawing of the SONARtrac system that is housed in a heated secondary enclosure.

Answer:

Please refer to the following:



CiDRA Corporate Services	50 Barnes Park North	Wallingford, CT 06492
Tel. 203-265-0035	Fax. 203-294-4211	www.cidra.com

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Cable Designation	Cable Description	Comments
Heater Power In	<p>Use "THHN" wire or equal for 90 °C minimum and connectors rated for 105 °C.</p> <p>Size heater cable in accordance with heater watts and voltage. Refer to heater name plate.</p>	<p>User supplied.</p> <p>Install in accordance with area classification requirements (e.g. Class I Division 2, etc.).</p>
Transmitter Power In	<p>Use "THHN" wire or equal for 90 °C minimum and connectors rated for 105 °C.</p> <p>AWG 24 minimum to AWG 12 maximum (0.511 mm to 2.05 mm) with ground.</p>	<p>User supplied.</p> <p>Install in accordance with area classification requirements (e.g. Class I Division 2, etc.).</p>
Sensor Head to transmitter with Integral Sensor Head Connector	<p>Standard Cable: 12 twisted pairs of 20 AWG conductors with an overall cable shield encased in a PVC jacket. Operating range of -4 °F to 221 °F (-20 °C to 105 °C). The cable is UL Listed (UL Standard 13, Type PLTC) and CSA Certified (CSA C22.2 No. 214, PCC FT4). The outer diameter of the cable is 0.61 inch (15.5 mm) nominal.</p> <p>Optional PVC Armored Cable: 12 twisted pair 20 AWG 7W tinned copper with TW75 PVC insulator, aluminum/polyester tape overall shield, black 90°C to -40°C (194°F to -40°F) FR LAG PVC jacket, aluminum or galvanized steel interlocked armor, Grey 90°C to -40°C (194°F to -40°F) FR LAG PVC jacket CSA Certified (CSA C22.2 No. 239, CSA 22.2 No. 174, CSA C22.2 No. 75)</p>	<p>Factory installed NEMA 4X connector for attachment to sensor head. Cable length cut to order at installation.</p> <p>Class I Division 2 rated system maximum cable length is 300 feet (91.4 meter).</p> <p>ATEX Zone 2 rated system maximum cable length is 375 feet (114 meter).</p>
Signal Out	<p>Use "THHN" wire or equal for 90 °C minimum and connectors rated for 105 °C.</p> <p>AWG 22 to AWG 16 (0.645 mm to 1.29 mm) with shield.</p>	User supplied.

Please contact CiDRA Customer Support for additional information.

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Revision History

Rev	Date	Changed By	Approved By	Change Description
01	19Aug10	Markoja	Markoja	Initial Release
02	13Nov12	Markoja	Markoja	Revised to include low temperature rated sensor head to transmitter cable specification