ALGE
TIMING

THE SPORTS TIMING EXPERTS

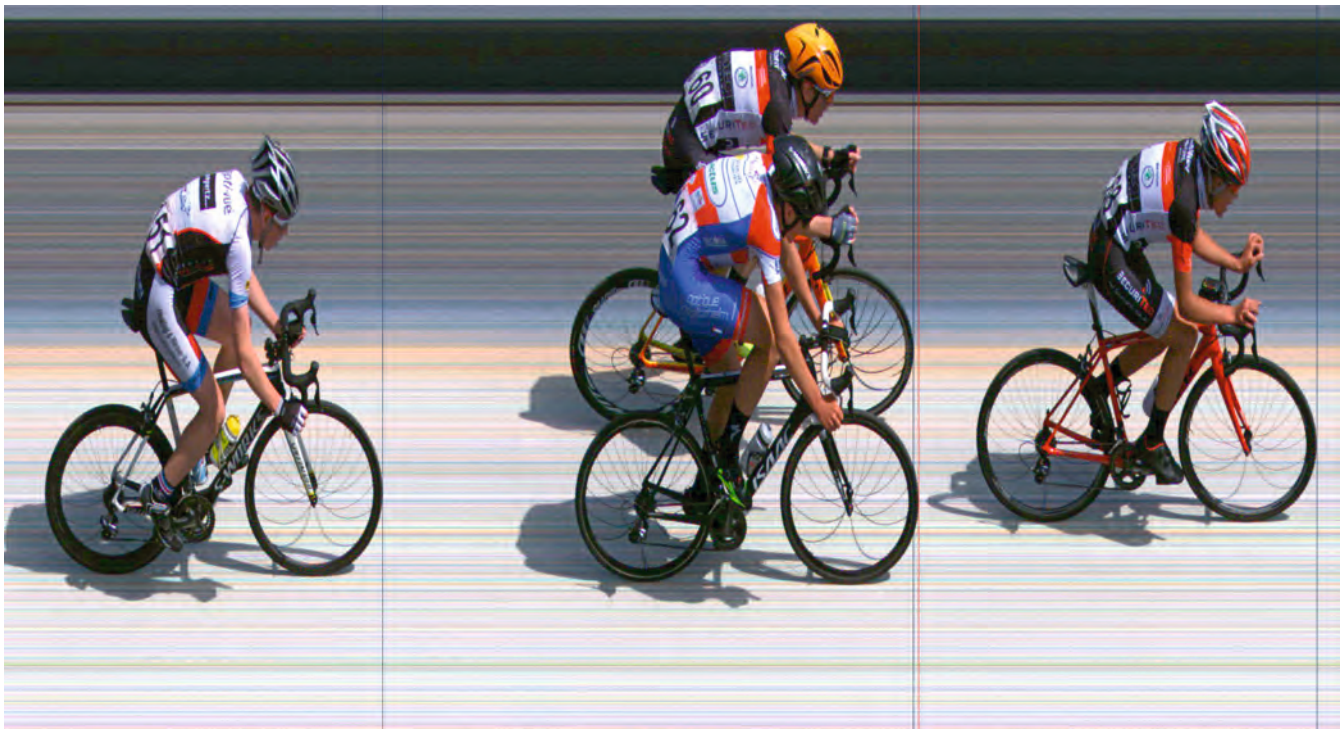
Cycling

CYCLING

CYCLING

With timing at cycling events, ALGE-TIMING has a long tradition and is very much appreciated by customers, from simple club to professional events. ALGE-TIMING timing devices are used worldwide for countless events in road race, track cycling or mountain biking.

The photo finish OPTIc3 is the ideal device for determining the winner in almost every cycling event. For track events, devices specially developed for this purpose are available, for example, the CycleStart or the start machine ST-BSM1. ALGE-TIMING has a wide range of timing devices and accessories for mountain biking which makes it much easier to pull off an event.



CYCLING - ROAD

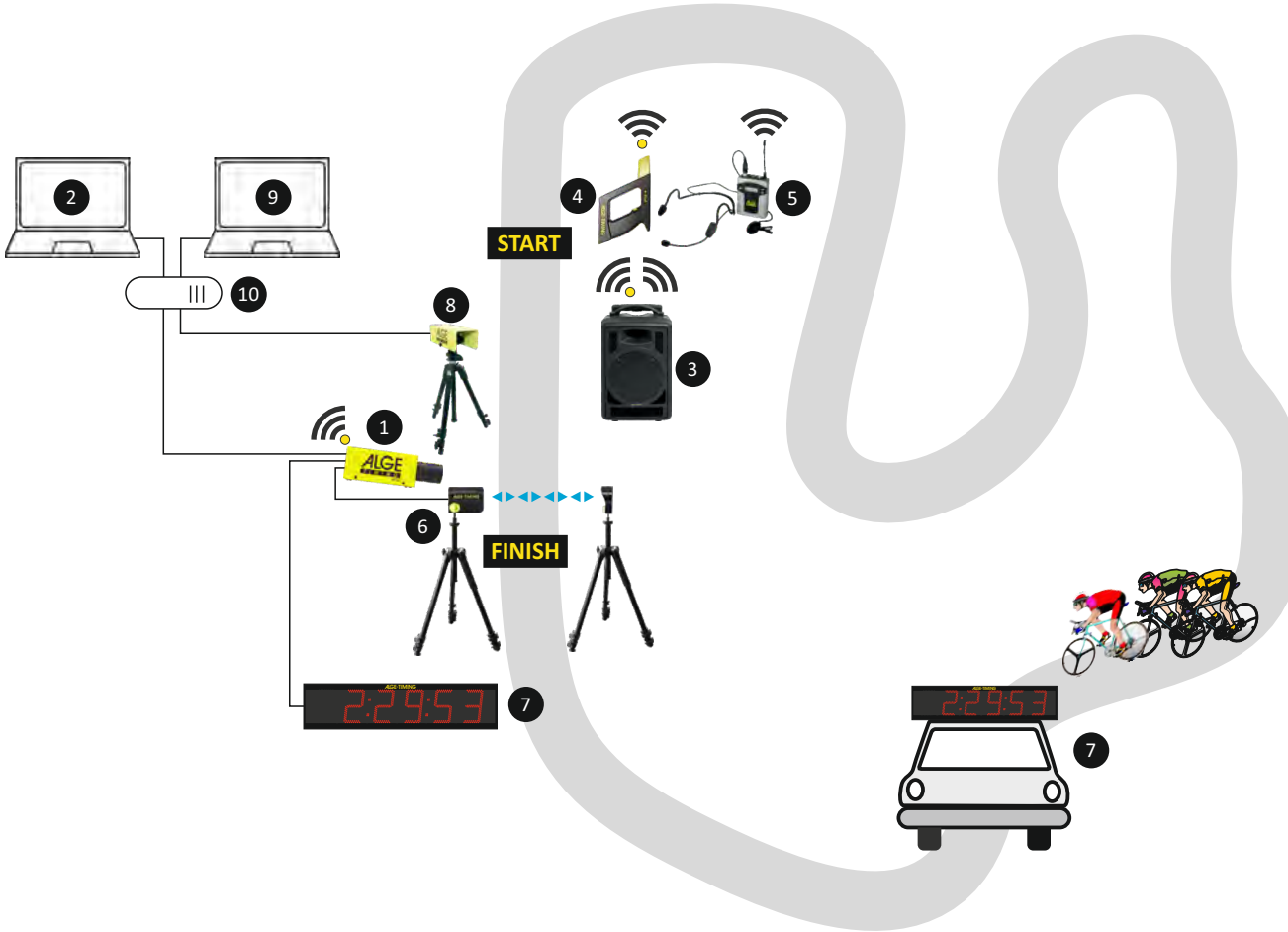
Road Races

At a road or stage race, for example, the start is triggered with the electronic start gun and a lap counter determines the number of laps at the finish line.

The display board D-LINE is mounted at the roof of the support vehicle in order to make the results visible for viewers and participants. Two display boards, which can be seen from the front and from the rear, are even more effective.

At the finish line, a photocell stops the time and controls the recording of the photo finish and the IDCam. A display board with the run time and one with the time difference can be attached to the finish traverse.

If the start is only a few hundred metres from the finish, one can set up a voice connection between start and finish. In the case of stage races where the finish is separated by many kilometres from the start, the photo finish system can be synchronized separately via a timing device, such as the Timy3.



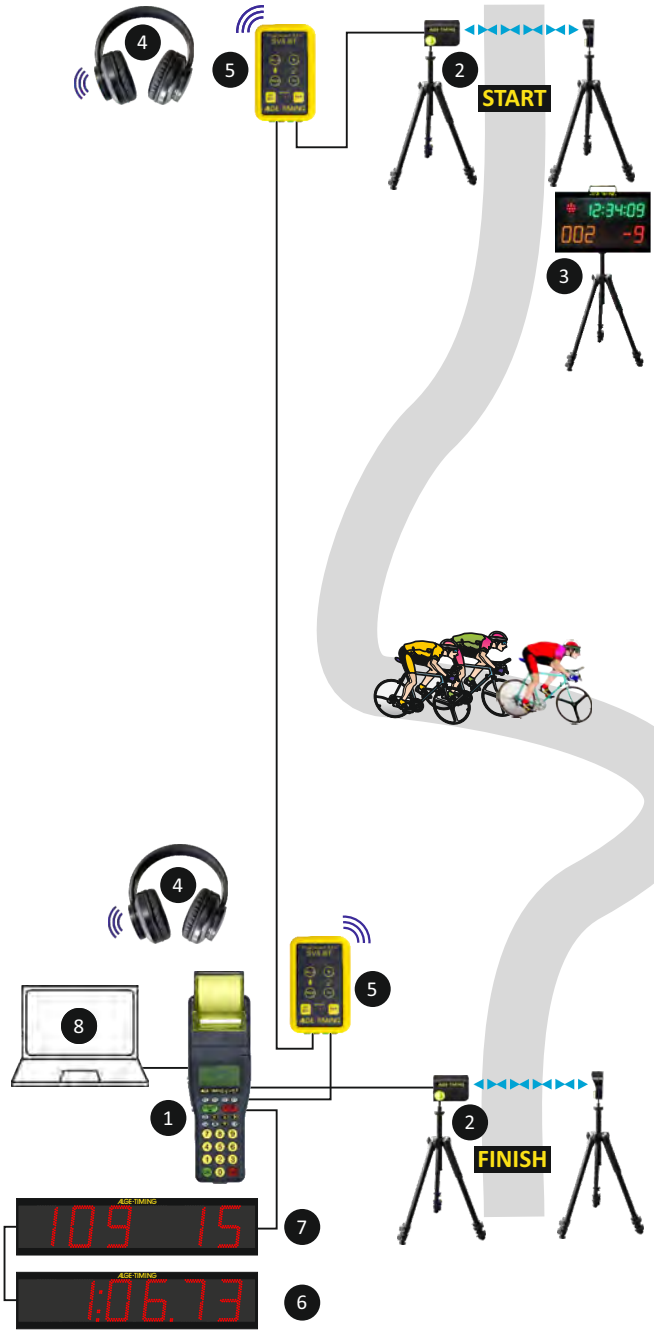
1	Photo Finish OPTIc3	5	Headset BANG-HS	9	PC for IDCam
2	PC for Photo Finish	6	Photocell PR1a-RT	10	Switch with PoE
3	Speaker BANG2	7	Display Board D-LINE		
4	Start Trigger e-Start W	8	Finish Recording IDCam		

CYCLING - ROAD

Time Trail

The Startclock ASC3 belongs to the accessories in timed races as it helps to regulate the start sequence: The time is effectively started by a tape switch at the start, measured by the timing device Timy3 PE and stopped in the finish by a photocell.

When the start is near the finish, starter and timing operator can communicate with a headset. A finish arrival announcer can tell the bib number of the arriving cyclists to the timing operator.



1 Timing Device Timy3 WP
2 Photocell PR1a-RT
3 Startclock ASC3
4 Headset HS-BT1
5 Speech Amplifier SV5-BT
6 Display Board D-LINE (time)
7 Display Board D-LINE (bib & rank)
8 PC for Result Service

CYCLING - TRACK CYCLING

General

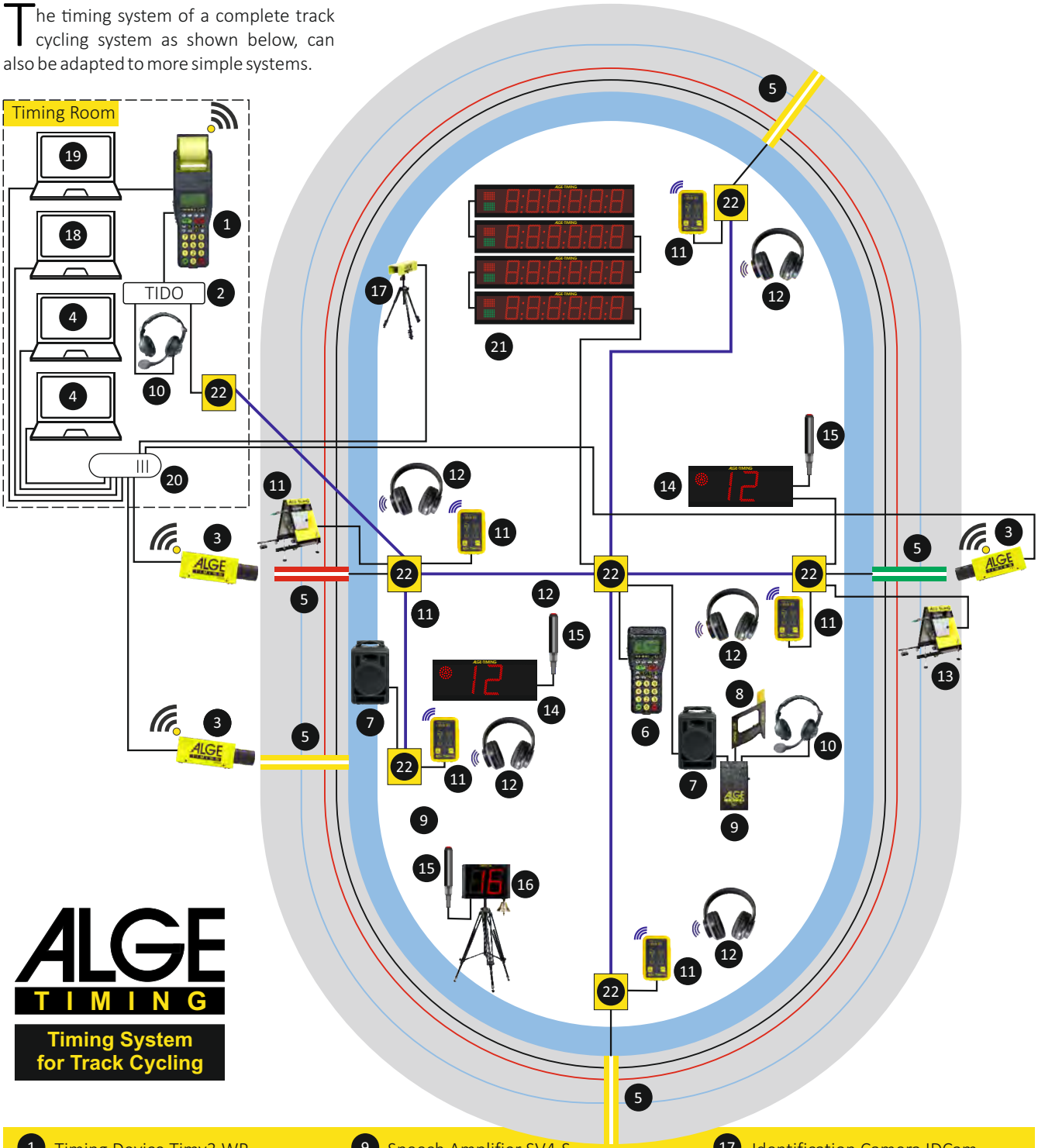
ALGE-TIMING can offer the complete technical equipment for carrying out track cycling events may they be large or small. This ranges from simple training systems to complete systems for major events.

All accessories are also available e.g. starting machines, starting display boards with countdown and cabling solutions.

CYCLING - TRACK CYCLING

Timing System

The timing system of a complete track cycling system as shown below, can also be adapted to more simple systems.



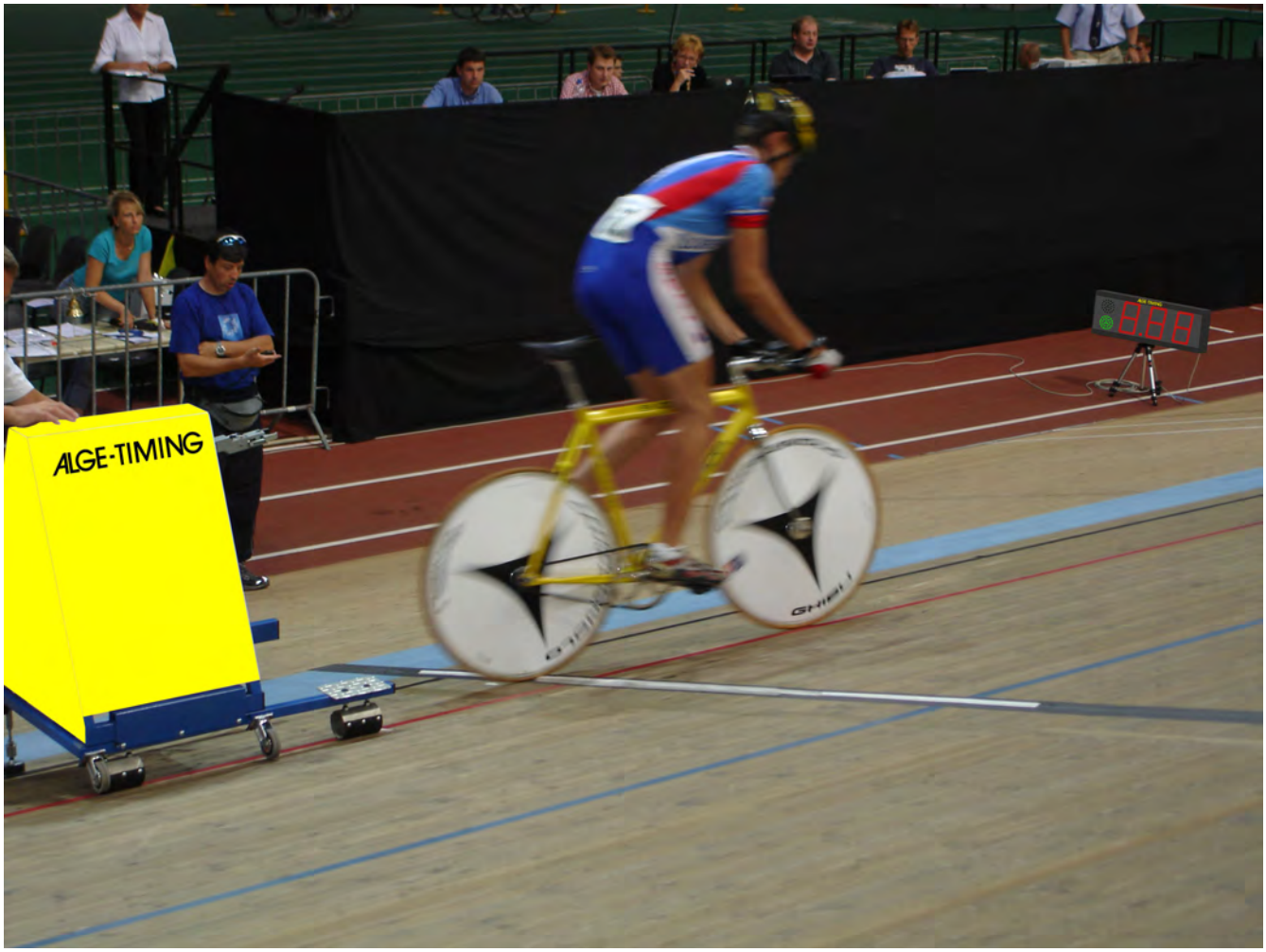
1 Timing Device Timy3 WP
2 Docking Station TIDO for Timy3
3 Photo Finish OPTIc3
4 PC for Photo Finish
5 Tape Switch ATSxY (differnt length)
6 Start Controller Timy3 W
7 Speaker BANG2
8 Electronic Start Gun e-Start
9 Speech Amplifier SV4-S
10 Headset HS4-2
11 Speech Amplifier SV5-BT
12 Headset HS-BT1
13 Cycling Starting Machine ST-BSM1
14 Cycle Start Display D-LINE250-3-RG-SP
15 Push Button 023-02
16 Lap Counter D-LC
17 Identification Camera IDCam
18 PC for IDCam
19 PC for Timing
20 Switch with PoE+
21 Display Board D-LINE250-I-6-E0-RG
22 Fix or Mobile Cabling for Stadium

CYCLING - TRACK CYCLING

CycleStart

The CycleStart is a multi-purpose system specially developed for track cycling, which can be used at the start of all competitions with electronic countdown (e.g. pursuit). The loudspeaker integrated in the display board emits the interval and start sound.

It includes all adapters for the cabling of the system. ALGE-TIMING offers fix or flexible cabling options that can be ordered as needed.



Mobile System - CycleStart CS-M

- 2 x CycleStart display board CS-DB
- 2 x tripod TRI128
- control unit Timy3 W
- power supply PS12A
- 2 x manual push button 023-02 for the lap counter
- distributor central VELO-M-B
- distributor red VELO-M-A
- distributor green VELO-M-C
- distributor sprint VELO-M-D
- distributor start 200 m VELO-M-E
- distributor timing VELO-M-F
- distributor split time 100 m VELO-M-G

Permanent System - CycleStart CS-P

- 2 x CycleStart display board CS-DB
- 2 x tripod TRI128
- control unit Timy3 W
- 2 x push button 023-02 for the lap counter
- distributor central with integrated charger VELO-P-B
- distributor red VELO-P-A
- distributor green VELO-P-C
- distributor sprint VELO-P-D
- distributor start 200 m VELO-P-E
- distributor timing VELO-P-F
- distributor split time 100 m VELO-P-G

The CycleStart CS-P does not include any cables.

e.g. distributor VELO-M-A

e.g. distributor VELO-P-C

Display Board D-LINE250-3-RG-SP

Three red LED digits show the countdown or laps. A red/green traffic light switches from red to green. When the cyclist is allowed to start, or indicates the cyclist for lap counting. A built-in loudspeaker shows the countdown. The digits have a digit height of 25 cm, the max. reading distance is 125 m.

Control Unit Timy3 W

control unit for display board (countdown function and lap counter), as well as manual timing device

Distribution Boxes

The distribution boxes are installed in the stadium so that the timing devices can always be connected nearby. There is a fix wi-red and a mobile installation system.

CYCLING - TRACK CYCLING

Track Cycling Startmachine ST-BSM1

The ST-BSM1 start machine is particularly suitable for the start of pursuit races, as it releases the saddle bar holder of the cyclist on the impulse of the start device and simultaneously starts the timing system.

It is a variably adjustable pneumatic device with air compressor, which meets the most demanding requirements.

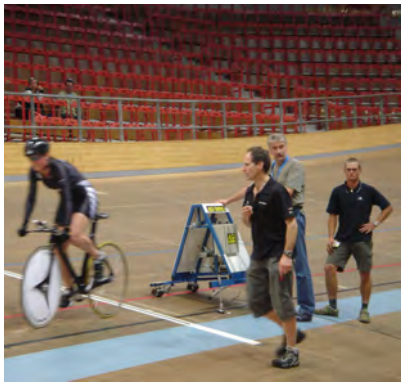
- start output (banana sockets)
- start input (banana sockets)
- connection for pressurized air compressor
- display instrument for pressurized air
- close button for the rear brake
- open button for the rear brake
- close button for the saddle holder
- open button for the saddle holder
- button for wheel support
- two operating switches
- brake for rear wheel
- brake for saddle
- wheel support for rear wheel (prevents slipping)
- internal 12V lead acid rechargeable battery
- adjustable inclination (angle of inclination)

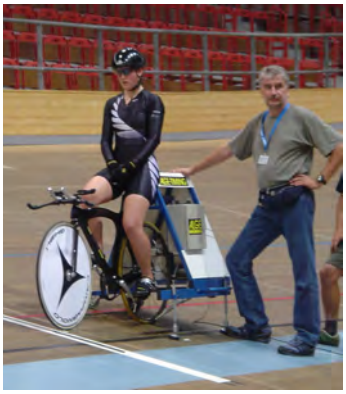
control elements

saddle bar holder

pneumatic compressor

bicycle is held on the saddle and the rear wheel, as well as supported by the rear wheel



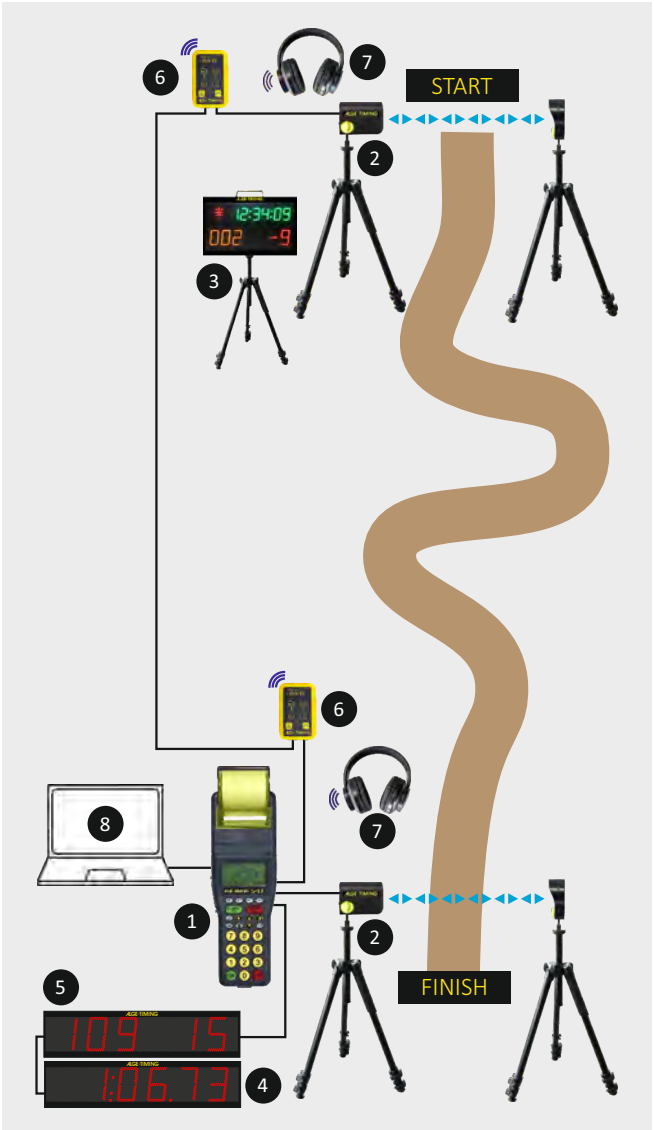


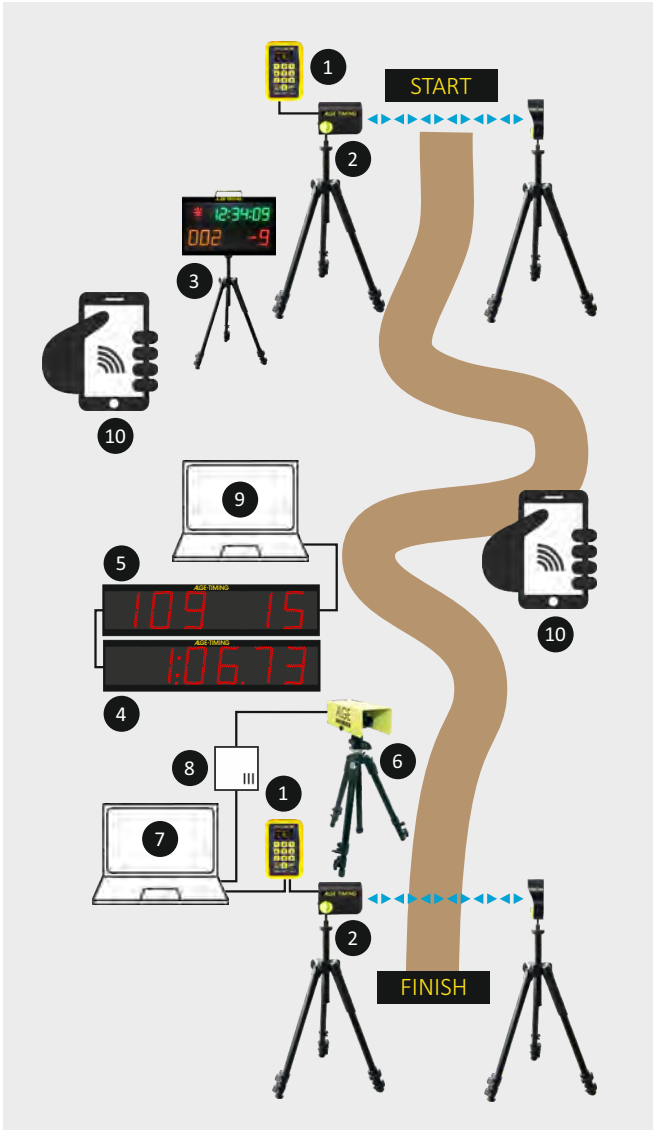
CYCLING - MOUNTAIN BIKE

Downhill

At downhill, the start can be carried out using a Startclock ASC3 and a photocell. A speech amplifier SV4-S with headset is recommended for communication with the timing operator.
In the finish, a photocell stops the time at the timing device Timy3 and simultaneously controls the display board.

Alternative we offer a system that needs no cable connection between start and finish. The timing device MT1 with integrated cellular data transmission sends the timing data to a internet server and everybody can see the timing results live in the internet (mobile phones, tablets, PC).





1. Timing Device Timy3 WP
2. Photocell PR1a-RT
3. Startclock ASC3
4. Display Board D-LINE (time)
5. Display Board D-LINE (bib + rank)
6. Speech Amplifier SV5-BT
7. Headset HS-BT1
8. PC for Result Service

1. Mobil Timing MT1
2. Photocell PR1a-RT
3. Startclock ASC3
4. Display Board D-LINE (time)
5. Display Board D-LINE (bib + rank)
6. Finish Recording IDCam
7. PC for IDCam
8. Power over Ethernet POE
9. PC for Timing Operation and Display Output
10. Mobile Phone / Tablet / PC for LiveTiming

CYCLING - MOUNTAIN BIKE

Cross Country and Speed

Mountainbike - Cross Country

The race is started with the electronic startgun e-Start. The lap counter counts the laps at the finish line. A display board shows the running time that is measured by the timing device Timy3 WP.

In case of close finish arrivals or to check the laps the photo finish system OPTIc3 and the finish arrival camera IDCam records every movement at the finish line.

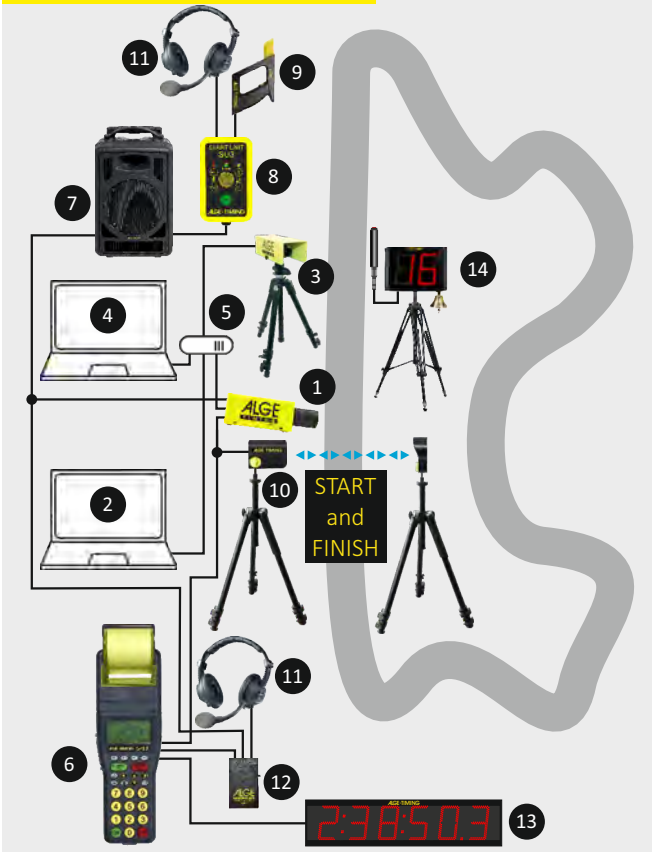
The photocell stops the time at the finish and triggers the photo finish recording and IDCam recording.

Mountainbike - Speed

The timing device Timy3 WP measures the time between two photocells PR1a-RT with a fixed distance and calculates the speed (speed = distance divided by time).

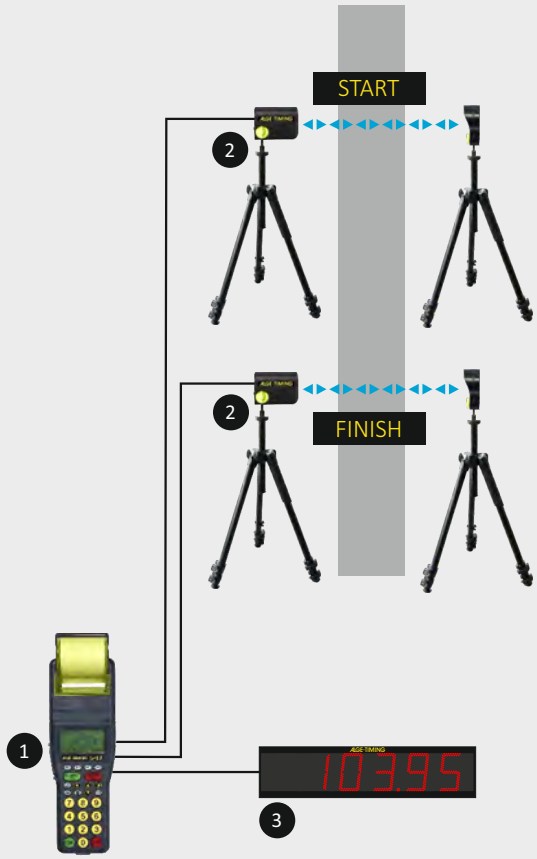
The display board shows the speed.

Mountainbike Cross Country



1. Photo Finish OPTIc3
2. PC for Photo Finish
3. Finish Camera IDCam
4. PC for IDCam
5. SWITCH with PoE+
6. Timer Timy3 WP
7. Speaker BANG2
8. Start Unit SU3
9. Electric Startgun e-Start
10. Photocell PR1a-RT
11. Headset HS4-2
12. Speech Amplifier SV4-S
13. Display Board D-LINE
14. Lap Counter D-LC

Mountainbike Speed



1. Speed Measuring Device Timy3 WP
2. Photocell PR1a-RT
3. Display Board D-LINE (speed)

TIMING DEVICES

Timy3

The ALGE-TIMING Timy3 is a compact timing device with unique high-quality technology. The Timy3 impresses with an ergonomic design and absolute reliability, thanks to its robust design.

Despite its handy dimensions, the Timy3 has a large and easy-to-use silicone keypad, which can be used in any weather conditions, even with gloves on. The printer is integrated into the Timy3 WP and logs times of the entire competition. It has an internal wireless modem of the WTN Wireless Timing Network series and an be connected via radio to all devices of the WTN series. For example, it can receive start impulses, intermediate times and finish impulses, control a display board and send data to a PC with result software. The low power consumption allows it to be used even in cold weather with internal batteries independent from mains.

The Timy3 is equipped with interfaces for communication with external devices, a USB interface, an interface for a display board, an RS232 and an RS485 interface.

Display
The Timy3 has a monochrome LCD graphic display with 128 x 64 pixels and backlight. With this, displaying up to 8 lines of text is possible. Different character sizes, and also graphic symbols for easier operation, can be displayed. The display has an extended tempera-ture range for use in extreme weather conditions (up to-20°C).

Keyad
Despite its compact dimensions, the Timy3 has a large and easy-to-use silicone keypad, with 26 keys. Even with gloves on, an easy use is ensured.

Accuracy
The Timy3 works on a ti me of day basis and records it with an accuracy of 1/10,000 seconds. That means that calculated net times of a precision of 1/1,000 seconds are exactly calculated. Highest accuracy at any temperature is guaranteed by a temperature-compen-sated quartz.

Printer
The Timy3 WP has an integrated ther-mal printer. This quiet and extremely fast printer allows easy and simple pa-per change. The transport roller is con-nected to the paper cover and saves the tedious threading of the paper.

Memory
Approximately 30,000 times can be stored with the corresponding bib and ti ming channels. The soft ware is stored in a flash memory. Updates of the soft-ware are available free of charge, via the Internet.

Casing
Particular emphasis was placed on er-gonomics and stability. The aim of the development was to bring a ti mer with all the advantages of modern tech-nology into a handy and shock-proof casing. The Timy3 is suitable both as a hand-held ti ming device and as a table device.

Connections
Regarding the wide range of possible connections with external devices, the Timy3 offers unequalled opportunities in its class and size. For example it is possible to connect several devices by the RS485 interface to work as a network.

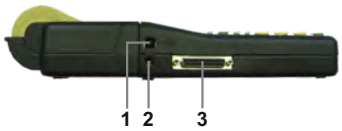
Radio Network - Wireless Timing Network WTN
An integrated WTN module allows to com-municate with all devices of the WTN series (WTN wireless radio, WTN-PB wireless push butt on, PR1aW photo-cell, WTN-DB and Windspeed WTN-WS score-board).

Software
There is a great number of programs for the Timy3. The device is able to cover the entire spectrum for ti me meas-urement starting from a hand ti mer up to the main ti mer at major events.

Timy3 Software

Backup:	timing device to measure time of day (e.g. backup or reference timer for PC)
Stopwatch:	universal timing program which is able to time more than one run (net time/total time)
TrackTimer:	timing for events which have lanes (e.g. athletics and swimming)
LapTimer:	timing program with split and sequential time
PC-Timer:	professional timer (time of day) to work with a PC
Timeout:	timing program with timeout function (e.g. show jumping)
Dual Timer:	timing program with two courses, either with simultaneous or separate start
Parallel-Diff:	timing program for parallel slalom
TV Timer:	simple timing program to control a display board or TV time insert
Speed Climbing:	timing program for speed climbing
Training Light:	universal training software with intermediate times and one racer on course
Training REF:	training software with intermediate times and more than one racer on course
Swim Trainer:	training program for swimming
Speed:	speed measurement in km/h, m/s, or mph
Commander:	terminal to control ALGE-TIMING display boards
Terminal:	terminals for judges (e.g. ski jumping, figure skating, diving, artistic swimming)
CycleStart:	start control, lap counting and backup timing for pursuit cycling
Track & Field:	to measure the windspeed for athletics with a connected anemometer WS2 and to control a concentration clock
Jumping:	training program for jumping exercises
Start-Liner:	to control the ASC3 for cross country and Nordic combination
Voting:	judge terminal for artistic swimming and diving

Timy3 W timing device without printer



Connections:

1- 1 x USB
2- 1 x power supply 8- 22 VDC
3- 1 x D-Sub 25-pin
4- 1 x pair of banana sockets- scoreboard
- 9 time measuring channels
- RS232 (PC connection)
- display board
- RS485 (network)
- power supply (8- 24 VDC in/out)

5- 1 x pair of banana sockets- start input
6- 1 x pair of banana sockets- finish input
7- 1 x DIN socket for photocell

Technical Data

Crystal frequency:	TCXO, +/-1 ppm (+/-0.00036 s/h)	Power supply:	internal: NiMH power pack 7.2 V/2 Ah or 6 x AA alkaline (only for Timy3 W)
Time resolution:	1/10,000 s		external: power supply PS12A, 12 V battery or 8- 22 VDC
Timing:	9 timing channels, external extension possible	Power consumption:	without printer about 100 hours
Program memory:	flash memory with 16 Mbit		with printer about 47 hours
Data memory:	RAM with 4 Mbit (about 30,000 times)	Charging time:	approx. 14 hours
Display:	monochrome LCD graphic display with backlight, 128 x 64 pixels, extended temperature range	Printer:	graphic thermal printer, max. 5 lines per second
Keypad:	silicone keypad, 26 keys	Temperature range:	-20°C to +60°C
Radio module WTN:	built-in 2.4 GHz radio, 15 adjustable frequencies and power output from 10 to 100 mW, 5 timing channels, for distances up to 350 m	Measurements:	Timy3 W: 204 x 91 x 50 mm Timy3 WP: 307 x 91 x 65 mm
		Weight (no battery):	Timy3 W: 450 g Timy3 WP: 650 g (without battery & paper)

TIMING DEVICES

Photo Finish OPTIc3

The photo finish system OPTIc3 takes over the technical market leadership. It has a recording rate of up to 30,000 frames per second (fps) and up to 2,016 vertical pixels. This makes it the per-fect timing device for any sport that relies on good photo finish images and accurate results.

Features such as 2-D images, autofocus, automatic iris adjustment, etc. make the system easy to use. The VoIP allows communication with the starter, and the timekeeper communicates without headset via microphone and speaker of the PC.

Technical Facts:

vertical resolution:	up to 2,016 pixels
scan rate (fps):	up to 30,000 frames per second
recording time:	unlimited, depends on PC hardware
timing:	temperature compensated quartz oscillator TCXO, +/-0.06 ppm at 25 °C (0.0002 s/h)
power supply:	PoE+ or 10.6 - 13.4 VDC
temperature range:	-20 °C to +50 °C

Standard network
It is a simple way to connect almost every PC via Ethernet or WLAN.

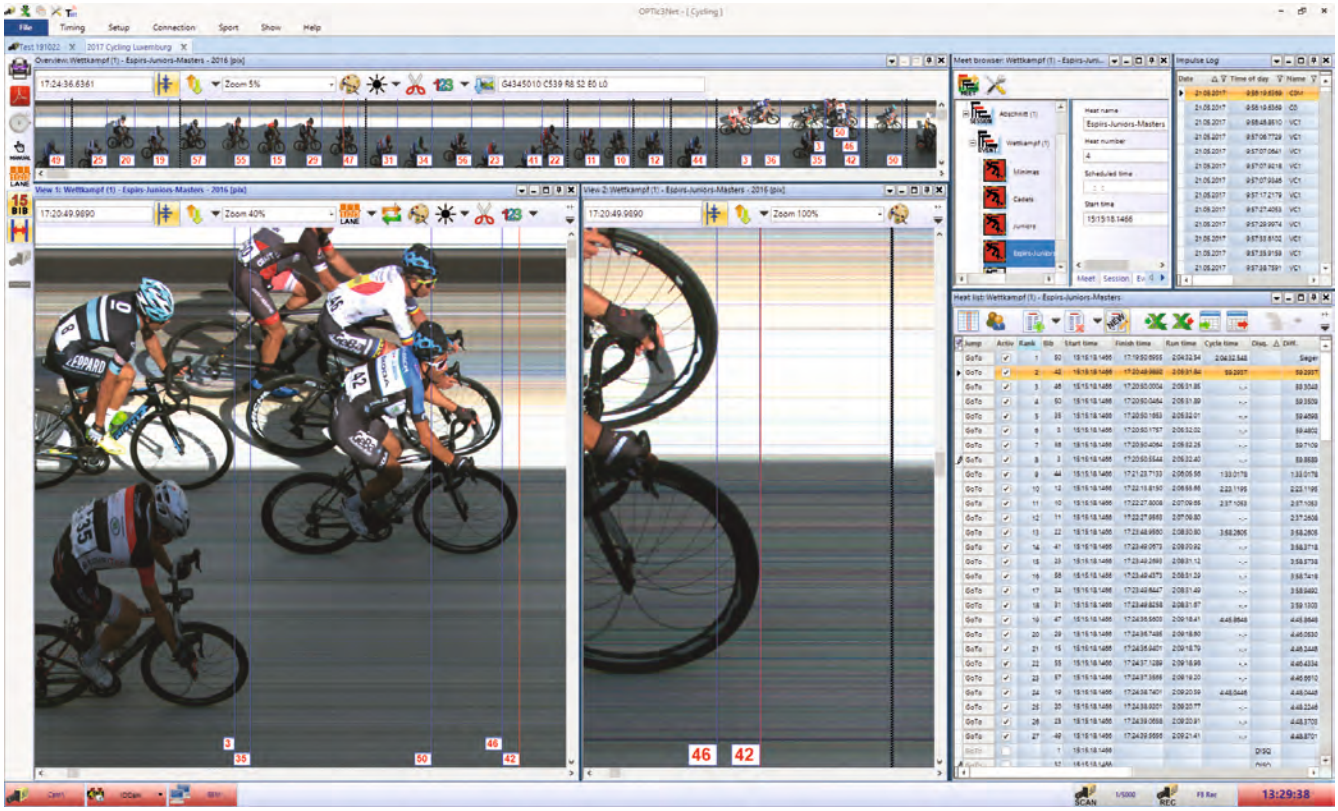
Automatic Iris Adjustment
With the motor zoom of ALGE-TIMING you can access functions such as autofocus and automatic iris adjustment.

Live View
The camera image can be viewed via WiFi on a mobile phone or tablet. This allows to adjust the lens of an OPTIc3 camera that is placed far away from a PC and has no motor zoom in an easy, fast and precise way.

2-D Image Adjustment
With the new 2-D image adjustment (maximum 2,016 x 360 pixels), you can accurately align the camera on the finish line in a very short time.

High-Speed Camera with 2-D Images
With 2-D mode with 100 Hz (100 fps) and full-screen mode, the OPTIc3-PRO is ideal for sports such as swimming and rowing. Since the OPTIc3 has a built-in timing device, exactly synchronized 100 frames per second can be guaranteed.

PC Software
The modern, powerful evaluation software for the OPTIc3 enables quick and easy results. It is also possible to record on one PC and execute the evaluation on another. Following operating systems are supported: Windows 7, Windows 8.x, Windows 10, Windows 11 (x86 or x64)



The photo finish system OPTIc3 is available in two versions

OPTIc3 Basic System

photo finish system for the small budget

- recording: up to 3,000 fps
- resolution: 1,360 pixel vertical resolution
- 2-D image preview to set and adjust the camera
- free updates of the OPTIc3NET software
- an upgrade with all features des OPTIc3-PRO is possible

OPTIc3-PRO

The professional photo finish system that leaves nothing to be desired. The following features are integrated:

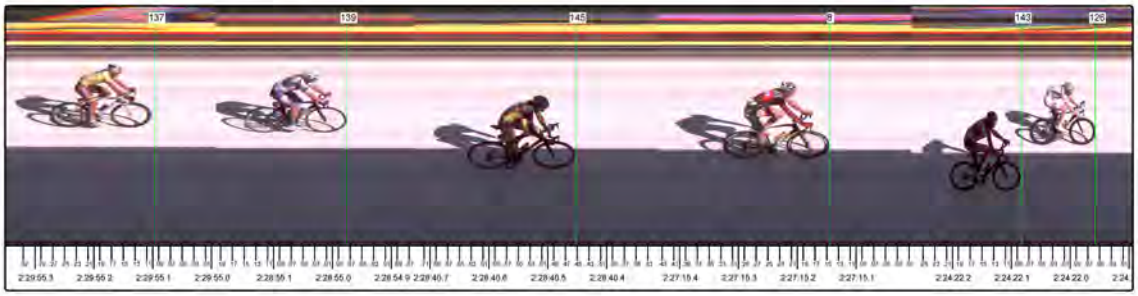
- high-speed recording: up to 30,000 fps
- high resolution: 2,016 pixels vertical resolution (48 % more than OPTIc2)
- 2-D image preview to set and adjust the camera
- eXtremLuX: various technologies for image improvement under bad light conditions
- motion detection: automatic recording with motion detection
- integrated WTN: wireless impulse and data transmission
- high-speed camera: It is possible to record 100 frames per second in the 2-D mode with a resolution of 1,024 x 768 or 360 x 2,016 pixels. The proven IDCam software is available for this function.
- VoIP: voice over IP enables communication with the starter without the PC operator having to use a headset
- recording on a PC, evaluation or photo finish control by judges possible on a second PC
- free updates of the OPTIc3NET software

Results List

Masters Cycling Classic
St. Johann im Tirol
Road / Strasse

Date: 29.08.2015
Start time: 13:35:00

Location:	St. Johann im Tirol	Distance:	65000 [m]
Organizer:	Radunion Radweltpokal	Actual start time:	13:36:39
Session name:	Road Race		



Rank	BIB	Code	Name	Nation	Time	Av. Speed
Seniors II Men						
1	126	GER19740527	WEBER JAN	GER	3:01:01.29	43,09 [km/h]
2	143	ITA19710309	MAGGIOLI ROBERTO	ITA	-,,-	43,09 [km/h]
3	145	ITA19710126	ZANCHI MARCO	ITA	4:18.49	42,09 [km/h]
4	139	IRL19750421	CHRISTIAN JOE	IRL	4:33.01	42,03 [km/h]
5	137	ITA19710927	FRESCHI ALESSIO	ITA	5:33.13	41,81 [km/h]
6	133	NED19730222	EPPING ALLARD	NED	5:45.89	41,76 [km/h]
7	153	AUT19750509	GROßLERCHER PETER	AUT	-,,-	41,76 [km/h]
8	146	POL19720303	PYZIK PAWEL KAZIMIERZ	POL	-,,-	41,76 [km/h]
9	123	GER19751128	JAHN MARIO	GER	-,,-	41,76 [km/h]
10	147	SUI19720506	MONBARON PASCAL	SUI	-,,-	41,76 [km/h]
11	142	CZE19741011	BOESE MARTIN	CZE	-,,-	41,75 [km/h]
12	149	GER19750523	RAIEN NEJAD MOJTABA	GER	-,,-	41,75 [km/h]
13	128	GBR19710609	MORRIS SIMON	GBR	-,,-	41,75 [km/h]
14	135	POL19740815	LUKASZ ZAKIELARZ	POL	5:55.86	41,72 [km/h]
15	151	SUI19720819	JENAL ROBERTO	SUI	-,,-	41,72 [km/h]
			Disqualification			
	148	ITA19731120	CLAUDUS ORAZIO	ITA	Disqualifikation	
	130	NED19710913	VAN DER WERF THEO	NED	kein Ziel	

Cominique:	StNo. 148, missed 1 lap
Started:	31
Finished:	28
Nations:	13
Not at Start:	1
Not in Finish:	1
Disquailified:	1
Weather:	Sunny, 28°C

Photofinish: ALGE-TIMING OPTIc2
Software: ALGE-TIMING OPTIc2.NET

2016-07-26 / 11:55

ALGE-TIMING

Timing: ALGE-TIMING
http://www.alge-timing.com

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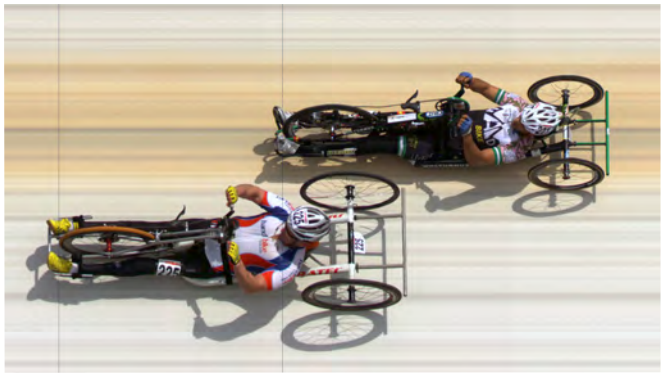
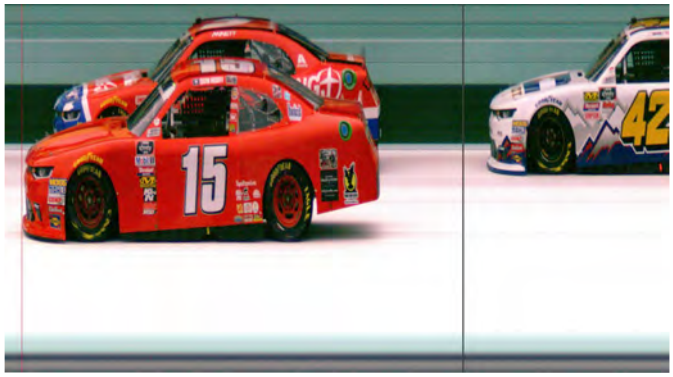
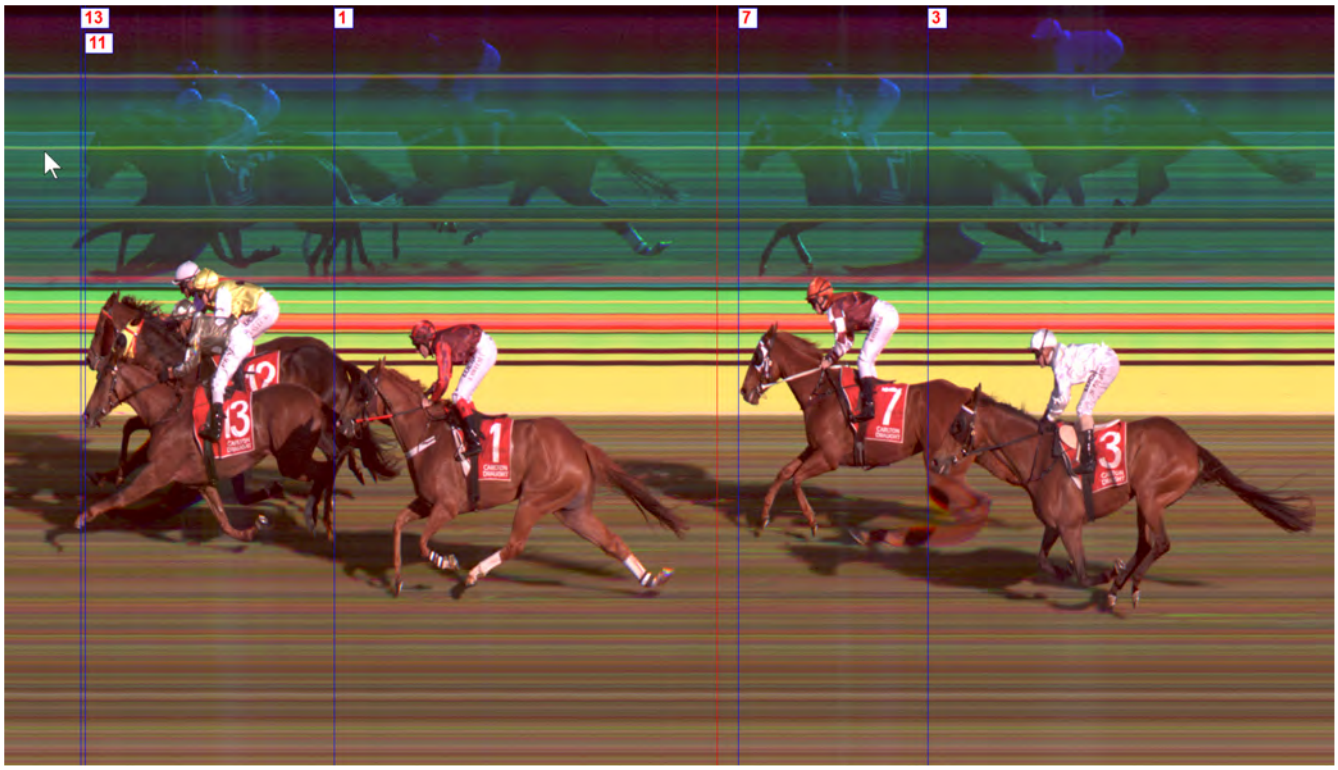
The OPTIc3 is used for sports where several participants reach the finish at the same time. In addition, the OPTIc3 is the ideal de-vice to monitor the finish arrival. When discussing a result, the picture of the OPTIc3 shows the proof. Here the saying is true “a picture is worth a thousand words”.







TIMING DEVICES

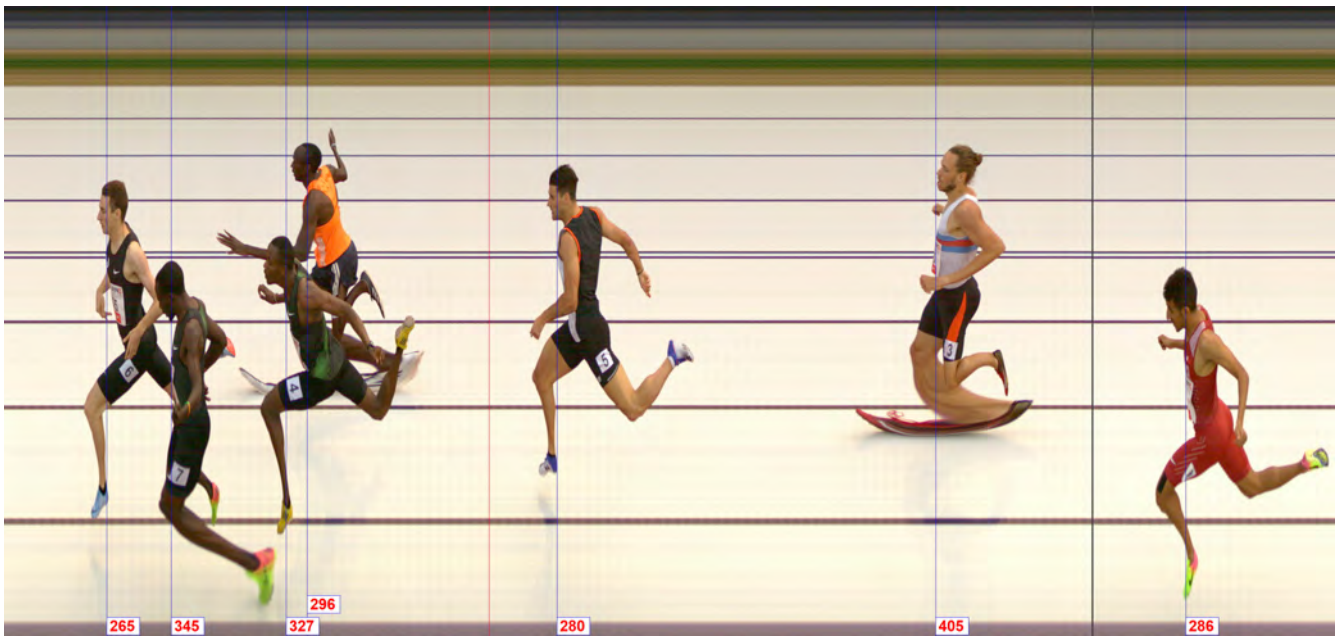
Photo Finish OPTIc3

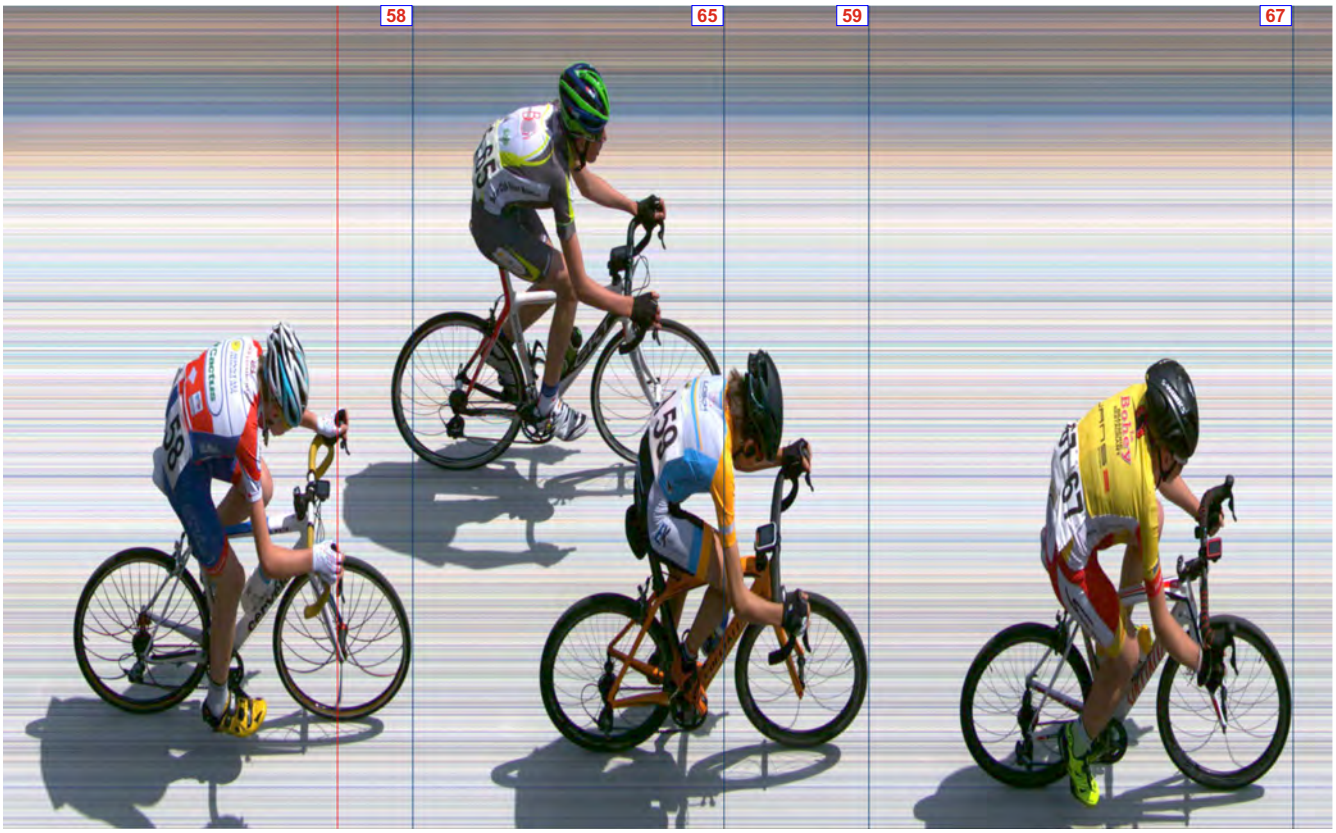
Sports:

- Track and Field
- Cycling
- Horse Racing
- Motorsport
- Rowing
- Canoe
- Dragonboat
- Inline Skating
- Snowboard
- Ski Cross
- Alpine Skiing
- Cross Country Skiing
- Biathlon
- Short Track
- Speed Skating

Special Solutions:

- Swimming
- Air Race
- Drone Racing
- Crashed Ice
- Timber Sports

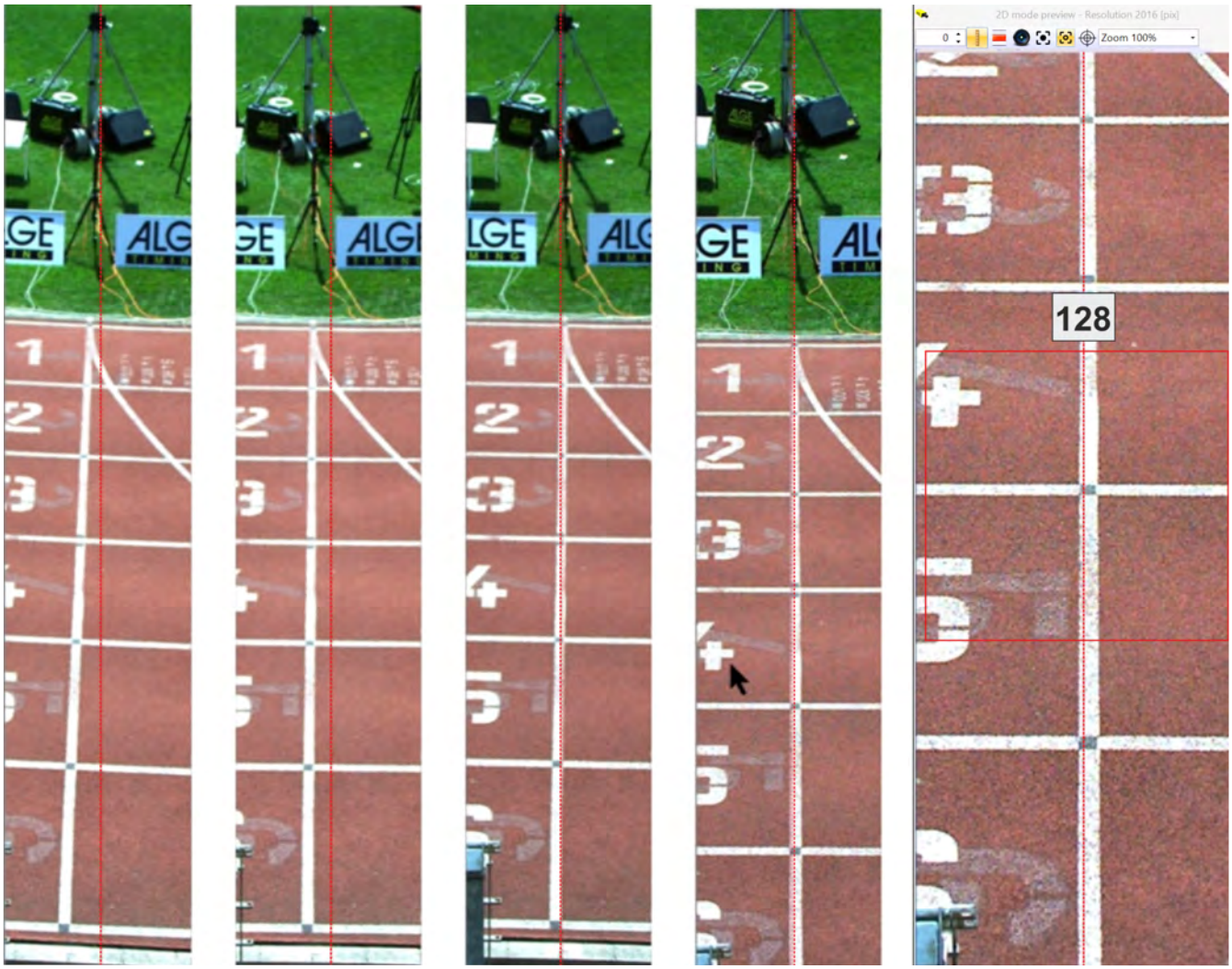




Easy camera setting in 2-D mode

The OPTIc3 camera is switchable to a 2-D preview video image mode. This video preview displays a live 2-D image of the camera on the PC monitor. A vertical red line overlays the 2-D preview image.

This line represents the recording line in the line scan mode (competition mode). It allows an easy alignment and setup of the photofinish camera to the finish line. With the autofocus function, the focus can also be adjusted in the 2-D image.



TIMING DEVICES

Photo Finish OPTIc3

The photo finish system OPTIc3 can be extended as desired with practical accessories or equipped for specific requirements of sport events. In addition to the standard accessories, there are also unique special solutions that can be customized.

Zoom Lens Z75
manual zoom lens
C-Mount ⅔ “, 12.5- 75 mm / F1.2

Motor Zoom MZ75C
control of focus, zoom and brightness from the PC
C-Mount ⅔“, 12.5 – 75 mm / F1.2

Motor Zoom MZ48C
control of focus, zoom and brightness from the PC
C-Mount ½“, 8- 48 mm / F1,2

Wide-Angle Lens L8C
C-Mount ⅔“, 8 mm / F1.4

C-Mount Focal Length Converter Lx1.5
converts the focal length of a lens for 1.5 times

C-Mount Focal Length Converter Lx2
Doubles the focal length of a lens

Gearhead 410
three-dimensional, mechanical gearhead for a precise adjustment of the camera to the finish line

Gearhead 410-E3
three-dimensional, electrical gearhead for a precise three-dimensional adjustment of the camera to the finish line directly from the PC (no further cabling necessary)

Tripod STATIV6
tripod with a maximum height of 3.66 m

Tripod TRIMAN
tripod with a maximum height of 2.4 m

Tripod TRI-PRO
tripod with a maximum height of 2.67 m

Weather Protection Cover WPC3-75
for OPTIc3 camera with the lenses Z75, MZ75C, MZ48C and L8C

Carrying Case KL-OPTIc3
case with foam insert to transport and store an OPTIc3 system safely

Ethernet Cable K-RJ45G03
CAT6 patch cable with 3 m

Ethernet Cable K-RJ45G10
CAT6 patch cable with 10 m

Ethernet Cable K-RJ45G20
CAT6 patch cable with 20 m

Cable Reel KT-RJ45G90
cable reel with 90 m CAT6 Ethernet cable for the OPTIc3 (with this cable, the POE can also feed the camera)

Power over Ethernet PoE
power supply for the OPTIc3 camera via Ethernet cable (POE is included with the OPTIc3 camera- power supply 90- 240 VDC)

Gigabit-SWITCH PoE+
with 8 RJ45 sockets and integrated Power over Ethernet (PoE+)

Power Bank PS-KP
Universal device that feeds almost all ALGE-products, the lithium battery has a capacity of 18 Ah, and a 12 VDC and 2 USB outputs

Radial Polarizing Filter PF55
(on request) polarization filter to attenuate refection (e.g. from water)

TIMING DEVICES

Photo Finish OPTIc3

Technical Data	OPTIc3	OPTIc3-PRO
Pixel (vertical):	1360 pixel	2016 pixel
Recording Speed (fps):	100 - 3,000 fps	100 - 30,000 fps
Voice over IP (VoIP):	optional	yes
Light Amplification eXtremLux:	optional	yes
Line Doubling:	optional	yes
Wireless Timing Network:	optional	yes
High Speed Video (100 pictures per second)	optional	yes
Sensor Type:	CMOS	
Time Base:	temperature compensated quartz ocillator TCXO: +/- 0.006 ppm at 25 °C (0.0002 s/h)	
PC Connection:	Gigabit Ethernet / WLAN	
Lens Mount:	C-Mount / F-Mount with adapter	
Distance Camera to PC:	CAT6 cable: up to 100 m Fibre Optic: up to 2000 m (with converter)	
Connection for Electronic Gear Head:	yes	
Option for ALGE-TIMING Motor Zoom:	yes	
Remote Control for Zoom:	yes (for ALGE-TIMING motor zoom)	
Remote Control for Iris:	yes (for ALGE-TIMING motor zoom)	
Remote Control for Focus:	yes (for ALGE-TIMING motor zoom)	
Autofocus:	yes (for ALGE-TIMING motor zoom)	
Automatic Brightness Adjustment:	yes (for ALGE-TIMING motor zoom)	
White Balance:	automatic and PC software	
Gamma Adjustment:	PC software	
Recording Time:	unlimited, depending on the PC hardware	
Recording Speed Adjustment (fps):	software (adjustable at any time)	
Timing Impulse Inputs:	3 (start, intermediate time, finish)	
Connection for Display Board:	RS232 / RS485 / Ethernet	
USB Interface:	2	
Recording and Evaluation:	possible on 2 different PC	
Transputer Integration:	optional	
Power Supply:	Ethernet with PoE+ power supply PS12A (10.6 - 13.4 VDC)	
Tripod Thread:	3/8 inch	
Operating Temperature:	-20 to 50 °C	
Measurements (excluding lens):	180 x 120 x 80 mm (L x W x H)	
Weight (excluding lens):	1.5 kg	

Connections

2 x start input (banana socket)
1 x finish input (banana socket)
2 x DIN socket (3 input channels)
1 x display board RS232 (banana socket)
1 x display board RS485 (banana socket)
1 x motor zoom
1 x gear head
2 x USB (e. g. for WLAN)
1 x RJ45 (Gigabit Ethernet)
1 x power supply (9 – 13.4 VDC)

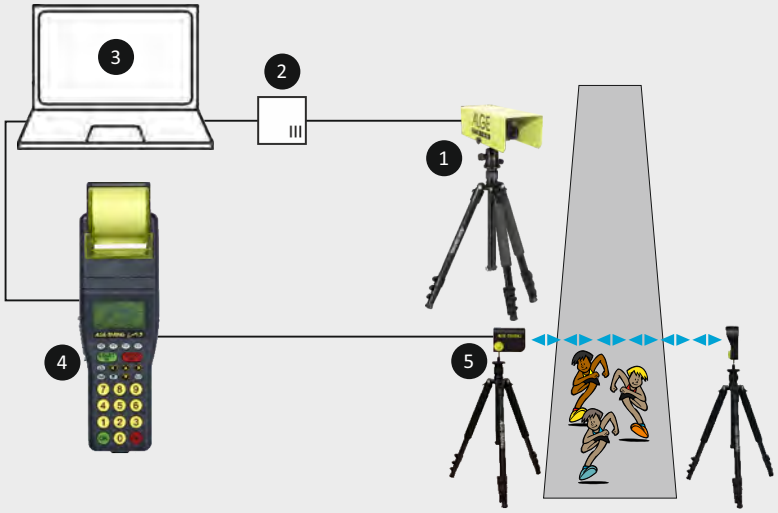
The IDCam is a reliable and simple way to monitor the finish line. When an athlete crosses the finish line a series of high resolution pictures is taken and stored on the PC with the time of the day for each image.

The IDCam can be connected to an ALGE-TIMING timing device. The photocell at the finish line starts the recording of the images by the IDCam. The images are automatically sorted with the correct ID-number if the number is entered in the timing device in advance.

The recorded images help determine the arrival order of the athletes at the finish line, correct the missing finish line arrivals and add the bib numbers, which can be read from the pictures.

Setup Example of the IDCam with a Timy3 WP:

IDCam with 20 m long Ethernet cable (can be up to 100 m long) with power supply POE. Connect the POE to the PC using a 3 m Ethernet cable.
Connect the ALGE-TIMING timing device to the PC via RS232 or USB cable.



Setup:
Connect the IDCam by Ethernet cable (included 20 m cable, possible up to 100 m) with power supply POE. From here connect a timing device from ALGE-TIMING by RS 232 or USB.

The IDCam is the ideal addition to any ALGE-TIMING timing devices.

Technical Data:

Number of images:	up to 30 frames per second
Picture resolution:	2,592 x 1,944 pixel (5 MP)
Connections:	camera IDCam to PC: Ethernet CAT5 cable up to 100 m length timing device with PC: RS232 or USB
Recording time:	endless, depending on the capacity of the PC's hard disk
PC operating system:	Windows 7, 8, 10
Power supply:	POE: 90- 280 VAC

Supported Timers:

- TdC8001 and TdC8000
- Timy3, Timy2 and Timy
- Timer S4
- Photo Finish OPTIc2 and OPTIc3
- High-Speed Camera OPTIc3 (2D mode)
- manual recording via PC keyboard

Scope of Delivery:

- 5 Megapixel Network Camera
- zoom lens 4- 8 mm for camera
- 3 m CAT5 cable K-RJ45G03
- 20 m CAT5 cable K-RJ45G20
- POE Power supply
- PC Software

Optional Accessories:

- weather Protection WP-IDCam
- tripod TRI128 or TRIMAN
- ball joint 482
- cable reel KT-RJ45G90

Example of cooperation between IDCam and Photo Finish

The IDCam is the ideal complementary device to the photo finish OPTIc3, because it controls the finish line recording, and helps determine the bib numbers, from the finish line arrivals, in case these were not readable in the photo finish picture.

Cycling - Cooperation Between IDCam and OPTIc3

The example of a cycling finish arrival shows that together with IDCam and ALGE-TIMING photo finish OPTIc3, you have the ideal tool for evaluating the finish quickly and independently of the finish arrival judge.

The IDCam can be controlled via the OPTIc3.NET software running on the same PC as the photo finish software OPTIc3.NET, but it can also be installed on another PC on the same network.

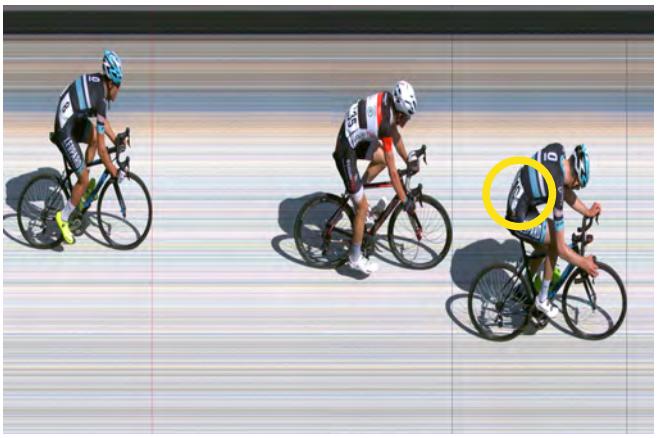


Photo Finish OPTIc3 image

The cyclist with ID-number 10 can not be identified in the photo finish picture. In the picture taken by the IDCam, the ID-number 10 is, however, clearly recognizable (see image below).

IDCam image

START DEVICES

Electronic Start Gun e-Start and e-Start W

The electronic starting device combines absolute precision and synchronization of start signal, flashlight and start tone, and replaces traditional start guns.
With this device, problems by transporting weapons have become history.

The electronic start gun is connected directly to ALGE-TIMING devices, such as the BANG loudspeaker system or the Start Judge SJ2 system. It has a push button that triggers the flash and start impulse that are passed on to the other components of the system.

The e-Start is connected by cable; the e-Start W is the radio system.

Start gun e-Start

Start gun e-Start W

Facts about the electronic Start Gun e-Start/e-Start W

- fair starting conditions for all starters
- best visibility through a flash for start and/or false start
- no additional costs for cartridges
- no problems with the start due to defective ammunition or unloaded gun
- no weapon certificate required
- no problems with transport or with customs authorities

Technical Specifications

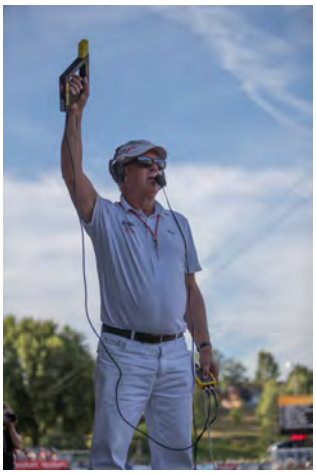
Flash:	4 x LED (Ultra Bright Power LED)
Operating temperature:	-20 °C to +45 °C
Dimensions:	265 x 150 x 35 mm

e-Start Specifications

Weight:	approx. 0.3 kg
Connector:	2 m long connection cable with DIN plug

e-Start W Specifications

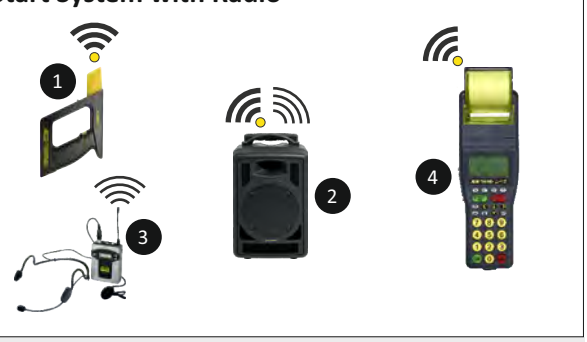
Weight:	approx. 0.5 kg
Connection:	via integrated WTN radio module
Transmission frequency:	2.4 GHz band, 15 adjustable teams
Battery:	Li-Ion battery 3.6 V/10.4 Wh (fixed installed)
Charging time:	approx. 4 hours (charging temperature 0 °C to 45 °C)
Operating time:	approx. 45 hours at 22 °C and one impulse per minute



Wired Start System

1 e-Start
2 BANG2
3 Headset HS4-2
4 Start Unit SU3
5 timing device e.g. OPTIc3

Start System with Radio



1 e-Start W
2 BANG2
3 timing device e.g. Timy3 WP
4 BANG-HS

The speaker system BANG2 allows a simple, unproblematic start. It consists of a transportable amplifier speaker box (active speaker with 80 W_{max}). The timing system gets the start impulse from the BANG. When the BANG2 is triggered a start sound (imitated gunshot) is activated. If the BANG2 is triggered a second time within 5 seconds, a false start sound is generated.

The starter can use the BANG2 for oral commands for the athletes using the ALGE-TIMING communication system or a radio microphone BANG-HS.

The start sound is triggered by a push button (closing contact). If a flash is needed for disabled competitors or to have a more precise manual timing, a start trigger e-Start or FLASH-XL can be used. The electronic startgun e-Start has an integrated flash.

Advantages of the Start System BANG2 Compared to Traditional Startguns

- Start system is always ready, no reloading of a gun necessary.
- No starting problems due to unloaded startguns or bad blanks.
- No costs for expensive blanks.
- There is no cleaning of guns necessary after the end of a race.
- No legal problems with the use of the start system (in many countries a gun license is necessary for a startgun).
- No problems to transport the start system (in many countries the gun and ammunition must be transported in separate vehicles).
- When using the "StartUnit SU3", it is possible to communicate with the time keeper and to make announcements over the speakers BANG2.
- The BANG2 works with cable or radio (WTN)

Technical Data:

Output Power:	80 W_{max} / 50 W_{RMS}
Speaker System:	bass (20 cm / 8")
	tweeter(2.5 cm / 1")
Frequency Range:	20 – 20,000 Hz
Mic-Input:	6 mV
Line-Input:	800 mV
Timing Input/Output:	2 x LTW-socket (7-pin, male)
	1 x banana socket (green / black)
Equalizer, Bass:	±15 dB/100 Hz
Equalizer, Treble:	±10 dB/10 kHz
Power Supply:	Mains: 100-240 V~/50- 60 Hz/2 A
	Battery: 2 x 12 V/5.2 Ah (built in)
Operating Temperature:	0°C to +40°C
Measurements:	305 x 510 x 265 mm (L x H x W)
Weight:	12,5 kg

Radio Module WTN for Timing:

Transmitting Frequency:	2.4 GHz band
	16 adjustable teams
Transmitting Power:	10 mW
Range:	approx. 300 m (line of sight)

Receiver for headset BANG-HS:

Receiver Module:	PLL multifrequency receiver
Carrier Frequency:	863- 865 Mhz
	devided in 16 frequencies
Operating Range:	about 30 m (line of sight)

1 .....cable connection for BANG to timing devices
2 .....receiver for wireles headset BANG-HS
3 .....display for device adjustment
4 .....operator keyboard for device adjustments
5 .....Wireless Timing Network WTN
6 .....Amplifier for Speaker (connection and adjustments)
7 .....On/Off switch
8 .....Power supply for mains (100-240 V~)

START DEVICES

Startclock ASC3

The Startclock ASC3 is an important device for the professional handling of the start. It is equipped with the latest LED technology and provides accurate start information for the participants and start judge. The ASC3 is optimally readable a daytime or night. The battery-driven Startclock ASC3 is used for various sports like alpine skiing, cross-country skiing, biathlon, rally etc.

Facts about Startclock ASC3

- LED technology
- shows the ti me of day (hours, min. and sec.), green LEDs
- figure height of ti me of day digits is 55 mm
- shows the bib (ID-number), yellow LEDs
- figure height for bib digits is 70 mm
- shows the countdown in minutes and seconds, red LEDs
- figure height of countdown digits is 70 mm
- start light with red, yellow and green LED cluster
- integrated speaker with volume regulation
- RS232 interface to connect a PC or printer (parameters of ASC3 can be adjusted by computer)
- integrated rechargeable lead battery for operation independent from mains supply
- two internal push butt ons to set parameters of ASC3
- start input (banana socket)
- sync. input or countdown start (banana socket)
- potential free impulse output (banana socket)
- output for external speaker (4- 8 Ω)
- start list can be loaded to ASC3
- external power supply (12-16 VDC or 85- 264 VAC)
- LED to control battery condition and charging
- ï¬, ash memory allows update
- remote control ASC3-RC with 10 m cable length to operate the Startclock ASC3
- controlling soft ware for PC

Technical Data

Unit of Measurement:	1/1,000 second
Measuring range:	23 hours, 59 minutes, 59.9999 seconds
Accuracy:	+/- 0.3 ppm (+/- 0.001 s/h)
Time base:	temperature compensated real time clock
Display:	extra bright LEDs for outdoor use, brightness adjustable 8-digit LED display, height 55 mm, for time of day 3-digit LED display, height 70 mm, for bib (ID-number) 3-digit LED display, digit height 70 mm, for countdown Start light with red, yellow and green LED cluster, each 35 mm diameter
Temperature range:	-25 °C to +65 °C
Power supply:	integrated power pack (rechargeable battery (12 VDC, 12 Ah) and charger or external battery (12- 16 VDC) or mains (85- 264 VAC)
Operating time:	about 20 hours from internal battery at 30 seconds intervals and 20 °C
Case:	anodized aluminum with cover and suspension brackets, 3/8” thread for tripod (tripod not included)
Dimensions:	L x H x D = 445 x 280 x 115 mm (without suspension brackets and handle)
Weight:	8.4 kg

Photocell PR1a and PR1aW

The photocell PR1a is a masterpiece of precision and can be used universally as a reflection photocell, as a transmitter photocell or a receiver photocell.

The photocell emits a modulated light beam in the infrared range, which is monitored by the receiver for interruptions. If the receiver detects an interrupt, it triggers an impulse. If both, the transmitter and receiver are in the same housing, it is called a reflection photocell. The infrared beam is directed from the transmitter to a reflector. The reflector functions like a mirror and reflects the light beam back to the receiver. Should longer distances be necessary, one can use a photocell as transmitter-, and another as a receiver photocell.

Technical Data

Range:	0.5 to over 25 meters (with reflector) 0 to over 150 meters (transmitter and receiver)
Impulse length:	20 to 2,000 ms can be set
Output:	NPN transistor, open collector, active low
Dimensions:	approx. 118 x 87 x 44 mm
Weight:	approx. 0.3 kg
Operating time:	approx. 77 hours (PR1a) approx. 38 hours (PR1aW)

Photocell PR1a

- impulse accuracy 1/10,000 s
- variety of types:
  - reflection photocell
  - through-beam photocell for long distances
- wide photocell range: over 150 m possible
- variable power supply of the photocell:
  - battery operation
  - power supply from the ALGE-TIMING timing device
  - external power supply from 4 to 18 VDC
- battery status indication with LED (green, yellow, red)
- indicates photocell status with LED (green, yellow, red)
- synchronization of two photocells (main and backup),
- in order to avoid interference
- setting of the delay time (approx. 20 ms to 2 s/factory
- setting = 20 ms)
- very long operating time

Photocell PR1aW

The PR1aW photocell has an integrated radio module (2.4 GHz), in addition to all characteristics of the PR1a. The impulse transmission can be carried out by radio and is compatible with the WTN series. 15 different radio-teams and 5 different impulse channels can be set. If required, the PR1aW can also be connected to a timing device via cable.

Additional Functions

- integrated radio module for wireless impulse-transmission
- impulse transmission also possible by cable
- up to 38 hours of operating time with battery

Tape Switch ATSxY

The tape switch triggers a timing impulse when someone passes over it. For example, if a cyclist passes over the tape switch, the timing device is started or stopped. The tape switch has a closing contact. It has banana plugs with connecting sleeves at the cable. It is available in different lengths:

- tape switch ATS3Y: tape switch with 3 m length
- tape switch ATS6Y: tape switch with 6 m length
- tape switch ATS7Y: tape switch with 7 m length
- tape switch ATS9Y: tape switch with 9 m length

Custom designed tape switch lengths on request possible.

DISPLAY BOARDS

D-LINE and Lap Counter D-LP

Display Board D-LINE

The multifunctional LED display board

The ALGE-TIMING D-LINE can universally be used. It is a numeric LED display board, directly controlled by ALGE-TIMING timing devices. Via RS232 interface data from other devices can also be displayed.

The integrated clock can be used in stopwatch or countdown mode and show the exact time of day. If the D-LINE is equipped with DCF, GPS and/or temperature sensor, the temperature can be displayed in addition to the exact time of day, even if no timing device is connected. The outdoor models differ from the indoor models mainly by much brighter LEDs. This ensures perfect readability even at direct sunlight. The standard display boards have six digits, other configurations are available.

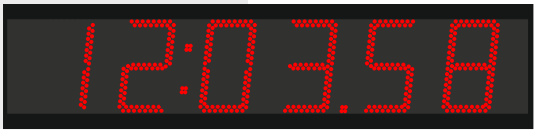
Compared to other display systems (electromagnetic display boards), the D-LINE is more cost-efficient and weighs less. With its brightness, it sets itself apart especially when placed in dark areas.

Technical Data

- LED seven-segment digits with three dots between digits
- internal clock
- internal push button
- RS232 and RS485 interface
- connections:
  - banana socket for data (RS232)
  - banana socket for data (RS485)
  - banana socket for external manual push button
  - amphenol socket (four-pin) for data or power supply (12 VDC)
- integrated power supply (100- 240 VAC, 50- 60 Hz)
- fastening:
  - 4 hangers
  - 3/4 inch thread for tripod
- black aluminum case with red front plexiglass
- operating temperature:-20 °C to +60 °C

Possible Extensions:

· DCF radio receiver
· GPS radio receiver
· temperature sensor (max. two sensors)
· humidity sensor
· Ethernet connection (for time synchronization via Ethernet)



Lap Counter D-LCC

The lap counter D-LCC is available in versions with two or three digits, 150 or 250 mm high. It can be supplied as one-sided, double-sided or three-sided model. The D-LC is equipped with an integrated powerpack consisting of batter and charging unit tripod, external push button and, if desired, a bell. For outdoor use, the lap counter comes with robust readable aluminum housing. The extra bright red LEDs are easily readable even in direct sunlight.

Operating Modes of the Lap Counter

Countdown Laps
The lap counter starts counting from a preset number of rounds towards zero.

Count up Laps
Each round, the lap counter counts up one number.

digit with 150 mm figure heigtht

digit with 250 mm figure height

NOTES

ALGE-TIMING
Rotkreuzstrasse 39
6890 Lustenau, Austria

https://alge-timing.com