AiM Infotech

Inductive Contrinex car speed sensor – Race Studio 2 configuration

Release 1.00









1 Introduction

This datasheet explains how to configure inductive Contrinex 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.

Device Configuration Download I	Data Import SmartyCa	m Data Analysis Devic	e into Unline Device	Calibration Customize	Sensor Language	1			
	🕌 System manager								
Racing Data Power	Tran	nsmit	Receive	KAN-Net info	Smar	tyCam Functions setting	Set acquisition system	time	
AIM Sportline	Current configuration								
World Leader in Data Acquisition	Installation name	Data logger type	Ecu	Lap Timer	Vehicle name	Available time	Time with GPS	Total frequence	су
	DEFAULT	EVO4 - 5 channels	BMW - BMW_PT6	Optical	DEFAULT	5.40.19 (h.m.	s) 4.04.37 (h.m.s)	409 (Hz)	
A <u>n</u> alysis	Colort configuration	Channels System configu	ration Dianlay CAN Eve	anniana configurator l					
	Speed1	Sp	eed2	N					
Download Data	Wheel circumference	ce (mm) 1666 Wh	eel circumference (mm)	1666					
	Pulses per wheel re	volution 1 Pul	ses per wheel revolution	1					
	r discs per vincerre		ses per vincer evolution						
Import SmartyCam	Channel identifier	Enabled/disabled	Channel name		Sampling fre	quency Sensor	type		Mea
microSD Data	RPM	Disabled	Engine		10 Hz	<u> </u>	revolution speed		rpm
	SPD 1	Enabled	Speed1		10 Hz	Speed		-	⊥ <mark>km/l</mark>
Device Configuration	SPD_2	Enabled	Speed2		10 Hz	⊥ Speed			l km/
	CH 1	Enabled	Channel 1		10 Hz		c linear 0-5 V		J V .1
	CH 2	Enabled	Channel 2		10 Hz	- Zero b	ased potentiometer		u mm
Device Info	СН 3	Enabled	Channel_3		10 Hz		100 bar (X05SNP31100R)		d bar
	CH 4	Enabled	Channel 4		10 Hz	AiM 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	- Calcul	ated Gear		#
	ACC 1	Enabled	Lateral acc		10 Hz	🔳 Lateral	accelerometer		J g .0
	ACC_2	Disabled	Longitudinal_acc		10 Hz	🔳 Longit	udinal accelerometer	-	
Device Calibration	ACC_3	Enabled	Vertical_acc		10 Hz	✓ Vertica	l internal accelerometer		۔ 0. و ا
	LOG_TMP	Enabled	Datalogger_Temp		10 Hz	🔳 Cold jo	pint		°C
	BATT	Enabled	Battery		1 Hz	Battery	1		V .1
Customize <u>S</u> ensor	ECU_1	Enabled	RPM		10 Hz	Engine	speed sensor		rpm
	ECU_2	Enabled	PEDAL_POSITION		10 Hz	Percen	tage sensor		% .1
	ECU_3	Enabled	SPEED_BMW		10 Hz	✓ Speed	sensor		km/
Language	ECU_4	Enabled	SPEED2_BMW		10 Hz	Speed			km/ł
	ECU_5	Enabled	WHEEL_SPD_FR_LF		10 Hz	I Speed	sensor		km/
	ECU_6	Enabled	WHEEL_SPD_FR_RH	l	10 Hz	Speed	sensor		km/ł
	ECU 7	Enabled	WHEEL SPD RR LF		10 Hz	Speed	repror		km/



• 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.

aceStudio 2.55.56 Device Configuration Download [Data Analysis Devic	e Info Online Devic	e Calibration Customize	Sensor Language	?	-			
AIT	System manager									
Racing Data Power	Transr	nit Eş	Receive	CAN-Net info	Sma	artyCam Functio setting	ns 0	Set acquisition system tim	e	
AIM Sportline	Current configuration		(
he World Leader in Data Acquisition	Installation name Data logger type		Ecu Lap Timer		Vehicle name Available ti		e time Time with GPS		Total frequent	су
	DEFAULT	EV04 - 5 channels	BMW - 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 System configu	ration Display CAN-Ex	pansions configurator						
	Speed1	Sp	eed2							
Download Data	Wheel circumference	(mm) 1666 Wh	neel circumference (mm)	1666						
	A Log A Log L MAN									
	Pulses per wheel revo	olution 1 Pul	ses per wheel revolution	1						
Import SmartyCam microSD Data	Channel identifier	Enabled/disabled	Channel name		Sampling fr	equency S	ensor type			м
microso Data	RPM	Disabled	Engine		10 Hz		ngine revolu	tion speed		rpi
	SPD 1	Enabled	Speed1		10 Hz		-			- kn
Device Configuration	SPD_2	Enabled	Speed2		10 Hz	1.1				kn
	CH 1	Enabled	Channel 1		10 Hz	- D	Detonation			v
	CH_2	Enabled	Channel 2		10 Hz		evolution sp			m
Device In <u>f</u> o	CH 3	Enabled	Channel 3		10 Hz	-	ABS speed sensor AiM 0-100 bar (X05SNP31100R)			∙ ba
	CH 4	Enabled	Channel 4		10 Hz		AiM 0-10 bar (X05SNP31010R)			- ba
	CH 5	Disabled	Channel 5		10 Hz			(05SNP31004A)		- ba
<u>O</u> nline	CALC GEAR	Disabled	Calculated Gear		10 Hz		alculated Ge			#
U nine	ACC 1	Enabled	Lateral acc		10 Hz		ateral accele			- I g
	ACC_2	Disabled	Longitudinal_acc		10 Hz			accelerometer		g
	ACC 3	Enabled	Vertical_acc		10 Hz			al accelerometer		- 9 - 9
Device Calibration	LOG_TMP	Enabled Enabled	Datalogger_Temp		10 Hz		old joint	aracceleronneter		- 9 •0
	BATT	Enabled Enabled	Battery		1 Hz		attery			v
	ECU_1	Enabled Enabled	RPM		10 Hz		ngine speed	repror		rpi
Customize Sensor	ECU 2	Enabled	PEDAL_POSITION		10 Hz		ercentage se			%
/	ECU 3	Enabled	SPEED_BMW		10 Hz		peed sensor	11501		km
	ECU 4	Enabled Enabled	SPEED2 BMW		10 Hz		peed sensor			km
Language	ECU 5	Enabled Enabled	WHEEL SPD FR LF	5	10 Hz		beed sensor			kn
	ECU 6	Enabled	WHEEL SPD FR R		10 Hz		beed sensor			kn
	ECU 7	Enabled Enabled	WHEEL_SPD_RR_LI		10 Hz		beed sensor			kn
	ECU_8	Enabled	WHEEL_SPD_RR_R		10 Hz		beed sensor			km
	ECU 9	Enabled	STEER_ANGLE		10 Hz		ngle sensor			de
	ECU_10	Enabled	CLUTCH_SWITCH		10 Hz		aw value			#
	ECU 11	Enabled	BRAKE_SWITCH		10 Hz		aw value			#
	ECU 12	Enabled	BRAKE_PRESS		10 Hz		ressure senso	or.		# ba
	ECU 13	Enabled	BRAKE PR FR LF		10 Hz		ressure senso			ba
aim-sportline.com	ECU_13	Finabled	BRAKE DR FR RH		10 Hz		essure senso			ba

Transmit the configuration to the logger pressing "Transmit".

RaceStudio 2.55.56									
File Device Configuration Download I	Data Import SmartyCam I	Data Analysis Device I	nfo Online Device C	alibration Customize S	ensor Language ?				
	🔛 System manager								
Receive Receive CAN-Net info									
AIM Sportline	Current configuration								
The World Leader in Data Acquisition	Installation name	Data logger type	Ecu	Lap Timer	Vehicle name	Available time	Time with GPS	Total frequency	
	DEFAULT	EVO4 - 5 channels	BMW - 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 C	Channels System configurat	ion Display CAN-Expan	sions configurator					
	Speed1	Speed	12						
Download Data	Wheel circumference (mm) 1666 Wheel circumference (mm) 1666								
	Pulses per wheel revol	ution 1 Pulses	per wheel revolution 1						