



### The Company

**AiM** is today a key player in motorsport and race data acquisition technology.

**AiM** strength is its highly specialized technological background: more than 30 software/hardware developers and engineers on a total workforce of one hundred people.

Completely internal development of:

- HARDWARE
- FIRMWARE
- SOFTWARE
- MECHANICAL PARTS

### Sectors of activity

**AiM** designs laptimers, dashes, loggers, motorsport cameras, ECUs, PDMs for all kinds of racing vehicles: from karts to cars, bikes, UTVs, ATVs, dragsters and even snowmobiles and F1 boats.





### A Worldwide Distribution Network

More than 50 official distribution organizations all over the world attend our customers with aftermarket support.

### A Technical Service on track

Our technicians give constant support on track worldwide.

### **Technical Support and Seminaries**

- Completely free of charge telephone support
- Tenth of seminars per year both in Europe and in US
- Free weekly webinars on all the most relevant subjects related to our products

# Comparison chart































	Solo 2	Solo 2 DL	MXm	MXS 1.3	MXsl	MXP 1.3	MXG 1.3	MXT 1.3	MXS 1.3 Strada	MXP 1.3 Strada	MXG 1.3 Strada	MXT 1.3 Strada	PDM32	PDM08	SW4
TFT Display	-	-	-	5"	5"	6"	7"	10"	5"	6"	7"	10"	5″-6″-10″	5″-6″-10″	4,3"-5"
LCD Display	✓	✓	✓	-	-	-	-	-	-	-	-	-	-		
ECU Connection	-	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
CAN Connection	-	2	2	3	3	3	3	3	3	3	3	3	3	3	3
Analog Digital Input	-	-	4	8	8	8	8	8	8	8	8	8	12	6	-
Expansions	-	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
GPS Lap Timer	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Low side Digital Output	-	-	-	2	2	2	2	2	1	1	1	1	-	-	-
High Power Digital Output	-	-	2	-	10	-	-	-	-	-	-	-	32	8	-
Wi-Fi connection	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-	-	-	-	-
Recording capability	4 Gb	4 Gb	4 Gb	4 Gb	4Gb	4 Gb	4 Gb	4 Gb	-	-	-	-	4 Gb	4 Gb	4 Gb
Alarms LEDs	-	-	2	6	6	5	8	6	6	5	8	6	34	10	4
Shift lights	10	10	5	10	10	10	10	10	10	10	10	10	-	-	8
Body	Nylon fiber	Nylon fiber	Nylon fiber	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum



### Race Studio 3, where it all begins...

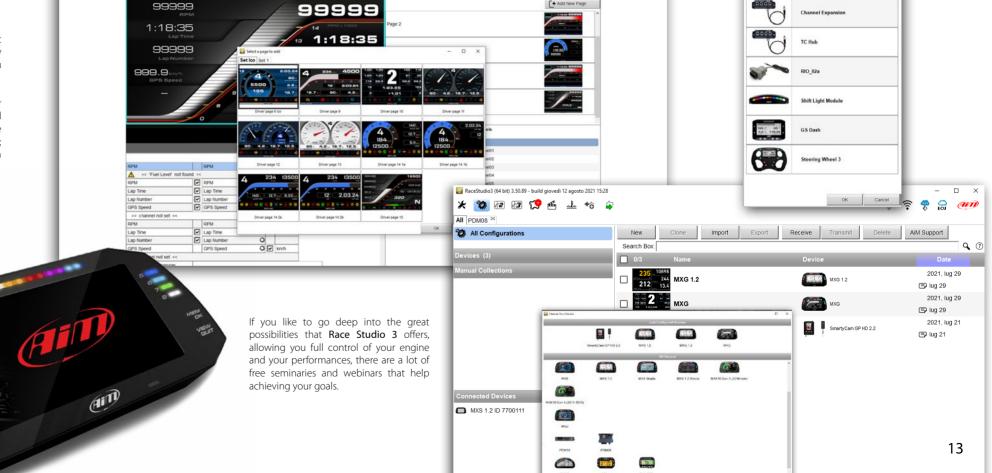
Race Studio 3 is the true 'engine' of every device, as it will manage all vour activities.

\* \* \* \* \* \*

All PDM08 × PDM32 × MXG 1.2 01 × MXS 1.2 × MXS Strada × MXS 1.201 × Save Save As Close Transmit

With Race Studio 3 you can create, modify, delete, import and export configurations with all channels, ECU drivers, math channels, display pages, digital outputs, alarms, shift lights and all the expansions you

You will also be able to manage the maps of all your racing tracks and compare two laps watching the video recorded by SmartyCam cameras. You may choose among a wide range of styles and every field may show the channel you wish; you can setup each detail and manage what to show with iust some simple steps.



Select an Expansion

9 7 A @ mn

+ Add New Page

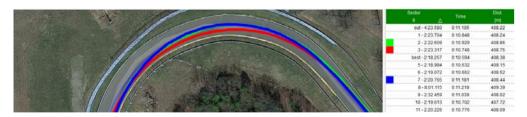


### Your performances at your fingertips

AiM Software is the "cockpit" of all our devices.

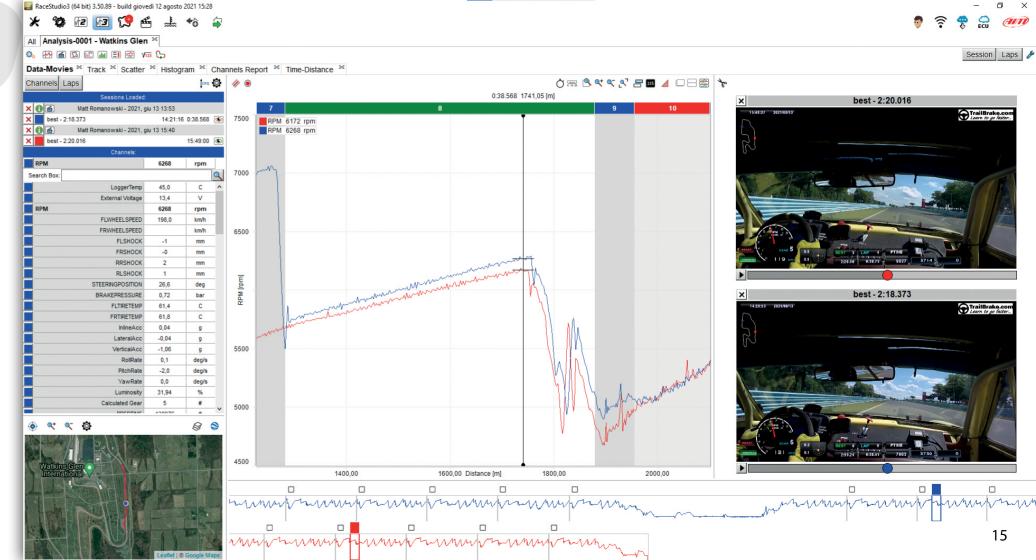
RS3 is constantly updated and developed by our team of engineers that work with great attention to details, aiming to improve user experience both in configuration and analysis as well as to propose innovative and efficient solutions to make the interaction with AiM products intuitive, customizable and reliable.

ANALYSIS 3 software enable you to analyze all data recorded by AiM devices: graphs, histograms and tables will help you studying your performances, providing an objective support to avoid mistakes and improve performances.



### Data analysis has never been so accurate

With the new ANALYSIS 3, AiM have done a huge implementations in terms of features, accuracy and user-dedicated functionalities, positioning Race Studio 3 a notch above our competitors.

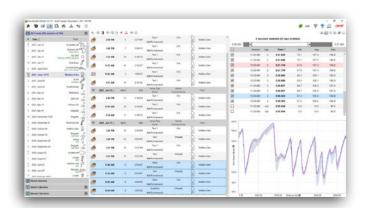




# Analysis 3 New features

### **Preview and Comparison**

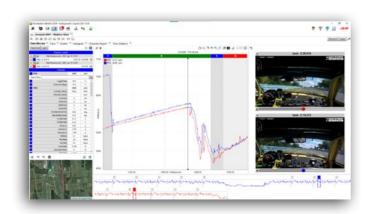
An easy and quick outlook on your sessions before opening them. Select one session to get a preview, more sessions for a better comparison.



### Smart Sync

Import your data and your videos (from any AiM SmartyCam) and the powerful ANALYSIS 3 synchronization engine will use the GPS stream to automatically link them.

Showing data and video in a dedicated view will be just one double-click away.



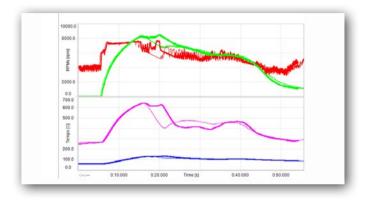
### AiM CLOUD service NEW

Now all your data and videos are available any time on all your PCs, and you may share them with your friends, mates, coaches: just synchronize your AIM CLOUD and it is done! Easy and Safe. No more import/export and old pen drives.



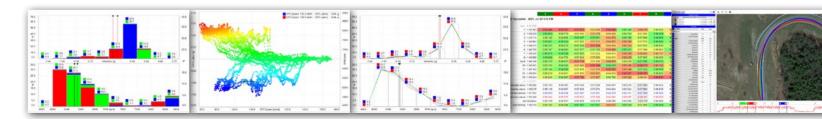
### Dedicated views for Track races, Dragster, Oval

Analyze your test using the more efficient set of views and information you need to find out how to improve your performances.



### Lots of views

A very wide range of plot/charting possibilities may help you in a deep evaluation of your vehicle or your driving style.



### **DASH LOGGERS**

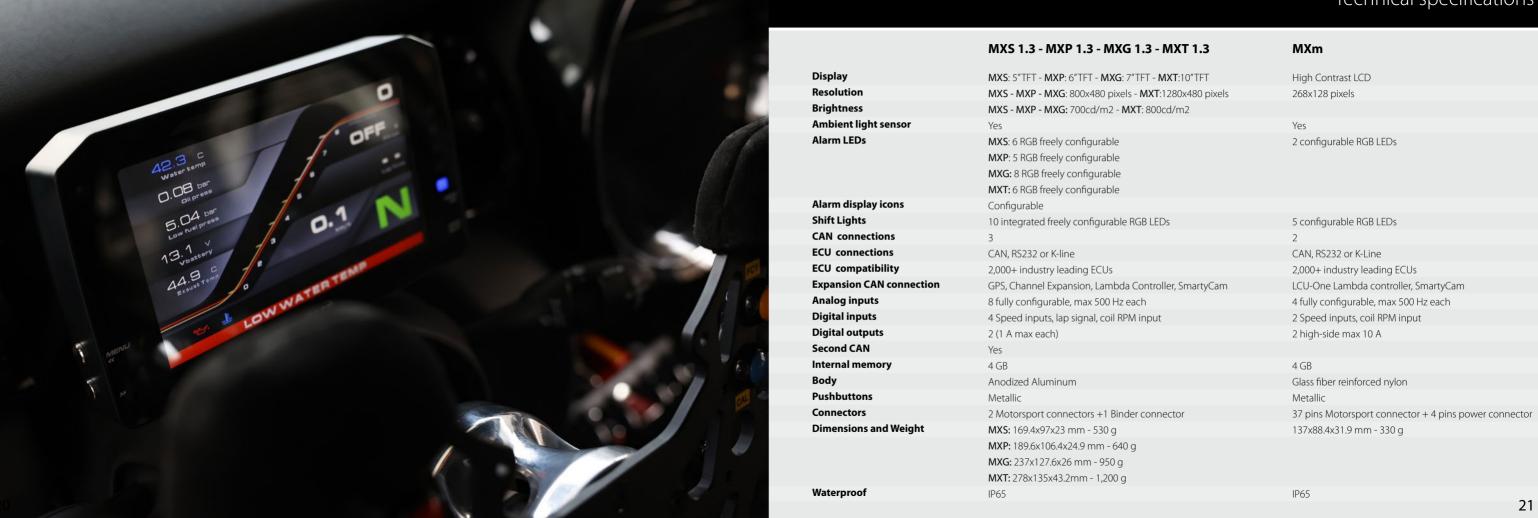
MXS 1.3 MXP 1.3 MXG 1.3 MXT 1.3 MXm

- User configurable multi page display
- RGB alarm LEDs and icons
- RGB LEDs shift lights array
- CAN connections
- Connection with 2,000+ industry leading ECUs, CAN, K-Line, RS232 protocol
- Analog inputs at a max of 500 Hz each
- Digital speed inputs
- Coil RPM input



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# Technical specifications



### TFT DASHES

MXS 1.3 Strada MXP 1.3 Strada MXG 1.3 Strada MXT 1.3 Strada

- Fully user configurable multi page display
- RGB alarm LEDs and icons
- 10 RGB LEDs shift lights array
- 2 CAN ports
- Connection with 2,000+ industry leading ECUs, CAN, K-Line, RS232 protocol
- 8 analog (0-5V, 0-12V) inputs at a max of 500 Hz each
- 1 digital speed inputs
- Coil RPM input
- Lap signal input
- Analog Camera Input
- Realtime fully configurable math channels



MX Strada dashes are available in four sizes color displays with great visual impact, configurable to show lap times and all the info coming from the Engine Control Unit, analog/digital inputs, pre-defined math channels and - optionally - the GPS09 Module.

Data sampling capability can be increased adding up to eight expansion modules.

You have been improving your driving skills but now it's time to walk the extra-mile to drop that second down! Track-Kit has been designed for it.

AiM Track-Kit allows you to unleash the full potential of an AiM MX Strada.

Composed by the GPS09 Module, a dedicated Strada Logger and the Data Hub, Track-Kit makes an **AiM** MX Strada able to log data which you can analyze through our software **Race Studio 3**.



## Technical specifications

**Display** MXS: 5" - MXP: 6" - MXG: 7" - MXT: 10"

**Resolution** MXS - MXP - MXG: 800x480 pixels - MXT:1280x480 pixels

**Brightness** MXS - MXP - MXG: 700cd/m2 - MXT: 800cd/m2

Ambient light sensor

**Alarm LEDs** MXS: 6 RGB freely configurable

MXP: 5 RGB freely configurable MXG: 8 RGB freely configurable MXT: 6 RGB freely configurable

Alarm display icons Configurable

**Shift Lights** 10 integrated configurable RGB LEDs

CAN connections

**ECU connections** CAN, RS232 or K-line

**ECU compatibility** 2,000+ industry leading ECUs

**Expansion CAN connection** GPS, Channel Expansion, Lambda Controller, SmartyCam

e. s, e. lamber Expansion, cambas controller, smarty car

**Analog inputs** 8 configurable, max 500 Hz each

**Digital inputs** 1 Speed inputs, lap signal, coil RPM input

**Digital outputs** 1(1 A max each)

Second CAN Yes Internal memory 4 GB

- 4 GD

**Body** Anodized Aluminum

**Pushbuttons** Metallic

**Connectors** 2 Motorsport connectors +1 Binder connector

**Dimensions and Weight** MXS: 169.4x97x23 mm - 530 g

MXP: 189.6x106.4x24.9 mm - 640 g MXG: 237x127.6x26 mm - 950 g MXT: 278x135x43.2mm - 1,100 g

Waterproof IP65
Track Kit Strada Logger Optional

### **DASH CONTROLLER**

### MXsl

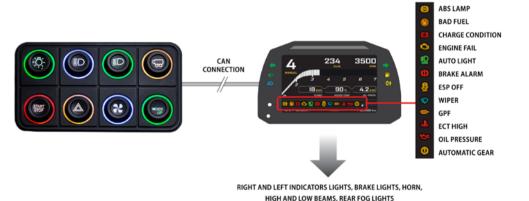
- 5"TFT Display
- 800x480 pixels resolution
- 600:1 Contrast
- 700cd/m2 1,100 Lumen Brightness
- Ambient light sensor
- 6 configurable RGB Alarm LEDs
- 10 configurable RGB LEDs Shift Lights
- 2 AMP connectors + 1 Binder connector
- Connection with 2,000+ industry leading ECUs, CAN, K-Line, RS232 protocol
- 3 CAN connections
- 8 fully configurable analog, digital pull up/down on/off - Max 1,000 Hz each
- 4 Gb internal memory
- External modules connection: GPS09 Module, Channel Expansion, TC Hub, Lambda Controllers, SmartyCam
- 2 Low Side Digital Outputs (1A max)
- 8 High Side Digital Outputs (5A max)



### Powerful, configurable and compact

MXsI is a completely configurable 5" dash controller that, beyond the typical features of a dash, like ECU connection, analog/digital Inputs, GPS management etc., offers 10 useful High-Power Outputs that can be used for directly powering motors, lights, fans, pumps, electronic devices, without any necessity of conventional relays and fuses.

The harness becomes extremely simplified and the flexibility is the status of art.



It detects shortcuts, overcurrents and open circuits, recording the faults for a complete diagnosis and showing, if required, the proper information on the screen.

Each output can be configured to be activated by a combination of math channels, analog/digital inputs, pushbuttons or ECU fields, programming even the maximum absorbed current.



# Technical specifications

5"TFT Display

Resolution 800x480 pixels

600:1 Contrast

**Brightness** 700cd/m2 - 1.100 Lumen

Ambient light sensor Yes

Alarm LEDs 6 RGB freely configurable **Shift Lights** 10 configurable RGB LEDs

**CAN** connections

ECU connections CAN, RS232 or K-line

**ECU** compatibility 2,000+ industry leading ECUs

**Expansion CAN connection** GPS09 Module, Channel Expansion, TC Hub, Lambda

Controllers, SmartyCam

8 configurable: analog, digital, pull up/down on/off Inputs

Max 1,000 Hz each

Speed Input

**RPM Input** 

**Digital outputs Low Side** 2 (1A Max)

Digital outputs High Side 10 protected (overcurrent, short circuit to GND and to

battery, overtemperature, open load detection, current

fuse programmable)

Eight 5 A outputs, two 10 A outputs

Current sense

Output PWM capable (100 Hz to 400 Hz)

Internal memory 4 Gb

2 AMP connectors - 1 Binder connector Connectors

169.4x97x23 mm Dimensions

Weight 480 g

400 mA without power output lines active Power consumption IP65

Waterproof

### **LOGGERS**

# EVO4S EVO5

- Connection with 2,000+ industry leading ECUs
- Lap signal
- Coil RPM input
- Internal 3 axis ±5g accelerometer + 3 axis gyro
- CAN output
- GPS included in the kit
- External modules connection (Channel Expansion, TC Hub, Lambda controller, SmartyCam)
- 4 GB internal memory

#### EVO4S

- 5 fully configurable analog inputs, max freq 500 Hz each
- 2 Speed inputs
- 1 Digital Output (1 A max)

#### EVO5

- 8 fully configurable analog inputs, max freq. 500 Hz each
- 4 Speed inputs
- 2 Digital Output (1 A max)
- SD card slot
- Second CAN
- Wi-Fi Connection



## EVO4S

# The powerful and flexible data logger

EVO4S is the evolution of the traditional data logger that, all over the years, has become a standard de facto acquisition system in a huge amount of championships.

With its compact aluminum body, it can be easily placed in any vehicle.

Its configuration with AiM Race Studio 3 software is simple and immediate.

# EVO5 The professional data logger

EVO5 is one step beyond. The SD card slot is the fastest way to grab data out of a vehicle when this is pitting.

Wi-Fi offers an alternative access to the unit. Two Motorsport connectors, 8 analog inputs, 4 wheel speeds and a second CAN bus complete this professional package.

# POWER DISTRIBUTION MODULES

### PDM

- New INTEGRATED Power Distribution Module
  - + 4 gigabytes datalogger
  - + Dash controller
- 5", 6" or 10" Dash
- GPS09 Module for automatic Lap Time and track position
- 3 CAN connectors

#### **PDM**32

- 28 High Side Outputs
- 4 half Bridge Outputs

#### PDM<sub>08</sub>

• 8 High Side Outputs



### PDM32 and PDM08 offer some interesting features:

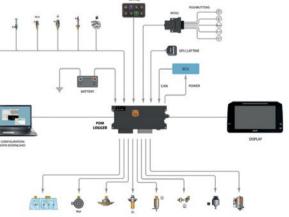
- ECU connection, for getting data from your ECU
- Datalogging, for avoiding adding another logger to your car
- · GPS Module, for having automatic lap times and track positions
- Dash controller, for easily managing a 5", 6" or 10" dash
- Mirror camera, for easily getting a back view while you drive your car in reverse in the paddock

# Much more than a Power Distribution Module

PDM32 and PDM08 Power Distribution Modules are designed to distribute power to multiple circuits on your vehicle, easily replacing traditional fuse and relay system.

Our PDMs are housed in anodized billet aluminum case. They are designed to handle the rigors of motorsport and include a complete professional data logger and internal dash controller.

At the center of vehicle electronics, the harness and installation are simplified and offer more control.



# PDM DASH







Both PDMs support 6", 10" and the new 5" dashes. Thanks its wide range of available graphic layouts, they are fully user configurable through our Race Studio 3 software.



# Technical specifications

	Display 5"	Display 6"	Display 10"
Display	5" TFT	6" TFT	10" TFT
Display resolution	800x480 pixels	800x480 pixels	1280x480 pixels
Contrast	600:1	600:1	1100:1
Brightness	700cd/m2	700cd/m2	800cd/m2
Alarm display icons	Yes, freely configurable	Yes, freely configurable	Yes, freely configurable
Shift Lights	10 configurable RGB LEDs	10 configurable RGB LEDs	10 configurable RGB LEDs
Alarm LEDs	6 configurable RGB LEDs	5 configurable RGB LEDs	6 configurable RGB LEDs
Connectors	1 Rosenberger	1 Rosenberger	1 Rosenberger
Body	Anodized Aluminum	Anodized Aluminum	Anodized Aluminum
Pushbuttons	Metallic	Metallic	Metallic
Dimensions	169.4x97x23 mm	189.6x106.4x24.92 mm	278x135x26.2 mm
Weight	530 g	640 g	1,000 g
Waterproof	IP65	IP65	IP65

### **LAP TIMERS**

# Solo 2 Solo 2 DL

- Graphical display
- Automatic Lap time calculation based upon GPS technology
- Wide internal track database with more than 3,000 tracks
- Automatic track recognition at power on
- Freely configurable display
- 10 configurable RGB LEDs
- Selectable race mode: speed, performance, open/closed circuit
- Internal 4 GB memory
- Rechargeable lithium battery
- Connectable to any ECU for getting and recording all ECU data (Solo 2 DL only)
- Multiple configuration management (Solo 2 DL only)
- Open/closed track creation



# The most precise and easy way to get lap times

Solo 2 laptimer receives data from two satellites constellations: GPS and Glonass.

This is a huge step forward since it is unbelievably faster and more precise than the previous version and the lap times are calculated within a maximum gap not higher than 2/100 sec.

The screen can be backlighted in one of seven available colors.

Solo 2 can rely on a database of more than 4,000 tracks all over the world: as soon as it switches on, Solo 2 identifies its position, recognizes the starting line coordinates of the track and starts sampling lap times.

In case the track is not in the database, no problem: Solo 2 realizes it and switches to autolearning mode, automatically understands the characteristics of the track and gives the lap time anyway.



# Technical specifications

Display Graphical Display resolution 238x99 pixels Up to 8 configurable Display pages Backlight 7 configurable RGB colors Shift lights/alarm LEDs 10 configurable RGB LEDs Integrated track database Yes Wi-Fi connection Yes GPS 10 Hz **External power** 12V

**Battery type** Rechargeable lithium

**Pushbuttons** Metallic

Dimensions98.0x73.7x30.2 mmWeight240 g (Battery included)

Waterproof IP65

Solo 2 DL

Memory

**ECU** connection

Multiple configuration

management

CAN, RS232 or K-Line to 2,000 + industry leading

Yes

4 Gb

	ST. 14PS RPM kni/h St. 14PS 3887 55.74	
	PAGE TESTS	

### **STEERING WHEELS**



### More than a steering wheel

- 4 Gb datalogger
- Easy and fast connection to more than 2,000 ECUs
- 8 configurable pushbuttons CAN output
- 2 free contacts pushbuttons
- 3 configurable rotary switches CAN output
- 2 Shift paddles CAN output and free contacts
- Configurable display pages
- Shift lights
- Multiple Expansions



### A logger hidden inside

SW4 is one of the most versatile steering wheels in the market, compatible with a long list of ECU protocols it benefit of all the functionalities of a logger.

Pushbuttons, shift paddle, display pages and rotary switches are only some of the configurable features.

### Available sizes



Ø 270







Ø 280 Ø 320 Ø 350

# Individually configurable pushbuttons

8 completely configurable buttons and 2 additional free contact buttons.

### Configurable LEDs

Shift lights can be configured for each gear, choosing LED color and RPM threshold values which will turn it on/off. The 4 Alarms LEDs are configurable too.

# A wide range of expansions

SW4 allows the connection of different expansions, and thanks to the GPS09 Module lap times, speed, position and acceleration are available.



### Configurable pages

The high contrast TFT display offers a wide range of possible graphic data layouts, showing all the information you needs in real time.

### Rotary switches

SW4 has 3 completely configurable rotary switches.

# Technical specifications

Diameter	ø 270 mm	ø 280 mm	ø 320 mm	ø 350 mm			
Display	4.3" TFT		5" TI	FT			
Resolution	800x480 pixels						
Contrast	800:1						
Brightness	800 cd/m2 - 1,100 Lumen						
Ambient light sensor	Yes						
Alarm display icons	Yes, configurable						
Shift Lights		8 configura	ble RGB LEDs				
Alarm LEDs		4 configura	ble RGB LEDs				
CAN connections	3						
ECU connection	CAN						
ECU compatibility	2,000+ industry leading ECUs						
CAN expansion connection	GPS Module, SmartyCam, RIO02, Channel Expansion, TC Hub, Lambda Controller, Memory Module						
Internal memory	4 Gb						
Body	Anodized Aluminum						
Pushbuttons	10 pushbuttons + 3 rotary switches (all with RGB backlights)						
Connectors	1 Autosport connector						
Dimensions	270 x 183.5	270 x 183.5 x 42.6 mm		320 x 183.5 x 42.5 mm			
Weight	2,400 g 2,600 g						
Power consumption	500 mA						
Waterproof		IF	P65				







# The videocameras designed for motorsport with real time data overlayed on videos

The new SmartyCam 3 cameras have been designed for motorsport with a single purpose: providing great videos including all the technical information that will help you improving your performance. All this in the most robust and reliable system ever.

In its new version, electronics and mechanics have been furtherly improved, and SC3 cameras are now even easier to manage.

### Configurable overlays

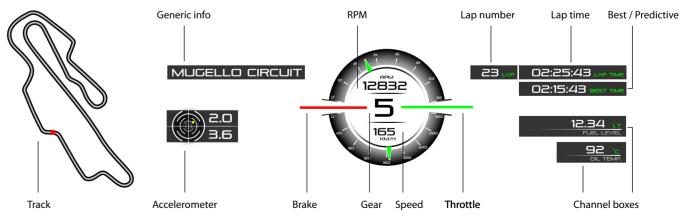
With SmartyCam 3 you can choose which information to overlay and select different styles and graphics rappresentation that AiM continuosly updates. Not enought?

In addition, you can freely move every element in the screen; no condition at all, it's all up to you.

SmartyCam 3 cameras overlay all the data you need from different sources.

- From GPS: track map and vehicle position, as well as speed, lap and split times.
- From AiM loggers connected to your ECU: RPM, throttle, engaged gear, acceleration, temperatures, pressures and - in presence of additional sensors - also their values.

All these info will be overlayed on videos in each single point of the









### **Automatic Start & Stop**

You are on the starting grid, ready to sprint, your adrenaline reaching the climax: the last thing you can worry about is... switching on the camera.

You have other things to think about, **SmartyCam 3** is aware of that. That is why it switches on/off automatically and starts/stops recording the same way.



### Designed for the extreme

An on-board camera designed for motorsport must guarantee great resistance against the extreme working conditions typical of racing and against the most adverse weather, such as: strong and prolonged vibrations, continuous rain and extremely high and low temperatures.

That is why SmartyCam 3 are IP65 waterproof and made in machinery molded aluminum, just like many competition car parts.





### No "Wave Fffect" with Global Shutter CMOS

Engine rumble causes vibrations, which are a big problem for video recording.

You will never experience again that seasick "wave effect" you get watching videos recorded by a generic camera when the car rolls at 7.000 RPM.

SmartyCam 3 cameras have been designed for that environment and for those vibrations. "Wave effect" is just a distant memory.



#### Video Output

If you need to stream your video in real time a 3G SDI output is available on SmartyCam 3 GP and SmartyCam 3 DUAL.



### High quality with small size video files

Generic HD cameras are focused on the highest pixels number. The result is that their video files are far too large, taking too much memory. SmartyCam 3 videos have the same quality as other FHD cameras but their files are smaller because the H.264 compression system parameters have been optimized to a perfect balance between video quality and file size. You can choose among three video file quality levels: one-hour recording can take 4 Gb (high quality), 2 Gb (normal) or 1.5 Gb (low).



### Full internal datalogger

All the data received from CAN and internal sensors are recorded in .mov files produced at the end of your test. Your SD (or Micro SD) Card contains all the information you need for a deep data analysis. SD card sold separately.



- Global shutter CMOS sensor
- 1920x1080 Full HD 30 fps H.264
- Support for up to 2 TB Micro SD card
- Display resolution: 128x128 pixels
- 67° / 84° angle lens
- Internal, rechargeable lithium battery 350mAh
- 9-15 Volt External Power
- -10°C/+50°C temperatures working range
- Auto Power ON/OFF
- Auto Start/Stop recording
- CAN connection to all AiM Systems



### A motorsport camera in a pocket

Pick up your SmartyCam 3 and put it whatever you want: its compact design is perfectly shaped to take as little space as possibile into your racing cockpit.









- Global shutter CMOS sensor
- 1920x1080 Full HD 60 fps H.264
- Display resolution: 128x128 pixels
- 67° / 84° angle lens
- Internal, rechargeable lithium battery 350mAh
- 9-15 Volt External Power
- Support for up to 2 Tb SD card
- -10°C/+50°C temperature working range
- Auto Power ON/OFF
- Auto Start/Stop recording
- USB Type-C connection
- Internal and external Microphone
- CAN ECU



### The Benchmark of Motorsport Action Camera

**SmartyCam 3 CORSA** is the new version of SmartyCam HD, one of the most appreciated and well known racing product in the motorsport world.

All the great features that racers all around the world love about SmartyCam HD are way better in SmartyCam 3. The Global Shutter is now even more performing, the quality of video is Full HD and up to 60 fps, the exclusive overlayed data are more accurate than ever.

With the new Smart Sync feature **RS3 Analysis 3**, detects and aligns data from the file you've downloaded from any **AiM** device in just a click.

Simple, powerful, better than ever.





- Global shutter CMOS sensor
- 1920x1080 Full HD 60 fps H.264
- Display resolution: 240x320 pixels
- 67° / 84° / 120° angle lens
- Internal, rechargeable lithium battery 1,250 mAh
- 9-15 Volt External Power
- Support for up to 2 Tb SD card
- 2 Binder 712 female + 2 SMA + 1 USB-C connectors

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- -10°C/+50°C temperature working range
- Auto Power ON/OFF
- Auto Start/Stop recording
- 1 Video Output



### High quality videos from another perspective

SmartyCam 3 GP is for who needs external video and has very little space for installation. The brand new AiM Bullet Cam features an internal battery of 1,250 mAh. SmartyCam 3 GP is designed to be installed out of the vehicle, it is perfectly confortable from – 10° to + 50° Celsius and the bullet is rated IP65 waterproof to resist the most extreme and severe condition of racing.

SmartyCam 3 GP is designed to be installed in open roof vehicles where CMOS needs to be enclosed in a small, waterproof body to resist the most extreme and severe condition of racing.

### The Bullet-Cam designed for motorsport

Featuring 2 Binder 712 female connectors plus 2 SMA female connectors, the new SmartyCam 3 GP has now a 3G-SDI Output for stream. Just like its precursor, the new SmartyCam 3 GP doesn't need an ECU Bridge to acquire data from your vehicle because it can be directly connected to your vehicle ECU: plug in, play and be ready to record your on-board videos and to improve your performance analysing the data overlay!





- Global shutter CMOS sensor
- 1920x1080 Full HD 60 fps H.264
- Display resolution: 240x320 pixels
- 67° / 84° /120° angle lens
- Internal, rechargeable lithium battery 4800mAh
- 9-15 Volt External Power
- Support for up to 2 Tb SD card
- -10°C/+50°C temperature
- working range
- Auto Power ON/OFF
- Auto Start/Stop recording
- 1Video Output
- 2 Video Input
- Autosport connector
- Ethernet 1 Gigabit
- USB Type-C
- CAN ECU connection
- Expansion CAN connection



### If One is great, Dual is Better

**SmartyCam 3 DUAL** is the flagship version of **SmartyCam 3** range, designed for any racer who wants to get the most out of his performance video on the track.

**SmartyCam 3 DUAL** features two 60 fps video inputs, 3G-SDI video output for streaming, USB-C and Ethernet data transfer, ECU connection.

Those are only few of the features of this exclusive version of SmartyCam 3:

the most powerful of our range.





# RANGE



# Technical specifications

	SPORT	CORSA	GP	DUAL			
Video format	H.264 1920 x1080 px @ 30 fps		H.264 1920 x1080 px @ 60 fps				
<b>Display Resolution</b>	128 x12	8 pixels	240 x 320 pixels				
Field of view	67° /	′ 84°	67° / 84° / 120°				
Internal battery	Rechargeable lithium battery						
External power	9-15 Volt						
Supported SD card	Up to 2 Tb (Micro SD)	Up to 2 Tb (SD)					
Internal SSD memory	-		Up to 64 G	b (optional)			
Accelerometer		Three-ax	kial ± 16G				
Connectors	1 Binder 712 female	3 Binder 712 female 1 USB-C	2 Binder 712 female 2 SMA female 1 USB-C	1 Autosport 2 SMA bullet 1 SMA - 3G-SDI Video out USB-C			
Temp. working range		-10°C	/+50°C				
Auto Power ON	Yes						
Auto Power OFF	Yes						
Auto Start/Stop Recording	Yes						
Video Out	-		3G-SDI				
Bullet cable lenght	- 2.0 m						
Body	PA6 + 30% Glass reinforced Anodized Aluminum		Anodized Aluminum				
Dimensions	cions   70.0 v 54 v 46.5 mm   102.2 v 63 v 46.5 mm   1 102.2 v 63 v 46.5 mm		Main unit 154.4 x 109.6 x 42 mm Bullet camera 24 diam x 48.2 mm				
Weight	200 g, battery included	280 g, battery included	Main unit 320 g Bullet 45 g	Main unit 800 g Bullet 45 g			
Waterproof	IP65						

# **MOTOCROSS ECUs**



- Plug & Play
- High technology 32-bit core
- Advanced Base Map
- Up to five selectable maps
- Advanced strategies
- More power at the wheel



### High technology 32-bit core

Engine control requires precision. At 20,000 RPM Taipan ECU guarantees a precision of 1/10 of degree:

this means an accuracy within 0.8 µsec for turning the spark ON!

This precision is the key to guarantee:

- A VERY CONSISTENT ENGINE ROTATION
- THE POSSIBILITY TO REPEAT DOZENS OF TESTS AT THE BENCH ALWAYS OBTAINING THE SAME EXACT RESULT
- A PERFECT REACTIVITY AT EVERY MINIMUM CHANGE OF ANY POINT OF A MAP
- MORE POWER AT THE WHEEL

#### FULLY PLUG & PLAY MODELS FOR MOST OF THE MOTOCROSS MOTORCYCLES

See the compatible models on our website.





KTM







#### HUSQVARNA HONDA

### Up to five selectable maps

Taipan can manage up to five maps that can be selected both by OEM switches (Honda, Husqvarna, KTM) or even more easily by the **AiM** Handlebar Switch.

### **HBS** - Handlebar Switch

If you like to have a very flexible and comfortable switch, the one **AiM** proposes features 2 pushbuttons and 10 LEDs and manages the following settings:

- RUNNING MAP CHANGE
- FUEL CORRECTIONS
- TRACTION CONTROL
- LAUNCH CONTROL





TAIPAN Y is the brand-new dedicated version of TAIPAN ECU, specifically designed for Yamaha motocross motorcycles.

Our technicians are continuously developing upgrades for new models. If you don't find yours, keep an eye on our site: we are working for you!







# Advanced Base Map

A base map that immediately makes the bike more performing than the OEM control units.

# **Advanced Strategies**

Strategies can be configured for second injectors, quick shift, launch control, traction control and all the important parameters that a rider needs.



## **Extra Digital Outputs**

Two outputs, one dedicated to a second injector and another free to add another device like, for example, a water pump.









Need more info? SCAN HERE

## Technical specifications

#### Additional characteristics to the stock ECU

Additional inputs Two 0-5V analog inputs sampled at 1,000 Hz each

Additional outputs Second injector driver for high impedance saturated injectors (12 Ohm)

Second injector driver for high impedance saturated injectors (12 offi

One low side driver (1A)

**CAN connectors** 2 CAN bus, one for calibration purposes, one for expansions

(AiM handlebar switch, dataloggers, dash etc)

**Power consumption** 150 mA

Connectors

n.1 JST 04T-JWPF-VSLE-S

n.1 JST 08R-JWPF-VSLE-D n.1 JST 04R-JWPF-VSLE-S

n.1 33 pin male

**Body** PA6 + 30% glass fiber

 TAIPAN
 TAIPAN Y

 Dimensions
 89.4x75.4x29.3 mm
 73.9x95.1x30.4 mm

 Weight
 260 g
 230 g

 Waterproof
 IP67
 IP67



- Plug & Play
- High technology 32-bit core
- Advanced Base Map
- Up to five selectable maps
- Advanced strategies
- More power at the wheel



# following settings:

RUNNING MAP CHANGE

Full control in your hand

Now you are able to select the best map for every situation, in every moment, just using your thumb. The new AiM HBS Handlebar switch features 2

pushbuttons and 10 LEDs and manages the

- **FUEL CORRECTIONS**
- TRACTION CONTROL
- LAUNCH CONTROL



# The ECU designed and developed for the ATV world

YARARA is the brand-new aftermarket plug & play ECU developed by AiM, exclusively designed for ATVs. Thanks to its high technology 32-bit core, YARARA is the best solution to improve the performances of your ATV. Yarara is specifically designed for ATV Yamaha YFZ450R model year 2021-2022



# Technical specifications

#### Additional characteristics to the stock ECU

Additional inputs Two 0-5V analog inputs sampled at 1,000 Hz each **Additional outputs** Second injector driver for high impedance

saturated injectors (12 Ohm) One low side driver (1A)

CAN connectors 2 CAN bus, one for calibration purposes, one for expansions

(AiM handlebar switch, dataloggers, dash etc)

Power consumption 150 mA

n.1 JAE male 18 pins Connectors

n.1 34 pins male

Body PA6 + 30% glass fiber Dimensions 141.5x84.3x26.9 mm

Weight 370 g Waterproof IP67



## Channel Expansion **PEN**

- 4 configurable analog
   (or two digital and two analog) channels
- CAN connection
- PA6 30% glass renforced
- Dimensions: 44x38x19.8mm
- Weight: 50g
- Waterproof: IP65



# Enhancing your logger performance

This extremely compact CAN device provides virtually endless data acquisition system expansion options.

You can now connect **Channel Expansion OPEN** to any AiM master or any other

#### logger you already have.

You can do it through CAN, simply configuring the **Channel Expansion OPEN** via PC and the game is done!

Channel Expansion OPEN adds up to four configurable analog (or two digital and two analog) channels without occupying or modifying any of the existing system channels.

With his advanced CAN technology wiring is simplified from four cables to a single connection, thereby reducing





AiM

LOGGER

THERMOCOUPLES MULTIPLIER DATA HUB

THERMOCOUPLES [

MULTIPLIER

CAN EXPANSIONS

# Keep all temperatures of your engine under control

With AiMTC Hub multiplier four additional thermocouples can be connected via CAN to all **AiM** loggers.

Using more TC Hubs you can easily keep under control all your temperature sensors data, monitoring each single cylinder exhaust gas temperature, together with water, oil and head temperatures.

TC Hub is highly reliable, being its sampling frequency configurable up to 50 Hz per channel.

Its aluminum chassis makes it resistant and waterproof.

## **EXPANSIONS**

# **TC HUB**THERMOCOUPLES MULTIPLIER

- CAN connection to AiM loggers and dashloggers
- Supports K type thermocouples
- Dimensions: 105x33x28.4mm
- Weight:170 g
- Waterproof: IP65

### **EXPANSIONS**

# LCU-One Lambda Controller

- Sampling A/F ratio and punctual Lambda values from 0.65 to 1.6
- Wide band Bosch LSU 4.9 probe included in the kit
- Dimensions: 86.6x39x15.5mm
- Weight:170 g
- Waterproof: IP67



## High precision sampling

LCU-One can detect punctual Lambda value from 0.65 to 1.6, offering you an extremely precise measurement, very useful for engine tuning. Through the analysis of the remaining oxygen, LCU-One points out possible oxygen excess/lack in the carburetion, providing an essential information for gasoline, diesel or alternative fuel powered engines.

### Three variants to cover all needs

LCU-One range is available in three different versions:

- LCU-One CAN: uses a CAN bus and is extremely easy to install
- LCU-One Analog: uses a serial line for programming an analog output proportional to lambda value
- LCU-One CAN + Analog: equipped with both CAN bus and analog
   utbut.

To be even more user-friendly, the first two versions of **LCU-One** switch on/off together with the logger.



### **EXPANSIONS**

### Shift Light Module

- 10 configurable RGB LEDs
- CAN connection to AiM loggers and dashloggers
- Dimensions: 116x27x17 mm
- Weight: 70 g
- Waterproof: IP65

### Your shift lights where you wish

Ten completely configurable RGB LEDs to keep your engine under control. You can easily set the LED color and the RPM threshold value that turns it ON, as well as the gear number.

Shift Light Module is CAN compatible with the following **AiM** systems:

EVO4S, EVO5, MX Series.



You can set Shift Light Module as a Predictive Lap Timer as well: the LEDs bar will turn green if you are improving your best lap of the session and red if you are getting worse.



### Massive data storage for AiM devices

Memory Module is a small SD Card holder that can be connected via CAN bus to **AiM** MX series, EVO series, PDM series and loggers in order to record the data during your tests. Its management is really simple: just connect the Module to your logger and data will be simultaneously saved both in the logger and on the SD Card (not included). No configuration is needed.





The SD card can be removed and replaced even during pit stops, while the car engine is still ON, making it extremely fast to get the data during endurance races or long tests when the time at the paddock is so limited.

When the session is over, all you need to do is moving the SD card from the Module to your PC and download the data using **Race Studio 3**.

The Module features a front LED showing its recording/fw updating status.

### **Memory Module**

- Max power consumption 50 mA
- Cable length 40 cm
- SD Card (optional) up to 32 GB
- Dimensions: 55.5x78.3x18 mm
- Weight: 103 g
- Waterproof: IP65

### Strada Logger

- Max power consumption 50 mA
- Cable length 40 cm
- Supports up to 32 GB
- Dimensions: 55.5x78.3x18 mm
- Weight: 103 g
- Waterproof: IP65

### The logger module for Strada dashes

Strada Logger is a small memory module that lets you record and save all the data coming from the ECU.

The management is easy: once connected to your dash, Strada Logger start simmediately to record when it needs to be done. It doesn't really require any configuration at all.

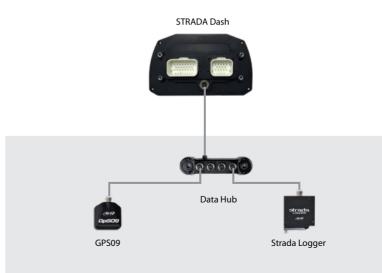
Strada Logger can gather till 32 Gb of data, which means it can record about 2,000 hours of data (at 1 KHz).

### From MX Strada to a full-working logger

Receiving and reading data while you are driving is not enough anymore?

Then it's time to step your game up with the brand new Strada Kit! The kit will turn any MX Strada into a full-working logger, able to collect data ready to be analized on Race Studio 3 Analisys to make you improve your performance, understand whether there are problems or not on your vehicle and much much more.

Reliable and easy to install, Strada Kit is just what you need to turn from an above average fast driver into a real race one!



### **EXPANSION** KIT



### **EXPANSIONS**

### **GPS09** Module GPS09 Module OPEN

- Works with 4 satellite systems
- Less than 0.5 meters (1.6 feet) average tolerance
- Signal frequency at 25 Hz
- Fast signal locking



### Another revolution has begun

GPS technology represented a true revolution in racing data acquisition.

Now another revolution has begun, thanks to GPS09 Module and Race Studio 3 software.

As you start a track session you start sampling lap and split times as well as speed, position and acceleration, all the information you need for engine tuning as well as for improving your driving technique.

### Benefits:

- LESS THAN 0.5 METERS AVERAGE TOLERANCE
- SATELLITE SIGNAL IS LOCKED VERY RAPIDLY
- SIGNAL FREQUENCY AT 25 HZ.
- READY TO OPERATE.
- SIGNAL CONTINUITY.





All the qualities of GPS09 now feasible for who already has device for data acquisition.

GPS09 OPEN is available in two versions:

#### CAN

- GPS measures stream up to 25Hz
- programmable CAN bus stream

#### SERIAL - RS232

- NMEA standard messages stream up to 25Hz
- programmable RS232 bus



DPEN

Gp\$09

(HiII)

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	MMEA - Standard - GGA : Global positioning system fix data			
	MREA - Standard - GLL: Latitude and longitude, with time o	25	:	
	MMEA. Standard GNS: GNSS fix data	25	:	
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	MMEA - Standard - GSA : GNSS DOP and active satelline	25	:	
	MMEA - Standard - GST : GNSS pseudorange error statistics		:	
	MMEA - Standard - GSV : GNSS satellites in view	2	:	
	MMIA - Standard - RIM : Return link message(RIM)	25	:	
1280	MMEA - Standard - RMC   Recommended minimum data	20	:	
	MMEA . Standard . VLW : Dual ground / water distance	25	:	
	MMEA - Scandard - VTG : Course over ground and ground sp	20	:	
	MREA - Standard - ZDA : Time and date	25	:	
	NMEA - Standard - TXT : Text transmission	25	:	



### **DASHES**

### **GS-Dash**

- Display resolution: 268x128 pixels
- Backlight: 7 configurable RGB colors
- Ambient light sensor
- Five RGB LED configurable shift lights
- Four configurable alarm LEDs
- Fully configurable display pages
- Aluminum Body
- Metallic pushbuttons
- Dimensions: 127.8x82x22.2 mm
- Weight: 380 g
- Waterproof: IP65



### The Compact Display for EVO4S and EVO5

GS-Dash has been designed to show data sampled by EVO4S and EVO5.

With this compact but with wide graphical display you can visualize all data coming from your vehicle's ECU, from the accelerometers and from the GPS, as well as from your custom sensors.

### Easy and immediate readability

To maximise readability of data, you need plenty of room. That is why GS-Dash features a wide 268x128 pixels graphical display.













# **UTV** systems

AiM has created a line of products specifically designed for utility task vehicles due to the perpetually growing popularity of off-road recreational and sports activities. The different and extreme conditions of use of UTVs have led AiM to search for products that can provide optimal solutions in those different environments and conditions, in order to improve vehicle performance and safety.



### UTV SYSTEM GAUGES

### **MX UTV**

- Integrated GPS
- Wide display with configurable multicolor backlight
- Graphical display resolution
- Ambient light sensor
- 2 configurable RGB Alarm LEDs
- 5 configurable RGB ShiftLight LEDs
- CAN connection
- ECU connection
- 4 Gb internal memory
- 1 analog inputs
- Glass fiber reinforced nylon
- Metallic pushbuttons
- Rechargeable Lithium Iones Battery
- Wi-Fi connection
- Single point sensor
- Waterproof: IP65



### The gauge for UTV vehicle

**AiM** has specifically developed MX UTV for all those wild off-road racers that crave for adrenalin and freedom but still need data to get the best out of their vehicles.

Speed, RPM, laps and the belt temperature, which is beyond doubs mainly important to avoid dangerous transmission breaks, are all shown through the wide LCD display which also features alarm LEDs and an ambient light sensor that keeps the backlight at optimum brightness levels.

Following the "User-Friendly" philosophy, MX UTV let its users choose the ECU connection directly from the device without the need to configure it via our Race Studio 3 software: AiM MX UTV is completely plug-and-play.

Thanks to the secure 802.11 Wi-Fi connection, download data has never been this easy: no need to move your PC close to the vehicle anymore, you can do it from your van up to 50 meters away. Such a perfect option while you're off-roading.





### Dedicated design

MX UTV is a gauge designed for being installed on an UTV vehicle. It samples and shows:

- CHANNELS COMING FROM THE VEHICLE FCU.
- ONE TEMPERATURE VALUE THAT CAN BE BELT OR, ACCORDING TO THE ECU OF YOUR VEHICLE, OIL TEMPERATURE OR OIL PRESSURE

Lap time, with the precision of 1/100 sec and all parameters coming from GPS and Glonass constellations: speed, position, lateral acceleration and time of the day.

### **GPS** receiver

The GPS receiver has been tuned for our sport and can thereby stand all lateral and longitudinal accelerations, direction changes and vibrations without problems, always giving a perfect result ten times per second (10 Hz).

MX UTV uses both GPS and Glonass data to compute lap times.

In case the track in which you are racing is included in the MX UTV database, it automatically recognizes it, gets the start/finish line and calculates lap times with high precision.

All these data are stored in a huge 4 Gb internal memory, that can record your data for thousands of hours.

You can download the data recorded on your PC using Wi-Fi.

### A smart display

The wide LCD display has a freely configurable RGB backlight and a light sensor that automatically switches on the backlight with low light conditions.

The two RGB alarm LEDs can be switched on with seven different colours, different blinking patterns and custom temperatures thresholds.

Five configurable shift lights help you choosing the best up-shift moment. A very helpful alternative is to use them to indicate the real-time gap between the current lap and the best lap of the session.

You may analyse the data with Race Studio Analysis 3, the widely approved data software you can freely download from aim-sportline.com.



Technical specifications

**Display resolution** 268x128 pixels

**Backlight** 7 configurable RGB colours

Ambient Light sensor

ShiftLights5 configurable RGB LEDAlarms LEDs2 configurable RGB LED

CAN connection Yes
ECU connection Yes

**GPS** Integrated 10Hz GPS+Glonass

**Analog Inputs** 1 **Wi-Fi connection** Yes

Internal memory 4 Gb

**Body** Glass fiber reinforced Nylon

**Pushbuttons** Metallic

Connectors3 Binder connectorsDimensions137x88.4x31.9 mm

Weight 330 g Waterproof IP65

### UTV SYSTEM GAUGES

## IBTS Infrared Belt Temperature System

- RGB LED Alert: The LED starts blinking red
   when temperature exceeds the user defined level
- Anti-Glare TFT Display, sunlight readable
- Vibration proof
- Aluminum Body
- Metallic pushbutton
- Single point sensor
- Dimensions: Ø 70 x 30.3 mm
- Weight: 150 g
- Waterproof : IP65



### You can't do without it anymore

Forget about breakages, stop to be worried and just enjoy the race: that's our gauge's purpose, which makes it the most "must have" device for your UTV activities!

The kit is composed by a gauge, a sensor and the power cable. Infrared Belt Temperature System is the **AiM** device that shows an avarage temperature information of a specific controlled area.





### What the Gauge shows

The two most important information shown by the Gauge are:

- Temperature information from the Infrared Single point temperature sensor, recorded once every 10 seconds, saving the maximum measured temperature in that period of time
- The external supply voltage









### Temperature. No more fear

It is possible to set two different thresholds for the temperature: a Warning level and an Alarm level.

Normally shown in white, the Gauge will display the temperature value in yellow when it rises above the warning level a message will appear at the top of the screen and a red LED will start blinking.

When the temperature rises above the Alarm level, reaching that critical point when the belt could melt and break due to the highest temperature, the Gauge will display the value in red, a message will appear at the top of the screen and a red LED will start blinking.

This way the driver will always know when it's time to cool down their vehicles and so saving the essential parts.

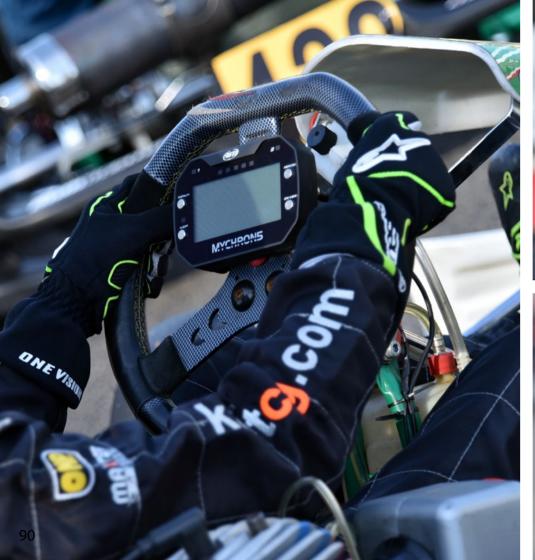
### Recall your previous test

From online page it is possible to access Data Recall section, for revisiting the data of the last 25 tests.



### Technical specifications

Display resolution 160x128 pixels Display 1.8", Anti-Glare, Sunlight Readable RGB LFD Alarm LEDs Anodized Aluminum Body Metallic Pushbuttons Dimensions Ø 70 x 30.3 mm Weight 150 g Waterproof IP65









# Karting systems

Just like many of the greatest drivers, AiM started "karting" when was a young company and quickly beca

me the undisputed leader in Karting accessories.

Dedicated accessories for Karting are constantly developed to obtain the best products to help driver continuosly improve his results.



### **KARTING SYSTEMS**

### MyChron5S

- Integrated GPS
- Wide display with configurable multicolor backlight
- Graphical display resolution
- Completely configurable pages
- Calculated Gear Number
- 2 configurable RGB Alarm LEDs
- 5 configurable RGB ShiftLight LEDs
- Glass fiber reinforced nylon
- Metallic pushbuttons
- Rechargeable Lithium Iones Battery
- Wi-Fi connection
- Compatible with MyChron4 add-ons
- Waterproof: IP67



### The most precise and reliable GPS ever

MyChron5S integrated GPS samples lap times as well as speed, position on the track and acceleration... with a reliability simply not comparable with traditional tools and even with previous GPS systems.

The system adds to the GPS satellites signal the Global Navigation Satellite (Glonass) system signal: an average of almost twenty satellites working in conjunction, that quarantees MyChron5S GPS absolute precision.

MyChron5S GPS can recognize the finish line coordinates of hundreds of kart tracks all over the world. Opening Race Studio 3 software you will see the huge list of tracks included in AiM database: you will be able to create your own collection, adding/removing tracks.

So, immediately after switch-on, MyChron5S GPS will determine its position, identify the track,

start loading start/finish line coordinates and start sampling lap, predictive and split







### Completely configurable pages

Designate as many pages as you wish, showing graphic bars or just digits, via software or directly on your system.

In case your kart is a shifter kart, you can decide to show the gear number, automatically calculated keeping the gear for at least three second while you are driving.

### Ambient Light Sensor

Brightness of the display is automatically adjusted according to the environment light providing optimum viewing in several lighting condition.

### MyChron5S 2T

Like its predecessor, MyChron5S 2T gives the chance to control two engine temperatures instead of one, coming from thermocouples or thermoresistors

### Shift Lights and Alarm LEDs

Five RGB shift lights can be configured for each gear, choosing LED color and RPM threshold values which will turn them on/off. They also allow RPM monitoring in a glance. All alarms are managed in a very flexible way: you choose the situation that generates the alarm, the LED behavior (blinking frequency and color) when the alarm appears and the conditions for its switch-off.

### A robust housing with wider display

The new Nylon chassis with metallic pushbuttons guarantees even more resistance to shocks and water

A great readability is ensured by the anti-scratch non-reflecting polycarbonate screen and the wider display.

### Rechargeable Lithium Battery

No problems with traditional batteries anymore: MyChron5S is powered by a dedicated rechargeable - and removable - lithium battery.

It is long-lasting (about 10 hours duration) and easy to recharge, placed on its magnetic basement connected to the power adapter. The usual external power connection is also available.

# Mariel Long Pills The Wall State State The Wall State State The Wall State State The Wall State State The Wall State The

### Wi-Fi connection

Download your data to your PC, look at the OnLine measures, upgrade your firmware and then transmit parameters using Wi-Fi connection.

### Adding CAN expansion you will get all the additional information you need:

#### LCU-One

Perfectly tuning your engine carburetion.

Compatible with

MyChron4 add-ons

### MyChron Expansion

The channel multiplier that permits to check when you brake and accelerate, as well as Power Valve behaviour.

### SmartyCam 3

For professional videos with real-time data overlayed.



MYCHRONIS



SmartyCam 3 SPORT

### Technical specifications



10 Hz GPS Integrated GPS

RPM Up to 25,000 RPM

Thermocouple/Thermoresistence Temperature

GPS based (included) Lap time

Optical or Magnetic receiver (optional)

**Inertial Platform** For steering wheel position (included)

Wi-Fi connection to PC

Memory

4 Gb - more than 3,000 hours of continuous logging

Display resolution 268x128 pixels

Backlight Multicolor, freely configurable 2 configurable RGB LEDs Alarm ShiftLights 5 configurable RGB LEDs Rechargeable 3 A Lithium Ion Battery

**Battery duration** Up to 10 hours

Included **Battery charger** 

Body Glass fiber reinforced nylon

Dimensions 137x88x30 mm

Weight 390 g battery included

Waterproof IP67

### **KARTING SYSTEMS**

### MyChron Expansion

- Sampling frequency 10Hz
- Dimensions 127x24x33 mm
- Weight 194 g

AlM MyChron Expansion channel multiplier improves MyChron5S and MyChron5S 2T (and also MyChron5, MyChron4 and MyChron4 2T) performance, thanks to four additional channels and a further CAN bus connector.

Through this last connector the systems can be connected to LCU-One Lambda controller and SmartyCam (and to GPS and Data key for MyChron4 systems).

Thanks to its specific wirings, MyChron Expansion powers the systems and their peripherals with an external dedicated battery, avoiding internal battery consumption.

MyChron Expansion features 4 inputs to connect the systems to an equal number of additional channels. All channels are extremely easily configurable as analog through the system menu to sample data coming from:

- Exhaust gas valve position sensor (very important to understand at which RPM value the exhaust port opens)
- Wheel speed sensor: the first input on the left can be configured also as digital input
- No contact brake pedal position sensor
- No contact throttle pedal position sensor (to know if and when to accelerate)
- Brake pressure sensor
- Water temperature or cylinder head temperature (PT100 thermo-resistor only)
- Steering angle potentiometer (in order to highlight over/under steering situation)
- Brake pedal potentiometer
- Throttle pedal potentiometer

MyChron Expansion represents a complete, value-for-money instrument for professional kart analysis.





### **KARTING SYSTEMS**

### Tyre Temperature Sensor Kit

- Connection to MyChron5 via IR Temperature Controller
- Output signal 0-5 V
- Field of view 35°
- Temperature range -20°/120° C
- IR Temperature Controller dimensions: 127.6x32x39 mm
- Sensor dimensions: 26.6x17.2 mm
- Sensor cable lenght: 250 mm
- IR Temperature Controller cable lenght: 400 mm



### Tyre Temperature Sensor Kit for karts

Five RGB shift lights can be configured for each gear, choosing LED color and RPM threshold values which will turn them on/off. They also allow RPM monitoring in a glance. All alarms are managed in a very flexible way: you choose the situation that generates the alarm, the LED behavior (blinking frequency and color) when the alarm appears and the conditions for its switch-off.

Temperature Controller, hosting up to 4 IR sensors.

The sensor, with a 35° Field of View, measures temperatures between -20°C and 120°C and provides a 0-5V output signal.





### MECLIPSE

- Accuracy <+/- 0.5%</li>
- Output signal 500mV/ 0 4500mV/ full range
- Temperature working range from -30°C to +100°C
- Repeatability ≤ 0.01 mm
- Operational speed ≤ 10 m/s
- Mechanical life >25 million cycles
- Waterproof IP65

### accurate resistant lightweight

### Inductive Contactless Technology

Thanks to the Inductive Contactless Technology, **ECLIPSE series** assures unmatched wear resistance; no contact means minimum wear and tear therefore no performance degradation during his life cycle.



Rod end bearing



### Linear potentiometer series

**ECLIPSE**, the new line of AiM potentiometers, is born after years of research and thanks to our experience in the motorsport world, this new series of sensors meets the needs of the car-bike racing industry.

Easy to install, our linear position sensors offer great performances in terms of accuracy, repeatability and life expectancy.

### Advanced materials

The continuous research of the best solutions for our demanding customers lead us to a new concept of sensor.

Housing is in fiberglass reinforced epoxy, a compound that features excellent resistance to mechanical stress and thermal changes, outstanding electric insulation properties, flame resistance and self-extinguishing, a perfect material for linear potentiometer purpose.

The shaft, normally made of steel, is now made in pultruded carbon fiber. This combo guarantees lightness and resistance at one time.

### A wide range

ECLIPSE series is proposed in 50, 75, 100, 125,150, 175, 200, 225, 250 mm travel range.

AiM ECLIPSE linear potentiometer end has M4x0.7mm male thread on both ends.

Quick release balljoint or rod end bearing, free wires or AiM compatible connectors, all combination available for the best mounting on any vehicle.

### Potentiometer travel

50 mm
75 mm
100 mm
125 mm
150 mm
175 mm
200 mm
225 mm

250 mm

### Technical specifications

Supply voltageVref 5 VdcSignal output500mV/0

4500mV/ full range

**Repeatability**  $\leq 0.01 \text{ mm}$  **Operational speed**  $\leq 10 \text{ m/s}$ 

**Mechanical life** >25 million cycles

**Independent linearity** ≤±0.5%

Temperature working range -30°C to +100°C

Housing Glass fiber
Shaft Carbon fiber
Weight 20÷40 q

Cable type Raychem 55M 26 AWG

Viton Sleeve

Cable length 500 mm Waterproof IP65

### **Pressure Sensor**

- Accuracy <+/- 0.5%</li>
- Output signal 0.5V to 4.5 V
- Temperature working range from -20° to 135°C
- Compensated temperature range from -10°C to 125°C
- Overrange pressure 1.5x rated pressure
- Burst pressure 3x rated pressure
- Sealing IP66
- Supply 8-16V
- Consumption <10 mA</li>
- Housing 316 stainless steel
- Sensor thread M10x1 or 1/8" NPT
- Cable length 500 mm



### A full range of reliable sensors

AIM offers a full range of sensors specifically designed and tested to interface our datalogger and able to monitor all vital parameters of the vehicle.

AIM sensors are developed to resist to the harsh motorsport environment in terms of vibration and to provide reliable data.

Engine temperature, water/oil, and tire temperature can be constantly monitored as well as oil pressure and brakes fluid pressure.

Brakes pressure can be combined with longitudinal G force analysis for determining effectiveness of braking and driver ability to use it.

New **AIM** pressure transducers have been developed to be used in motorsport, key features are:

- SMALL SIZE HEX19 OR 3/4"
- HIGH ACCURACY
- ROBUSTNESS

**AIM** pressure transducers are essential to monitor engine and chassis parameters like:

- ENGINE OIL PRESSURE
- BRAKES FLUID PRESSURE

**AIM** pressure transducers are available with different process connection:

- M10X1 MALE
- 1/8 NPT MALE
- 3/8 INCH 24 UNF DASH 3

AIM pressure transducers are available in many ranges with metric [bar] and imperial [PSI] standards:

BAR	PSI	
0-5	0-15	
0-10	0-50	
0-100	0-150	
0-160	0-300	
0-200	0-2000	

### Technical specifications

Supply	8-16V		
Output signal	0.5V to 4.5 V		
Consumption	<10 mA		
Temperature working range	from -20° to 135°C		
Compensated temperature range	-10°C to 125°C		
Accuracy	<+/- 0.5% FS		
	(CLNH combined non-linearity and hysteresis)		
Overrange pressure	1.5x rated pressure		
Burst pressure	3x rated pressure		
Sealing	IP66		
Housing	316 stainless steel		
Weight	30 g		
Cable length	500 mm		

### **Infrared Tyre Temperature Sensor**

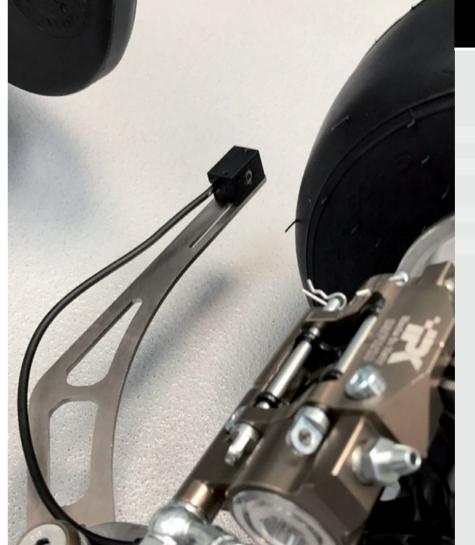
- Connection to MX and EVO series via analog inputs (direct or through Channel Expansion module)
- Output signal 0-5 V
- Field of view 35°
- Temperature range -20°/120° C
- IR temperature controller dimensions: 127.6x32x39 mm
- Sensor dimensions: 26.6x17.2 mm
- Sensor cable lenght: 250 mm



designed to measure the surface temperature of tyres, providing important info for chassis tuning, tyre exploitation, and driver behaviour.

It can be connected to MX series or EVO series analog inputs directly or via Channel Expansion. The sensor, with a 35° Field of View, measures temperatures between -20°C and 120°C and provides a 0-5V output signal.





**Output signal** 0-5V Field of measure 35° Working range -20/120°C Sensor electrical range 820 mV/-20°C 3230 mV/120°C **Sensor dimensions** 26.6x17.2 mm Sensor cable lenght 250 mm Waterproof IP65



	PIN	FUNCTION
	1	Analog signal
• 1	2	GND
	3	Not connected
	4	+Vreference

### Pressure + Temperature Sensor

- Accuracy  $< \pm 1\%$  FS / < +/- 0.5%
- Output signal 0.5V to 4.5 V
- Temperature working range from -20° to 135°C
- Compensated temperature range from -10°C to 125°C
- Supply 8-16V
- Consumption < 10 mA
- Housing 316 stainless steel
- Sensor thread M10x1 or 1/8" NPT 3/8 24
- Cable length 500 mm



### Two sensor, one installation

AiM Temperature + Pressure sensor combines in a single device the detection of both physical properties of the fluid (Oil; Air; Brake fluid; Fuel). The installation is simplified using one only sensor.

Temperature can be monitored, through pressure port when the specific one isn't available.

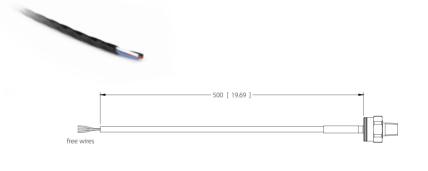
Sensor has been designed to work in harsh motorsport environment (vibrations, shocks, and high temperatures) with high reliability.

### Technical specifications

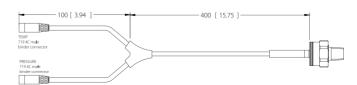
### Wirings

Cabling is available with harness as:

- Free wires
- Two 719 4C male binder connectors for AIM loggers







 $\begin{tabular}{ll} \mbox{Power} & 8-16\ \mbox{V} \\ \mbox{Temperature Accuracy} & <\pm\ 1\%\ \mbox{FS} \\ \end{tabular}$ 

 $\label{eq:pressure} \textbf{Pressure Accuracy} \qquad \qquad < \pm \ 0.5\% \ \text{FS (CLNH)}$ 

**Temp. Characterization** Pt100

**Pressure Characterization** 500 mV/ 0 bar 4500 mV/ 10 bar

**Consumption** < 10 mA

Temperature working range

Housing

Available threads M10 – 1/8 NPT – 3/8 24

from -20°C to +135°C

316 stainless steel

 Cable length
 500 mm

 Weight
 30 g

 Waterproof
 IP66





















## Plug&Play program

AiM Plug&Play program is a continuolsy growing section of ready to use products. For selected vehicles only, AiM has created dedicated dashes capable of amplifying the potential of such vehicles, thanks to the know-how acquired over the years in motorsport and data acquisition.

Our P&P producs are completely compatible with the original connector and with the original fixing points.

Plug&Play dash logger available for 2023 are:

#### LOTUS

MX2E - Kit specifically designed for Lotus Elise/Exige.

#### KAWASAKI

MXK10 / MXK10-GEN4 - Designed for Kawasaki Ninja ZX-10R.

#### SUZUKI

MXPS - Specifically designed for Suzuki GSX-R 1000.





For more info: aim-sportline.com





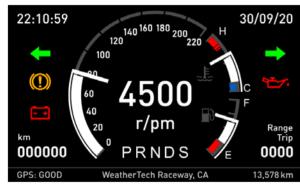








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## **OEM** program

As a world leader in motorsport racing application, AiM is proud to be an integral part of shared projects with the most important companies in the automotive and motorsport sectors. AiM is choosen by its partners for one reason: it brings value to the projects which it is involved in, thanks to its technical know-how recognized worldwide since over thirty years.

AiM means reliability, fairness and very high technological value, for OEM projects too, and much more.













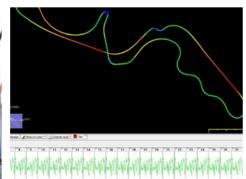














### A constant, professional after market assistance

All our systems are guaranteed for years, until the electronic components are available on the marketplace. This means that - whenever a system is down for reasons not due to incorrect use by the user - it will be fixed for free. Even if bought five-six years before.

Any doubt, call or email us: all around the world you will find an AiM technician ready to assist, for all the time needed and with no additional costs. In case of bugs (which sometimes occurs; racing conditions are so terribly different that something can be missed), you will be put in touch with the engineers who developed the system, that will listen to you to determine what did not work and the problem will be analysed and solved in a short time. Our technicians are even on track to help you correctly using our systems, changing configurations, to suggest solutions or just to replace a broken sensor. Find your local dealer browsing the huge list of **AiM** partners all over the world.

aim-sportline.com - Contact Section

















































































































































































