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AiM Infotech

Car speed sensor Race Studio 2 configuration

Release 1.00







1 Introduction

This datasheet explains how to configure the car speed sensor 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
- if speed channels are enabled you can fill in the related panels highlighted here below.

RaceStudio 2.55.56									X
File Device Configuration Download Dat	ta Import SmartyCan	n Data Analysis Device	Info Online Device	Calibration Customize	Sensor Language ?				
	🕌 System manager								
Racing Data Power	Transmit		Receive	Receive CAN-Net info		Cam Functions setting	Set acquisition system time	e	
AIM Sportline	Current configuration								
The World Leader in Data Acquisition	Installation name	Data logger type	Ecu	Lap Timer	Vehicle name	Available tim	e Time with GPS	Total frequency	Y
	DEFAULT	EVO4 - 5 channels	BMW - BMW_PT6	Optical	DEFAULT	5.40.19 (h.r	m.s) 4.04.37 (h.m.s)	409 (Hz)	
A <u>n</u> alysis	Select configuration	Channels System configur	ation Display CAN-Exp ed2	ansions configurator					
Download Data	Wheel circumference Pulses per wheel rev	e (mm) 1666 Whe volution 1 Puls	el circumference (mm) es per wheel revolution	1666					
Import SmartyCam	Channellidentifier	Track and discrimination	Channel		C				14
microSD Data		Enabled/disabled	Engine		Sampling free	vency Sens	or type		mm
		Disabled	Engine		10 Hz		d	·	rpm
Device Configuration	SPD_1	Finabled	Speed:		10 Hz		d		km/h 1
Service conliguration	CH 1	Enabled	Channel 1		10 Hz	- Gene	eric linear 0-5 V		V 1
	CH 2	Enabled	Channel 2		10 Hz	 Zero 	based potentiometer	•	1
Device Info	СН 3	Enabled	Channel 3		10 Hz	- AiM (0-100 bar (X05SNP31100R)	•	bar
	CH 4	Enabled	Channel 4		10 Hz		0-10 bar (X05SNP31010R)	•	bar
/	CH 5	Disabled	Channel 5		10 Hz	- AiM	0-4 bar (X05SNP31004A)	•	bar
Online	CALC GEAR	Disabled	Calculated Gear		10 Hz	- Calcu	ulated Gear		#
	ACC 1	Enabled	Lateral acc		10 Hz	- Later	al accelerometer	•	a .01
	ACC 2	Disabled	Longitudinal acc		10 Hz	- Long	itudinal accelerometer	-	g .01
Dovice Calibration	ACC_3	Enabled	Vertical_acc		10 Hz	- Vertic	cal internal accelerometer	•	g .01
	LOG_TMP	Enabled	Datalogger_Temp		10 Hz	I Cold	joint		°C
	BATT	Enabled	Battery		1 Hz		ry		V .1
Customize <u>S</u> ensor	ECU_1	M Enabled	RPM		10 Hz	🔳 Engir	ne speed sensor		rpm
	ECU 2	Enabled	PEDAL POSITION		10 Hz	• Perce	Percentage sensor		%.1
	ECU 3	Enabled	SPEED BMW		10 Hz	- Speed	d sensor		km/h .1
	ECU_4	Enabled	SPEED2_BMW		10 Hz	⊥ Spee	d sensor		km/h .1
Language	ECU_5	Enabled	WHEEL_SPD_FR_LF		10 Hz	- Spee	d sensor		km/h .1
	ECU_6	Enabled	WHEEL_SPD_FR_RH	1	10 Hz	- Spee	d sensor		km/h .1
	ECU_7	Enabled	WHEEL_SPD_RR_LF		10 Hz	- Speed	d sensor		km/h .1
	Leon o								



• Select the speed channel where to set the sensor on and select "Speed" in "Sensor type" column as shown here below. Fill in the related panel.

🖀 RaceStudio 2.55.56											X
File Device Configuration Download Data	Import SmartyCam	Data Analysi	s Device Info	Online Device	e Calibration Customize	e Sensor Language	?				
	🖥 System manager										
Racing Data Power	Transmit		Receive		CAN-Net info	CAN-Net info		ons 🚺	Set acquisition system time		
AIM Sportline	Current configuration										
The World Leader in Data Acquisition	Installation name	Data logger	type Ecu		Lap Timer	Vehicle name	Availabl	e time	Time with GPS	Total frequency	у
	DEFAULT	EV04 - 5 ch	annels BMV	V - BMW_PT6	Optical	DEFAULT	5.40.19) (h.m.s)	4.04.37 (h.m.s)	409 (Hz)	
A <u>n</u> alysis	Select configuration (Channels Syste	m configuration] [Display CAN-Exp	oansions configurator						
	Speed1		Speed2								
	Wheel circumference	(mm) 1666	Wheel circur	nference (mm)	1666						
Download Data		()									
	Pulses per wheel revo	lution 1	Pulses per w	heel revolution	1						
Import SmartyCam	Channel identifier	Enabled/disa	blod Ch			Sampling fr	anuana I	ancost ma	$\overline{\mathbb{A}}$		Moscuro
microSD Data	RDM	Disabled	Enc	annei name		10 Hz	equency :	ngine revoluti	on sneed		rom
	SPD 1	Fnabled	Sne	ed1		10 Hz		ingine revoluti	onspeed		km/h_1
Device Configuration	SPD 2	Enabled	Spe	ed2		10 Hz		need	N		km/h .1
· · · · · · · · · · · · · · · · · · ·	CH_1	Enabled	Chi	annel_1		10 Hz		etonation	13		V .1
	CH_2	Enabled	Chi	annel_2		10 Hz	I .	evolution spe BS speed sens	ed or		mm .1
Device Info	CH_3	Enabled	Cha	annel_3		10 Hz		MiM 0-100 bar ((X05SNP31100R)	•	bar
	CH_4	Enabled	Chi	annel_4		10 Hz		() AiM 0-10 bar	(05SNP31010R)		bar
	CH_5	Disabled	Cha	annel_5		10 Hz	<u> </u>	AiM 0-4 bar (X0	55NP31004A)	-	bar
<u>O</u> nline	CALC_GEAR	Disabled	Cal	culated_Gear		10 Hz	<u> </u>	alculated Gea	r		#
	ACC_1	Enabled	Lat	eral_acc		10 Hz	<u> </u>	ateral accelero	ometer	-	g .01
	ACC_2	Disabled	Lor	ngitudinal_acc		10 Hz	<u>ا</u> ل	ongitudinal ad	celerometer	-	g .01
Device Calibration	ACC_3	Enabled	Ver	tical_acc		10 Hz	<u> </u>	ertical interna	l accelerometer	-	lg.01
	LOG_TMP	Enabled	Dat	talogger_Temp		10 Hz		old joint			°C
	BATT	Enabled	Bat	tery		1 Hz	E	lattery			V .1
Customize <u>S</u> ensor	ECU_1	Enabled	RPI DEF			10 Hz		ngine speed s	ensor		rpm
	ECU_2	Fnabled	SDE	ED BMW		10 Hz		need sensor	sor		/o .1
	ECU 4	Fnabled	SPE	FD2 BMW		10 Hz	 	need sensor			km/h .1
Language	ECU 5	Enabled	WH	HEEL SPD FR LF		10 Hz		peed sensor			km/h .1
	ECU_6	Enabled	WH	HEEL_SPD_FR_RH	4	10 Hz		peed sensor			km/h .1
	ECU_7	Enabled	WH	HEEL_SPD_RR_LF		10 Hz	_ 9	peed sensor			km/h .1
	ECU_8	Enabled	WH	HEEL_SPD_RR_R	н	10 Hz	_ 9	peed sensor			km/h .1
	ECU_9	Enabled	STE	ER_ANGLE		10 Hz	. . ↓	ngle sensor			deg
	ECU_10	Enabled	CLI	UTCH_SWITCH		10 Hz	🗾 F	law value			#
	ECU_11	Enabled	BRA	AKE_SWITCH		10 Hz	- F	law value			#
	ECU_12	Enabled	BRA	AKE_PRESS		10 Hz	_ F	ressure sensor	·		bar .1
aim-sportline.com	ECU_13	Enabled	BR	AKE_PR_FR_LF		10 Hz	. F	ressure sensor	r		bar .1
© 2007 AIM SRL	LECU 1A	Finabled	RR	VAL DE LE BH		10 Hz	+	recoure cencor	,		har 1
VIA CAVALCANTI, S											

Transmit the configuration to the logger pressing "Transmit".

RaceStudio 2.55.56											
File Device Configuration Download Da	ta Import SmartyCam D	ata Analysis Device Ir	nfo Online Device C	alibration Customize S	ensor Language ?						
	🥁 System manager										
Racing Data Power	Ascing Data Payer										
AIM Sportline	AIM Sportline Current configuration										
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A <u>n</u> alysis	Select configuration Channels System configuration Display CAN-Expansions configurator										
Download Data	Speed 1 Wheel circumference	(mm) 1666 Wheel	2 circumference (mm)	1666							
	Pulses per wheel revolu	tion 1 Pulses	per wheel revolution 1								