

TECHNICAL PRODUCT INFORMATION

Temperature Sensor

TTS/APR 1.0

Document Version: V1.0, Date: 10. February 2015

This product has to be used with the HDL Dry Contact 4CH Sensor, M/S04.1 specified in its own Technical Product Information.

Compiled by: Mr. He, Technical Manager, KNX-Products

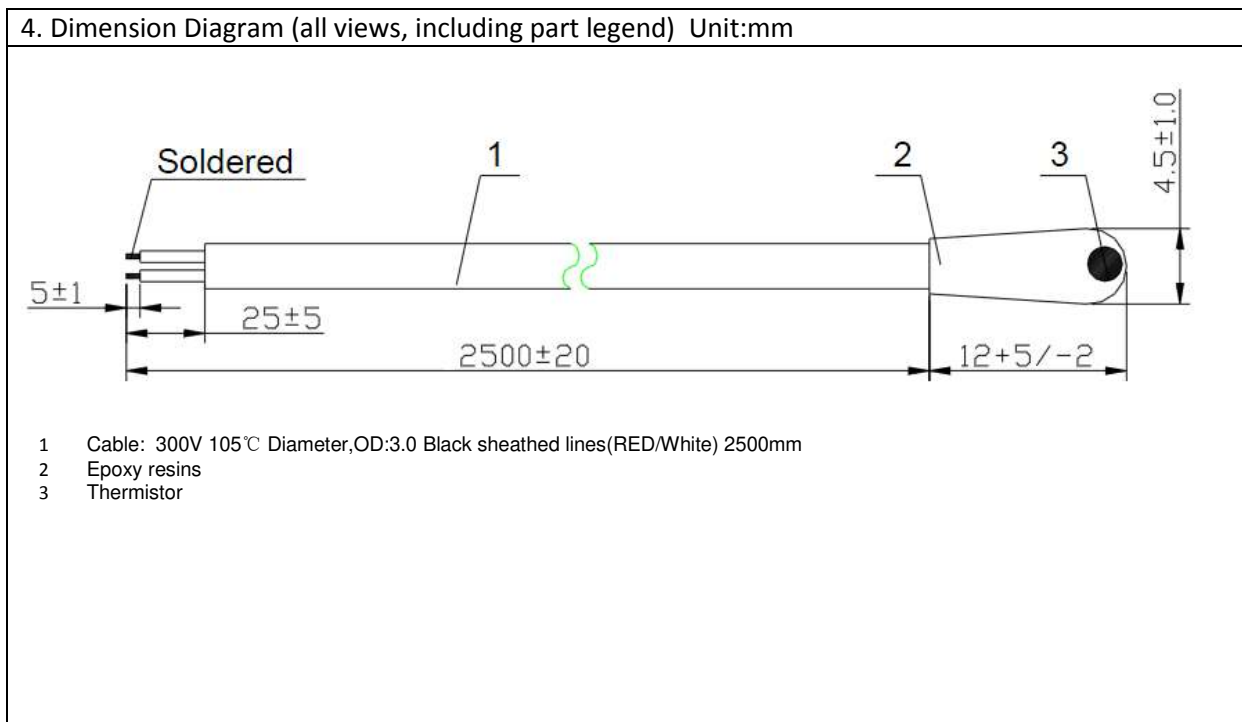
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Location: _____ Date: _____ Signature: _____

| 1.Document History | | | |
|--------------------|------------|-------------|-----------------------|
| Version | Date | Comments | Author (english name) |
| 1.0 | 10.02.2015 | First issue | Ms. Eva Kuang |
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|-------------------------------|---|
| 2. General | |
| Product name | Temperature Sensor |
| Article number | TTS/APR 1.0 |
| Bus-type | Not applicable |
| Product description/functions | Accessory for HDL Dry Contact 4CH Sensor, M/S04.1 |



| 5. Technical Data | |
|-----------------------|--------------------------|
| Type | R-type |
| Operating temperature | -30°C ..+105 °C |
| Accuracy | +/-1% |
| Resistive Range (Ω) | See table, chapter 14 |
| Operating Voltage | 3V DC |
| Current | 0.5mA |
| Power Consumption | 5mW /°C |
| Insulated Resistance | 100 M Ω (500VDC. in air) |
| Breakdown Voltage | 3000V AC |
| Vibration | Not applicable |

| 6. Terminal | |
|---------------------------------------|--|
| Type | Cable-type: no supplier information Length: 1510m, sheath diameter: 3mm, black Stranded wire diameter: 0.3mm Non insulated cable-end length: 5±1mm, soldered No polarity |
| Permitted max. cable length/extension | 100m |
| Safety | Not applicable |

| 7. User interface | |
|-------------------|----------------|
| Control | Not applicable |
| Display | Not applicable |

| | |
|---------------------------------------|---------------------|
| 8.Mounting/Installation | ... |
| Installation/Environment/Applications | Indoor/Outdoor-type |

| 9. Classifications | |
|---|----------------------|
| Protection-Rating (Protection against intrusion, dust, contact, water) | IP67-Code (EN 60529) |
| Protection-Class (Protection against electric shock) | Not applicable |
| Degree of pollution | Not applicable |
| Overvoltage class | Not applicable |
| KNX-Bus-classification | Not applicable |
| Fire Load | Not applicable |

| 10. Climatic Conditions | |
|-------------------------|--|
| Temperature range | (GB/T13582-92) Operation: -30°C..+105°C Storage: -30°C..+105°C Transport: -30°C..+105°C |
| Relative humidity | (GB/T13582-92) Max. 93% non-condensing |

| | |
|---------------------------------|------------------------------|
| 11. Mechanical data sensor head | |
| Dimensions | Diameter: 4.5mm, Length:17mm |
| Weight | 17.5g |
| Housing material | Epoxy Resin |
| Fire load | Not applicable |

| | |
|------------------------|----------------|
| 12. Reliability | |
| Failure rate | Not applicable |
| MTBF | Not applicable |
| Operation cycles/times | Not applicable |
| Life expectancy | Min. 10 years |

| | |
|-------------------|---|
| 13. Certification | |
| CE-mark | M/S04.1-EMC-test-report: CTS, CGZ3150122-00053-E, 30. January 2015 RoHS-test-report: CTS, CGZ3141230-04396-C-R1, 23. January 2015 REACH: HDL, Declaration of REACH conformity, 22. January 2015 |

14. Temperature-.Resistance Table; HDL-supplier information

| TEMP. T (°C) | RESISTANCE R (KΩ) | TEMP. T (°C) | RESISTANCE R (KΩ) | TEMP. T (°C) | RESISTANCE R (KΩ) | TEMP. T (°C) | RESISTANCE R (KΩ) |
|-----------------|----------------------|-----------------|----------------------|-----------------|----------------------|-----------------|----------------------|
| -30 | 130.53 | 4 | 24.23 | 38 | 6.146 | 72 | 2.047 |
| -29 | 124.66 | 5 | 23.16 | 39 | 5.930 | 73 | 1.988 |
| -28 | 118.79 | 6 | 22.15 | 40 | 5.724 | 74 | 1.931 |
| -27 | 112.99 | 7 | 21.19 | 41 | 5.525 | 75 | 1.876 |
| -26 | 107.32 | 8 | 20.27 | 42 | 5.335 | 76 | 1.822 |
| -25 | 101.80 | 9 | 19.40 | 43 | 5.153 | 77 | 1.770 |
| -24 | 96.48 | 10 | 18.57 | 44 | 4.978 | 78 | 1.720 |
| -23 | 91.37 | 11 | 17.79 | 45 | 4.810 | 79 | 1.672 |
| -22 | 86.50 | 12 | 17.04 | 46 | 4.649 | 80 | 1.625 |
| -21 | 81.87 | 13 | 16.32 | 47 | 4.494 | 81 | 1.580 |
| -20 | 77.48 | 14 | 15.65 | 48 | 4.345 | 82 | 1.536 |
| -19 | 73.54 | 15 | 15.00 | 49 | 4.202 | 83 | 1.494 |
| -18 | 69.79 | 16 | 14.39 | 50 | 4.064 | 84 | 1.453 |
| -17 | 66.22 | 17 | 13.80 | 51 | 3.932 | 85 | 1.413 |
| -16 | 62.83 | 18 | 13.24 | 52 | 3.805 | 86 | 1.374 |
| -15 | 59.60 | 19 | 12.71 | 53 | 3.682 | 87 | 1.337 |
| -14 | 56.54 | 20 | 12.20 | 54 | 3.565 | 88 | 1.301 |
| -13 | 53.62 | 21 | 11.72 | 55 | 3.451 | 89 | 1.266 |
| -12 | 50.85 | 22 | 11.26 | 56 | 3.342 | 90 | 1.232 |
| -11 | 48.22 | 23 | 10.82 | 57 | 3.237 | 91 | 1.199 |
| -10 | 45.73 | 24 | 10.40 | 58 | 3.136 | 92 | 1.167 |
| -9 | 43.55 | 25 | 10.00 | 59 | 3.039 | 93 | 1.136 |
| -8 | 41.52 | 26 | 9.617 | 60 | 2.945 | 94 | 1.106 |
| -7 | 39.61 | 27 | 9.252 | 61 | 2.855 | 95 | 1.077 |
| -6 | 37.82 | 28 | 8.903 | 62 | 2.767 | 96 | 1.048 |
| -5 | 36.13 | 29 | 8.569 | 63 | 2.683 | 97 | 1.021 |
| -4 | 34.56 | 30 | 8.250 | 64 | 2.602 | 98 | 0.9942 |
| -3 | 33.07 | 31 | 7.945 | 65 | 2.524 | 99 | 0.9684 |
| -2 | 31.67 | 32 | 7.653 | 66 | 2.448 | 100 | 0.9434 |
| -1 | 30.35 | 33 | 7.374 | 67 | 2.375 | 101 | 0.9182 |
| 0 | 29.10 | 34 | 7.106 | 68 | 2.305 | 102 | 0.8938 |
| 1 | 27.79 | 35 | 6.850 | 69 | 2.237 | 103 | 0.8702 |
| 2 | 26.54 | 36 | 6.605 | 70 | 2.172 | 104 | 0.8470 |
| 3 | 25.36 | 37 | 6.371 | 71 | 2.108 | 105 | 0.8244 |

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