



TPE OVERMOULDED PROBE Ø 5 X 20MM

SPECIFICATIONS

- TPE Overmolded probe with probe head dimensions of Ø 5 x 20mm
- Ideal for refrigeration and HVAC applications
- 24 AWG double insulated cable
- IP 68 Rated
- Available in a variety of connector types
- RoHS Compliant

FEATURES

- 24AWG double insulated TPE cable
- IP 68 Rated
- Insulation Resistance 100MΩ @ 500VDC
- Available in a variety of connector types
- Customized tolerances and resistances available on request
- Temperature range -40°C to +125°C

APPLICATIONS

- Refrigeration and HVAC applications
- Industrial Process Control

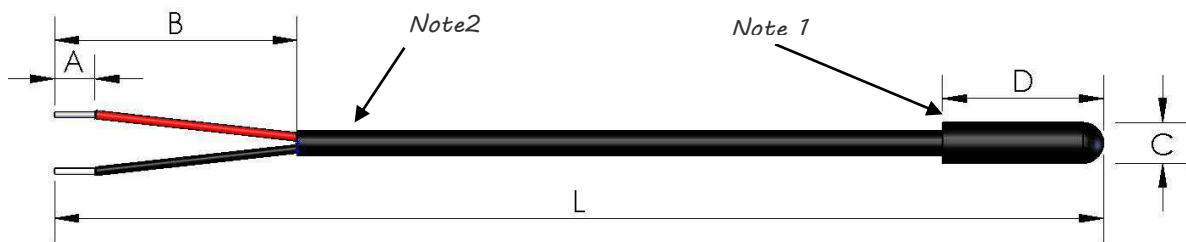
This assembly consists of a DO-35 NTC thermistor soldered to a TPE extension cable. The sensor and the extension cable are moulded together as one hot vulcanised unit to give a high degree of protection against water/moisture ingress.

TPE OVERMOULDED PROBE Ø 5 X 20MM

PERFORMANCE SPECS

| Parameters | Units | Value |
|---|---------|-------------|
| Nominal Resistance at +25°C | Ohms | 10,000 |
| Tolerance at +25°C | % | ± 1 |
| Beta Value 25/85 | K | 3435 |
| Tolerance on Beta Value | % | ± 2 |
| Time Response (+75°C to +25°C Water Bath) | Seconds | ~24 |
| Di-electric Strength (Core wires-cap 60Sec) | Vac | >2750 |
| Breaking strain | N | >200 |
| Temperature range | °C | -40 to +125 |

MECHANICAL DETAILS



| | Dimension | | | |
|---------------|--|----------|-------|----------|
| | A | B | C | D |
| | 5 ± 1mm | 35 ± 3mm | Ø 5mm | 20 ± 1mm |
| Note 1 | NTC encapsulated using TPE over-mold material (Temp. Rating +125°C) | | | |
| Note 2 | 24AWG (7/32) Tin plated copper cable with Black TPE jacket (Temp. Rating +125°C) | | | |

Figure 1: TPE Overmoulded Probe Ø 5 x 20mm

RESISTANCE V TEMPERATURE TABLE

| Temp °C | KOhms |
|---------|-------|
|---------|-------|

| | |
|-----|---------|
| -40 | 197.734 |
| -39 | 186.893 |
| -38 | 176.719 |
| -37 | 167.167 |
| -36 | 158.196 |
| -35 | 149.765 |
| -34 | 141.840 |
| -33 | 134.386 |
| -32 | 127.373 |
| -31 | 120.771 |
| -30 | 114.555 |
| -29 | 108.698 |
| -28 | 103.179 |
| -27 | 97.975 |
| -26 | 93.067 |
| -25 | 88.435 |
| -24 | 84.064 |
| -23 | 79.935 |
| -22 | 76.036 |
| -21 | 72.351 |
| -20 | 68.867 |
| -19 | 65.573 |
| -18 | 62.456 |
| -17 | 59.506 |
| -16 | 56.714 |
| -15 | 54.070 |
| -14 | 51.565 |
| -13 | 49.191 |
| -12 | 46.940 |
| -11 | 44.806 |
| -10 | 42.782 |
| -9 | 40.861 |
| -8 | 39.038 |
| -7 | 37.306 |
| -6 | 35.662 |
| -5 | 34.099 |
| -4 | 32.615 |
| -3 | 31.203 |
| -2 | 29.860 |
| -1 | 28.583 |
| 0 | 27.368 |
| 1 | 26.212 |

| Temp °C | KOhms |
|---------|-------|
|---------|-------|

| | |
|----|--------|
| 2 | 25.111 |
| 3 | 24.062 |
| 4 | 23.063 |
| 5 | 22.111 |
| 6 | 21.204 |
| 7 | 20.339 |
| 8 | 19.514 |
| 9 | 18.727 |
| 10 | 17.976 |
| 11 | 17.259 |
| 12 | 16.575 |
| 13 | 15.922 |
| 14 | 15.298 |
| 15 | 14.702 |
| 16 | 14.132 |
| 17 | 13.587 |
| 18 | 13.067 |
| 19 | 12.569 |
| 20 | 12.092 |
| 21 | 11.636 |
| 22 | 11.200 |
| 23 | 10.783 |
| 24 | 10.383 |
| 25 | 10.000 |
| 26 | 9.633 |
| 27 | 9.282 |
| 28 | 8.945 |
| 29 | 8.622 |
| 30 | 8.313 |
| 31 | 8.016 |
| 32 | 7.731 |
| 33 | 7.458 |
| 34 | 7.196 |
| 35 | 6.944 |
| 36 | 6.703 |
| 37 | 6.471 |
| 38 | 6.248 |
| 39 | 6.035 |
| 40 | 5.829 |
| 41 | 5.631 |
| 42 | 5.442 |
| 43 | 5.259 |

| Temp °C | KOhms |
|---------|-------|
|---------|-------|

| | |
|----|-------|
| 44 | 5.084 |
| 45 | 4.915 |
| 46 | 4.753 |
| 47 | 4.596 |
| 48 | 4.446 |
| 49 | 4.302 |
| 50 | 4.162 |
| 51 | 4.028 |
| 52 | 3.899 |
| 53 | 3.775 |
| 54 | 3.655 |
| 55 | 3.539 |
| 56 | 3.428 |
| 57 | 3.321 |
| 58 | 3.218 |
| 59 | 3.118 |
| 60 | 3.022 |
| 61 | 2.930 |
| 62 | 2.840 |
| 63 | 2.754 |
| 64 | 2.671 |
| 65 | 2.591 |
| 66 | 2.513 |
| 67 | 2.439 |
| 68 | 2.366 |
| 69 | 2.297 |
| 70 | 2.229 |
| 71 | 2.164 |
| 72 | 2.102 |
| 73 | 2.041 |
| 74 | 1.982 |
| 75 | 1.925 |
| 76 | 1.871 |
| 77 | 1.818 |
| 78 | 1.766 |
| 79 | 1.717 |
| 80 | 1.669 |
| 81 | 1.622 |
| 82 | 1.578 |
| 83 | 1.534 |
| 84 | 1.492 |
| 85 | 1.451 |

| Temp °C | KOhms |
|---------|-------|
|---------|-------|

| | |
|-----|-------|
| 86 | 1.412 |
| 87 | 1.374 |
| 88 | 1.337 |
| 89 | 1.301 |
| 90 | 1.266 |
| 91 | 1.233 |
| 92 | 1.200 |
| 93 | 1.169 |
| 94 | 1.138 |
| 95 | 1.108 |
| 96 | 1.080 |
| 97 | 1.052 |
| 98 | 1.025 |
| 99 | 0.999 |
| 100 | 0.973 |
| 101 | 0.948 |
| 102 | 0.924 |
| 103 | 0.901 |
| 104 | 0.879 |
| 105 | 0.857 |
| 106 | 0.836 |
| 107 | 0.815 |
| 108 | 0.795 |
| 109 | 0.775 |
| 110 | 0.757 |
| 111 | 0.738 |
| 112 | 0.720 |
| 113 | 0.703 |
| 114 | 0.686 |
| 115 | 0.670 |
| 116 | 0.654 |
| 117 | 0.639 |
| 118 | 0.624 |
| 119 | 0.609 |
| 120 | 0.595 |
| 121 | 0.581 |
| 122 | 0.567 |
| 123 | 0.554 |
| 124 | 0.542 |
| 125 | 0.529 |

TPE OVERMOULDED PROBE Ø 5 X 20MM

ORDERING INFORMATION

| Part Number | Description | Ω @25°C | MOQ |
|--------------|---|----------------|-------|
| 10K3435DM010 | TPE OM Probe Ø 5 x 20mm Length 1 meter | 10,000 | 1000* |
| 10K3435DM020 | TPE OM Probe Ø 5 x 20mm Length 2 meters | 10,000 | 1000* |
| 10K3435DM030 | TPE OM Probe Ø 5 x 20mm Length 3 meters | 10,000 | 1000* |

* For quantities less than Minimum Order Quantity – contact distribution

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