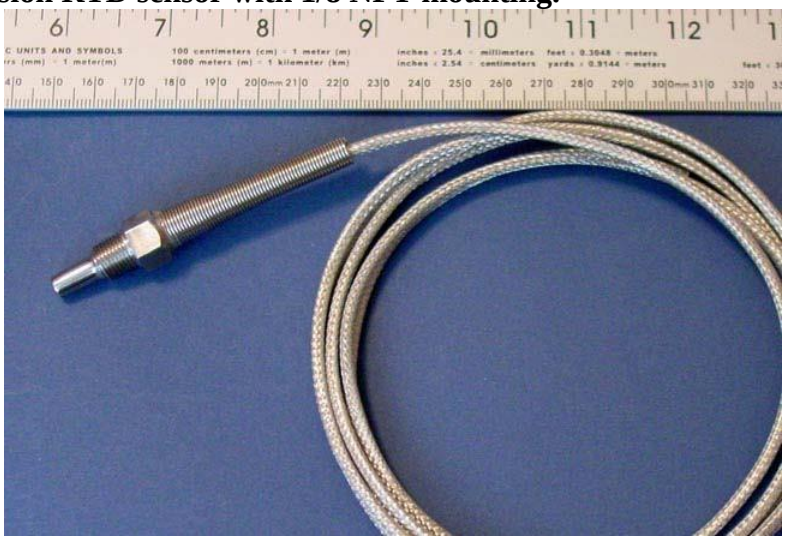
Measuring the Engine Oil and Water Temperature.

Below is a list of options for engine oil and water temperature measurement.

1) **High precision RTD sensor with 1/8 NPT mounting.**



Unlike most of other oil/water temperature sensors on the market that use thermistor sensing element, this sensor has a platinum RTD (Pt100) sensing element. The advantage of the RTD is better accuracy and wider temperature range. When used with our gauge, you will be able to measure from -199 C to 250 C (or -199F to 500F) with 0.1 degree resolution and less than 1 degree error. No other water/oil temperature gauges can match its performance. Price, $26.50. Web link.
http://auberins.com/index.php?main_page=product_info&cPath=5&products_id=134

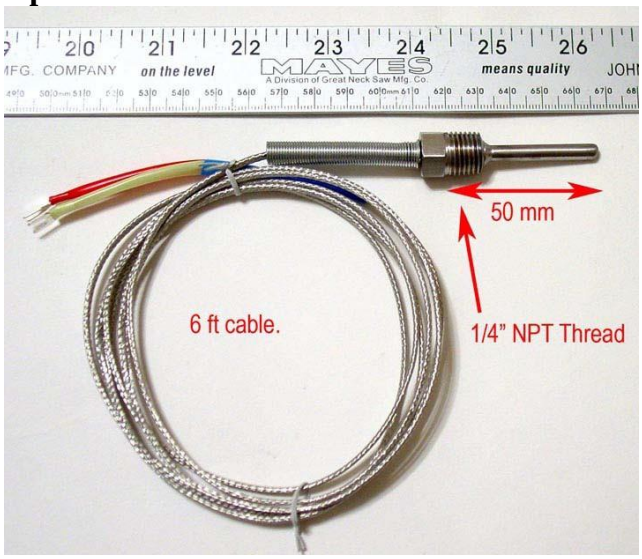
2) VDO 150 ℃/300 ℉ water/oil sensor (sender)

VDO 150 ℃/300 ℉ sender with 1/8 NPT thread.

Current version SYL-1813R has the ability to read VDO 150 ℃ water/oil sensor (it is a NTC thermistor sensor). The resolution is 1 ℃. The range is 50 to 150 ℃ (120-300F). The limitation of this option is that temperature range is very limited and VDO accuracy specification is about ± 3 ℃. When temperature is out of the range, the meter will flash EEEE. The advantage of this option is that VDO 150 ℃ sensor is available in many

mounting format. Both metric and pipe thread mounting of different sizes can be easily purchased. Some commonly used sizes are really cheap (<$7). Here is a link for one VDO dealer in US
http://www.egauges.com/vdo_send.asp?Sender=300F_150C

3) K type thermocouple with ¼ NPT thread.



http://auberins.com/index.php?main_page=product_info&cPath=3&products_id=108
The range is -200 ℃ to 400 ℃ (-238 to 750 ℉). The accuracy is ± 3 ℃ (± 5 ℉). It can be improved to with calibration. The limitation is only one mounting thread is available. The advantage is the wide temperature range. Thermocouple sensor is more robust than other sensors.

4) Pt100 RTD sensor with washer mounting.

http://auberins.com/index.php?main_page=product_info&cPath=5&products_id=126

Temperature range is -199.9 to 250.0 ℃ (-199.9 to 500.0 ℉). The resolution is 0.1 ℃ (0.1 ℉). The accuracy is ± 1 ℃ (or± 2 ℉). The mounting hole is for M10 screw. It also has room to drill a M8 hole. The advantage of this option is that it can be easily mount on any vehicle. It has a wide temperature range. The disadvantage is that although the sensor is very accurate, it is measure the surface temperature, you need to consider the difference between engine internal temperature and it surface temperature.

Auber Instruments Inc.
5755 North Point Parkway, Suite 99,
Alpharetta, GA 30022
www.auberins.com
Email: info@auberins.com
Tel: 770-569-8420

Copyright 2007-2015, Auber Instruments All Rights Reserved.
No part of this manual shall be copied, reproduced, or transmitted in any way without the prior, written consent of Auber Instruments. Auber Instruments retains the exclusive rights to all information included in this document.