

# NOTES: UNLESS OTHERWISE SPECIFIED

- ① WIRE 24 AWG, SHIELDED, 4 CONDUCTOR CABLE, LOW CAPACITANCE, TOTAL LENGTH = "LL".  
CABLE MAY BE SUBSTITUTED WITH SAME EQUIVALENT APPROVED BY ENGINEERING.
2. ALL WIRE/CABLE LENGTH(S) INSIDE. TOTAL LENGTH SHOULD BE WITH  $\pm 1/4$ "
- ③ WIRE 22 AWG WH-GN TO SHIELD.
- ④ APPLY SMALL AMOUNT OF SOLDER TO THE BARREL OF THE SPADE LUG TO ASSURE CONTINUITY AFTER CRIMPS.
- ⑤ MAX TOTAL CABLE LENGTH = 200 FT  
3190/3290 MAY NEED TO BE MODIFIED OR USE OPTIONAL 3190/3290 MADE FOR LONGER LENGTHS.
6. PER IPC/WHMA-A-620 REQUIREMENTS AND ACCEPTANCE FOR CABLE AND HARNESS ASSEMBLIES
- ⑦ ADD OPTIONAL RESISTORS, P/N R00310 (1K OHMS), IN SERIES WITH CONDUCTOR FOR OPTIONS A TO AZ IF OSCILLATIONS OBSERVED IN TEST ONLY.

## REVISIONS

| REV | DESCRIPTION     | DATE     | APP. | REV. BY |
|-----|-----------------|----------|------|---------|
| 8   | INC ECO 00-0232 | 6/15/00  | AA   | VF      |
| 9   | INC ECO 02-0044 | 7/16/02  | RF   | AR      |
| 10  | INC ECO 08-0034 | 3/27/08  | RF   | RF      |
| 11  | INC ECO 08-0133 | 8/4/08   | AA   | VF      |
| 12  | INC ECO 13-0044 | 7/8/13   | AA   | VF      |
| 13  | INC ECO 20-0030 | 06/22/21 | AA   | VF      |

| 7    | 1   | R00310   | RESISTOR, 1K OHM                 |
|------|-----|----------|----------------------------------|
| 6    | REF | A64678RS | ROUTE SHEET                      |
| 5    | 5   | _____    | No. 6 LUG                        |
| ①    | 4   | A/R      | CP02213                          |
| ⑤    | 3   | 5        | T00976                           |
| 2    | A/R | _____    | TEFLON SLEEVING (SHRINK SLEEVE)  |
| 1    | 1   | R01461   | 6 PIN MINIFIT, JR-MALE CONNECTOR |
| ITEM | QTY | PART NO. | DESCRIPTION                      |

### BILL OF MATERIAL

DO NOT SCALE DWG.

THIS DRAWING IS THE PROPERTY OF TELEDYNE INSTRUMENTS AND CONTAINS CONFIDENTIAL INFORMATION.  
IT IS NOT TO BE COPIED, REPRODUCED OR USED WITHOUT WRITTEN PERMISSION.

UNLESS OTHERWISE SPECIFIED  
DIMENSIONS ARE IN INCHES

TOLERANCE : ANGULAR  $\pm 1/2^\circ$   
 LINEAR  $\begin{cases} .X & = \pm .1 \\ .XX & = \pm .02 \\ .XXX & = \pm .010 \end{cases}$



**TELEDYNE**

*Analytical Instruments*

A Business Unit of Teledyne Instruments, Inc  
City of Industry, California, 91748, USA

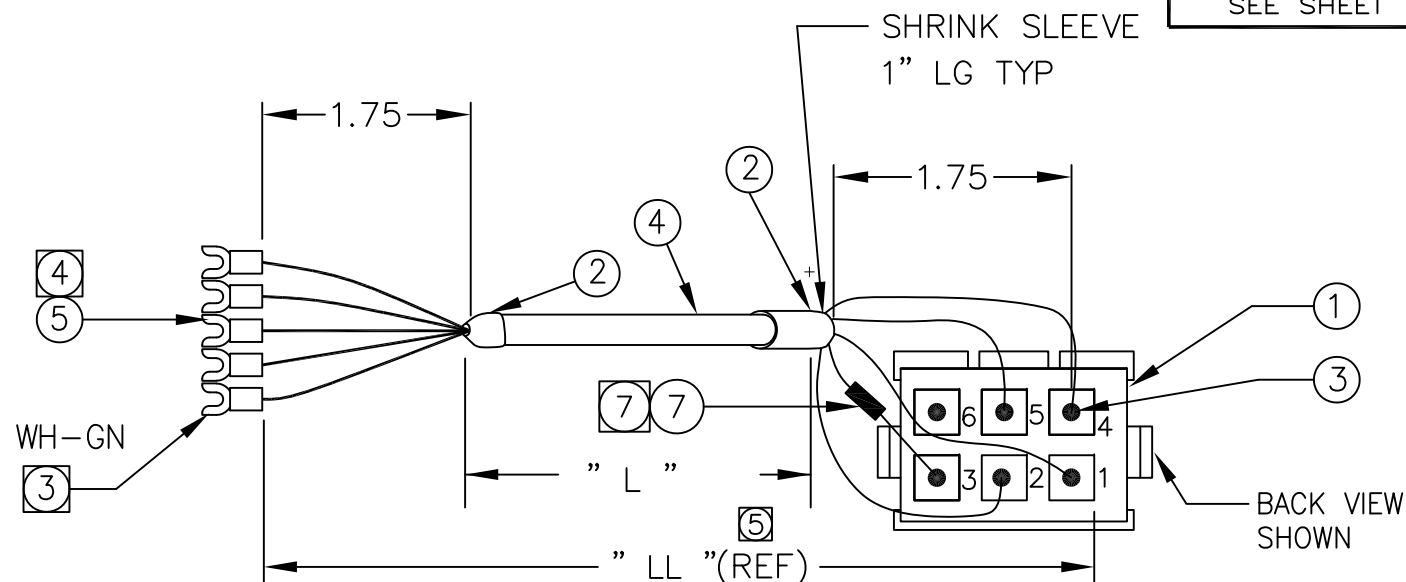
|            |                    |          |                                                                    |                        |
|------------|--------------------|----------|--------------------------------------------------------------------|------------------------|
| S/         | SIGNATURES         | DATE     | TITLE                                                              | SCALE                  |
| N/ C-64773 | DRFT: M. NGUYEN    | 06/29/95 | MODEL 3190, 3290<br>EXTERNAL SENSOR / THERMISTOR<br>CABLE ASSEMBLY | NONE                   |
| P/         | CHK:               |          |                                                                    | SIM                    |
| I/         | APPR: T. Mc INTYRE |          |                                                                    | NONE                   |
| F/         | ENGR:              |          |                                                                    | SHEET 1 OF 2           |
| O/         | C.O.:              |          | MATL. AS LISTED                                                    | DWG NO. <b>A-64678</b> |
| REFERENCE  | CAD I.D. A64678-13 |          |                                                                    | REV <b>13</b>          |

### Use and Disclosure of Data

"Information contained herein is classified as EAR99 under the  
U.S. Export Administration Regulation.  
Export, reexport or diversion contrary to U.S. law is prohibited."

# REVISIONS

SEE SHEET 1



| WIRE CODE |                 |
|-----------|-----------------|
| PIN#      | COLOR           |
| 1         | GN              |
| 2         | WH              |
| 3         | BK              |
| 4         | RD              |
| 5         | SHIELD<br>WH-GN |

|            |                                    |              |
|------------|------------------------------------|--------------|
|            |                                    |              |
|            |                                    |              |
|            |                                    |              |
|            |                                    |              |
| A-64678-BE | 2396.5                             | 200 FT.      |
| A-64678-BD | 2336.5                             | 195 FT.      |
| A-64678-BC | 2276.5                             | 190 FT.      |
| A-64678-BB | 2216.5                             | 185 FT.      |
| A-64678-BA | 2156.5                             | 180 FT.      |
| PART NO.   | "L" IN INCHES<br>("L"/12 FOR FEET) | "LL" IN FEET |

|            |                                    |              |
|------------|------------------------------------|--------------|
| A-64678-AZ | 2096.5                             | 175 FT.      |
| A-64678-AY | 2036.5                             | 170 FT.      |
| A-64678-AX | 1976.5                             | 165 FT.      |
| A-64678-AW | 1916.5                             | 160 FT.      |
| A-64678-AT | 1856.5                             | 155 FT.      |
| A-64678-AR | 1796.5                             | 150 FT.      |
| A-64678-AP | 1736.5                             | 145 FT.      |
| A-64678-AN | 1676.5                             | 140 FT.      |
| A-64678-AM | 1616.5                             | 135 FT.      |
| A-64678-AK | 1556.5                             | 130 FT.      |
| A-64678-AH | 1496.5                             | 125 FT.      |
| A-64678-AG | 1436.5                             | 120 FT.      |
| A-64678-AF | 1388.5                             | 116 FT.      |
| A-64678-AE | 1376.5                             | 115 FT.      |
| A-64678-AD | 1316.5                             | 110 FT.      |
| A-64678-AC | 1256.5                             | 105 FT.      |
| A-64678-AB | 1196.5                             | 100 FT.      |
| A-64678-AA | 1136.5                             | 95 FT.       |
| A-64678-Z  | 1076.5                             | 90 FT.       |
| A-64678-Y  | 1016.5                             | 85 FT.       |
| A-64678-X  | 956.5                              | 80 FT.       |
| A-64678-W  | 896.5                              | 75 FT.       |
| A-64678-T  | 836.5                              | 70 FT.       |
| A-64678-R  | 776.5                              | 65 FT.       |
| A-64678-P  | 716.5                              | 60 FT.       |
| A-64678-N  | 656.5                              | 55 FT.       |
| A-64678-M  | 596.5                              | 50 FT.       |
| A-64678-K  | 536.5                              | 45 FT.       |
| A-64678-H  | 476.5                              | 40 FT.       |
| A-64678-G  | 416.5                              | 35 FT.       |
| A-64678-F  | 356.5                              | 30 FT.       |
| A-64678-E  | 44.5                               | 4 FT.        |
| A-64678-D  | 236.5                              | 20 FT.       |
| A-64678-C  | 176.5                              | 15 FT.       |
| A-64678-B  | 116.5                              | 10 FT.       |
| A-64678-A  | 68.5                               | 6 FT.        |
| PART NO.   | "L" IN INCHES<br>("L"/12 FOR FEET) | "LL" IN FEET |

**Use and Disclosure of Data**  
**"Information contained herein is classified as EAR99 under the U.S. Export Administration Regulation. Export, reexport or diversion contrary to U.S. law is prohibited."**

SHEET  
2 OF 2

DWG NO.  
**A-64678**

REV  
13