

AiM Infotech

PT100 thermo resistor
Race Studio 3 configuration

Release 1.00



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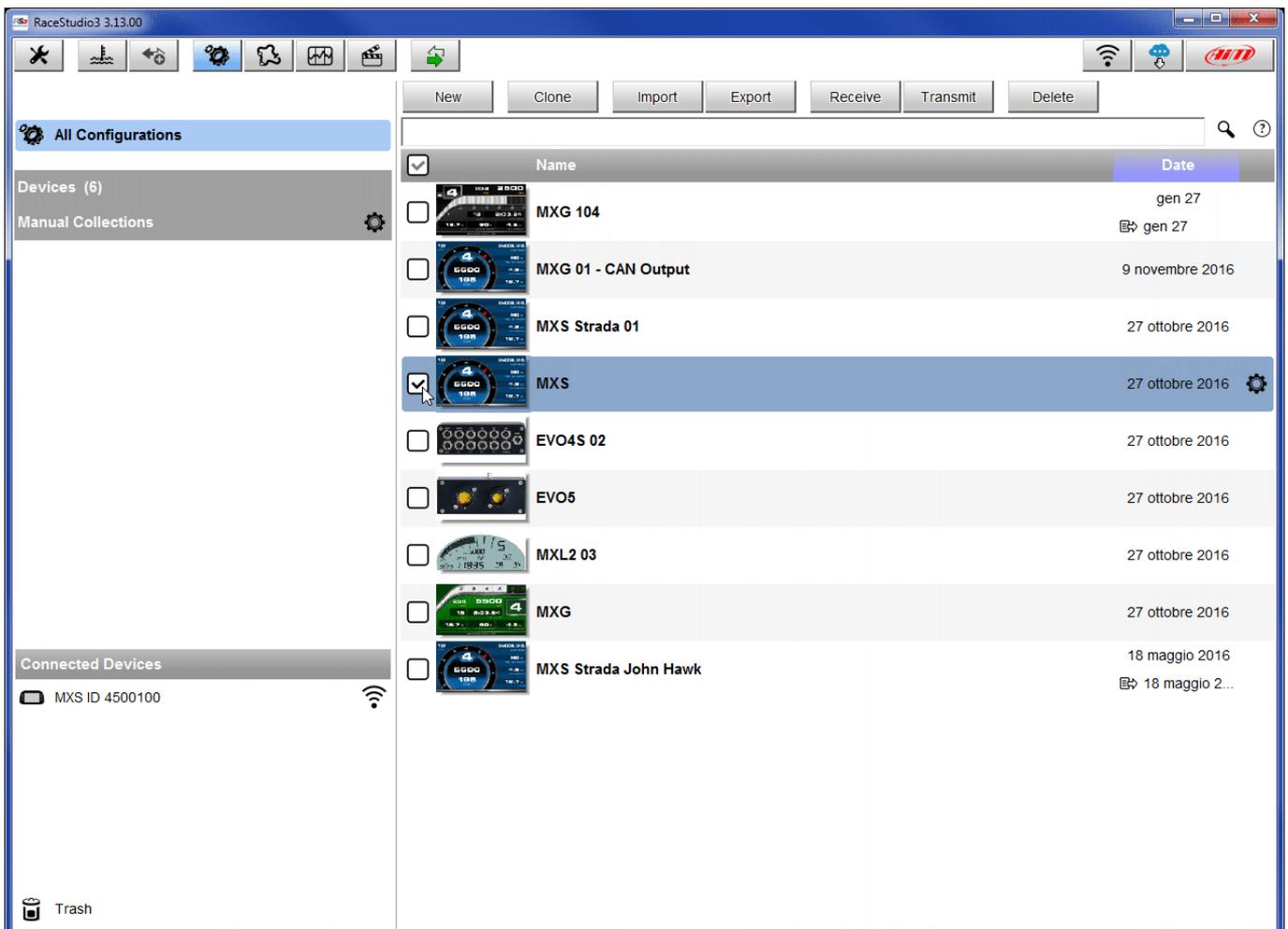
Introduction

This datasheet explains how to configure PT100 thermo resistor for car/bike installation using AiM Race Studio 3 software.

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Race Studio 3 configuration

To load the sensor in the device configuration run the software and select the configuration where the sensor is to be loaded (in the example MXS).



The software enters "Channels" layer

- select the channel where to set the sensor on – in the example channel 1 (1) –and fill in the panel that shows up
- select the function "Temperature" and choose among
 - Water Temp – as in the example (2)
 - Exhaust Temp
 - Oil Temp
 - Head Temp
 - Temperature (other temperature measurement)
- select sensor type pressing "Sensor" (3): "AiM PT-100"
- press "Save"

The screenshot shows the RaceStudio3 3.13.00 interface. The 'Channels' tab is active, displaying a table of channels. Channel 01 is selected. A 'Channel Settings' dialog box is open for Channel 01. The 'Name' field is 'WaterTemperature', 'Function' is 'Voltage', and 'Sensor' is 'Temperature'. A sub-menu is open under 'Temperature', with 'Water Temp' selected. The 'Save' button is highlighted. Red circles 1, 2, and 3 mark the channel selection, the 'Temperature' menu, and the 'Sensor' field respectively.

ID	Name	Function	Sensor	Unit	Freq	Parameters
RPM	<input checked="" type="checkbox"/> RPM	RPM	RPM Sensor	rpm	20 Hz	max: 16000 ; factor: 1 ;
Spd1	<input type="checkbox"/> Speed1				20 Hz	wheel: 40 ; pulses: 1 ;
Spd2	<input type="checkbox"/> Speed2				20 Hz	wheel: 40 ; pulses: 1 ;
Spd3	<input type="checkbox"/> Speed3				20 Hz	wheel: 40 ; pulses: 1 ;
Spd4	<input type="checkbox"/> Speed4				20 Hz	wheel: 40 ; pulses: 1 ;
Ch01	<input type="checkbox"/> Channel01				20 Hz	
Ch02	<input type="checkbox"/> Channel02				20 Hz	
Ch03	<input type="checkbox"/> Channel03				20 Hz	
Ch04	<input type="checkbox"/> Channel04				20 Hz	
Ch05	<input type="checkbox"/> Channel05				20 Hz	
Ch06	<input type="checkbox"/> Channel06				20 Hz	
Ch07	<input type="checkbox"/> Channel07				20 Hz	
Ch08	<input type="checkbox"/> Channel08				20 Hz	
AccX	<input checked="" type="checkbox"/> AccelerometerX				50 Hz	
AccY	<input checked="" type="checkbox"/> AccelerometerY				50 Hz	
AccZ	<input checked="" type="checkbox"/> AccelerometerZ	Vertical Accel	AIM Internal Accelerometer	g 0.01	50 Hz	
GyrX	<input checked="" type="checkbox"/> GyroX	Roll Rate	AIM Internal Gyro	deg/s 0.1	50 Hz	
GyrY	<input checked="" type="checkbox"/> GyroY	Pitch Rate	AIM Internal Gyro	deg/s 0.1	50 Hz	
GyrZ	<input checked="" type="checkbox"/> GyroZ	Yaw Rate	AIM Internal Gyro	deg/s 0.1	50 Hz	
Accu	<input checked="" type="checkbox"/> GPS Accuracy	GPS Accuracy	AIM GPS	mm	10 Hz	
Spd	<input checked="" type="checkbox"/> GPS Speed	Vehicle Spd	AIM GPS	mph 0.1	10 Hz	

The software shows the sensor correctly set. In the example below the sensor has been set on Channel1.

Transmit the configuration to the logger pressing "Transmit".

The screenshot shows the RaceStudio3 3.13.00 software interface. The 'Channels' tab is active, displaying a table of sensor configurations. The 'Transmit' button is highlighted in red, and the 'WaterTemperature' row is highlighted in blue. A red box highlights the 'WaterTemperature' row.

ID	<input type="checkbox"/>	Name	Function	Sensor	Unit	Freq	Parameters
RPM	<input checked="" type="checkbox"/>	RPM	RPM	RPM Sensor	rpm	20 Hz	max: 16000 ; factor: /1 ;
Spd1	<input type="checkbox"/>	Speed1	Vehicle Spd	Speed Sensor	mph 0.1	20 Hz	wheel: 40 ; pulses: 1 ;
Spd2	<input type="checkbox"/>	Speed2	Vehicle Spd	Speed Sensor	mph 0.1	20 Hz	wheel: 40 ; pulses: 1 ;
Spd3	<input type="checkbox"/>	Speed3	Vehicle Spd	Speed Sensor	mph 0.1	20 Hz	wheel: 40 ; pulses: 1 ;
Spd4	<input type="checkbox"/>	Speed4	Vehicle Spd	Speed Sensor	mph 0.1	20 Hz	wheel: 40 ; pulses: 1 ;
Ch01	<input checked="" type="checkbox"/>	WaterTemperature	Water Temp	AIM PT-100	F 0.1	20 Hz	
Ch02	<input type="checkbox"/>	Channel02	Voltage	Generic 0-5 V	mV	20 Hz	
Ch03	<input type="checkbox"/>	Channel03	Voltage	Generic 0-5 V	mV	20 Hz	
Ch04	<input type="checkbox"/>	Channel04	Voltage	Generic 0-5 V	mV	20 Hz	
Ch05	<input type="checkbox"/>	Channel05	Voltage	Generic 0-5 V	mV	20 Hz	
Ch06	<input type="checkbox"/>	Channel06	Voltage	Generic 0-5 V	mV	20 Hz	
Ch07	<input type="checkbox"/>	Channel07	Voltage	Generic 0-5 V	mV	20 Hz	
Ch08	<input type="checkbox"/>	Channel08	Voltage	Generic 0-5 V	mV	20 Hz	
AccX	<input checked="" type="checkbox"/>	AccelerometerX	Inline Accel	AIM Internal Accelerometer	g 0.01	50 Hz	
AccY	<input checked="" type="checkbox"/>	AccelerometerY	Lateral Accel	AIM Internal Accelerometer	g 0.01	50 Hz	
AccZ	<input checked="" type="checkbox"/>	AccelerometerZ	Vertical Accel	AIM Internal Accelerometer	g 0.01	50 Hz	
GyrX	<input checked="" type="checkbox"/>	GyroX	Roll Rate	AIM Internal Gyro	deg/s 0.1	50 Hz	
GyrY	<input checked="" type="checkbox"/>	GyroY	Pitch Rate	AIM Internal Gyro	deg/s 0.1	50 Hz	
GyrZ	<input checked="" type="checkbox"/>	GyroZ	Yaw Rate	AIM Internal Gyro	deg/s 0.1	50 Hz	