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AiM Infotech

PT100 Thermo resistor Race Studio 2 configuration

Release 1.00









1 Introduction

This datasheet explains how to configure the car/bike PT100 thermo resistor using AiM Race Studio 2 software.

2 Setup with con Race Studio 2

To load the sensor in the logger configuration:

- run the software, select the logger in use and the configuration to set the sensor on (in the example EVO4) and enter "Channels" layer
- select the channel where set the sensor on (in the example Channel 1)
- Select "Thermoresistance PT100" in Sensor type column as shown here below.

🕌 RaceStudio 2.55.94									e e e e e e e e e e e e e e e e e e e	_ 0 x
File Device Configuration Download Da	ata Import SmartyCam	Data Analysis Devic	e Info Online Device	Calibration Customiz	e Sensor Language ?					
	System manager									
Racing Data Power		u B	Receive	ceive CAN-Net info		SmartyCam Function setting		Set acquisitio	in system time	
AIM Sportline	Current configuration									
The World Leader in Data Acquisition	Installation name	Data logger type	Ecu	Lap Timer	Vehicle name	Available	Available time		PS	Total frequency
	DEFAULT	EV04 - 5 channels	PORSCHE - CAYMAN	Optical	DEFAULT	5.01.56	(h.m.s)	3.44.08 (h	.m.s) 4	461 (Hz)
A <u>n</u> alysis	Select configuration (Channels System configu	ration Display CAN-Expa	ansions configurator						
Download Data	Wheel circumference Pulses per wheel revo	(mm) 1666 Wh Ilution 1 Pul:	eel circumference (mm) ses per wheel revolution	1666						
Import SmartyCam microSD Data	Channel identifier	Enabled/disabled	Channel name	Sampling frequency	Sensor type		Measure ur	iit Low scale	High scale	
	RPM	Disabled	Engine	10 Hz	Engine revolution speed	ł	rpm	0	20000	
	SPD_1	Enabled	Speed1	10 Hz	Speed	•	km/h .1	• 0.0	250.0	
Device Configuration	SPD_2	Enabled	Speed2	10 Hz 💌	Speed	Ŧ	km/h .1	- 0.0	250.0	
	CH_1	Enabled	Channel_1	10 Hz 🔄	Thermoresistance PT10	0 🚽	°C	_ 0	5	
	CH_2	Enabled	Channel_2	10 Hz	Thermocouple	~	V .1	- 0.0	5.0	
Device In <u>f</u> o	CH_3	Enabled	Channel_3	10 Hz	Thermoresistance PT10		deg .1	• 0.0	5.0	
	CH_4	Enabled	Channel_4	10 Hz	Temperature VDO 50-15	60 °C	V .1	- 0.0	5.0	
	CH_5	Disabled	Channel_5	10 Hz	Temperature VDO 60-20	0°C	V .1	- 0.0	5.0	
Online	CALC_GEAR	Disabled	Calculated_Gear	10 Hz	Water temp. (CLIO) Water temp. (SUZUKI S	UPERSP(_	#	0	9	
	ACC_1	Enabled	Acc_Laterale	10 Hz	Pressure VDO 0-2 bar	=	g .01	-3.00	3.00	
	ACC_2	Enabled	Acc_Longitudinale	10 Hz	Pressure VDO 0-5 bar Pressure VDO 0-10 bar		g .01	-3.00	3.00	
Device Calibration	ACC_3	Enabled	Acc_Verticale	10 Hz	AIRBOX pressure sensor	- X055N	g .01	-3.00	3.00	
	LOG_TMP	🗹 Enabled	Datalogger_Temp	10 Hz	AIRBOX pressure sensor	- X05SN	°C	- 0	50	
	BATT	🗹 Enabled	Battery	1 Hz	Zero based potentiomet	ter	V .1	5.0	15.0	
Customize Sensor	ECU_1	Enabled	ECU_RPM	10 Hz	Mid zero potentiometer		rpm	0	10000	
Customize <u>s</u> ensor	ECU_2	Enabled	ECU_TPS	10 Hz	Lambda sensor NGK TL	7111W1	% .1	0.0	100.0	
	ECU_3	Enabled	ECU_ECT	10 Hz	Water pitot speed senso	r	°C	• 0	150	
	ECU_4	Enabled	ECU_OIL_T	10 Hz	External vertical acceler	ometer	°C	• 0	150	
Language	rou r	Ta i i i			External horiz acceleror	neter		-1.0	10	



- The sensor is set on the desired channel as here below
- Transmit the configuration to the logger pressing "Transmit".

🔛 RaceStud	dio 2.55.94											Į	- • ×
File Device Configuration Download Data Import SmartyCam Data Analysis Device Info Online Device Calibration Customize Sensor Language ?													
		System manager											
	Racing Data Power	Transr	nt 🛛	Receive CAN-Net info			SmartyCam Functions setting				Set acquisitio]	
	AIM Sportline	Current configuration	13										
The Worl	The World Leader in Data Acquisition Installation name		Data logger type Ecu		Lap Timer		Vehicle name Available ti		time		Time with GPS		Total frequency
		DEFAULT	EVO4 - 5 channels	PORSCHE - CAYMAN	Optical		DEFAULT 5.01.56 (I		(h.m.s)		3.44.08 (h.m.s)		461 (Hz)
	Analysis Analysis Select configuration Channels System configuration Display CAN-Expansions configurator Speed1 Speed1 Speed2												
	Download Data	Wheel circumference (mm) 1666 Pulses per wheel revolution 1 Pulses per wheel revolution 1											
Import SmartyCam		Channel Libert Tax	Frankland (Prankland	Characteria	C	77	C		14		1	1 Patrice	
-	microSD Data	Channel Identifier	Enabled/disabled	Channel name	Sampling frequency	/ •1	Sensor type	-	ivieasure u	niτ	Low scale	High scale	
				Engine	10 Hz	-	Engine revolution speed	.	rpm km/h_1		0.0	20000	_
	Device Configuration	SPD_1	Franklad	Speed:	10 Hz		Speed		km/n .1	-	0.0	250.0	
1	Device conliguration		Enabled	Channel 1	10 Hz	-	Thermoresistance PT100	•	*C	-	0.0	5	
				Channel_1	10 112	_	America linear 0-5 M	_	с 	_	0.0	50	J
	Device Infe		Enabled	Channel 3	10 Hz		Mid zero potentiometer	-	deg 1	-	0.0	5.0	
1	Device III <u>i</u> o	CH 4	Enabled	Channel 4	10 Hz	-	Generic linear 0-5 V	-	V 1	-	0.0	5.0	
		CH 5		Channel 5	10 Hz	•	Generic linear 0-5 V	-	V 1	-	0.0	5.0	_
	0	CALC GEAR	Disabled	Calculated Gear	10 Hz	•	Calculated Gear	F	#	F	0	0	
53	Online	ACC 1	Enabled	Acc Laterale	10 Hz	-	Lateral accelerometer	v		-	-2.00	3.00	_
			Enabled	Acc Longitudinale	10 Hz	-	Longitudinal accelerometer	-	g .01		-3.00	3.00	
	Device <u>Calibration</u>	ACC_2	Enabled	Acc_Eorigitudinale	10 Hz	•	Vertical internal accelerometer	-	g .01		-3.00	3.00	
23			Enabled	Datalogger Temp	10 Hz	•	Cold joint	_	9.01 °C	•	0	50	
	/		Enabled	Batten/	1. 1.		Patten		V 1	_	50	15.0	
		ECU 1		ECU PDM	10 4-		Engine speed sensor		v .1		0	10000	
	Customize Sensor	ECU 2			10 112	-	Dercontage concer		9/ 1		0.0	100.0	
		ECU_2	Enabled	ECULECT	10 Hz	-	Temperature concer		°C	-	0.0	150	
		ECU A	Enabled	ECU_ECT	10 112		Temperature sensor		•	-	0	150	
	<u>L</u> anguage	ECU_4	Enabled		10 112		Pressure sensor		bar 1	-	0	10	
		ECU_5	Finabled		10 Hz		Pressure sensor		mbar.		0	2500	
		ECU_0		ECU_AIRBOX_F	10 Hz	-	Terresule sensor		*C		0	2,000	
					10 Hz	-	A sealessester			-	50	50	
			Finabled		10 Hz	-	Accelerometer		m/s**2		-50	50	
					10 112	 	Accelerometer		m/sriz		-30	100	
		ECU_10		ECU_TAW_KATE	10 HZ		Accels access		ueg/s		190.0	190.0	
			Enabled	ECU_STEEK_ANG	10 HZ		Angle sensor		aeg .r		-180.0	200.0	
	aim-sportline.com	ECU_12	Enabled	ECU_SPEED	10 Hz		speed sensor		кm/h .1		0.0	300.0	
A	© 2007 AIM SRL L RIGHTS RESERVED	ECU_13	Enabled	ECU_SPEED_FL	10 Hz	-	Speed sensor		km/h .1		0.0	300.0	
CERNUSCO	VIA CAVALCANTI, S Sul Naviglio, Milan - Italy		Liv Enabled		100 H7	•	Sheed centor		vm/h 1	•			