



EAN code			
TC-0:	8595188110075	TZ-0:	8595188140591
TC-3:	8595188110617	TZ-3:	8595188110600
TC-6:	8595188110082	TZ-6:	8595188110594
TC-12:	8595188110099	TZ-12:	8595188110587
		Pt100-3:	8595188136136
		Pt100-6:	8595188136143
		Pt100-12:	8595188136150

Technical parameters	TC	TZ	Pt100
Range:	-20 °C to +80 °C (-4 °F to 176 °F)	-40 °C to +125 °C (-40 °F to 257 °F)	-30 °C to +200 °C (-22 °F to 392 °F)
Scanning element:	NTC 12K	NTC 12K	Pt100
Tolerance:	±(0.15°C + 0.002[t])	±(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	(τ0.5) - /7 s
In air/in water:	(τ0.9) ≤ 48 s	(τ95) 216 s/23 s	(τ0.9) - /19 s
Cable material:	PVC unshielded, 2 x 0.25 mm <sup>2</sup>	PVC	shielded silicone 2 x 0.22 mm <sup>2</sup>
Terminal material:	polyamide	stainless steel	Copper
Protection degree:	IP67	IP67	IP67
Electrical strength:	2500 VAC	2500 VAC	2500 VAC
Insulation resistance:	> 200 MΩ at 500 VDC	> 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	-
	TC-3	TZ-3	Pt100-3
Length:	3 m	3 m	3 m
Weight:	70 g	106 g	68 g
	TC-6	TZ-6	Pt100-6
Length:	6 m	6 m	6 m
Weight:	130 g	216 g	149 g
	TC-12	TZ-12	Pt100-12
Length:	12 m	12 m	12 m
Weight:	250 g	418 g	249 g

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

- 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.
- **Sensor Pt100**
  - shielded silicon 2x 0.22 mm<sup>2</sup> (AWG 21), shielding connected with a case.
- Temperature sensors can be connected directly to the terminal block.
- Cable lengths can not be changed, connected or modified.

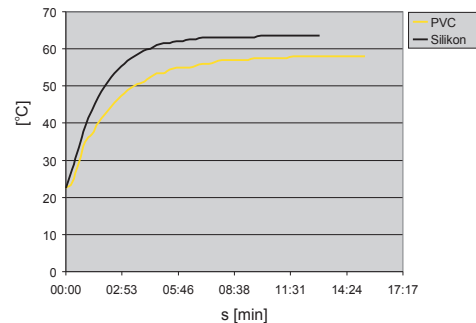
Resistive values of sensors in dependance on temperature

Temperature (°C/°F)	Sensor NTC (kΩ)	Sensor Pt100 (Ω)
20 /68	14.7	107.8
30 /86	9.8	111.7
40 /104	6.6	115.5
50 /122	4.6	119.4
60 /140	3.2	123.2
70 /158	2.3	127.1

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

Long-term resistance stability by sensor Pt100 is 0.05 % (10 000 hours).

Diagramm of sensor warm up via air



PVC - reaction to water temperature from 22.5 °C to 58 °C (from 72.5 °F to 136.4 °F).

Silicone - reaction to water temperature from 22.5 °C to 63.5 °C (from 72.5 °F to 144.5 °F).