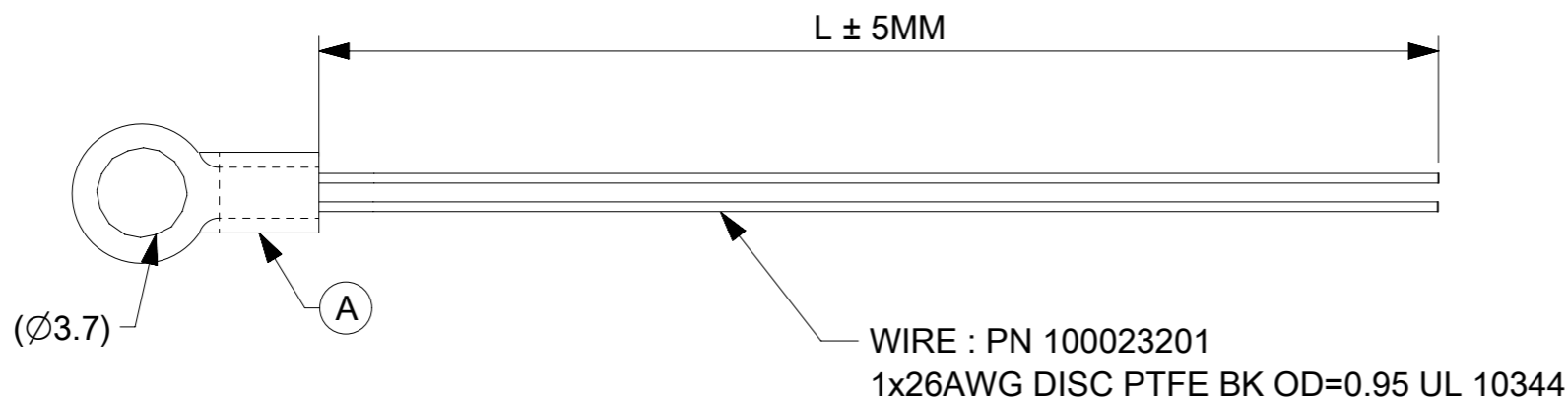


**BILL OF MATERIALS:**

| ITEM | PN                           | DESCRIPTION                  | QTY | UOM |
|------|------------------------------|------------------------------|-----|-----|
| A    | NTC PROBE<br>(Refer Sheet 2) | NTC Thermistor Ring Terminal | 1   | PC  |



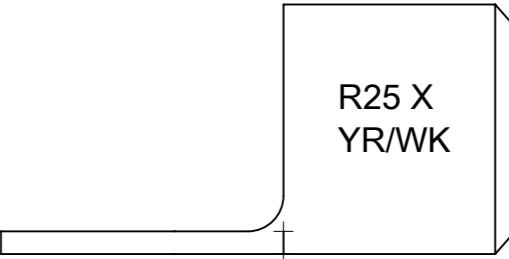
**NOTES:**

1. RESISTANCE TO BE TESTED 100% AT 25°C ▽
2. RESISTANCE TOLERANCE @ 25°C : SEE CHART (SHEET 2).
3. B-VALUE(25/85°C) : SEE CHART (SHEET 2)
4. OPERATING TEMPERATURE RANGE : -40°C TO +105°C.
5. RING TERMINAL MOUNTING HOLE DIAMETER : 3.7MM
6. TERMINAL MUST BE NICKEL PLATED COPPER.
7. VOLTAGE BREAKDOWN STRENGTH : MIN 1500VAC FOR 3SEC BETWEEN CONDUCTOR AND EYELET/RING LUG
8. RESPONCE TIME : APPROX 5 SECOND IN WATER
- 9.INSULATION RESISTANCE :MINIMUM OF 100MOHM @ 500VOLTS DC IN METALIC BALLS
- 10.LENGTH VARIATION BETWEEN TWO WIRES ARE NOT ALLOWED


|   |  |       |                         |  |  |   |  |  |  |
|---|--|-------|-------------------------|--|--|---|--|--|--|
| THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |  |       |                         |  |  |   |  |  |  |
| SYMBOLS   | DIMENSION UNITS                                      | SCALE | CURRENT REV DESC:       |  |  |   |  |  |  |
|   | mm   | NTS   |                         |  |  |   |  |  |  |
| ▽ = 0   | GENERAL TOLERANCES (UNLESS SPECIFIED)                |       | EC NO: 644545           |  |  | NTC THERMISTOR RING TERMINAL PROBE<br>PRODUCT CUSTOMER DRAWING                      |  |  |  |
| ▽ = 0   | ANGULAR TOL ± °                                      |       | DRWN: RAVIKM 2020/09/02 |  |  |   |  |  |  |
| ▽ = 0   | 4 PLACES ±   |       | CHK'D: RK 2020/09/03    |  |  | DOCUMENT NUMBER: 2146501633<br>DOC TYPE: PSD<br>DOC PART: 000<br>REVISION: A2       |  |  |  |
| ▽ = 0   | 3 PLACES ±   |       | APPR: RK 2020/09/03     |  |  |   |  |  |  |
| ▽ = 0   | 2 PLACES ±   |       | INITIAL REVISION:       |  |  | MATERIAL NUMBER: SEE SPEC TABLE<br>CUSTOMER: GENERAL MARKET<br>SHEET NUMBER: 1 OF 2 |  |  |  |
| ▽ = 0   | 1 PLACE ±  |       | DRWN: RAVIKM 2020/02/25 |  |  |   |  |  |  |
| ▽ = 0   | 0 PLACES ±   |       | APPR: RK 2020/03/05     |  |  | SERIES: A3-SIZE<br>MATERIAL NUMBER: 214650  |  |  |  |
| ▽ = 0   | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS |       | THIRD ANGLE PROJECTION  |  |  |   |  |  |  |
| ▽ = 0   |  |       | DRAWING                 |  |  |   |  |  |  |

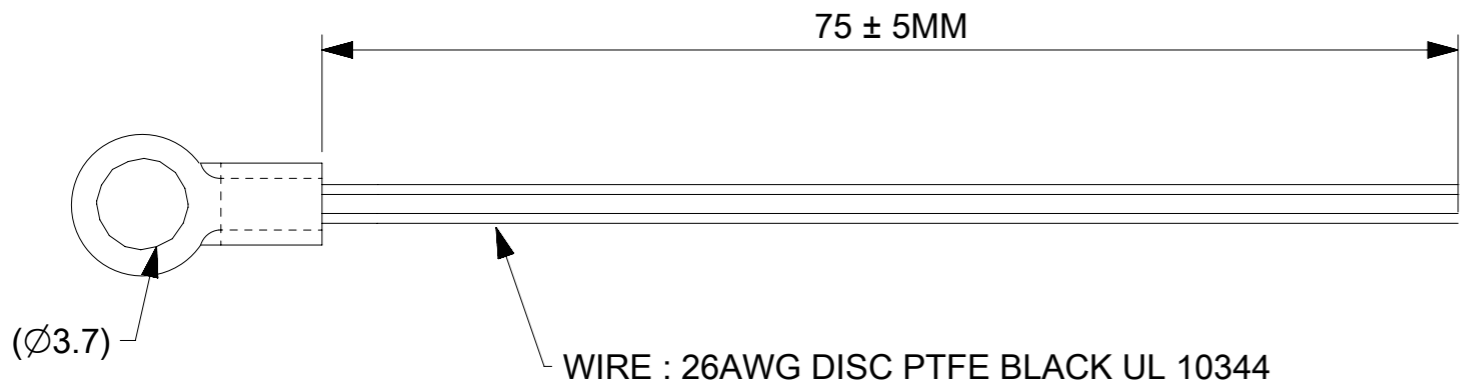
| PART NO    | NTC PROBE PN | RESISTANCE AT 25°C (KΩ) | RESISTANCE TOLERANCE (±%) | B VALUE (25/85°C) | B VALUE TOLERANCE (±%) | WIRE LENGTH (L)MM |
|------------|--------------|-------------------------|---------------------------|-------------------|------------------------|-------------------|
| 2146501633 | 369050096    | 10K                     | 1                         | 3500              | 1                      | 75mm              |
| 2146502633 | 369050097    | 10K                     | 2                         | 3500              | 1                      | 75mm              |
| 2146521633 | 369050098    | 10K                     | 1                         | 3800              | 1                      | 75mm              |
| 2146522633 | 369050099    | 10K                     | 2                         | 3800              | 1                      | 75mm              |
| 2146541633 | 369050100    | 10K                     | 1                         | 3964              | 1                      | 75mm              |
| 2146542633 | 369050101    | 10K                     | 2                         | 3964              | 1                      | 75mm              |
| 2146551633 | 369050102    | 10K                     | 1                         | 3982              | 1                      | 75mm              |
| 2146552633 | 369050103    | 10K                     | 2                         | 3982              | 1                      | 75mm              |

**LASER MARKING DETAILS**



| B VALUE | CODE(X) |
|---------|---------|
| 3500    | MA      |
| 3800    | MB      |
| 3964    | MC      |
| 3982    | MD      |

|                |   |  |   |  |
|----------------|---|--|---|--|
| <b>SYMBOLS</b> | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION | <b>CURRENT REV DESC:</b>   | <h1 style="margin: 0;">molex</h1>             |  |
| ▽ = 0          | DIMENSION UNITS: <b>mm</b> SCALE: <b>NTS</b>  | EC NO: 644545<br>DRWN: RAVIKM 2020/09/02<br>CHK'D: RK 2020/09/03<br>APPR: RK 2020/09/03                      | NTC THERMISTOR RING TERMINAL PROBE            |  |
| ▽ = 0          | GENERAL TOLERANCES (UNLESS SPECIFIED)   |  | PRODUCT CUSTOMER DRAWING                      |  |
| ▽ = 0          | ANGULAR TOL ± °   |  | INITIAL REVISION:                             | DOCUMENT NUMBER: <b>2146501633</b> DOC TYPE: PSD DOC PART: 000 REVISION: <b>A2</b> |
| ▽ = 0          | 4 PLACES ±  |  | DRWN: RAVIKM 2020/02/25                       | MATERIAL NUMBER: SEE SPEC TABLE CUSTOMER: GENERAL MARKET SHEET NUMBER: 2 OF 2      |
| ▽ = 0          | 3 PLACES ±  | APPR: RK 2020/03/05  |   |  |
| ▽ = 0          | 2 PLACES ±  |  |   |  |
| ▽ = 0          | 1 PLACE ±   |  |   |  |
| ▽ = 0          | 0 PLACES ±  |  |   |  |
| ■ = 0          | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS  | THIRD ANGLE PROJECTION  | DRAWING: <b>A3-SIZE</b> SERIES: <b>214650</b> |  |
| ▽ = 0          |   |  |   |  |



**LASER MARKING DETAILS**

R25 X  
YR/WK

|         |         |
|---------|---------|
| B VALUE | CODE(X) |
| 3964    | MC      |

**RESISTANCE VS TEMP CHARACTERISTICS:**

| Temp(°C) | R min (KΩ) | R nom (KΩ) | R max (KΩ) | Temp(°C) | R min (KΩ) | R nom (KΩ) | R max (KΩ) |
|----------|------------|------------|------------|----------|------------|------------|------------|
| -40      | 273.9      | 286.1      | 298.8      | 50       | 3.563      | 3.636      | 3.709      |
| -35      | 201.4      | 209.7      | 218.3      | 55       | 2.951      | 3.016      | 3.083      |
| -30      | 149.6      | 155.3      | 161.2      | 60       | 2.455      | 2.514      | 2.575      |
| -25      | 112.3      | 116.2      | 120.3      | 65       | 2.052      | 2.105      | 2.159      |
| -20      | 85.070     | 87.820     | 90.640     | 70       | 1.722      | 1.770      | 1.819      |
| -15      | 64.980     | 66.900     | 68.870     | 75       | 1.451      | 1.494      | 1.538      |
| -10      | 50.070     | 51.410     | 52.780     | 80       | 1.228      | 1.266      | 1.305      |
| -5       | 38.890     | 39.830     | 40.790     | 85       | 1.044      | 1.078      | 1.113      |
| 0        | 30.440     | 31.100     | 31.770     | 90       | 0.891      | 0.922      | 0.953      |
| 5        | 24.040     | 24.500     | 24.970     | 95       | 0.763      | 0.791      | 0.819      |
| 10       | 19.100     | 19.420     | 19.750     | 100      | 0.656      | 0.681      | 0.706      |
| 15       | 15.260     | 15.490     | 15.710     | 105      | 0.566      | 0.588      | 0.611      |
| 20       | 12.260     | 12.410     | 12.560     | 110      | 0.489      | 0.509      | 0.530      |
| 25       | 9.900      | 10.000     | 10.100     | 115      | 0.425      | 0.443      | 0.461      |
| 30       | 7.998      | 8.096      | 8.194      | 120      | 0.370      | 0.386      | 0.403      |
| 35       | 6.492      | 6.585      | 6.679      | 125      | 0.323      | 0.337      | 0.352      |
| 40       | 5.293      | 5.380      | 5.467      | 130      | 0.276      | 0.283      | 0.301      |
| 45       | 4.334      | 4.414      | 4.495      | 135      | 0.229      | 0.230      | 0.250      |

**NOTES:**

- RESISTANCE TOLERANCE @ 25°C : 10KΩ±1%.
- B-VALUE(25/85°C) : 3964K±1%.
- OPERATING TEMPERATURE RANGE : -40°C TO +105°C.
- RING TERMINAL MOUNTING HOLE DIAMETER : 3.7MM.
- TERMINAL IS NICKEL PLATED COPPER.
- VOLTAGE BREAKDOWN STRENGTH : MIN 1500VAC FOR 3SEC BETWEEN CONDUCTOR AND EYELET/RING LUG
- RESPONCE TIME : APPROX 10 SECOND IN LIQUID MEDIUM
- INSULATION RESISTANCE :MINIMUM OF 100MOHM @ 500VOLTS DC IN METALIC BALLS.

|   |   |  |                             |                     |                            |  |
|---|---|--|-----------------------------|---------------------|----------------------------|--|
| FUNCTIONAL SYMBOLS<br>▽/A = 0<br>▽/E = 0<br>▽/V = 0 | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |  | CURRENT REV DESC:           |                     | <b>molex</b>               |  |
|   | DIMENSION UNITS   | SCALE  | EC NO: 657688               |                     |                            | NTC RING CABLE - 3964 M3.5, 75MM 10K, 1% |
|   | mm  | NTS  | DRWN: RAVIKM 2021/03/10     |                     |                            |  |
|   | GENERAL TOLERANCES (UNLESS SPECIFIED)   |  | CHK'D: RBBHASKAR 2021/03/17 |                     |                            |  |
| ANGULAR TOL ± °                                     |   | APPR: RBBHASKAR 2021/03/17                           |                             |                     |                            |  |
| DIVISIONAL SYMBOLS                                  | 4 PLACES  | ±  | INITIAL REVISION:           |                     | PRODUCT CUSTOMER DRAWING   |  |
|   | 3 PLACES  | ±  | DRWN: RAVIKM 2021/03/10     |                     |                            |  |
|   | 2 PLACES  | ±  | APPR: RBBHASKAR 2021/03/17  |                     |                            |  |
|   | 1 PLACE   | ±  | MATERIAL NUMBER             |                     |                            |  |
| 0 PLACES  | ±   | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS |                             | 2146541633          |                            |  |
| THIRD ANGLE PROJECTION                              |   | DRAWING  | SERIES                      | CUSTOMER            | DOC TYPE DOC PART REVISION |  |
|   |   | A3-SIZE  | 214654                      | OTS                 | PSD 000 A                  |  |
| DOCUMENT STATUS                                     |   | P1   | RELEASE DATE                | 2021/03/17 06:57:13 | SHEET NUMBER               |  |
|   |   |  |                             |                     | 1 OF 1                     |  |