

## SA-NTC<sup>xyy</sup>-000

## NTC temperature sensor

### Function

- Temperature dependent resistor

### Usage

- To measure water/oil temperature
- Engine housing temperature
- Gearbox temperature
- Airbox temperature (different adjustment of the sensor  $\pm 0.1\%$  relative)



### Technical specifications


#### Electrical characteristics

Measurement range.....	0 - 150 °C
Accuracy (40°C - 80°C).....	$\pm 0.5$ °C
Special use e.g. airbox).....	$\pm 0.1$ °C
mounting screw.....	M6 M8 M10

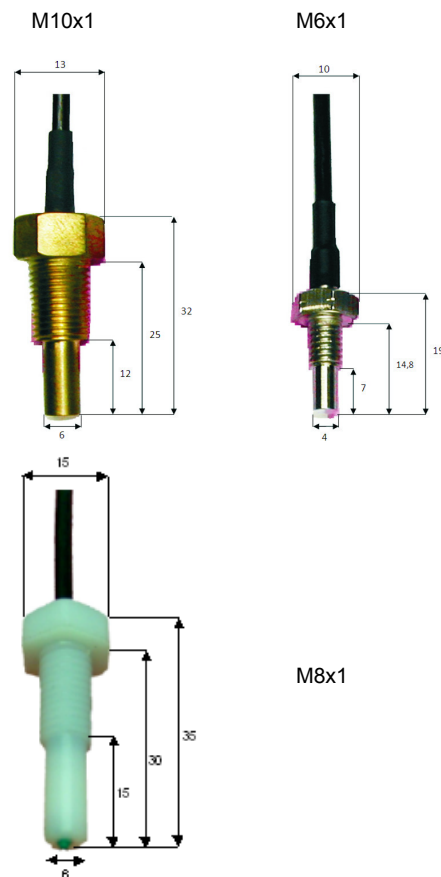
#### Mechanical characteristics

Weight.....	
D6, D8, M6 or M8.....	5 g
M10.....	20 g
Cable:	
type.....	PUR
wire cross section:	
Eyelet D6.....	3 x 0.08 mm <sup>2</sup>
thread M6  M8  M10.....	4 x 0.14 mm <sup>2</sup>

#### Calibration

 Use the formulas (and tables) listed on 2<sup>nd</sup> page to calculate the physical values.

#### Scale drawing



#### Ordering information

Art.No.:..... SA-NTC<sup>xyy</sup>-000  
 see order code on second page for more details

## SA-NTC<sub>xyy</sub>-000

## NTC temperature sensor

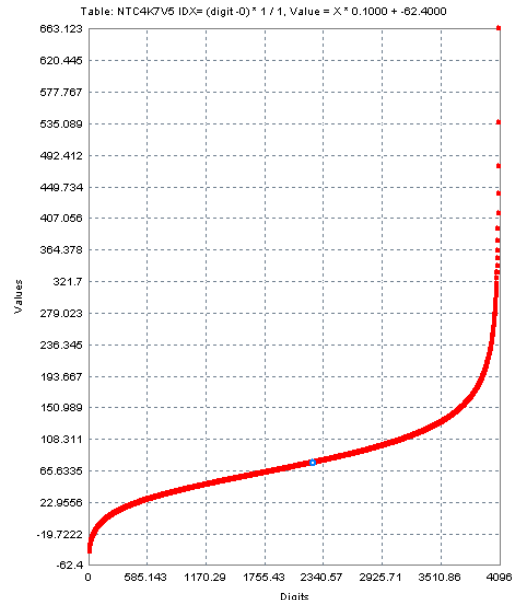
### Formula

Temperature	Multiplicator	Offset
Value [°C]	= 0,1 * digits	- 62,4

Use this formula in combination with a table to calculate the physical values. For this not linear sensor are different table files available:

Table	Datalogger
Ntc1k.tbl	Older logger generations as logger4
Ntc4k7.tbl	If you use logger4 generation
Ntc4k7v5.tbl	If you use logger5 generation
Ntc4k7i5.tbl	If you use logger5 generation (inverted supply)
NTC_L6i.tbl	If you use logger6 generation

All table files are installed with the software and will be located in the following sub-directory:  
 → “..\System\Tables”



The graph show “Ntc4k7v5.tbl” for example

### Connector layout

Pin	Name	Description
1	AGND	Analog Ground
2	n.c.	Not connected
3	n.c.	Not connected
4	+5V / 2.5V *	Vref
5	Signal	Analog signal

\* Older logger types (LG-L4-xx) has 2.5V reference

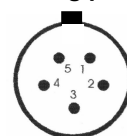
New logger types (LG-L5-xx) has 5V reference

**Attention:** Do not modify the connector resistor inside !



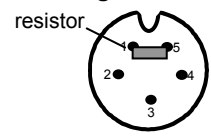
### Connector type

#### Mating plug



Binder 719, 5 PF (front side)

#### Plug at sensor



Binder 719, 5 PM (front side)

### Sensor with open wires

Name	Description	Color
Vref	Pull-up / Pull-down 4,7kΩ	green
Analog Signal	Signal	white

### Order code: SA-NTC<sub>xyy</sub>-000

**x** = type (D for eyelet and M for thread)  
**yy** = range 06 or 10

eyelet with D6.....	SA-NTCD06-000
Thread M6 stainless steel.....	SA-NTCM06-000
Thread M8 plastic.....	SA-NTCM08-000
Thread M10x1 brass.....	SA-NTCM10-000

### Block diagram (example)

