

Swimming Timing System

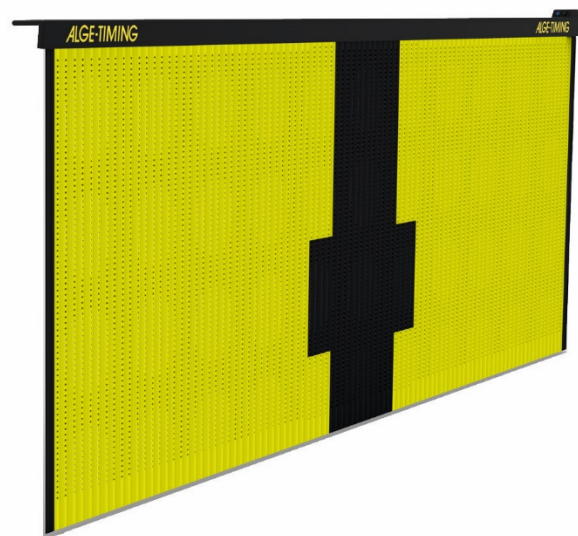
SwimTime V0.5.4.0 - Schweizer Meisterschaft.mdb

SWISSER Schweizermeisterschaft LE 1. 200m Freistil männlich Gesamtrangfolgejahr: 4 Distanz: 200 Lauf: 3. Lauf

Fahrtart: 0:00,00

Platz	Zeit	Zeit	Zeit	Zeit	Zeit	Zeit	Zeit	Zeit	Zeit
1	+0,79	Andreas Bruder	Schwimmclub Aarefisch Aarau, SUI	1	00:34,34	02:11,62	4	400 m	4
2	+0,80	Maxime Bradley	Renens-Natation, FRA	2	00:32,14	02:04,12	4	400 m	4
3	+0,81	Elias Mehrdad	Lausanne Natation, SUI	3	00:32,01	02:00,33	4	400 m	4
4	+0,81	Jean-Baptiste Febo	CN Plan-Jes-Ouates, SUI	4	00:29,28	01:54,03	4	400 m	4
5	+0,88	Marc-Luca Ramsebner	Schwimmklub Bern, SUI	5	00:30,71	01:57,54	4	400 m	4
6	+0,88	Alexandre Haldemann	Natation Sportive Genève, SUI	6	00:32,26	02:00,63	4	400 m	4
7	-	Jérémy Desplanches	Genève Natation 1885, SUI	7	00:00,00	00:00,00	0	0 m	0
8	-	-	-	8	00:00,00	00:00,00	0	0 m	0

Lauf beendet Icon Schriftgröße: prof:40: COM 3 Werte auf Splash SR:15:02



ALGE-TIMING

Important Information

General

Before using your **ALGE-TIMING** device read the complete manual carefully. It is part of the device and contains important information about installation, safety and its intended use. This manual cannot cover all conceivable applications. For further information or in case of problems that are mentioned not at all or not sufficiently detailed, please contact your **ALGE-TIMING** representative. You can find contact details on our homepage www.alge-timing.com

Safety

Apart from the information of this manual, all general safety and accident prevention regulations of the legislator must be considered.

Trained persons must only use the device. The setting-up and installation must only be executed according to the manufacturer's data.

Intended Use

The device must only be used for its intended applications. Technical modifications and any misuse are prohibited because of the risks involved! **ALGE-TIMING** is not liable for damages that are caused by improper use or incorrect operation.

Power supply

The stated voltage on the type plate must correspond to voltage of the power source. Check all connections and plugs before usage. An authorized electrician must replace damaged connection wires immediately. The device must only be connected to an electric supply that has been installed by an electrician according to IEC 60364-1. Never touch the mains plug with wet hands! Never touch live parts!

Cleaning

Please clean the outside of the device only with a smooth cloth. Detergents can cause damage. Never submerge in water, never open or clean with wet cloth. The cleaning must not be carried out by hose or high-pressure (risk of short circuits or other damage).

Liability Limitations

All technical information, data and information for installation and operation correspond to the latest status at time of printing and are made in all conscience considering our past experience and knowledge. Information, pictures and description do not entitle to base any claims. The manufacturer is not liable for damage due to failure to observe the manual, improper use, incorrect repairs, technical modifications, use of unauthorized spare parts. Translations are made in all conscience. We assume no liability for translation mistakes, even if the translation is carried out by us or on our behalf.

Disposal

If a label is placed on the device showing a crossed-out dustbin on wheels (see drawing), the European directive 2002/96/EG applies for this device.

Please get informed about the applicable regulations for separate collection of electrical and electronic waste in your country and do not dispose of the old devices as household waste. Correct disposal of old equipment protects the environment and humans against negative consequences!

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Declaration of Conformity

We declare that the following products comply with the requirements of the listed standards. Parts that we use in the product are CE certificated by the manufacturers and ALGE-TIMING GmbH does not change them.

We, **ALGE-TIMING GmbH**
Rotkreuzstrasse 39
A-6890 Lustenau

Declare under our sole responsibility, that the timing system for swimming:

TM-SWIM with accessories **SWT3, SU3, E-START**
TP2400C, TP1890C, SPA(2), SPP(2), D-nxSWx

is in conformity with the following standard(s) or other normative documents(s):

Safety:	IEC	60950:1999	/	EN	60950:2000
	EN 60335-1:2002 + A11:2004 + A1:2004 + A12:2006 + A2:2006				
EMC:	EN55022:2006+A1:2007				
	EN55024:1998+A1:2001+A2:2003				
	EN61000				
	EN61000 3-3:1995+A1:2001+A2:2005				
					3-2:2006

Additional Information:

The product herewith complies with the requirements of the Low Voltage Directive 73/23/EEC, also the EMC Directive 2004/108/EG and accordingly carries the CE-marking.

Lustenau, 30.11.2017

ALGE-TIMING GmbH

Albert Vetter
(General Manager)

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1 Installation of the components

Most of the components from the timing system are installed only during the competition. For this, you have to do some preparations.

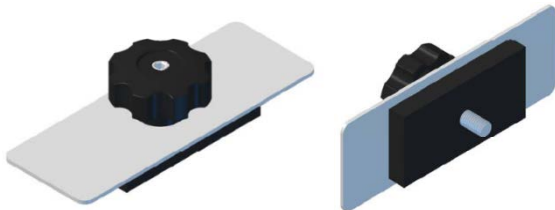
1.1 Mounting of Touchpads

Depending on the size of the touchpads and the pool design and dimensions, we offer several different fastening systems.

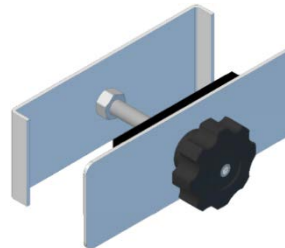
For mobile use of this system, you can simply fix the touchpads with a rope around the starting platforms. The top angles of our touchpads are already equipped with holes for this. You can find these holes if you slightly lift up the rubber angles at the bottom of the angle.

You can find detailed drawings of the touchpad under point 5.2

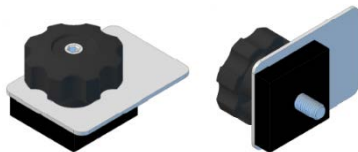
TP-D140



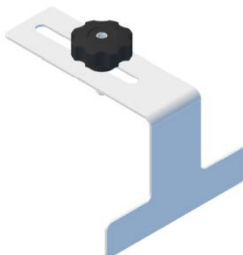
TP-D140/40+TP-L

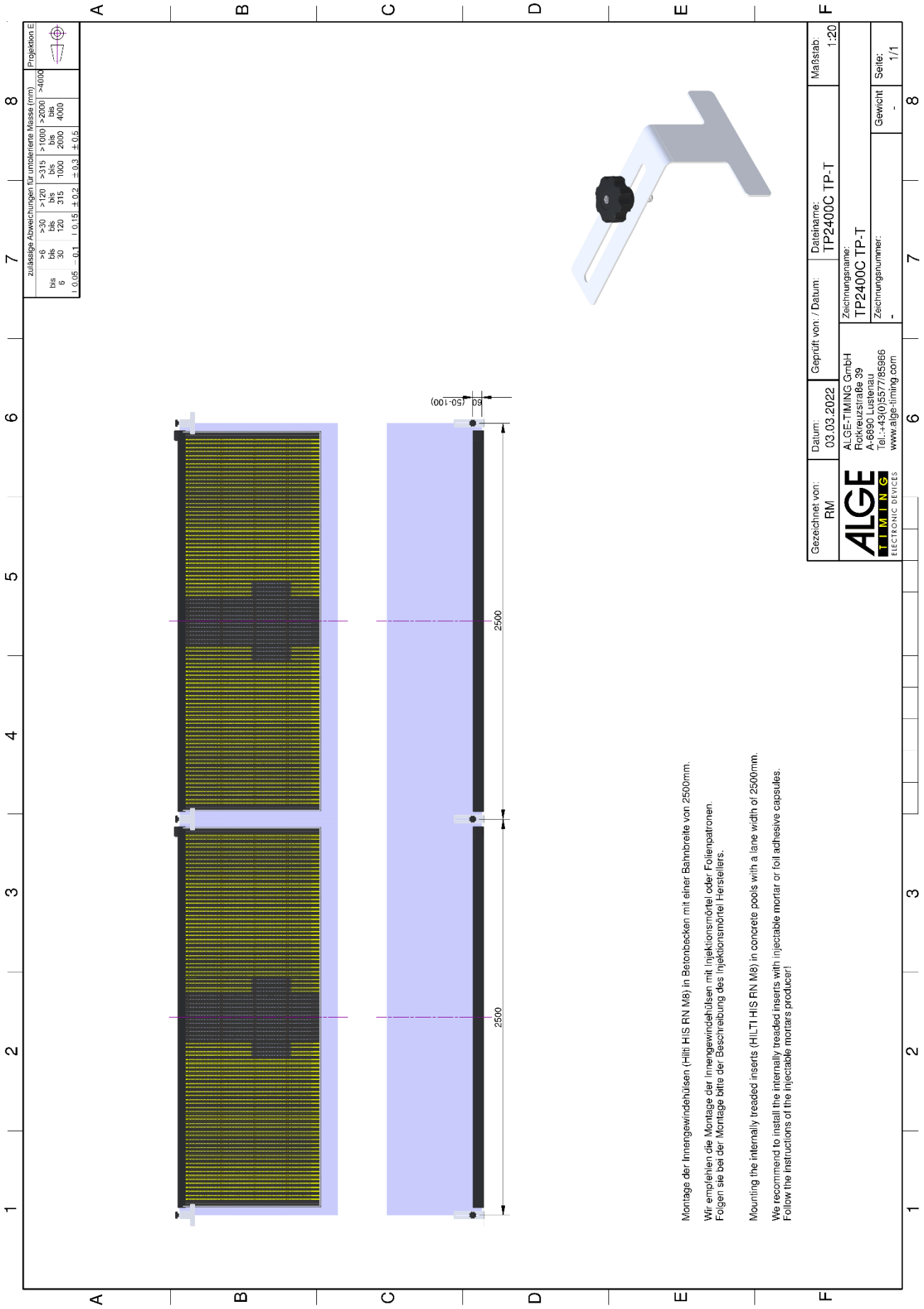


TP-S



TP-T



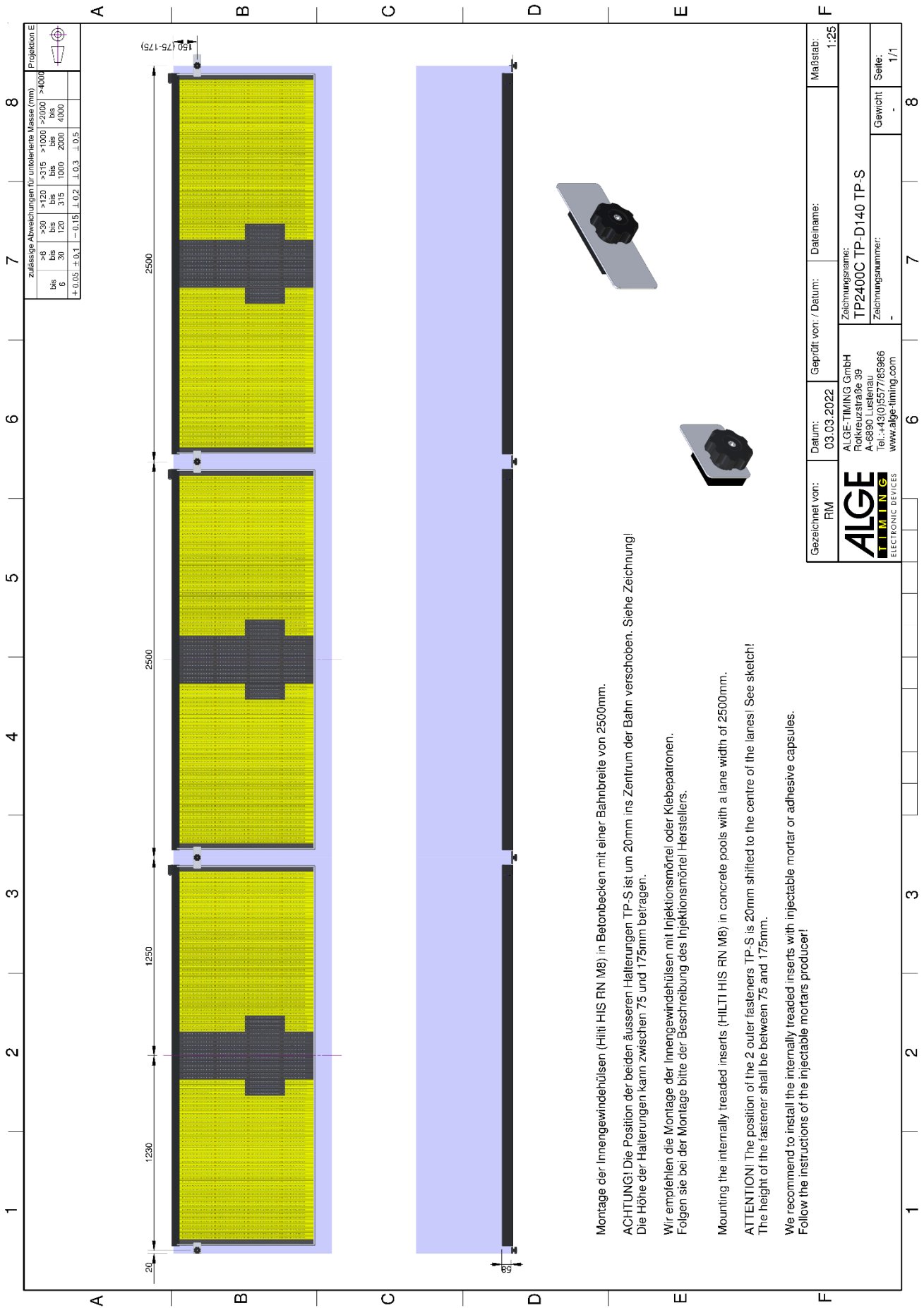


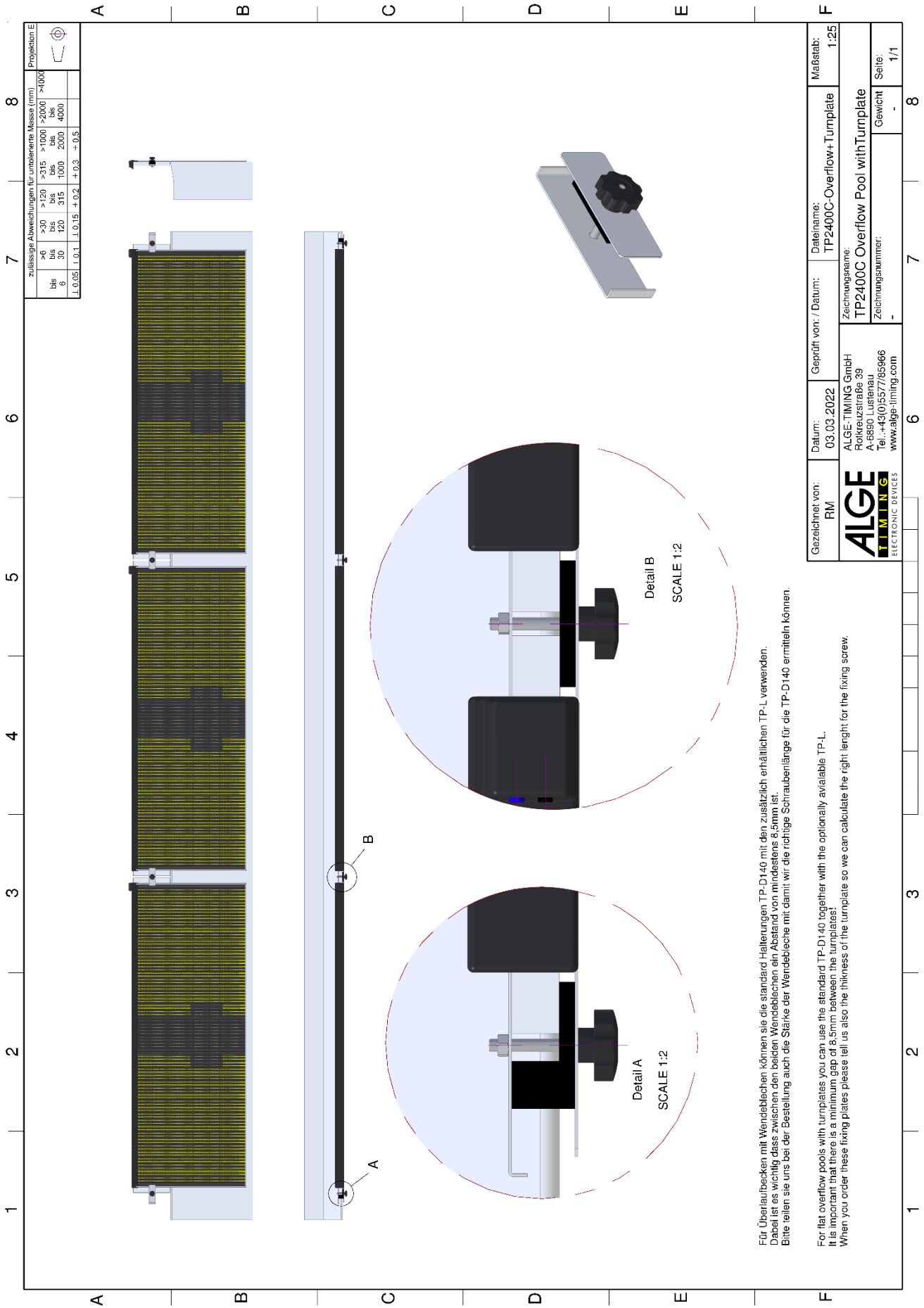
zulässige Abweichungen für umlenkerte Masse (mm)		Projektion E	
>6	>120	>1000	>2000
bis	bis	bis	bis
6	30	120	315
1.0.05	-0.1	1.0.15	±0.2
			±0.3
			±0.5
			>4000

Montage der Innengewindenhülsen (Hilti HIS RN M8) in Betonbecken mit einer Bahnbreite von 2500mm.
Wir empfehlen die Montage der Innengewindenhülsen mit Injektionsmörtel oder Folienpatronen.
Folgen Sie bei der Montage bitte der Beschreibung des Injektionsmörtel Herstellers.

Mounting the internally threaded inserts (Hilti HIS RN M8) in concrete pools with a lane width of 2500mm.
We recommend to install the internally threaded inserts with injectable mortar or foil adhesive capsules.
Follow the instructions of the injectable mortars producer!

Gezeichnet von: RM	Datum: 03.03.2022	Geprüft von./Datum:	Dateiname: TP2400C TP-T	Maßstab: 1:20
ALGE-TIMING GmbH Fockkreuzstraße 39 A-8990 Lustenau Tel.: +43(0)557785966 www.alge-timing.com		Zeichnungsname: TP2400C TP-T	Zeichnungsnummer: -	Gewicht -
				Seite: 1/1

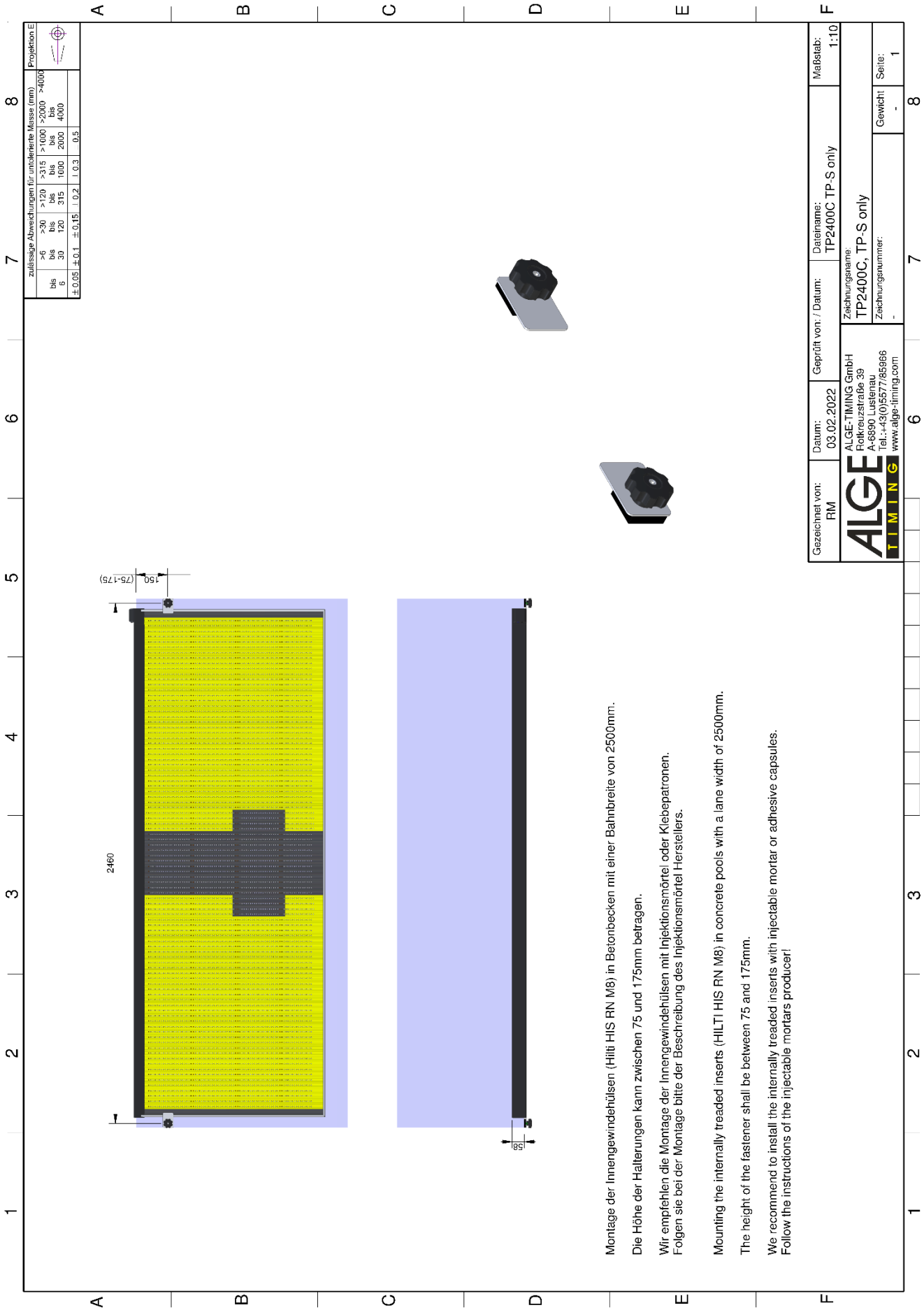




Für Überlaufbecken mit Wendeblechen können sie die standard Halterungen TP-D140 mit den zusätzlich erhältlichen TP-L verwenden. Dabei ist es wichtig, dass zwischen den beiden Wendeblechen ein Abstand von mindestens 8,5mm ist. Bitte teilen sie uns bei der Bestellung auch die Stärke der Wendebleche mit, damit wir die richtige Schraubenlänge für die TP-D140 ermitteln können.

For flat overflow pools with turnplates you can use the standard TP-D140 together with the optionally available TP-L. It is important that there is a minimum gap of 8.5mm between the turnplates! When you order these fixing plates please tell us also the thickness of the turnplate so we can calculate the right length for the fixing screw.

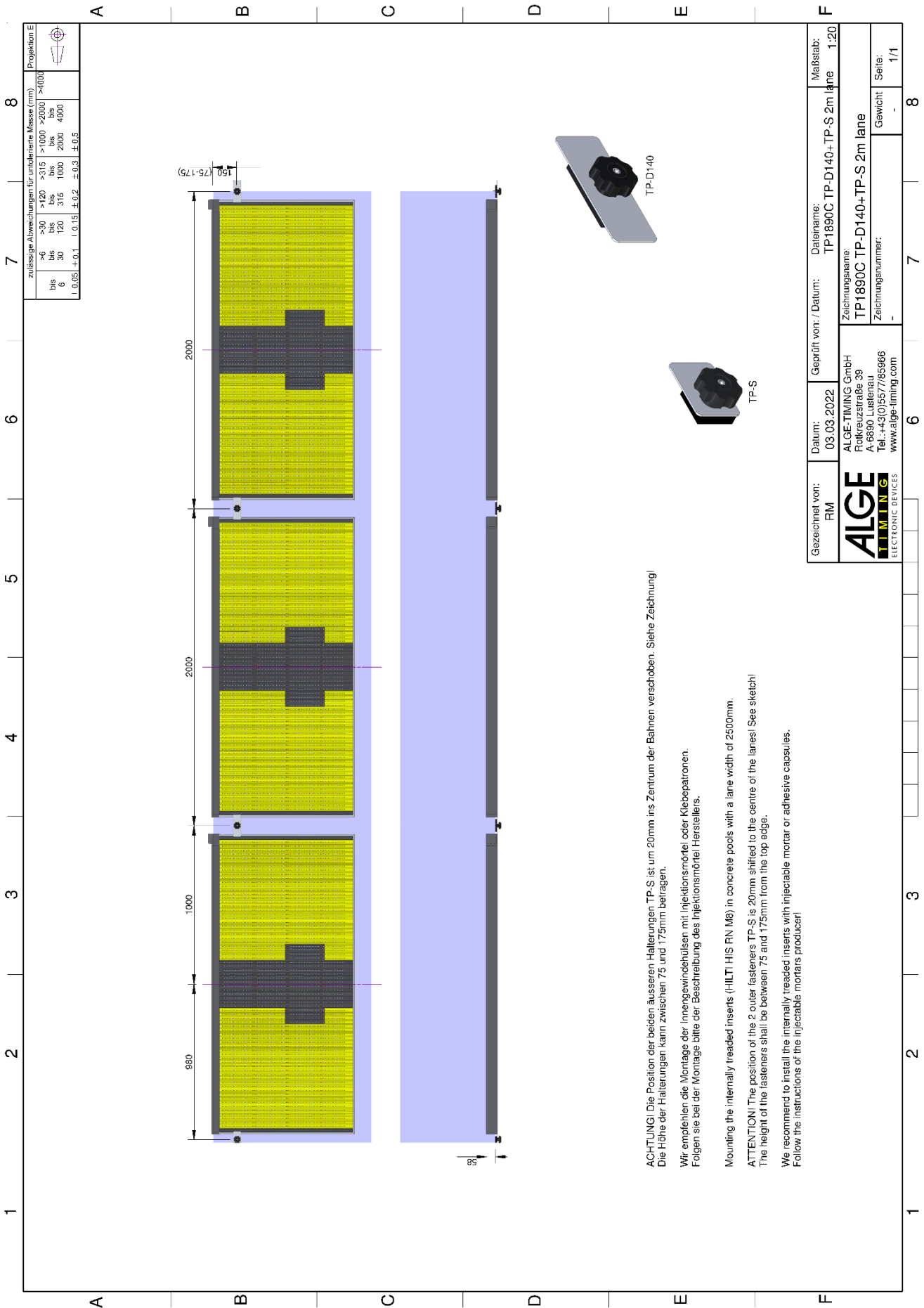
Gezeichnet von:	Datum:	Geprüft von: / Datum:	Dateiname:	Maßstab:
RM	03.03.2022	-	TP2400C-Overflow+Turnplate	1:25
ALGE-TIMING GmbH Rotkreuzstraße 39 A-6890 Lustenau Tel.: +43(0)577/85966 www.alge-timing.com		Zeichnungsname: TP2400C Overflow Pool with Turnplate		Gewicht
ALGE TIMING ELECTRONIC DEVICES		Zeichnungsnummer: -		Seite: 1/1



Montage der Innengewindehülsen (Hilti HIS RN M8) in Betonbecken mit einer Bahnbreite von 2500mm.
Die Höhe der Halterungen kann zwischen 75 und 175mm betragen.
Wir empfehlen die Montage der Innengewindehülsen mit Injektionsmörtel oder Klebpatronen.
Folgen sie bei der Montage bitte der Beschreibung des Injektionsmörtel Herstellers.

Mounting the internally threaded inserts (HILTI HIS RN M8) in concrete pools with a lane width of 2500mm.
The height of the fastener shall be between 75 and 175mm.
We recommend to install the internally threaded inserts with injectable mortar or adhesive capsules.
Follow the instructions of the injectable mortar's producer!

Gezeichnet von: RM	Datum: 03.02.2022	Geprüft von: / Datum:	Dateiname: TP2400C TP-S only	Maßstab: 1:10
ALGE TIMING		Zeichnungsname: TP2400C, TP-S only Zeichnungsnummer: -		
ALGE-TIMING GmbH Rolkrauzstraße 39 A-6890 Lustenau Tel.: +43(0)577/65966 www.alge-timing.com		Gewicht: - Seite: 1		



zulässige Abweichungen für untolerierte Masse (mm)		Projektion E	
<6	>30	>120	>315
bis 6	bis >30	bis >1000	bis >2000
bis 0	bis 30	bis 120	bis 315
		bis 1000	bis 2000
		bis 4000	bis 6000
± 0,05 ± 0,1		± 0,2 ± 0,3 ± 0,5	

ACHTUNG! Die Position der beiden äußeren Halterungen TP-S ist um 20mm ins Zentrum der Bahnen verschoben. Siehe Zeichnung!
Die Höhe der Halterungen kann zwischen 75 und 175mm betragen.

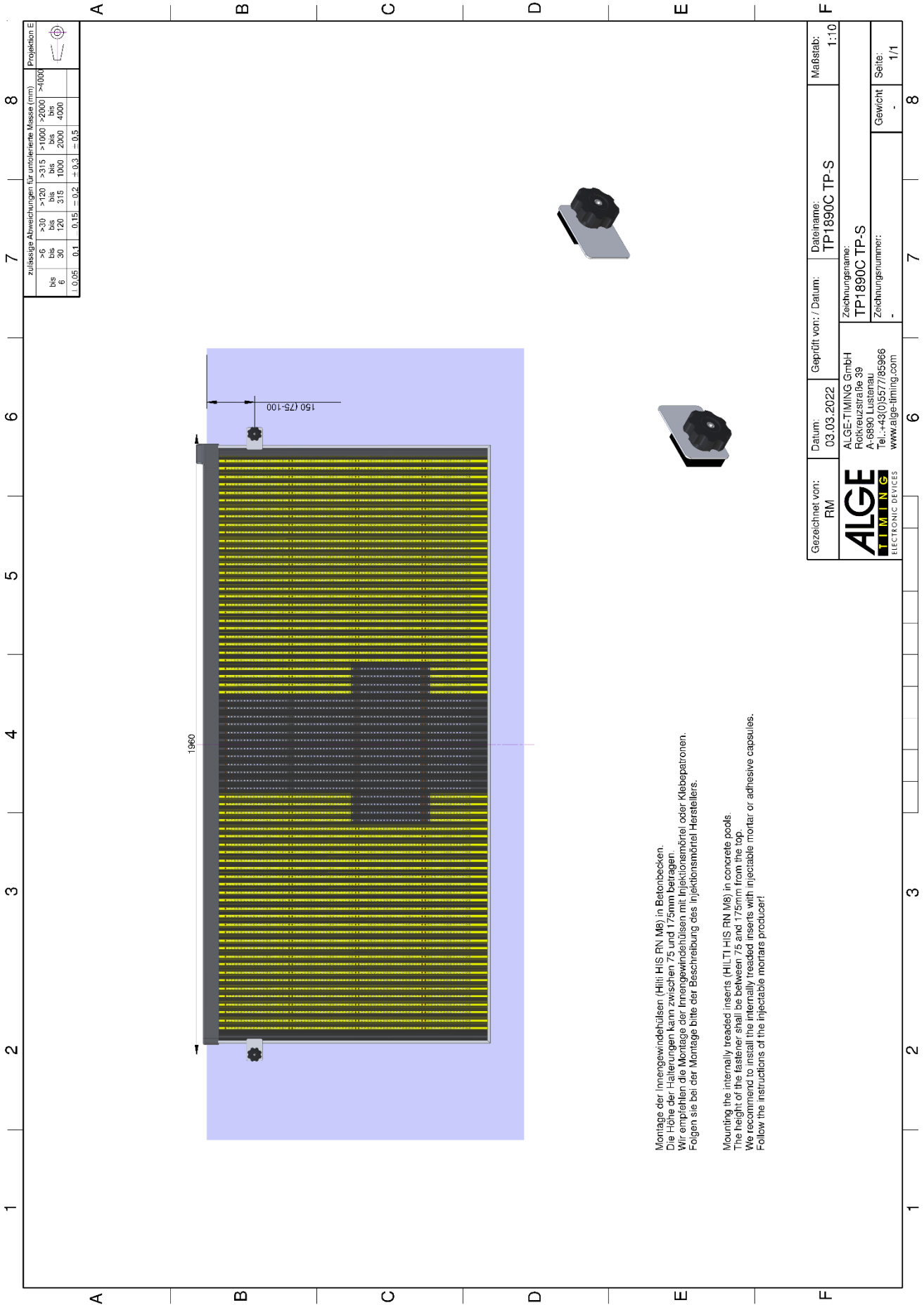
Wir empfehlen die Montage der Innengewindehülsen mit Injektionsmörtel oder Klebpatronen.
Folgen sie bei der Montage bitte der Beschreibung des Injektionsmörtel Herstellers.

Mounting the internally threaded inserts (HILTI HIS RN M8) in concrete pools with a lane width of 2500mm.

ATTENTION! The position of the 2 outer fasteners TP-S is 20mm shifted to the centre of the lanes! See sketch!
The height of the fasteners shall be between 75 and 175mm from the top edge.

We recommend to install the internally threaded inserts with injectable mortar or adhesive capsules.
Follow the instructions of the injectable mortar's producer!

Gezeichnet von:	RIM	Datum:	03.03.2022	Geprüft von: / Datum:	TP1890C TP-D140+TP-S 2m lane	Maßstab:	1:20
ALGE-TIMING GmbH Rotkreuzstraße 39 A-6890 Lustenau Tel.: +43(0)577/85966 www.alge-timing.com				Zeichnungsname: TP1890C TP-D140+TP-S 2m lane		Gewicht	
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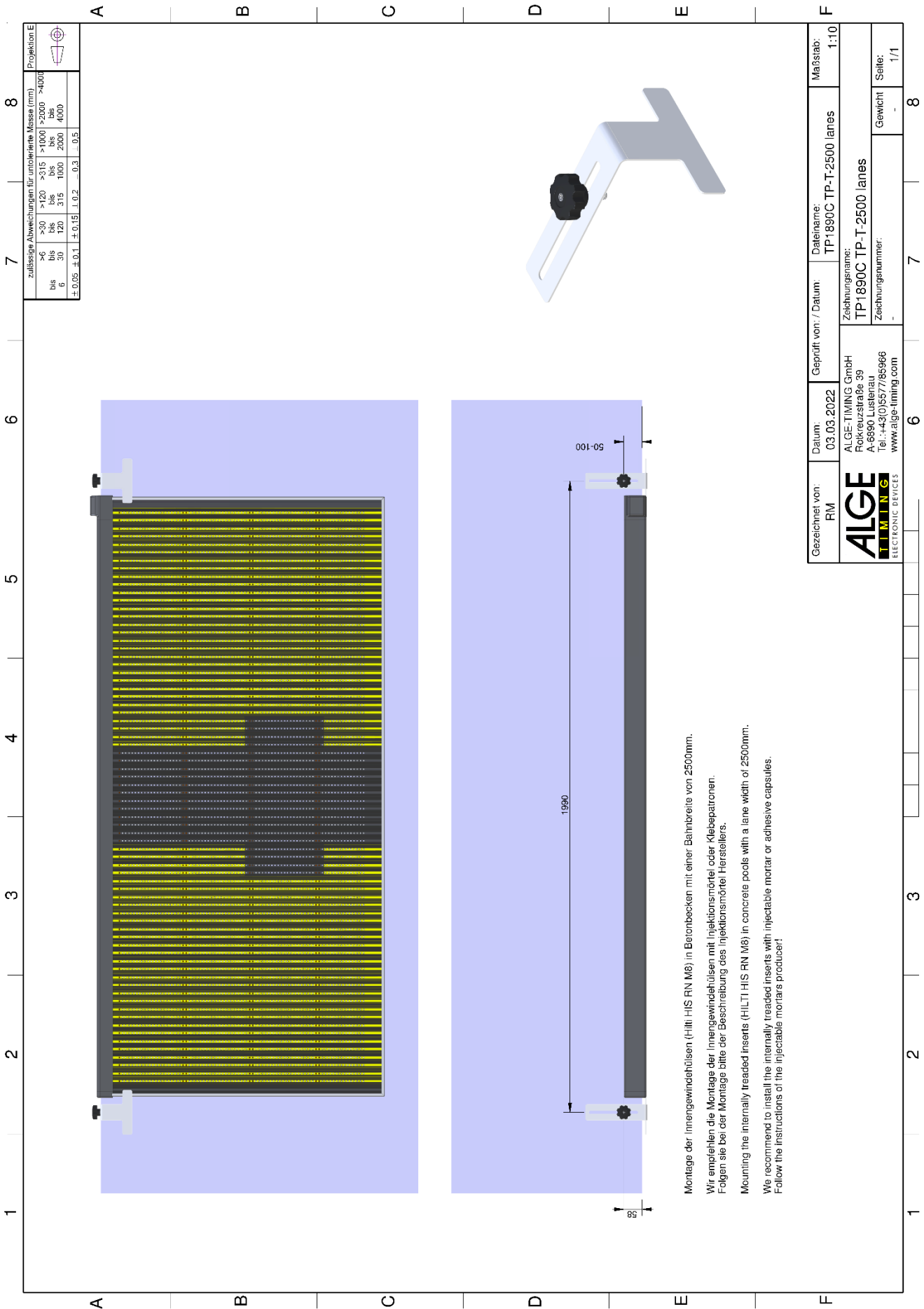
zulässige Abweichungen für untolerierte Masse (mm)			
bis 6	>30	>120	>315
6	30	120	315
± 0,05	± 0,1	± 0,15	± 0,2
		+ 0,3	- 0,5
		>1000	>2000
		2000	4000
		>10000	>10000

Projektion E	

Montage der Innengewindestulsen (Hilti HIS FN M8) in Betonbecken.
Die Höhe der Halterungen kann zwischen 75 und 175mm betragen.
Wir empfehlen die Montage der Innengewindestulsen mit Injektionsmörtel oder Klebpatronen.
Folgen sie bei der Montage bitte der Beschreibung des Injektionsmörtel Herstellers.

Mounting the internally threaded inserts (Hilti HIS FN M8) in concrete pools.
The height of the fastener shall be between 75 and 175mm from the top.
We recommend to install the internally threaded inserts with injectable mortar or adhesive capsules.
Follow the instructions of the injectable mortars producer!

Gezeichnet von:	RM	Datum:	03.03.2022	Geprüft von:	/ Datum:		Dateiname:	TP1890C TP-S	Maßstab:	1:10
ALGE-TIMING GmbH Rokkreuzstraße 39 A-6890 Lustenau Tel.: +43(0)557785966 www.alge-timing.com		ALGE-TIMING GmbH Rokkreuzstraße 39 A-6890 Lustenau Tel.: +43(0)557785966 www.alge-timing.com		Zeichnungsname: TP1890C TP-S		Zeichnungsnummer: -		Gewicht -		Seite: 1/1



zulässige Abweichungen für unbelagte Masse (mm)		Projektion E	
>6	>30	>120	>315
6	30	120	315
bis	0	1000	2000
		4000	4000
±0,05 ±0,1		±0,15	±0,2
		-0,3	-0,5

Montage der Innengewindehülsen (Hilti HIS RN M8) in Betonbecken mit einer Bahnbreite von 2500mm.
Wir empfehlen die Montage der Innengewindehülsen mit Injektionsmörtel oder Klebpatronen.
Folgen sie bei der Montage bitte der Beschreibung des Injektionsmörtel Herstellers.
Mounting the internally threaded Inserts (HILTI HIS RN M8) in concrete pools with a lane width of 2500mm.
We recommend to install the internally threaded inserts with injectable mortar or adhesive capsules.
Follow the instructions of the injectable mortars producer!

Gezeichnet von:	Datum:	Geprüft von / Datum:	Dalleiname:	Maßstab:
RM	03.03.2022		TP1890C TP-T-2500 lanes	1:10
ALGE-TIMING GmbH Rokkreuzstraße 39 A-6690 Lustenau Tel.: +43(0)577/85966 www.alge-timing.com		Zeichnungsname: TP1890C TP-T-2500 lanes		Gewicht
ALGE TIMING ELECTRONIC DEVICES				-
				Seite:
				1/1

1.2 *Mounting the Starting Platforms*

The starting platforms are mounted permanently in the swimming pool. Depending on the pool construction, use M12 stainless steel anchors or M12 screws.

The front edge of the starting platform shall extend 10 mm above the pool edge to be in line with the touchpads, which are mounted during the competition.

Observe the FINA rules for mounting the starting platforms and the required length of the pool.

You can find a detailed drawing of the starting platforms under point 5.12 and 5.13.



2 Setup of the Timing System

When developing the ALGE-TIMING TM-SWIM timing system special emphasis has been placed on easy and logic setup.

Set up the system in the following steps:

- fix the touchpads in the pool
- fix the SWRx on the starting platforms
- place one SWT3 behind each lane or in the starting platform SO4/5
- place one SPA behind each uneven lane
- place one SPP behind each even lane
- place the start unit SU3 and the flash at the position of the starter
- place the TM-SWIM and the protocol printer in the timing room

2.1 Connections of the System

All ALGE-TIMING cables have a number printed on both ends of the cable. The plugs of the TM-SWIM system are different for the varying devices. Therefore, it is impossible to make mistakes when installing the system.

IMPORTANT! Please fasten the screw locking connectors only slightly. The force of 2 fingers is sufficient.

- cable 200-04 connects the SWT3 terminals
- cable 200-20 and/or cable reel KT200Z10 connects the SWT3 terminal nearest to the TM-SWIM timing device
- connect the SWT-END to the last SWT3 in the chain
- cable 201-07 connects the active loudspeakers SPA
The passive loudspeakers are equipped with fix cables that can be connected to the SPA.
- cable 199-20 and/or cable reel KT199Z10 connects the TM-SWIM with the Flash XL or/and the starting unit SU3
- connect the power cable to the TM-SWIM
- connect the computer and the TM-SWIM with USB cable
- Switch on TM-SWIM and then start the SwimTime software.
The PC software immediately show the number of lanes connected.
- **IMPORTANT:** Check if the lane numbering is correct (see point 4.5.1.2.3 and 4.5.1.2.4).

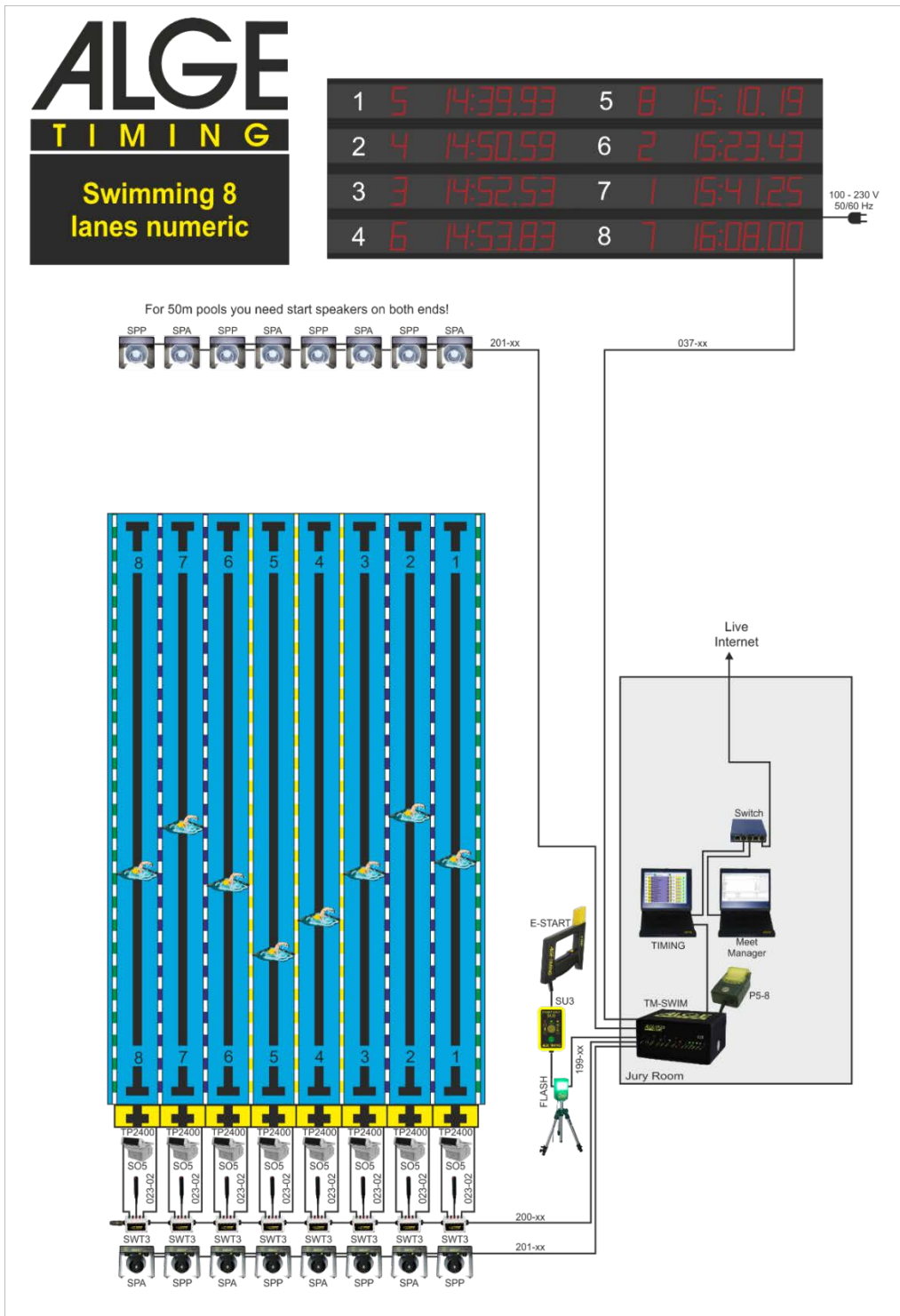
ATTENTION: If the number of lanes shown in the software does not match the number of SWT3 connected, check the cabling of the SWT3 terminals. After checking the cabling, exit the software SwimTime and restart it. The correct number of lanes should now show.

2.2 System Diagram

On the next pages, you find a general diagram of the TM-SWIM system setup.

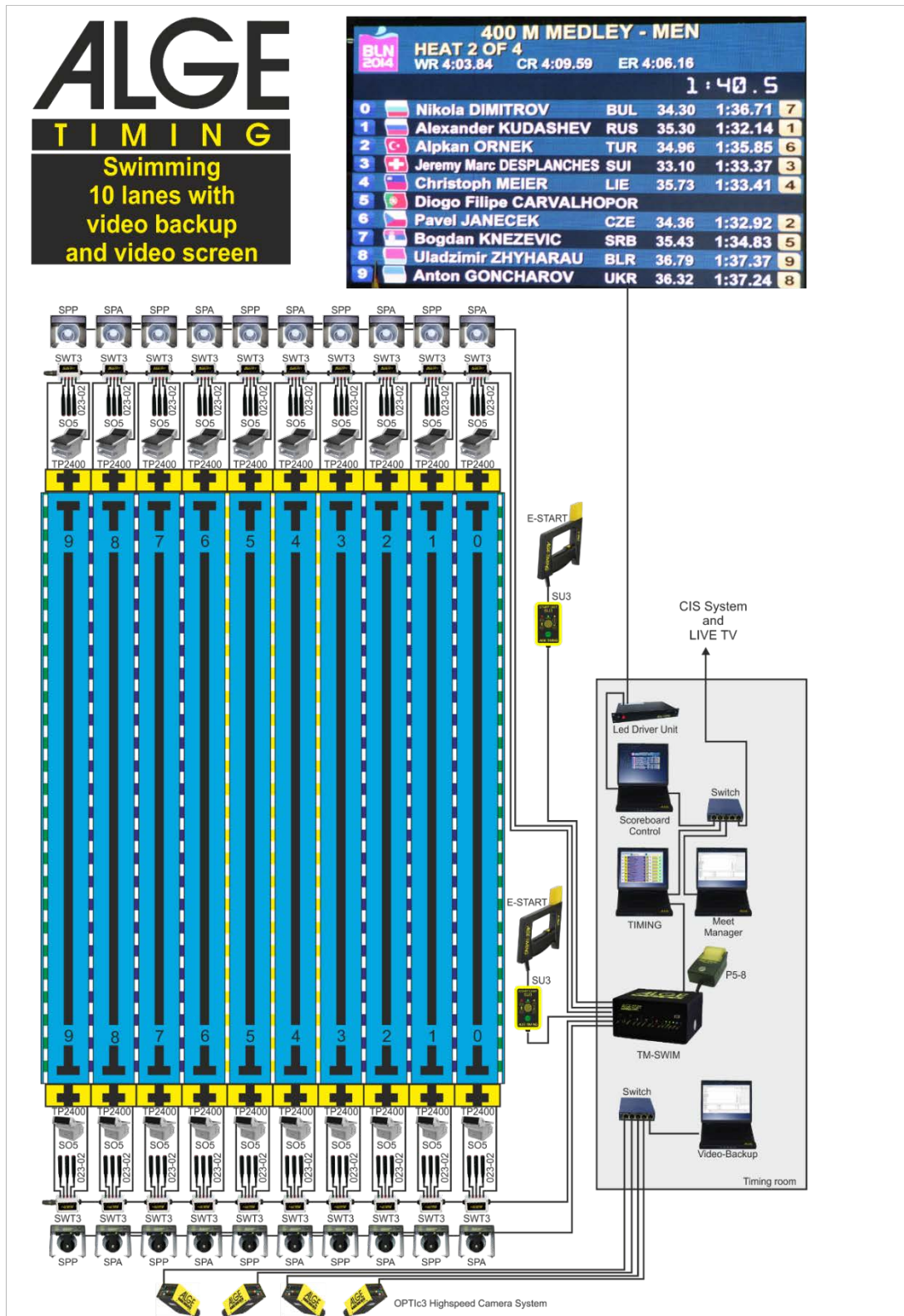
2.2.1 Single-Sided Timing System with Numeric Display

Depending on the number of lanes and accessories you own, your setup could differ from the below shown schematic.



2.2.2 Double-Sided System for International Competitions

Depending on the number of lanes and accessories you own, your setup could differ from the below shown schematic.



3 Software

With the acquisition of your ALGE-TIMING timing system you receive a USB flash drive with the current software for all of the ALGE-TIMING devices.

In order to start the corresponding installation, please double-click in the USB flash drive folder on the file "Please start me.cmd". The ALGE-TIMING installation manager starts that guides you through the installation process of your timing system.

The newest version of SwimTime can be downloaded from our website www.alge-timing.com.

3.1 *Installation of SwimTime Software*

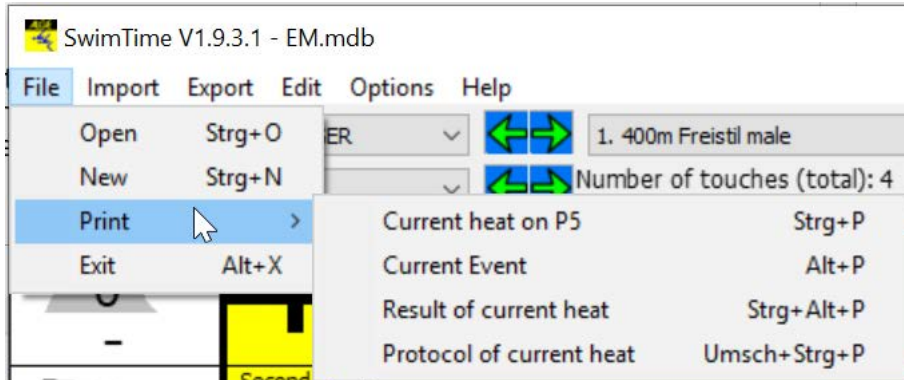
Before you connect the TM-SWIM to your computer, please install the SwimTime software from the provided USB flash drive or directly download it from our website www.alge-timing.com.

- Connect the USB flash drive to your computer.
- In case the folder of the USB flash drive does not open automatically, please open it manually with the explorer.
- Double-click on the file „Please start me.cmd“
- Choose register SWIM 2 and then click on Install SwimTime from CD/Stick.
- Follow the instructions of the installer.
- Connect at least one SWT2 with your TM-SWIM. Connect the TM-SWIM with the USB cable to your computer and switch on the TM-SWIM.
- After the automatic driver installation is done, you can start the SwimTime software. The system is ready for the first competition.

The installation runs fully automatic and there is no need for any further actions.

4 Operating the Timing System

4.1 File



4.1.1 File – Open

opens an existing competition

4.1.2 File – New

creates a new empty competition

We recommend creating a data base for every new event.

4.1.3 File – Print

You can print the run protocol or statistical evaluations.

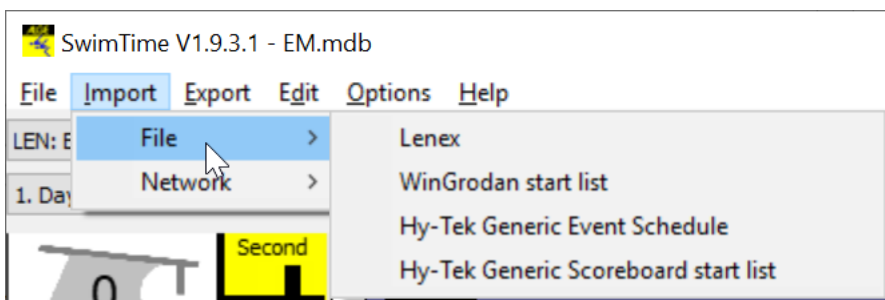
4.1.4 Exit

closes the application

4.2 Import

You can import the competition structure from different evaluation programs.

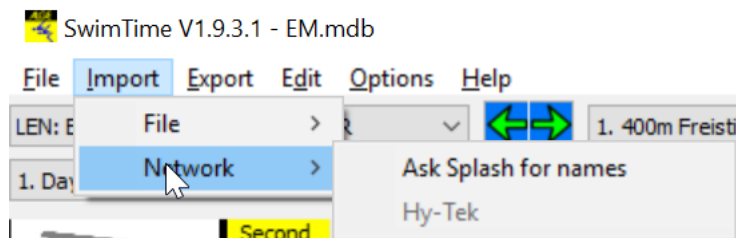
4.2.1 File



Import of files from different evaluation programs.

4.2.2 Network

You can import the event structure from different evaluation programs via the network.

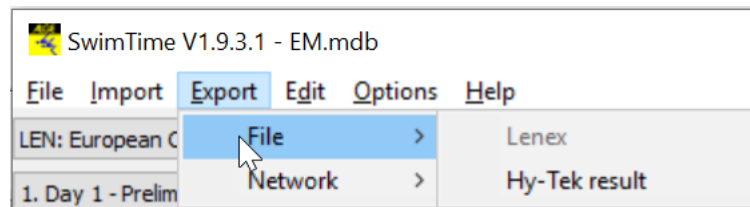


Import of files via network communication

4.3 Export

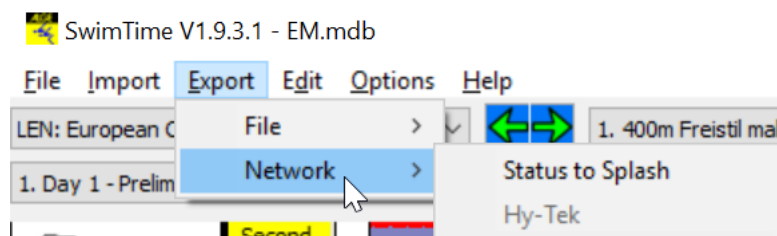
Export the results to different evaluation programs.

4.3.1 Export File



manual export of the results to different evaluation programs

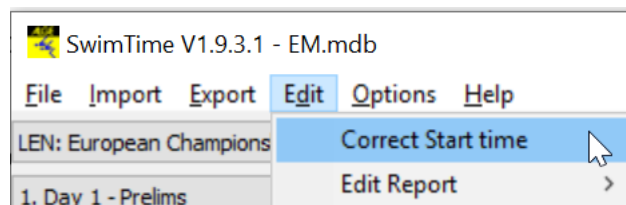
4.3.2 Export Network



Export the results via network communication

4.4 Edit

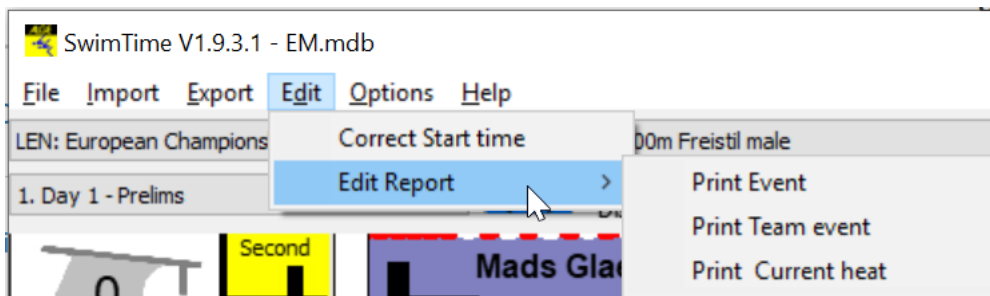
4.4.1 Correct Start Time



You can change the start time of a heat here.

Due to the system architecture of the ALGE-TIMING system, this function is not needed but required by the FINA regulations.

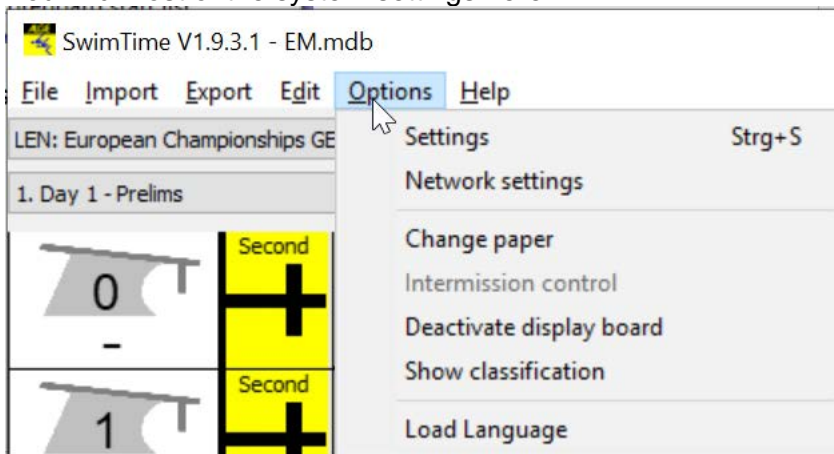
4.4.2 Edit Report



You can change the layout of the prints.

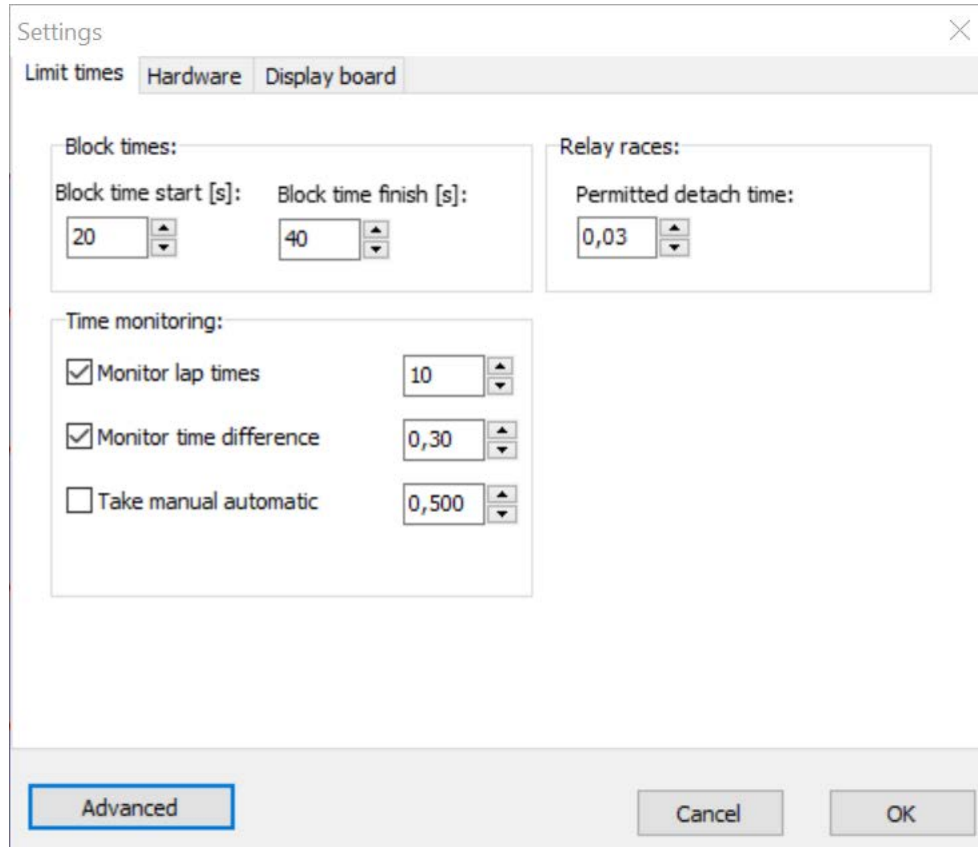
4.5 Options

You find most of the system settings here.



4.5.1 Settings for the Timing

4.5.1.1 Limit times



4.5.1.1.1 Block Time Start

defines how long after the start impulse all touchpads are blocked

This setting depends on the length of your pool and if you have touchpads on one side only or on both sides.

Standard setting: 10 seconds

Recommended settings:

- 25 m pool, single-sided touchpads 20s
- 25 m pool, double-sided touchpads 8s
- 50 m pool, single-sided touchpads 44s
- 50 m pool, double-sided touchpads 20s

4.5.1.1.2 Block Time Finish

defines how long after a touch this particular touchpads is blocked

This setting depends on the length of your pool only.

Standard setting: 10 seconds

Recommended settings:

- 25 m pool 20 s
- 50 m pool 40 s

4.5.1.1.3 Time Monitoring

“Monitor lap times” compares the lap times with each other and warns the operator in case the preset value is exceeded.

Standard: ON, 10 s

“Monitor time difference” compares the touchpad and hand times with each other and warns the operator in case the preset value is exceeded.

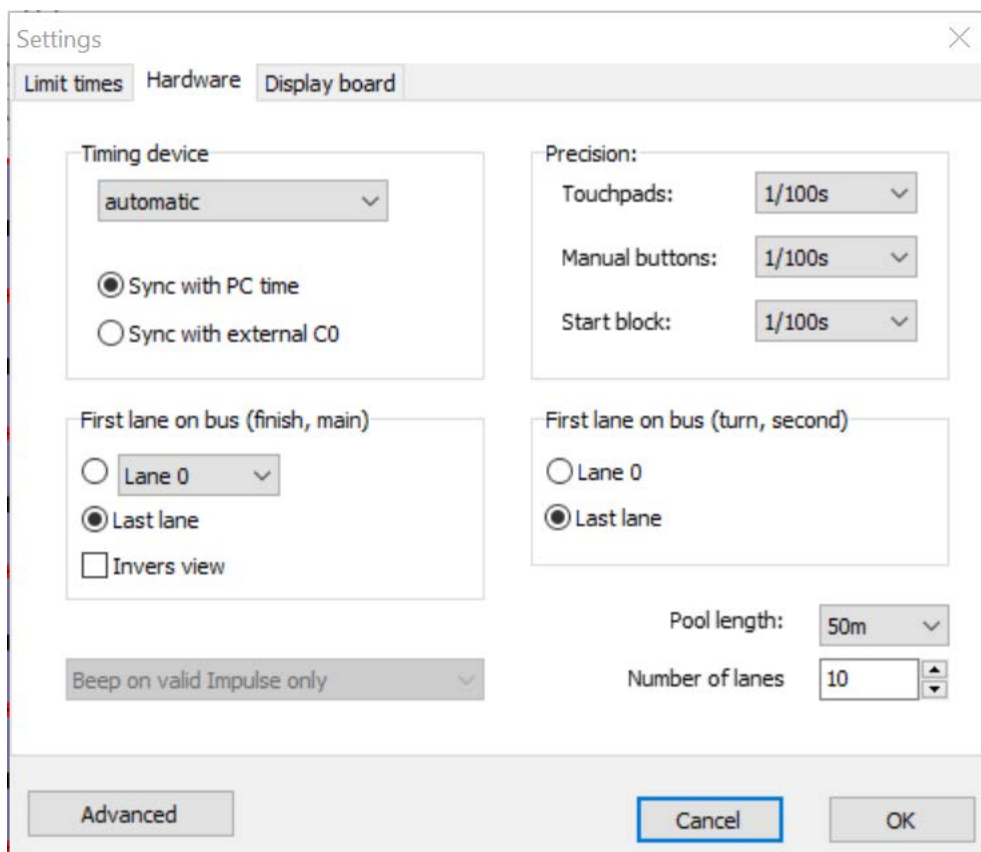
Standard: ON, 0.30 s

“Take manual automatic” automatically uses the manual time in case of a deviation from the preset value.

Standard: OFF, 0.500 s

4.5.1.2 Hardware

You can find this setting under Options – Settings or with STRG+S.



4.5.1.2.1 Timing Device

You can adjust the connection settings to the timing device here.

If your computer cannot find the TM-SWIM automatically, try to find the correct setting here.

Standard: automatic

Further, you can also set here if the TM-SWIM automatically takes the PC time or if the TM-SWIM should also be synchronized with other device via C0.

Standard: Sync with PC time

4.5.1.2.2 Precision

You can set the precision used for output here. The calculation of the run times is always executed with the highest precision and then cut to the set precision.

Standard: 1/100 for all

4.5.1.2.3 First Lane on Bus (finish, main)

Adjust here which lane is connected first to the timing device (finish, main). In addition, the type of numbering for 10 lanes has to be chosen.

Wrong settings result in wrong allocation of lanes.

4.5.1.2.4 First Lane on Bus (turn, second)

Adjust here which lane number is connected first to the timing device (turn, second).

Wrong settings result in wrong allocation of lanes.

4.5.1.2.5 Beep Settings

You can set here which timing impulses signal a beep. We recommend setting the beep to "Beep on valid impulse only".

With this setting, the TM-SWIM only outputs an acoustic signal in case of valid touchpad impulses.

4.5.1.2.6 Pool Length

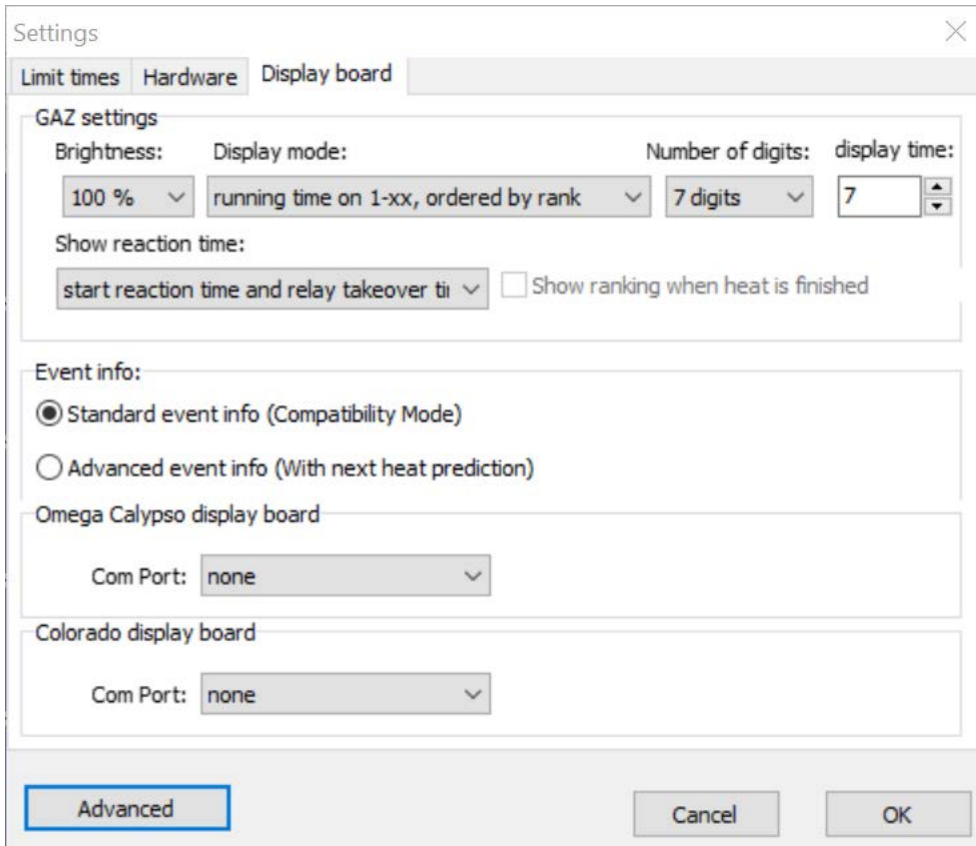
The pool length is used by SwimTime to calculate the total number of touches.

Attention: In case the competition structure is taken over by evaluation software, it is important to set the correct pool length in the evaluation.

4.5.1.2.7 Number of Lanes

This setting is deactivated when a timing device is connected as the number of lanes is automatically set by the hardware.

4.5.1.3 Display Board



4.5.1.3.1 GAZ Settings

4.5.1.3.1.1 Brightness

to adjust the brightness of your D-SW display board

4.5.1.3.1.2 Number of Digits

Adjust here the number of figures per line of your display board.
Standard: 7

4.5.1.3.1.3 Display Time

Adjust here the display duration for intermediate times and reaction times.

4.5.1.3.1.4 Show Reaction Time

Choose here the desired mode for showing reaction times and relay take-off times.

- Start reaction time and relay takeover time (standard)
shows both times on the display
- Only start reaction time
shows only the start reaction time on the display board
- No start reaction time and no relay take-off time
shows no times on the display

4.5.1.3.1.5 Show ranking when heat is finished

When using lane orientation during the current heat, you can activate this function. In this case, the display is sorted by rank when the heat is finished.

4.5.1.3.1.6 Display mode

Choose here the desired display mode.

- Running time on 1-xx, sorted by lane
times sorted by lanes, running time shown at first free line
- Running time on 1-xx, sorted by rank (**standard**)
times sorted by rank, running time shown on first free line
- Running time on 0, sorted by lane
times sorted by lanes, running time output on address 0
- Running time on 0, sorted by rank
times sorted by rank, running time output on address 0
- 1 x 8 digit GAZ
shows times on single display line
- 2 x 6 digit GAZ
shows times on 6-digit standard displays 1-n with bib-rank for lane and rank and time
- 1 x 8 digit GAZ sorted by rank alternating
shows times alternating on one single display line

4.5.1.3.2 Event Information

Choose here between standard display and display with heat preview.

4.5.1.3.3 Omega Calypso Display Board

You can control Swiss Timing display boards with this option. In addition you need a USB-RS485 adapter.

4.5.1.3.4 Colorado Display Board

With this option, you can control display boards by Colorado. In addition you require a USB-RS232 adapter.

4.5.1.4 Advanced Settings

You can find the advanced settings for professionals here. The standard settings are shown below or can be reset by using the button 'default'.

Advanced settings ✕

<p>Video settings</p> <p>Baud rate: <input type="text" value="19200"/> Mode: <input type="text" value="Standard"/> Display time: [s] <input type="text" value="99"/></p>	<p>Delay times: [s]</p> <p>Touchpad: <input type="text" value="2,00"/> Buttons: <input type="text" value="0,30"/></p>	<p>Inverse delay times: [s]</p> <p>Touchpad: <input type="text" value="0,15"/> Buttons: <input type="text" value="0,30"/></p>
<p>Printer settings</p> <p>Baud rate: <input type="text" value="2400"/> Mode: <input type="text" value="Run times"/> <input type="checkbox"/> Handshake</p>	<p>Start block: <input type="text" value="0,15"/> Start (C0): <input type="text" value="0,50"/></p>	<p>Start block: <input type="text" value="0,15"/></p>
<p>Trigger direction:</p> <p>Touchpad: <input type="text" value="both, NO for timing"/></p> <p>Buttons: <input type="text" value="Buttons NO, normally o"/></p> <p>Start block: <input type="text" value="both, NC for timing"/></p>	<p>Length of start signal headset: [s] <input type="text" value="50"/></p> <p>Timing window start blocks [s]: <input type="text" value="2"/></p> <p>Baud rate GAZ: <input type="text" value="2400"/></p>	<p>Start sound length: [s] <input type="text" value="20"/> <input type="checkbox"/> Enable simulator</p> <p><input type="checkbox"/> Enable manual start</p> <p>Frequency start signal [Hz]: <input type="text" value="1800"/> Event info address <input type="text" value="0"/></p> <p><input type="checkbox"/> Print result after end heat</p>
<p><input type="button" value="Default"/> <input type="button" value="Cancel"/> <input type="button" value="OK"/></p>		

4.5.1.4.1 Video Settings

Setting for the RS232 Port (Video-Out)

4.5.1.4.2 Printer Settings

Setting for the RS232 Port (Printer1 and Printer2)

4.5.1.4.3 Trigger Direction

Setting for the impulse type of the sensors

ATTENTION: Wrong settings result in wrong timing.

4.5.1.4.4 Delay Times

Delay times define the minimal time a timing channel has to be nonoperated before a new impulse can be registered.

4.5.1.4.5 Inverse Delay Times

Inverse delay times define the minimal time a timing channel has to be operated before a new inverse impulse can be registered.

These times are used for statistical calculations.

4.5.1.4.6 Duration of Start Signal Headset

Define the duration of the start signal in the headset in 1/10 s.

4.5.1.4.7 Start Sound Duration

Define the duration of the start signal on the loudspeakers SPA/SPP in 1/10 s.

4.5.1.4.8 Frequency Start Signal

Define the frequency of the start signal.

4.5.1.4.9 Timing Window Starting Platforms

Define the timing window for relay take-off time and start reaction time.

4.5.1.4.10 Baud Rate GAZ

Setting for the RS232 port (display board)

4.5.1.4.11 Event Info Address

Define the display board address showing the event heat information.

0 for separate event display

n for display of event information on line n

4.5.1.4.12 Simulator

With activating this function you can trigger times with a click on the surface and simulate heats without hardware.

IMPORTANT: For competition use the function has to be deactivated.

4.5.1.4.13 Manual Start Button

This function activates directly on the SwimTime surface a button for starting.

4.5.1.4.14 Print Result after Heat End Automatically

If this function is activated, the heat protocol is automatically printed after the end of the heat.

4.5.2 Network

Here you find several network connection settings.

4.5.2.1 Splash

For configuration of communication with all other programs that support the LENEX exchange.

The screenshot shows the 'Network settings' dialog box with the 'Splash' tab selected. The 'Enable Splash exchange' checkbox is checked. Below it, the 'Splash exchange settings' section contains an 'Exchange dir' text box with the path 'C:\Users\Public\Documents\SwimTime\Exchange' and a 'Search' button. The 'Share name' dropdown is set to 'SwimTime' with a 'Create share' button. Three checkboxes are checked: 'Auto import Splash data', 'Import all competitor data in the current event', and 'Send status automatic'. At the bottom are 'Cancel' and 'OK' buttons.

4.5.2.2 Network Display

The output for a network display can be configured here.

The screenshot shows the 'Network settings' dialog box with the 'Network display' tab selected. The 'Enable display via network' checkbox is checked. The 'Network settings' section has two radio buttons: 'Broadcast in the network' (selected) and 'Send only local'. The 'Display settings' section has two spinners: 'Intermediates' and 'Reaction times', both set to the value 10. At the bottom are 'Cancel' and 'OK' buttons.

4.5.2.3 IDCam

The high-speed video backup systems is configured here.

	(M)ain or (T)urn	Lane from	Lane until	IDCam PC
PC 1	M	1	8	127.0.0.1

4.5.2.4 D-RTNM

Configuration and activation of the D-RTNM displays.

Enable RTNM	RTNM Size	IP address of RTNM	RTNM Mode	Brightness
<input type="checkbox"/>	16x2 char	127.0.0.1	Race mode
<input type="checkbox"/>	21x2 char	127.0.0.1	Race mode
<input type="checkbox"/>	26x2 char	127.0.0.1	Race mode
<input type="checkbox"/>	26x5 char	127.0.0.1	Race mode
<input type="checkbox"/>	26x8 char	192.168.1.14	Race mode

4.5.2.5 HyTek

Settings for data exchange with HyTek Meet Manager

Network settings

Splash Network display IDCam RTNM Hy-Tek

Hy-Tek Generic File Sharing Exchange settings

Auto import start list

Create result automatically

Exchange dir: C:\Users\Public\Documents\HyTek Search

Generic exchange format

Standard

Format version 2

Cancel OK

5 Technical data

5.1 TM-SWIM CONTROLLER

- Measuring Range
23 hours, 59 minutes, 59.9999 seconds
- Time reference
TCXO 10,000MHz (temperature compensated quartz oscillator)
- Frequency deviation
Temperature range -25 to 50 degrees Celsius: +/- 2,5ppm
ageing: +/- 1 ppm per year
at 25 degrees Celsius calibrated to +/- 0.1 ppm (+/- 0.001 sec./h)
- Resolution
Adjustable from 1s to 1/10000 seconds (1s; 0,1s; 0,01s; 0,001s; 0,0001s)
- Power Supply
internal: 12 V lead battery
external: 100 - 240 V, 50/60 Hz
or 12 - 18 V DC (optional)
- Interfaces:
4 x RS232 interfaces (NoParity, 8 data, 1 stop)
1 x PC (9600 kBaud)
1 x display board (2400 kBaud) galvanic isolated
1 x protocol printer or evaluation software (2400 kBaud)
1 x video interface (9600 kBaud) galvanic isolated
3 x RS485 interfaces
2 x timing bus start and turn side
1 x display board
- Connections
SWT3 Line S (bus system start side)
SWT3 Line Turn
Printer 1
Printer 2
Computer connection
TV-Online
Display board (DIN-connector)
Display board (banana connectors)
Start Unit SU3
Start (banana connectors)
Speaker active (2 x)
Speech connection
Audio line in
Audio line out
- Regulator
Microphone announcement
Headset
Audio in
Volume
- Control lights
Error: lights up at several errors, PC provides detailed error description
External supply
Device supply
- Control elements
Speech: enables announcements via SPA
Line Test: start line test
Start: triggers an internal start impulse

5.1.1 Interface Description

5.1.1.1 Display

- Transfer speed: standard 2400 Baud, 8 data bits, no parity, 1 stop bit
4800, 9600, 19200, 38400 is adjustable via software
- Data format: ASCII
- Pin description:
 - banana connector: Yellow TX
Black GND
 - DIN connector:

1	TX
2	GND
3	RX (not in use)
4	CTS
5	RTS



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
F			.									M	M	:	S	S	.	z	CR					running time
F			C							B		M	M	:	S	S	.	z	h	x	CR			stopped time
L																								valid for all adresses

5.1.1.2 Video

- Transfer speed: standard 19200, 8 data bits, no parity, 1 stop bit
4800, 9600, 19200, 38400 is adjustable via software
- Data format: ASCII
- Pin description:

1	TX
2	GND
3	RX (not in use)
4	CTS
5	RTS



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	maximum 64 Characters		
R	e	e	e	h	h	h		H	H	:	M	M	:	S	S	.	z	h	t	c	CR		running time	TM-SWIM	
I	L	L	T	T	T	R	R	H	H	:	M	M	:	S	S	.	z	h	t	c	CR		intermediate time	TM-SWIM	
F	L	L	T	T	T	R	R	H	H	:	M	M	:	S	S	.	z	h	t	c	CR		finish time	TM-SWIM	
C	L	L	T	T	T	R	R	H	H	:	M	M	:	S	S	.	z	h	t	c	CR		Clear Time	TM-SWIM	
M	L	L	T	T	T			H	H	:	M	M	:	S	S	.	z	h	t	c	CR		Reaction (Moving) Time	SwimTime	
The lenght of the following strings depends on the data sent!																									
I	D	EV	/	HT	/	Diszipline	/	Class														CR	Event identification	SwimTime	
B	:	Name	/	Nation	/	Club														CR	Swimmer identificatio	SwimTime			

R running time (every 1/10 is transmitted)
 START start received! From version 14xx!
 eee event number (000-999)
 hhh heat number (000-999)
 HH hours
 MM minutes
 SS seconds
 z 1/10
 h 1/100
 t 1/1000

c	1/10000
CR	carriage return
FLL	finish time for lane 00-12
ILL	intermediate time for lane 00-12
MLL	reaction time for lane 00-12
CLL	deleted time for lane 00-12
LL	lane number (00-12)
TTT	touch counter (001-999)
RR	current rank, not sent on version higher than 14xx!
M	reaction and relay take-off time
ID	identification of event
EV	event number (0-999)
/	data separator
HT	heat number (0-999)
B	lane number (0-12)

5.1.1.3 PC

internal use only, available on special request

5.1.2 Maintenance and Care

Clean the device from time to time with a dry cloth.

If you don't use the system recharge the internal batteries every 3 month.

5.2 Touchpads

The touchpads are available in different sizes.

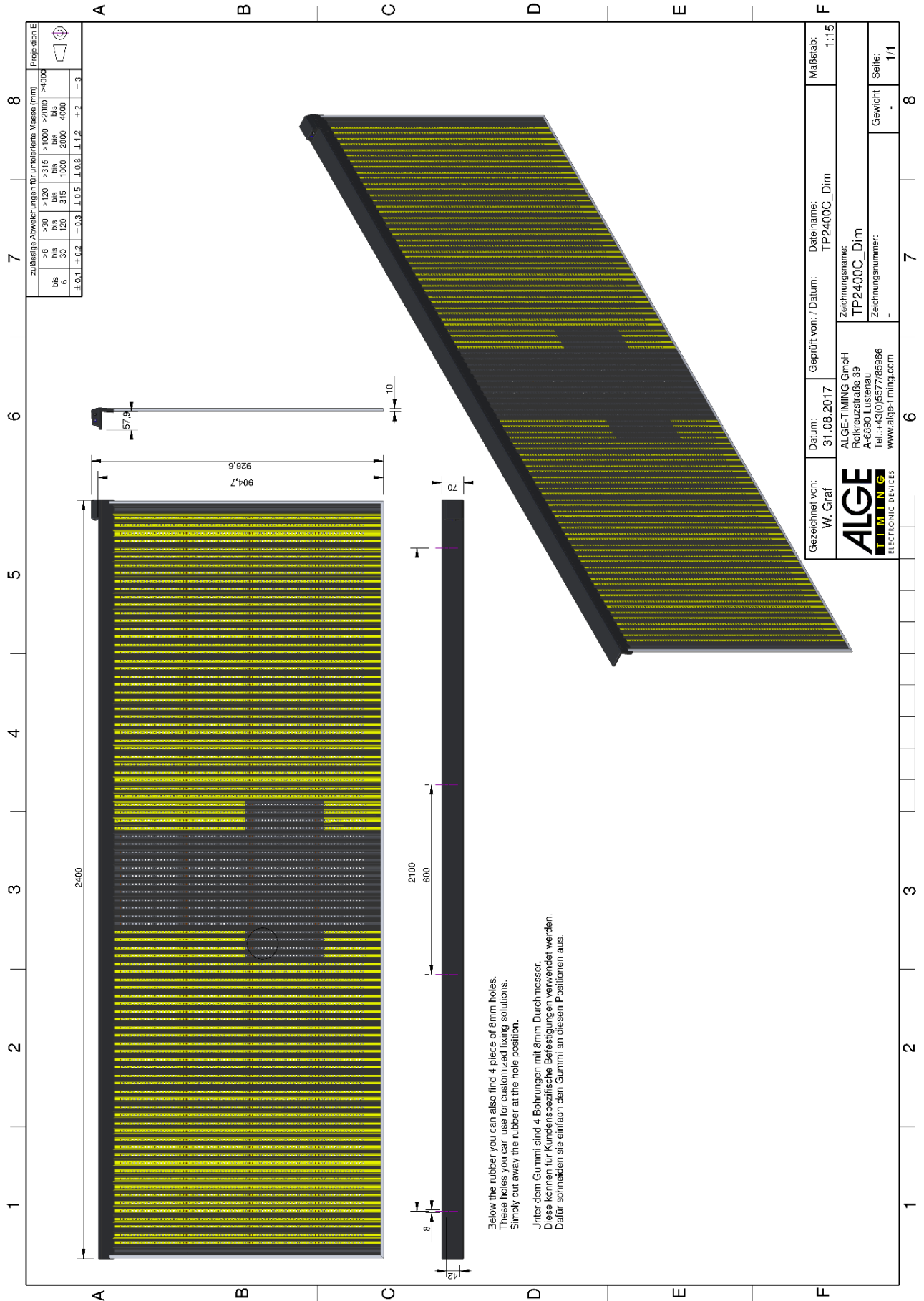
5.2.1 Technical Data

Type:	TP2400C, TP1890C
Dimensions:	see drawings
Weight:	25, 20 kg
Sensitivity:	2.5 to 3.5 kg
Sensors:	4 tape switches
Material:	stainless steel 1.4571 and PVC lamellas
Conform with:	FINA, SSCH, AAU and NCAA regulations



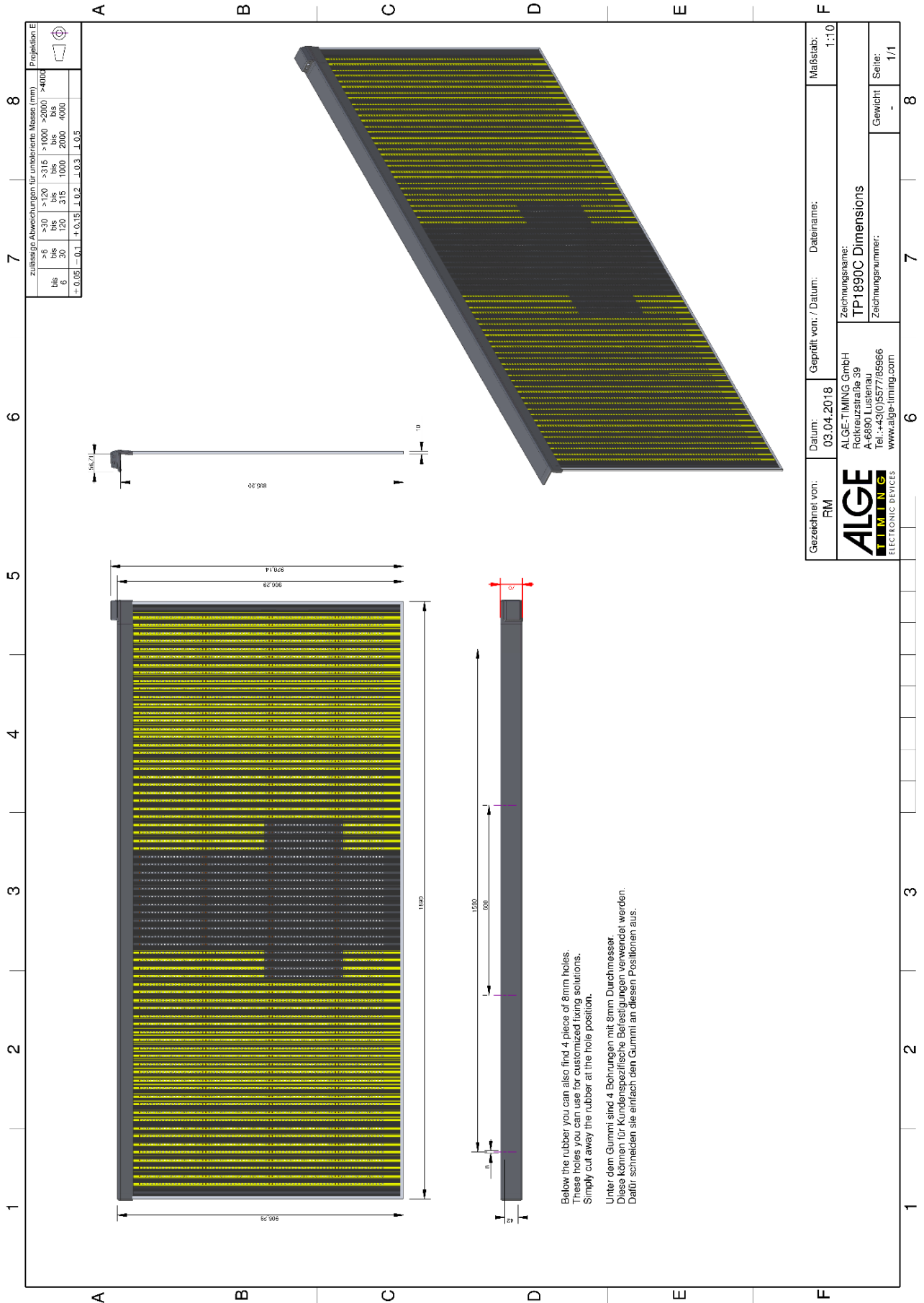
5.2.2 Maintenance and Care

1. A little silicone grease will protect the contacts from corrosion.
2. Pay attention to the strict compliance with periodic manual cleaning of the touchpads. Start with a weekly cleaning and optimize the periods in order to always prevent formation of dry residues (salts or other compounds).
3. Do not execute manual dosages or water shocks in the proximity of the touchpads and avoid splashes and accumulations.
4. Avoid depositions of substances like salts, dust, dirt, etc. on the touchpads.
5. Avoid contact with other metal parts or metal materials, especially iron, adhesions of concrete, etc.
6. Execute the cleaning of the touchpads with tap water. In case you notice depositions or oxidation stains, clean with diluted 10 – 15 % nitric solution or with non-abrasive metal cleaner. Rinse with tap water and completely dry with a cotton cloth.
7. Ensure that the pH value, the disinfectant agent and the correct use of bactericides in the swimming pool are controlled.



Below the rubber you can also find 4 pieces of 8mm holes.
These holes you can use for customized fixing solutions.
Simply cut away the rubber at the hole position.

Unter dem Gummi sind 4 Bohrungen mit 8mm Durchmesser.
Diese können für kundenspezifische Befestigungen verwendet werden.
Dafür schneiden sie einfach den Gummi an diesen Positionen aus.



Below the rubber you can also find 4 piece of 8mm holes.
These holes you can use for customized fixing solutions.
Simply cut away the rubber at the hole position.
Unter dem Gummi sind 4 Bohrungen mit 8mm Durchmesser.
Diese können für kundenspezifische Befestigungen verwendet werden.
Dafür schneiden sie einfach den Gummi an diesen Positionen aus.

5.3 *Transport Cart*

The transport cart is made of stainless steel 1.4571 and can carry up to 12 touchpads depending on the model.

5.3.1 **Technical Data**

Dimensions: 815 x 1570 x 1360 (W x L x H) mm
Weight: 30 kg, without touchpads!

5.3.2 **Maintenance and Care**

As described under point 5.2.2!

5.4 *P5-8 Online Protocol Printer*

The printer P5-8 is directly supplied by the TM-SWIM. The following information is printed in chronological order:

- event number and name
- heat number
- sex
- start, intermediate and final time
- all impulses outside a race in time of day format
- character height: 3 mm with 24 characters per line
- printing speed: 5 lines per second
- thermal paper printer

5.4.1 **Technical Data**

Printing technology: thermal paper 63 mm
Power supply: directly from TM-SWIM with 12 V
Dimensions: 160 x 89 x 67mm
Weight: 0.2 kg

5.4.2 **Maintenance and Care**

Clean the device from time to time with a dry cloth.



5.5 *SWT3 Swim Terminal*

The SWT3 swim terminal is used to receive the timing impulses. All SWT3 are identical and can be used in any lane. The TM-SWIM automatically recognizes the number of connected swim terminals. The terminals are connected with the cable set SWCBLxx to the TM-SWIM. At each terminal five peripheral devices can be connected as following:

- 1 x touchpad, dual edge trigger system
- 3 x manual button
- 1 x relay take-off sensor



5.5.1 Technical Data

Power supply: directly from TM-SWIM with 12 V
Precision: 1/10,000 seconds (0.0001s)
Dimensions: 159 x 84 x 59 mm
Weight: 0.3 kg

5.5.2 Maintenance and Care

Clean the device from time to time with a dry cloth.
 A little bit silicone grease will protect the contacts from corrosion.

5.6 *Push Button 023-02*

Especially rugged waterproofed push buttons with banana plugs are used for manual timekeeping.



5.6.1 Technical data

Dimensions: 20 x 100 mm
Weight: 100 g

5.6.2 Maintenance and Care

Clean the device from time to time with a dry cloth.
 A little bit silicone grease will protect the contacts from corrosion.

5.7 *SU3 Start Unit*

The SU3 is the start device that is operated by the starter. It has a built-in microphone and a speech amplifier. With a small potentiometer, the starter can adjust the feedback in compliance with the local requirements. The SU3 is connected with the cable reel KT199Z10 directly to the TM-SWIM or to the FLASH XL.



5.7.1 Technical Data

Functions: start – announcement – ready display
Dimensions: 75 x 120 x 35 mm
Weight: 150 g

5.7.2 Maintenance and Care

Clean the device from time to time with a dry cloth.
 A little bit silicone grease will protect the contacts from corrosion.

5.8 E-START

The electronic starting device e-Start provides absolute accuracy, synchronization of the start signal, visible flash, and start tone. It replaces traditional starting guns. Problems due to transporting firearms are history.

5.8.1 Technical Data

Light source:	high power LED flash
Power supply:	directly from TM-SWIM with 12 V
Dimensions:	150 x 250 x 35 mm
Weight:	0.3 kg



5.8.2 Maintenance and Care

Clean the device from time to time with a dry cloth.
A little bit silicone grease will protect the contacts from corrosion.

5.9 FLASH XL

The FLASH XL is used as visual start signal for the competitors and the spectators. The advantage of a visual start signal is the non-existing delay at all positions in the pool.

Due to the LED technology, this flashlight meets all safety regulations in the pool area as it works only in low-voltage ranges.

5.9.1 Technical Data

Type:	FLASH XL
Dimensions:	80 x 120 x 40 mm
Weight:	0.4 kg
Battery:	4 x AAA, not required in swimming
Light source:	100 super bright green LED

5.9.2 Maintenance and Care

Clean the device from time to time with a dry cloth.
A little bit silicone grease will protect the contacts from corrosion.

Remove during storage the batteries from the FLASH.

If you use the FLASH with the cable 199-xx you don't need any batteries at all!



5.10 SPA and SPP

The speaker system that is used by ALGE-TIMING complies with the electrical safety rules of equipment in pool areas. The SPA is permanently charged by the TM-SWIM if the TM-SWIM is connected to mains. All SPAs are connected in series to the TM-SWIM with the cable set SWSPA8. At each SPA, also one SPP is connected.



5.10.1 Technical Data

Type:	SPA
Dimensions:	250 x 180 x 180 mm
Weight:	3 kg
Battery:	12 V/2.2 Ah
Material	stainless steel 1.4404, powder-coated
Max. Output power:	2 x 10 W

5.10.2 Maintenance and Care

Clean the device from time to time with a dry cloth.

A little bit silicone grease will protect the contacts from corrosion.

If you don't use the system recharge the internal batteries every 3 month.

5.11 SWR7 Relay Take-Off Sensor

Each SWR7 is made of high quality stainless steel 1.4404 and provides relay take-off and reaction times (statistical data). This special feature is only available with ALGE-TIMING by simply upgrading the software.

The especially slip-resistant surface, developed by ALGE-TIMING, is indestructible and alters its characteristics in no way.

The SWR7 can be mounted on most starting platforms without any tools.



5.11.1 Technical Data

Type:	SWR7
Dimensions:	740 x 560x 40 mm
Measurement system:	integrated sensor for timing
Weight:	20 kg
Material:	stainless steel 1.4404, surface treated

5.11.2 Calibration

See point 5.13.2!

5.11.3 Maintenance and Care

As described under point 5.2.2.

5.12 SO4 Starting Platform

Each SO4 is made of stainless steel 1.44004. It provides relay take-off and reaction times statistic data). The SO4 is designed for constant use in outdoor and indoor swimming pools. With the adjustable foot rest the swimmers have the possibility of an optimal start.

5.12.1 Technical Data

Dimensions: 740 x 560 x 400 mm
see drawing on the next page

Measurement system: integrated sensor for timing

Weight: 40 kg

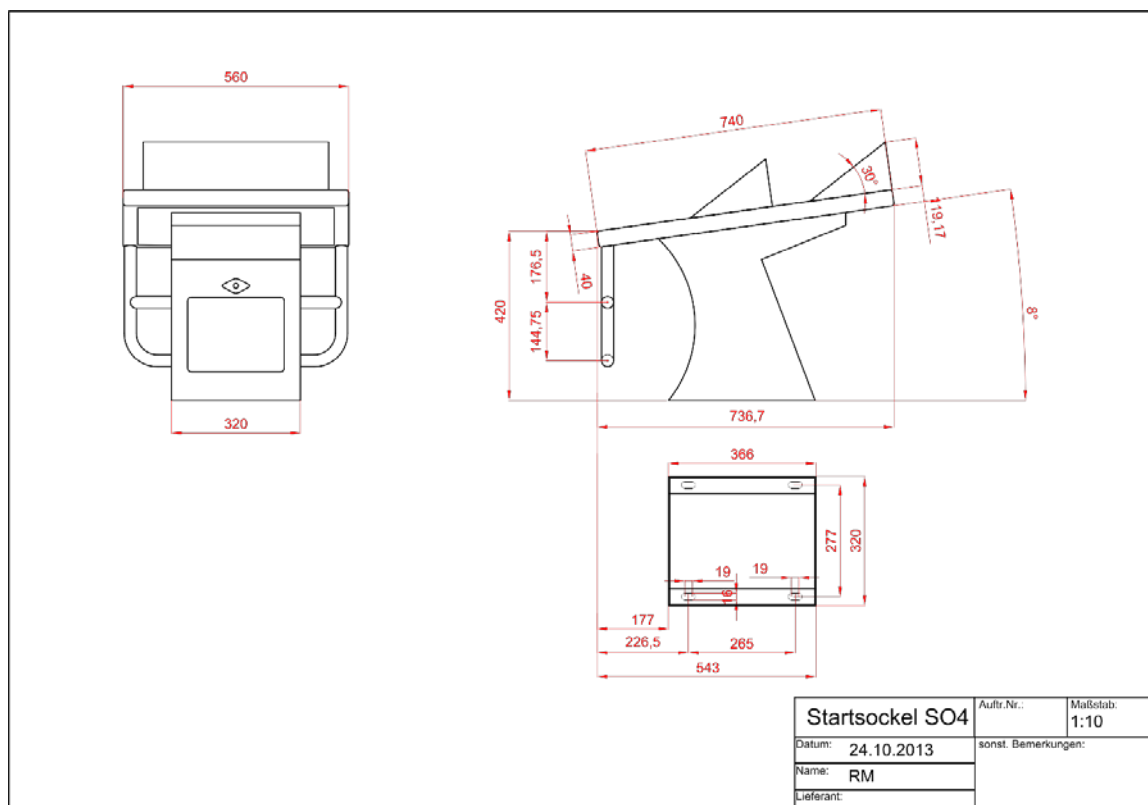
Material: stainless steel 1.44004, surface treated



5.12.2 Calibration

See point 5.13.2!

5.12.3 Maintenance (see 5.13.3)



5.13 SO5 Starting Platform

Each SO5 is made of LDPE plastic and provides relay take-off and reaction times (statistic data). The SO5 is designed for constant use in outdoor and indoor swimming pools. With the adjustable foot rest the swimmers have the possibility of an optimal start.

5.13.1 Technical Data

Dimension:	740 x 560 x 400 mm see drawing on next page
Measurement system:	integrated sensor for timing
Weight:	25 kg
Material:	LDPE and other, surface treated

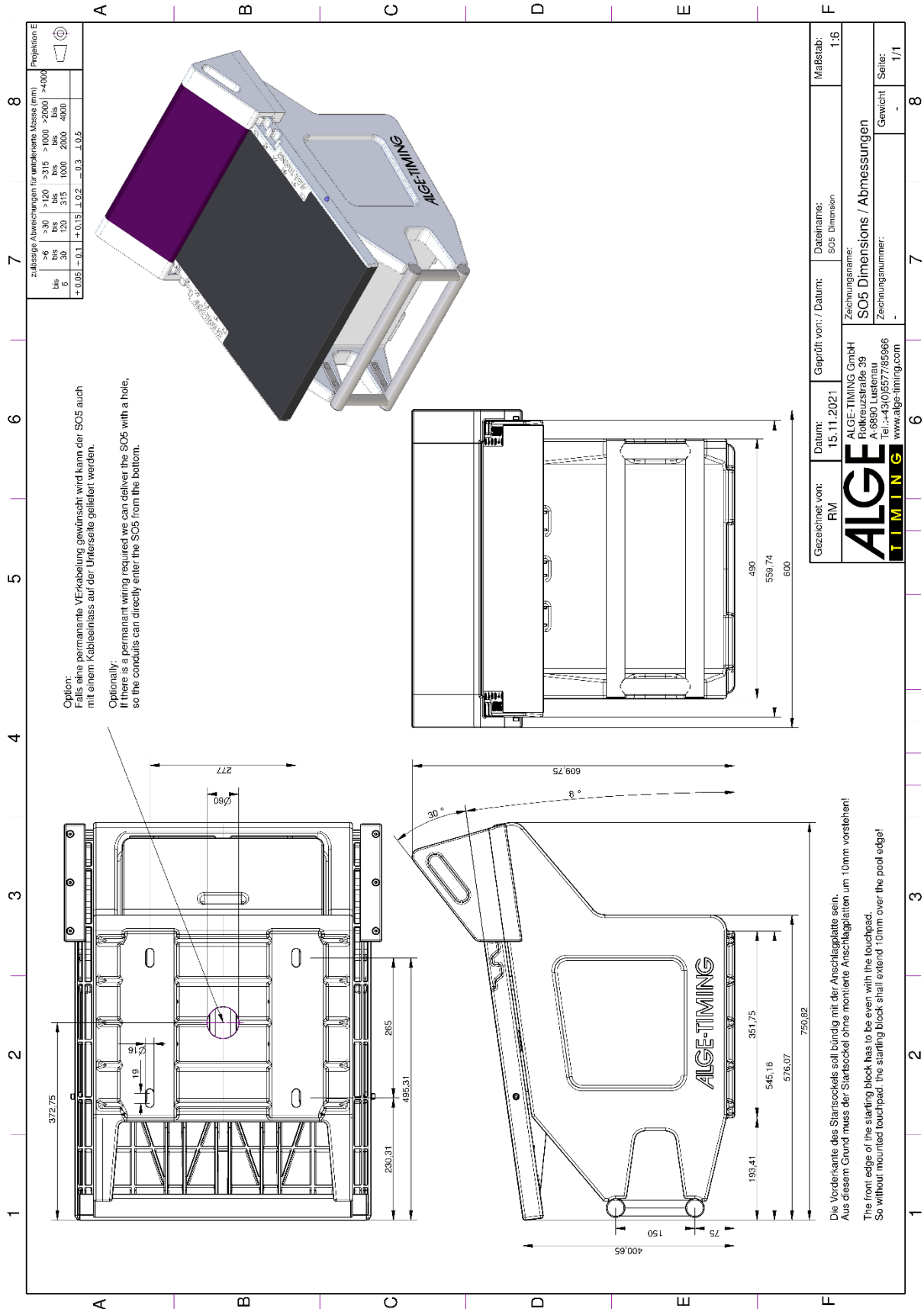


5.13.2 Calibration

Before checking the sensitivity of the starting blocks, you have to check if the fixation nuts are not fastened! Open the fastening nuts till you can move the washers slightly.

If the sensitivity is out of the range of 8kg to 15kg, make an adjustment by proceeding as follows:

- Disconnect the timing system from the starting block!
- Connect a buzzer to the output
- Pull back the top part with a dynamometer.
If the buzzer starts beeping between 8 to 15kg the sensor is adjusted correctly.
If it starts before or after this value you should readjust the sensors!
- Open the contra nuts from the adjustment screws (1) and (2)
- If the buzzer is beeping already turn the adjustment screw out till the buzzer stops beeping.
- Now start with the adjustment screw (1)
Screw it slowly in till the buzzer starts beeping.
Now turn it out about 3 faces (1/2 turn) and fix the contra nut.
- Adjust the second screw in the same way.
- Make a test with the dynamometer by pulling back the top plate.
If the buzzer starts beeping between 8 and 15kg the sensitivity is adjusted correctly.



Die Vorderkante des Startsockels soll bündig mit der Anschlagplatte sein.
Aus diesem Grund muss der Startsockel ohne montierte Anschlagplatten um 10mm vorstehen!
The front edge of the starting block has to be even with the touchpad.
So without mounted touchpad, the starting block shall extend 10mm over the pool edge!

5.13.3 Maintenance



S04

Competition:

Before a competition starts, it is necessary to loosen the four marked screw nuts (front and back side) so that the top-plate can move easily. The four screw nuts are marked by labels.

Public operation:

The four screw nuts must be tightened with a torque of 17 Nm when you use the starting block for public operations (front and back side).

Cleaning:

Occasionally, clean it with a mild cleanser in order to avoid corrosion.

Important:

After cleaning, rinse the start block with fresh water.

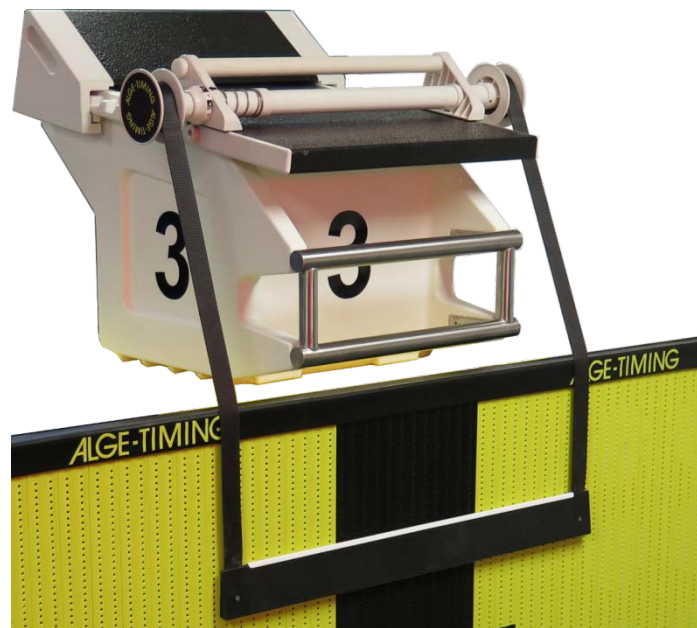


S05

5.14 BSA Backstroke Start Aid

The backstroke start aid is fully compatible with the ALGE-TIMING SO3, SO4, SO5, and any other brand of starting platforms.

Every unit consists of a lower part (which must lean against the end wall of the pool) including a foot rest designed to support the swimmer's push at the start and an upper part to hook the assembly to the starting platform. The upper part also includes a rotating mechanism to set the unit to the swimmer's own starting position and to his size. A return spring allows a "one handed" easy adjustment, also if the athlete is in the water. The upper handlebar allows easy removal of the unit after the start.



5.14.1 Technical Data

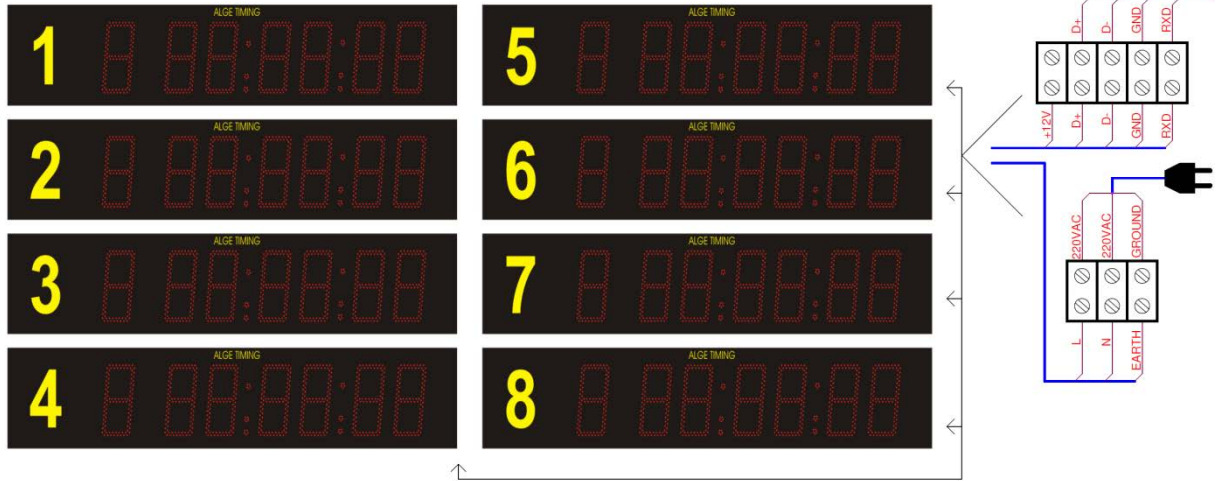
Dimensions:	900 x 200 x 150 mm
Adjustments:	in 2 cm steps plus and minus
Weight:	3 kg

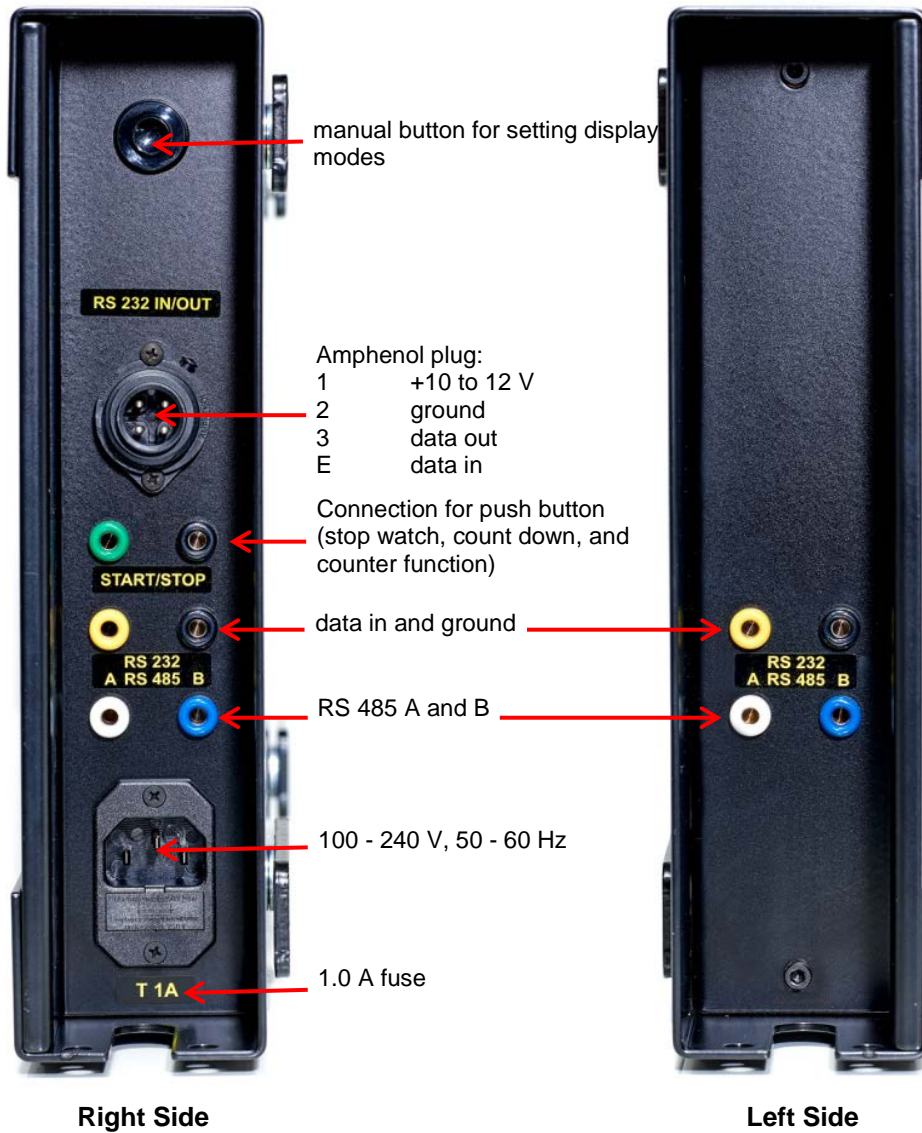
5.14.2 Maintenance and Care

Clean the device from time to time with a dry cloth.

5.15 Numeric LED Display Systems

All numeric LED displays have similar connections as described below. Depending on the model there are not all of the connections available!





5.15.1 Dimensions

Our local representatives can provide the detailed dimensions and fixing points of the various different display boards for swimming.

5.15.2 Maintenance and Care

Clean the device from time to time with a dry cloth.

Subject to changes and misprints

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