

TC, TZ | Temperature sensors



- Thermister temperature sensors are made of Negative Temperature Coefficient (NTC) embedded in a PVC or metal sleeve with a thermally-conductive sealer.
- **Sensor TC**
 - lead-in cable to sensor TC is made of wire CYSY 2D x 0.5 mm/ 0.02"
- **Sensor TZ**
 - cable VO3SS-F 2D x 0.5 mm/0.02" with silicone insulation for use in high temperature applications.
 - silicone insulation for use in high temperature applications.
- Temperature sensors can be connected directly to the terminal block
- cable lengths can not be changed, connected or modified.

Technical parameters	TC	TZ
Range:	-20°C to +80 °C	-40°C to +125°C
Scanning element:	NTC 12K	NTC 12K
Tolerance:	± (0.15°C + 0.002[t])	± (0.3°C + 0.005[t])
In air/ in water:	(τ0.5) ≤ 18 s	(τ65) 62 s / 8 s
In air/ in water:	(τ0.9) ≤ 48 s	(τ95) 216 s / 23 s
Cable material:	PVC unshielded, 2x 0.25 mm ²	Silicone
Terminal material:	polyamid	nickel plated copper
Protection degree:	IP67	IP67
Electrical strength:	2500 VAC	2500 VAC
Insulation resistance:	> 200 MΩ at 500 VDC	> 200 MΩ at 500 VDC

Types of temperature sensors:		
	TC-0	TZ-0
- length:	100 mm	110 mm
- weight:	5 g	4.5 g
- length:	3 m	3 m
- weight:	70 g	106 g
- length:	6 m	6 m
- weight:	130 g	216 g
- length:	12 m	12 m
- weight:	250 g	418 g

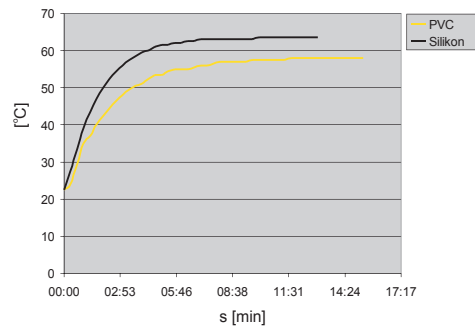
τ65 (95): time, which sensor needs to heat up on 65 (95) % of ambient temperature of environment, in which is located.

Resistive values of sensors in dependance on temperature

Temperature (°C)	Sensor NTC (kΩ)
20	14.7
30	9.8
40	6.6
50	4.6
60	3.2
70	2.3

Tolerance of sensor NTC 12 kΩ is ± 5% by 25 °C / 77°F.

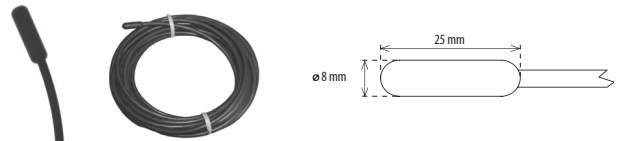
Diagramm of sensor warm up via air



PVC -reaction to water temperature from 22.5°C to 58°C.
Silicone - reaction to water temperature from 22.5°C to 63.5°C.

Design and dimensions

TC



TZ

