

T10-XXXX NTC



BENEFITS

- NTC sensor
- No influence from the lead
- High temperature sensitivity

APPLICATIONS

- Dry ice
- Freezers
- Water baths



DESCRIPTION

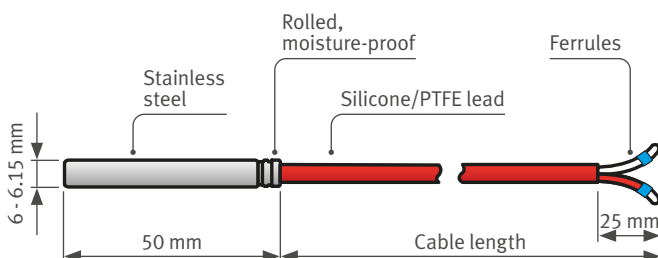
The T10 temperature sensors are NTC (Negative Temperature Coefficient) thermistors, meaning that the resistance of the NTC decreases with increasing temperature. The T10 temperature sensors are compatible with the RMS-MLOG-T10-868/915 data loggers.

The data logger temperature range is limited to -35...80°C. The RMS temperature portfolio covers a wide range of applications, from the coldest such as liquid nitrogen tanks and cryogenic freezers, refrigerators and cold rooms to hotter ones such as water baths, incubators, ovens and autoclaves.

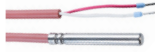
Certain probes are also designed for specific applications for monitoring legionella within water pipes and monitoring room temperature. It is crucial when setting up your RMS-MLOG-T10-868/915 with the T10 temperature probe to configure the logger accordingly with the software as the characteristic curve of each NTC is stored in the firmware.

Please see below for the values of each probe. This list is not exhaustive and other probes, diameters and cable lengths are available on request.

Dimensions



TECHNICAL INFORMATION

	T10-0001	T10-0002	T10-0003/0013/0113	T10-0004	T10-0005	T10-0006
						
Stored in RMS software as:	T10-001	T10-002/6	T10-003/4	T10-003/4	T10-005	T10-002/6
Application	Cryotechnology	Freezers, dry ice...	Standard	Piping	Freezers, dry ice...	Standard
Cable material	PTFE	Silicone	Silicone	Silicone	PTFE	Silicone
Sensor application range	-196...-90 °C	-80...150 °C ¹	-50...120 °C ¹	-50...120 °C ¹	-90...50 °C	-80...150 °C ¹
Calibration range ² (look up chart)	-200...-90 °C	-80...200 °C	-50...200 °C	-50...200 °C	-90...50 °C	-80...200 °C
Cable application range	-190...260 °C	-50...200 °C ¹	-50...200 °C ^{1,3}	-50...200 °C ¹	-190...260 °C	-50...200 °C ¹
IP protection	IP65	IP65	IP65	IP65	IP68	IP65
Cable length (mm)	2000	2000	2000	2000	4000	4000
Cable diameter (mm)	4	6	6	6	4	6
Probe head material	SS 316	VA4 1.4571	VA4 1.4571	Brass	VA4 1.4571	VA4 1.4571
Probe length (mm)	50	50	50	50	50	50
Probe diameter (mm)	6 - 6.15	6 - 6.15	6 - 6.15	Duct wrap	6 - 6.15	6 - 6.15
Sensor	NTC1k	NTC10K	NTC10K	NTC10K	NTC1k	NTC10K
Accuracy ²						
-196...-90 °C	±2,5 °C					
25 °C		±0,2 °C	±0,4 °C	±0,4 °C		±0,2 °C
-80...-30 °C		±1 °C				±1 °C
-30...40 °C		±0,5 °C				±0,5 °C
40...70 °C		±1 °C				±1 °C
70...150 °C		±3 °C				±3 °C
-50...0 °C			±1 °C	±1 °C		
0...30 °C			±0,5 °C	±0,5 °C		
30...60 °C			±1 °C	±1 °C		
60...90 °C			±1,5 °C	±1,5 °C		
90...120 °C			±3,2 °C	±3,2 °C		
-80...50 °C					±1 °C	
-90...-80 °C					±1.5 °C	
R25 & B: -200...-165 °C	54 & 666					
R25 & B: -185...-145 °C	26 & 776					
R25 & B: -145...-90 °C	8 & 1045					
R25 & B: -200...-120 °C	21 & 787					
R25 & B: -80...-40 °C		13000 & 3500				13000 & 3500
R25 & B: -40...-30 °C		9950 & 3800				9950 & 3800
R25 & B: -10...150 °C		10100 & 4030				10100 & 4030
R25 & B: -50...-10 °C			11100 & 3610	11100 & 3610		
R25 & B: -10...-50 °C			9800 & 3890	9800 & 3890		
R25 & B: 50...120 °C			10300 & 4065	10300 & 4065		
R25 & B: -90...-40 °C					1500 & 2900	
R25 & B: -60...0 °C					1100 & 3170	
R25 & B: -20...50 °C					100 & 3400	

¹ Down to -80 °C possible, but the cable could break on movement.

² Accuracy is only guaranteed in the sensor application range, applications outside the range can cause drift or damage. To improve the accuracy, it is possible to carry out an adjustment to improve the measurement accuracy when using the data logger and NTC.

³ Ribbon cable application range / dimensions: -60...105 °C / 200 x 15 mm (L x W)