

Description

Introduction

NTC4k-7 is a family of sensors that is used for all of UWE's control units. The sensor is used to register temperatures in various environments. In vehicle compartments, air channels, outside or to register water temperature in heater systems.

All sensors have the same features; The resistance increases as the temperature decreases. This is a constant measurement which gives exact results.



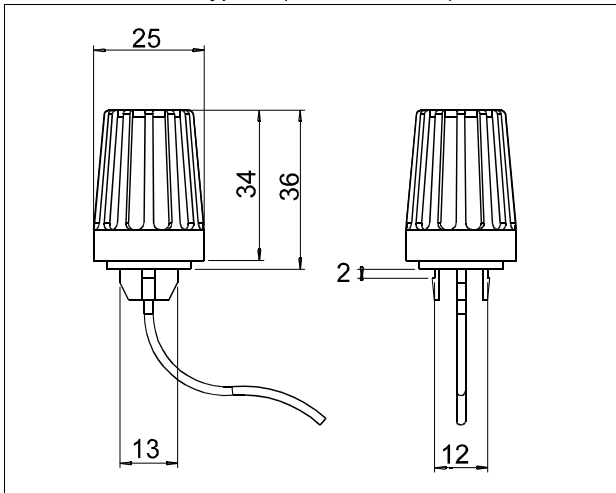
Resistance Table (sensors-NTC-4k7)

| Temp °C | Ohm | Temp °C | Ohm | Temp °C | Ohm | Temp °C | Ohm |
|---------|--------|---------|-------|---------|------|---------|-----|
| -40 | 156087 | 0 | 15300 | 40 | 2505 | 80 | 591 |
| -35 | 112755 | 5 | 11910 | 45 | 2055 | 85 | 503 |
| -30 | 82350 | 10 | 9340 | 50 | 1695 | 90 | 430 |
| -25 | 60770 | 15 | 7378 | 55 | 1405 | 95 | 369 |
| -20 | 45300 | 20 | 5896 | 60 | 1170 | 100 | 318 |
| -15 | 34080 | 25 | 4700 | 65 | 980 | 105 | 275 |
| -10 | 25870 | 30 | 3788 | 70 | 824 | 110 | 239 |
| -5 | 19810 | 35 | 3072 | 75 | 696 | | |

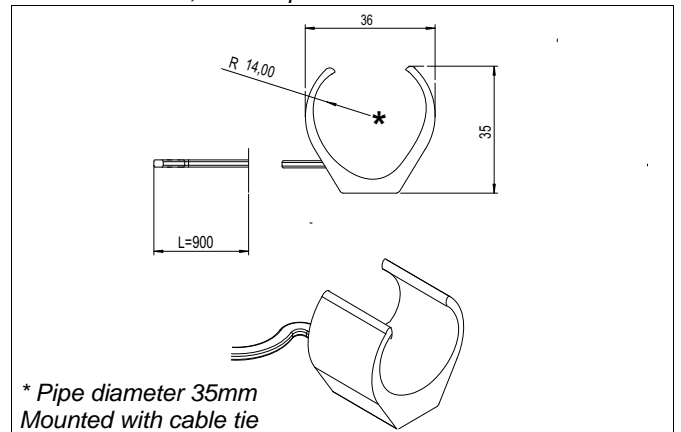
Technical Data

Dimensions

Sensor NTC-4k7, Type Q (6968 1344 100)



Sensor NTC-4k7, white clip 15790



Sensor NTC-4k7, Type A (11458)

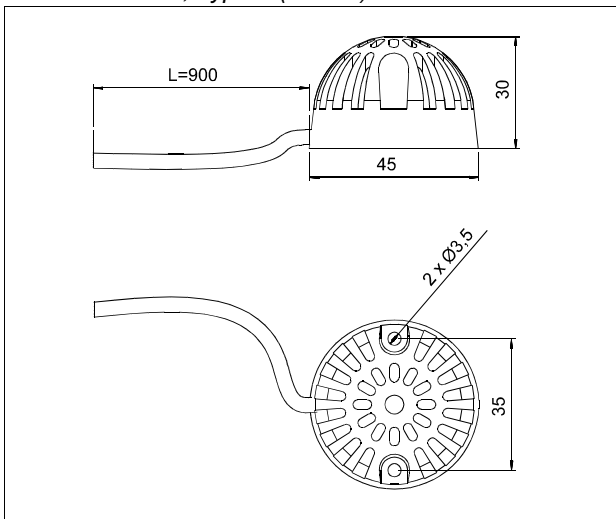
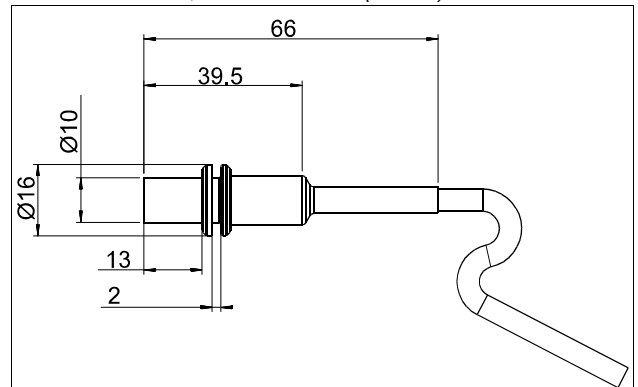
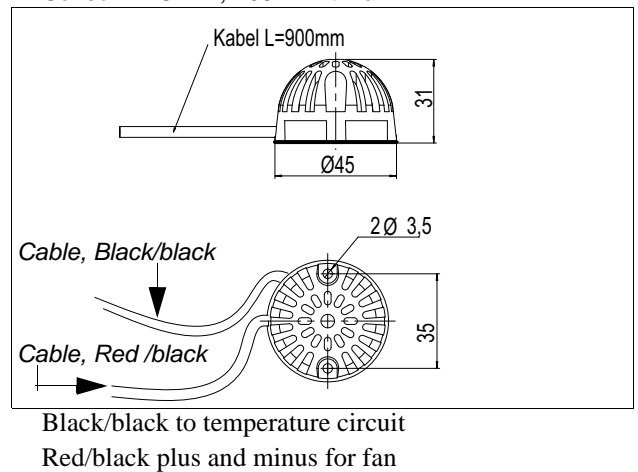


Figure 1

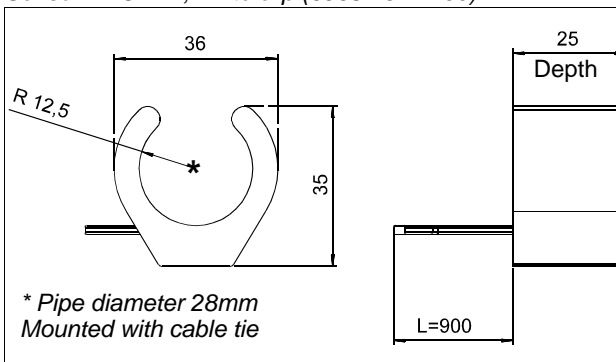
Sensor NTC-4k7, external L=5m (12049)



Sensor NTC-4k7, 16572 with fan






Sensor NTC-4k7, white clip (6968 1342 100)



Products

| Name | Illustration | Part number |
|--|---|-----------------------------|
| Sensor NTC-4k7 model Q Used to register air temperature inside the vehicle also for the defroster and roof channel Note: EG 3 |  | 69681344 100 |
| Sensor NTC-4k7 model A Same as model Q, but more robust and suited to certain special assembly processes. (see Installation information) |  | Grey= 18312 Black= 11458 |
| Sensor NTC-4k7 with fan. Compact sensor with fan that increases the sensor sensitivity Note: EG 2 |  | 16572 |
| Sensor NTC-4k7 external 5m. External 5m long cabling. |  | 12049 |

| Name | Illustration | Part number |
|--|--|--|
| Sensor NTC-4k7 white or black clip. Clamps firmly on a 28mm pipe to register water temperature |  | White: 6968 1342 100 Black: 6968 1333 090 |
| Sensor NTC-4k7 white clip Same as 6968 1342 100 but for 35mm pipe Note: EG 1 |  | 15790 |
| Sensor NTC-4k7 White clip with connector. Attached connector shortens assembly time. |  | 13921 |
| Sensor NTC-4k7 silicone. | | 6968 1341 100 |

Function check

Introduction

The purpose of this function check information is to provide instructions on how to check for any faults with the NTC-4k7 sensors, figure 1.

General Inspection

Visible damage

Before dismantling the sensor for control readings, check that the cable to the sensor is not broken. Also, that the sensor inside is not damaged.

Positioning of the water sensor

For the water sensor, check that the sensor in the brace is in direct contact with the pipe. Note that the water sensor does not give a correct reading if the brace is attached to a plastic pipe.

Positioning of the air sensor

Check that the sensor is receiving a representative temperature, that is, a air leak is not causing the sensor to measure warmer or colder air than the compartment's average temperature.

Temperature sensor with fan

Note: Clean on a regular basis



Figure 1 NTC-4k7 sensors

Control readings of the sensor

1. Unscrew the sensor's cables
2. Use a multimeter to measure across the two resistor cables, figure 2.
3. Check against the current temperature that the resistance is within reasonable limits. See *Resistance Table*, page 2 Product Information.
4. If the sensor's resistance does not correspond with the table, it must be replaced. Otherwise, re-assemble the sensor.

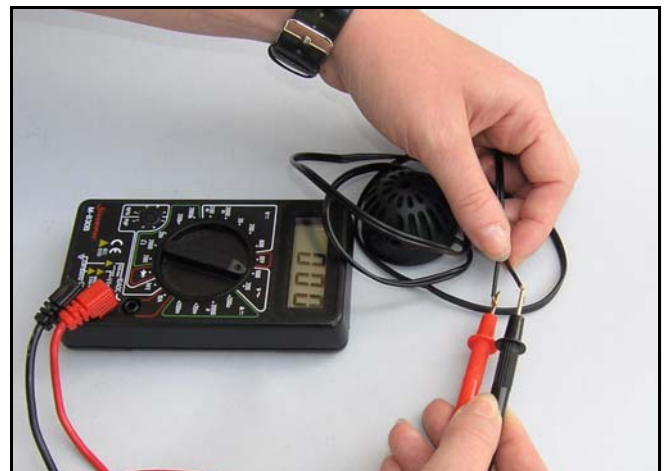


Figure 2 Multimeter, ohm reading

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