AiM Manuale Utente

## Car/Bike Tire temperature sensor Race Studio 2 configuration

Release 1.00





InfoTech



## 1 Introduction

Once the tire temperature sensor in physically connected to one of the channels of AiM device it has to be loaded in the related configuration using AiM configuration software. In this datasheet it is loaded using **Race Studio 2** software.

## 2 Setup with Race Studio 2

- Whit the device switched on and connected to the PC run the software and select the device the sensor is connected to; create a custom sensor pressing "Customize Sensor " (1)
- select the type of measure (Temperature) and the measure unit (°C) (2)
- complete the first two rows of the table on the left as follows (3):

X [Mv]	Y [°C]
820	-20
3230	120

• press "Compute curve" (**4**), fill in sensor name – i.e. "AiM INFKL -20+120C (X05TTS01B0)" – and press save sensor (**5**); press "Exit" (**6**).

Device Configuration Download D	ita Import SmartyCar	n trata Analysis De	vice Info	Unline	Device Cali	bration Customic	te sensor Lan	lnade (		_	_		_			
and	📓 System manager															
Asting Data Press	Tran	ant	<u>la</u> 10	ceive.		CAN-Net inf	•	SmartyCar	n Functions ting	0	Set acc	quisition system time				
AIM Sportline	Current configuration									1						
Vorid Leader in Data Acquisition	Installation name	stion name Data logger type											Master	requency	Expansions frequency	Tot. Expansions
	DEFAULT EV04 - 5 channels			Type of measure Type of measure Type of measure Converter Curve								451 (Hz		0 (Hz) 0	0	
Analysis 50			x [m/] Y C Curve Error Select sensor								-					
	Select configuration	Channels System conf	21	820	-20	-0.000	120					AM 0-10 bar (X055NP31010R)				
	Speed1		2	3230	120	0.000	3				1	AM 0-100 Bar (X055NP31100R) AM -1 to 4 bar (X055NP31004A)				
Download Data	Wheel circumference	e (mm) 1666	Els.	0	0	0.0	<b>1</b>				/	AM 0-160 bar (X055NP31160R) Fuel level				
Pulses per whee	D. de cara de la decidade de cara		E4	0	0	0.0	92			- 2		AM INFRL-20+120 C (X05TTS0				
	Puses po mieo re		135	0	0	0.0	1000			/		2010-000 C				
Import SmartyCam	Channel identifier	Enabled/dirabled		0	0	0.0	64	-	K		_			Low scale	High r	ale
microSD Data	RPM	Disabled	107	0	0	0.0			1				Crint	0	20000	ane.
	SPD 1	Enabled	138	0	0	0.0	36		1			Canada anna		- 0.0	250.0	
Device Configuration	SPD_2	Enabled	29	0	0	0.0		/				AM INFIG -20+120 C 0/053894		-1 0.0	250.0	
2	CH_1	Enabled	10	0	0	0.0	8	/			_			-10	5	
	CH.2	F Enabled	11	0	0	0.0		1				Save sensor		· 0.0	5.0	
Pevice Info	CH.3	Enabled	12	0	0	0.0	20 /					Datata secure		· 0.0	5.0	
	CH_4	F Enabled	1 13	0	0	0.0	820	1302 1	84 2266	5 274	8 32 30	Underse serious		±1 0.0	5.0	
	CH_S	T Disabled	114	0	0	0.0	y = a0 + a	"x + a2"x	^2 + a3*x	-3 + 84	*x^4	Import sensors		- 0	5	
Qnline	CALC_GEAR	☐ Disabled	15	0	0	0.0	80	-6.763486	e+001					0	9	
	ACC_1	P Enabled	16	0	0	0.0		0.058001				Export selected sensor		-3.00	3.00	
Device Calibration	ACC_2	F Enabled	17	0	0	0.0	81	0.000000				<b>1</b> 00		-3.00	3.00	
	ACC_3	Enabled	18	0	0;	0.0	a2	a2 0.0000000 +000			Export al sensor		-3.00	3.00		
	LOG_TMP	Enabled	19	0	0	0.0	a3	0.000000	+000					- 0	50	
	BATT	Enabled	20	0	0	0.0	a4	0.000000	+000			e Exit		5.0	15.0	
Customize Sensor	ECU 1	Frahled	10	-	-			_	_	_	_		1	0	10000	



To set the sensor in the device configuration:

- enter "Channels" layer
- set the sensor on a channel selecting "AiM INFKL -20+120C (X05TTS01B0)" in "Sensor type" column of the desired channel (in the example channel 4)
- press "Transmit"

COLUMN 2 A DESCRIPTION OF TAXABLE PARTY.											
and	System manager										0
Racing Data Preser	Trans	ent B	Receive	CAN-Net	w/o SmartyCa	m Functions	Set acquisition syst	em lime			
AIM Sportline	Conters corriguiation										
World Leader in Data Acquisition	Installation name	Data logger type	Ecu	Lap Timer	Vehicle name Avi	slable time	Time with GPS	Total frequency 1	faster frequency	Expansions frequency	Tot. Expansions
	DEFAULT	EV04 - 5 channels	PORSCHE - CAYMAN	Optical	DEFAULT 5.1	18.38 (h.m.s)	3.47.48 (h.m.s)	451 (Hz) 4	(Hz)	0 (Hz)	0
Anabuir											
Allarysis	Select configuration	Channels System config	uration Display CAN-Ex	pansions configurator							
	Speed1	5	peed2								
Download Data	Wheel circumference	e (mm) 1666 W	heel circumference (mm)	1666							
	Pulses per wheel rev	rolution 1 Pi	ises per wheel revolution								
Import SmartyCam	Chanadidantifier	Eashbad/deashbad	Channel arms		Samelan kanang	Ferrerture		Manual	at Loursets	LEah ee	
microSD Data	DOM	Dirabled	Engine Lane		10 Lite	Engine smoketion	o roaad	measureu	nic Low scale	20000	die
	SPD 1		Speedt		10 Hz	Socied	i speed	*  km/h_1	-100	250.0	
Device Configuration	SPD 2	Enabled	Sneed?		10 Hz	Speed		* km/h 1	+100	250.0	
Device Configuration		Channel 1		10 Hz	1 Thermoresistanc	e PT100	•1 •c	-10	5		
	CH 2	Foabled	Channel 2		10 Hz	- Generic linear 0-5 V		-1 V 1	-100	50	
Device Info	CH 3	Enabled	Channel 3		10 Hz	Mid zero potenti	ometer	- 000 1	-1 0.0	5.0	
Device Into	Enabled	Channel 4		10 Hz	AIM INFKL -20+1	20 C (X05TTS0180)	1	- 0	5		
	CH 5	C Disabled	Channel 5		10 Hz	Thermocouple			- 0	5	
CALC GEAR Disabled		Calculated Gear		10 Hz	Calculated Gear	Calculated Gear		0	9		
) <u>S</u> ume	ACC_1	Enabled	Acc_Laterale		10 Hz	Lateral acceleron	neter	- g .01	-3.00	3.00	
	ACC_2	Enabled	Acc_Longitudinale		10 Hz	Longitudinal acc	elerometer	01. و ك	-3.00	3.00	
Device Calibration	ACC_3	Enabled	Acc_Verticale		10 Hz	Vertical internal a	eccelerometer	± g .01	-3.00	3.00	
S Device Sampladon	LOG_TMP	F Enabled	Datalogger_Temp		10 Hz	Cold joint		°C	-10	50	
	BATT	F Enabled	Battery		1 Hz 2	Battery		1. V	5.0	15.0	
Customiza Sansar	ECU_1	Enabled	ECU_RPM		10 Hz	Engine speed ser	isor	rpm	0	10000	
Customite gensor	ECU_2	Enabled	ECU_TPS		10 Hz	Percentage sense	or	% 1	0.0	100.0	
	ECU_3	Enabled	ECU_ECT		10 Hz	Temperature sen	sor	°C	- 0	150	
1	ECU_4	F Enabled	ECU_OIL_T		10 Hz	Temperature sen	sor	°C	-	150	
Language	ECU_S	F Enabled	ECU_OIL_P		10 Hz 2	Pressure sensor		ber .1	- 0	10	
	ECU_6	Enabled	ECU_AIRBOX_P		10 Hz	Pressure sensor		mbar	- 0	2500	
	ECU_7	F Enabled	ECU_INT_AIR_T		10 Hz	Temperature sen	sor	*C	- 0	80	
	ECU_8	F Enabled	ECU_ACC_LAT		10 Hz	Accelerometer		m/s^2	<b>-1</b> -50	50	
	ECU.9	F Enabled	ECU_ACC_LONG		10 Hz 2	Accelerometer		m/s^2	<u>-</u> -50	50	
	ECU_10	Enabled	ECU_YAW_RATE		10 Hz	Steering wheel sp	peed	deg/s	<b>-1</b> -100	100	
when our a while a way or	1 C C 1 C C	E Easthlad	ECU STEER ANG		10 Hz	Angle sensor		deg 1	-180.0	180.0	
aim-sportline.com	EC0_11	I* Enablieu	eeo_oreer() and								