

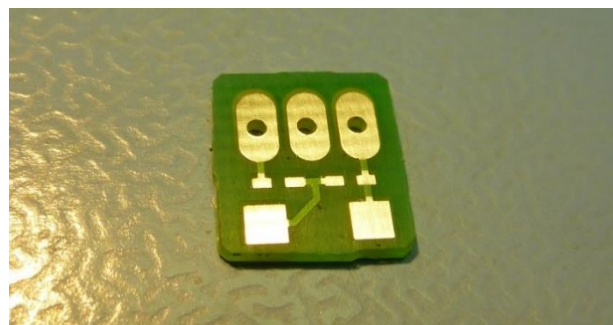
VM3COP40.14 R-22DEM Oxygen Sensor Production Procedure

Parts list		
Qty	Description	Part No.
1	Oxygen sensor – R-22AV	0110132
1	Connector Housing, M20 Series, 2 Way	9081047
2	M20 Series Female Crimp Contacts	9071046
1	Anti-static gas barrier bag	0150000
1	R-22DEM PCB	9015004
2	Resistor 4k7 Ω surface mount	-
5cm	Red wire	-
5cm	Black wire	-

Tool list
Soldering iron
Wire cutters
Stanley knife
Small pliers
Low melt glue gun
Abrasive contact cleaner
M20 crimp tool
Wire stripper
Strip heat sealer

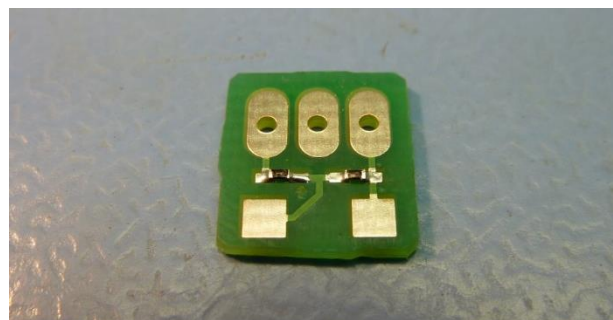
PCB Preparation:

- 1) Using an abrasive contact cleaner, clean the solder contact surfaces of the PCB.



- 2) Solder the two resistors into place as shown.

Note: The resistor are surface mount components, it may be necessary to use magnification when soldering or inspecting the PCB.



Sensor production:

- 1) Remove the sensor from the sealed protective bag.



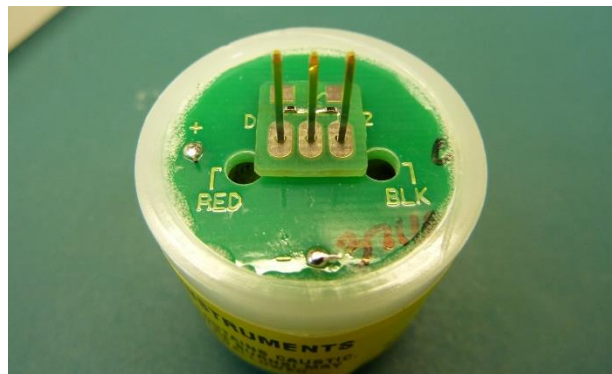
- 2) Remove the top cap from the sensor. Use VM3COP40.11 for the method.



- 3) Remove the white plastic surround from the Molex connector.

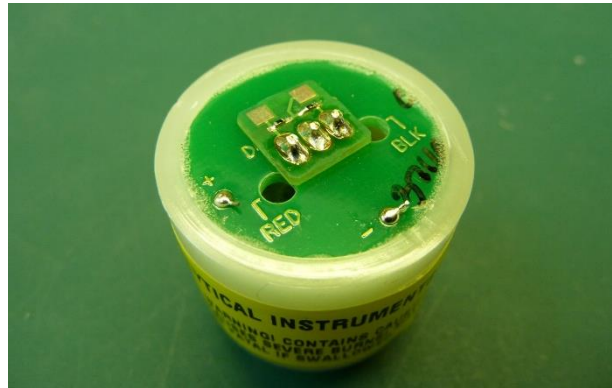


- 4) Noting the Red and Black marking on the sensor surface, place the PCB over the sensor's pin contacts as shown.

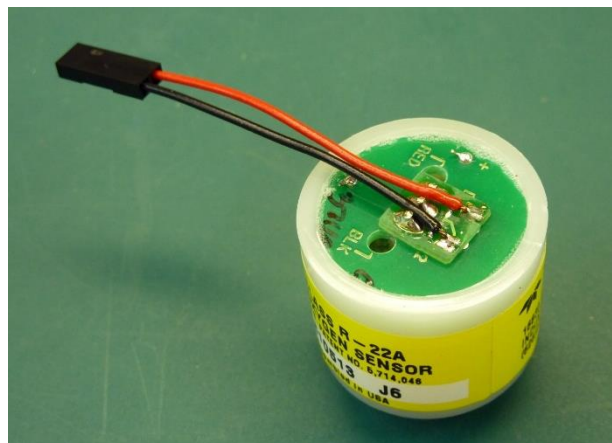
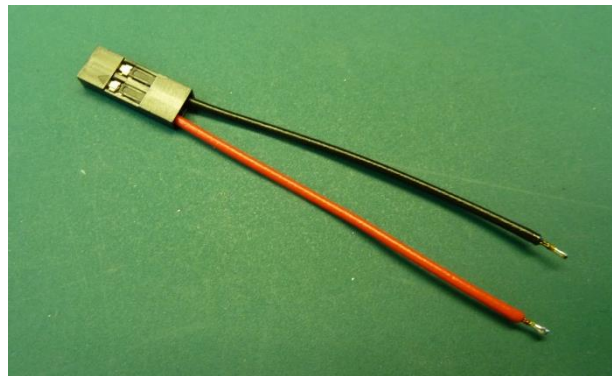


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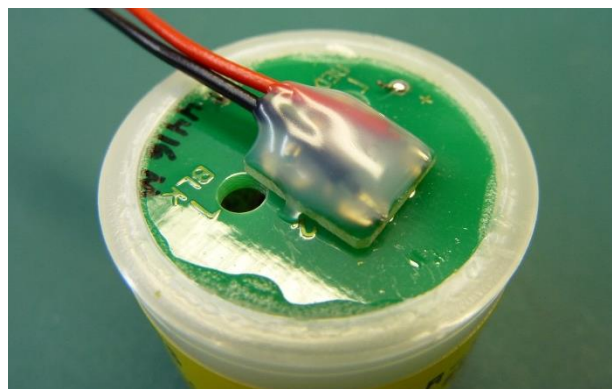
- 5) Solder the pins to PCB contacts.
- 6) Trim the sensor's pins as shown.



- 7) Strip 3mm of cable outer from each end of the black and red wires.
- 8) Using the M20 crimp tool, affix a pin to one end of red and black wires. Tin the remaining end of each wire.
- 9) Insert the pins into the connector housing as shown.
- 10) Noting the Red and Black marking on the sensor surface, solder the connector assembly to the PCB as shown.
- 11) Test the sensor by connecting it to a digital volt meter. The output in air should be between 4.0mV and 6.5mV.



- 12) Using a low melt glue gun, cover the small PCB and its components in adhesive and allow to set.



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- 13) Noting the serial number of the sensor, remove the sensor label. Replace the label with the Vandagraph label with the corresponding serial number.



- 14) The sensor is now ready to be QA tested. As before, test the sensor by connecting it to a digital volt meter. The output in air should be between 4.0mV and 6.5mV.

- 15) Record the QA results on the Intrastats system.

- 16) Place the sensor into a gas barrier bag.

- 17) Seal the bag using a strip heat sealer.

- 18) Affix the corresponding serial number to the bag.

