



T50 GOLDBRONZE B



*Sinn*

SPEZIALUHREN ZU FRANKFURT AM MAIN





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DEAR CUSTOMER,

since the company was founded in 1961, we have focused on the creation of high-quality mechanical watches. Nowadays, watch lovers associate innovation and patents with the name of Sinn Spezialuhren. And it's not just our diving watches that stand for high performance, robustness, and durability, quality and precision.

These watches do, however, constitute an outstanding example of how we repeatedly push the limits of what can be achieved physically in development.

We are driven by the question of which new technologies and materials can be used to make diving watches safer and more suitable for everyday use. It is often worth indulging in a little lateral thinking to see what is going on in other industrial sectors or fields of science.

It is therefore no coincidence that the series U1, U2, U50, U212 and UX are made of high-strength, seawater-resistant German Submarine Steel. Another example is the T50 model. All the case parts of this timepiece are made of high-strength titanium. Both German Submarine Steel and high-strength titanium predestine our diving watches for use in salt water. We also demonstrate a high level of expertise with the goldbronze alloy developed by us for the models T50 GBDR and T50 GOLDBRONZE B. Due to the exceptionally high degree of purity, there is improved skin compatibility and increased corrosion resistance to seawater compared to conventional bronze alloys.

Independent testing institutes verify and certify the specifications of our diving watches – including in accordance with European diving equipment standards, which is unique in the watch industry.

I am delighted that you have decided to buy a SINN diving watch and hope that it will continue to give you pleasure for many years to come.

Yours,

A handwritten signature in black ink, appearing to read 'L. Schmidt', with a stylized flourish at the end.

Lothar Schmidt



*Sinn*

ENGINEERING OF TECHNOLOGY IN MADE

*Sinn*

ENGINEERING OF TECHNOLOGY IN MADE

## SINN SPEZIALUHREN ZU FRANKFURT AM MAIN

It was back in 1961 that pilot and blind-flying instructor Helmut Sinn founded the company. Since then, we have been committed to producing high-specification mechanical watches. In 1994, the graduate engineer Lothar Schmidt took over the company. This marked the beginning of a new era for the SINN brand, because the new owner took a decisive step towards more innovation. Under his leadership, new technologies and materials were introduced, thus providing the crucial incentives for our company's evolution and gradual emergence as an insider's tip for lovers of fine watches. Today, our name stands for technical innovations – much to the delight of both the trade and our customers alike.

### **Technical innovations**

Take, for example, the absolutely condensation-free, anti-reflective, German Submarine Steel diving watch – made possible by HYDRO Technology. Other examples include a chronometer chronograph fashioned from a 22-carat gold alloy that is as hard as stainless steel and a chronometer with a magnetic resistance of up to 100 mT (= 80,000 A/m). There are also watches with a clockwork mechanism optimally protected from aging by an inert gas and integrated dehumidifying capsule. The list would not be complete without mentioning the development of mission timers (Einsatzzeitmesser or EZM in German) for firefighters, for special police units and border patrol guards. DIAPAL is one of our most important technological developments, with oiling no longer needed for the most important functions in the watch thanks to the materials we select. This technology was first used in 2001. With the aid of TEGIMENT Technology, we achieve greatly increased scratch resistance through surface hardening.

## Ongoing advancement in technology and quality

Our top priority has always been to develop watches that offer superior performance – both in daily and in professional use. Which is why our engineers are working continually to identify which innovative methods, materials and technologies are best suited for optimising our watches. Each new development has to first undergo rigorous practical tests before being incorporated. And no watch leaves our workshops before it has been subjected to thorough checking and fine adjustment by our master watchmakers.

## Innovations in endurance testing

Independent institutes have been testing our diving watches for pressure and water resistance since 2005. As part of a further official certification, our diving watches have been treated as part of diving equipment since 2006 and are tested and certified in accordance with European diving equipment standards. This is unparalleled in the watch industry. Selected pilot watches are tested and certified by independent institutions according to the DIN 8330 Horology – Aviator watches in an extensive and complex type and unit verification process.





This ensures that a DIN 8330-compliant pilot watch is not only a suitable all-round replacement for the on-board timekeeping instruments available to pilots, but is also capable of remaining unaffected by the physical stresses of flight, posing no risk potential for the crew or aircraft, and demonstrating compatibility with other on-board instruments.

The Temperature Resistance Technology keeps mechanical watches performing at temperatures ranging from  $-45\text{ }^{\circ}\text{C}$  to  $+80\text{ }^{\circ}\text{C}$ . This technology has proven its worth in the EZM 10 TESTAF, for example, used as part of the official approvals procedure for Airbus Helicopters (formerly Eurocopter) EC 145 T2 high-performance helicopter. The 303 KRISTALL is impressive proof of the functional reliability of our watches under the toughest climatic conditions. Equipped with Temperature Resistance Technology, the chronograph passed the acid test at the Yukon Quest, the world's most demanding dogsled race. The 203 ARKTIS passed its Arctic endurance test on the wrist of extreme diver Mario M. Weidner, withstanding all dives in the freezing cold waters of the Arctic Ocean above 81 degrees latitude. Both watches were worn on top of protective clothing. The real test was in the extreme temperature fluctuations between water and land – a test that the 303 KRISTALL and the 203 ARKTIS passed with flying colours.

Image: This system of assessment has been specially designed for the pressure resistance of our diving watches by an independent institute.

## Workshop modifications

From the robust case and the polished crystal to the exquisitely decorated movement, we make sure that each and every detail in our watches is fit for purpose. In addition to our technology, the heart of any SINN watch is the fascinating mechanical movement. That is why we rely only on selected renowned manufacturers.

“SZ movements” is the name given to our movement modifications. The results are high-quality calibres characterised by impressive features. An example of this is the SZ04 with regulateur for the 6100 REGULATEUR series.

The model series 140 and model 717 uses our proprietary chronograph development, the SZ01. It was modelled on the Lemania 5100 calibre used in the EZM 1. One of the biggest differences between the SZ01 and the Lemania 5100 is the former’s stopwatch minute display. This feature now makes it even easier and quicker to record stop times more accurately. The aim of this modification was to significantly improve the readability of the chronograph function.

The SZ calibres 02, 03, 05 and 06 are a modification of the SZ01 movement, characterized by an off-center 60-minute counter. The 60-minute scale of the stopwatch minute counter is much simpler and more intuitive to read than the 30-minute scale commonly found in other watches.





## PERFECT DIVING WATCHES

**Our watches are famous for their outstanding functionality. We consistently implement this principle in our accurate timepieces for pilots as well as in our diving watches. The technical development of such perfect time-keeping instruments is one of the greatest challenges for our engineers and watchmakers. During a dive, absolute water resistance, perfect readability in all lighting and water conditions and extreme durability are of life-saving importance.**

This is due to the fact that we develop these watches exclusively for their intended purpose – with the consequence that the form follows the primary function. Thus we ensure an extremely high standard of reliability, safety and practicality in everyday use.

## SINN HAS DIVING WATCHES INDEPENDENTLY TESTED AND CERTIFIED

**We attach great importance to ensuring that information about our watches is verifiable. With this in mind, our company has its diving watches tested and certified according to various criteria: While one test procedure focuses on water resistance and pressure resistance, a second procedure is concerned with something that has never been done before in the watch industry: certification in accordance with European diving equipment standards!**

The background: time plays an important role in survival on every dive. Diving watches must therefore be water-resistant, reliable and robust and guarantee perfect readability in all light and water conditions. In addition: For us, the certifications are a matter of course and the fulfilment of a quality promise. Our specifications for diving watches are therefore not only expressed in words, but also proven by deeds.

### **Testing for water resistance and pressure resistance**

We have been having our diving watches tested for water resistance and pressure resistance for years. In accordance with the certification standards, the 206 ARKTIS II and 206 St Ar models are pressure-resistant up to 30 bar, the T50, T50 GBDR, U15, U50 S L, U50 DS, EZM 3, EZM 13.1, EZM 13 and the U50 and 613 St model series are pressure-resistant up to 50 bar, the T1, U1, U1 S, U16, U212 and U1000 model series are pressure-resistant up to 100 bar, and the T2, U2, U18 and U200 model series are pressure-resistant up to 200 bar. The U50 HYDRO, UX (EZM 2B) and UX GSG 9 (EZM 2B) model series are even water-resistant and pressure-resistant to a diving depth of 5,000 metres (= 500 bar).

The tests are repeated at regular intervals on all series of these watches in order to document the consistency of quality time and time again.

### **Premiere: certification in accordance with European diving equipment standards**

Is it possible to demand the same from a diving watch in a test procedure as from a breathing apparatus, for example? To answer this question, we were the first company ever to have diving watches recognised as diving equipment and tested accordingly as part of an official certification process. This inspection in accordance with the European diving equipment standards EN250 and EN14143 was completely new territory. This is because the standards relate to diving equipment and therefore cannot simply be applied one-to-one to watches. They were therefore adapted and two test series defined accordingly. In the first test, the timepieces are stored for three hours at  $-20^{\circ}\text{C}$ , followed by a further three hours at  $+50^{\circ}\text{C}$ . The watches are then checked for accuracy and functional reliability at both temperatures. In a second test, the watches have to withstand three hours at  $-30^{\circ}\text{C}$  and three hours at  $+70^{\circ}\text{C}$  and 95 % humidity. The result: temperature resistance and flawless function were established for the tested watches after both test runs and certification was granted. The U50 HYDRO and UX model series are subjected to an adapted test down to  $-20^{\circ}\text{C}$  and  $+60^{\circ}\text{C}$  respectively due to their battery operation and oil filling.





## T50 GOLDBRONZE B

**The Goldbronze 125, developed and patented by us and used for the case, the crown and the bezel of this timepiece limited to 300 pieces, impresses with its exceptional purity and radiates modern elegance and timeless aesthetics when combined with the dark blue dial. With these attributes, this watch exudes style in leisure, business, and special occasions alike.**

### **Clear readability and precision**

This concept does not compromise on precise time measurement, thanks to its minimalist display. Prominent, large sword hands and the restrained design of all elements irrelevant to diving—such as additional functions or markings on the dial and captive bezel—form essential design features. For secure readability, especially of reference times in darkness or under adverse visibility conditions, the watch employs colour coding: the hour hand and dial indices glow green, while the minute and second hands, as well as the main marker on the bezel, glow blue. Additionally, the crown is located at 4 o'clock and prevents pressure on the back of the hand, even during physically demanding activities.

### **Technical elegance with high functionality**

The T50 GOLDBRONZE B embodies a design that emphasizes technical sophistication and prioritizes operational safety above all else. The Goldbronze 125 harmonizes seamlessly with the perfectly legible dark blue dial, giving the watch an elegant appearance. The deep blue also evokes the depths of the ocean while its silky matte finish provides a refined contrast to the Goldbronze 125 used for the case, crown and bezel. The robust safety diver's bezel proves to be an exceptionally reliable tool for measuring time. Securely attached to the case, it is both non-detachable and safeguarded against accidental adjustments. This is the memorable principle behind the simple yet effective anti-twist mechanism: "Press first, then turn." This ensures the bezel stays in place under demanding conditions. As an additional safety feature, the Ar-Dehumidifying Technology enhances functionality and prevents fogging, ensuring reliability even in challenging environments.

### **Expertise in metallurgy**

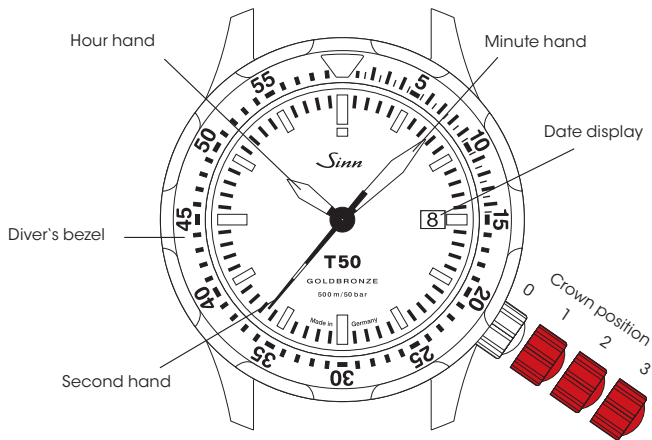
With the T50 GOLDBRONZE B, we once again showcase our exceptional expertise in the field of metallurgy. To fully appreciate the value of this remarkable timepiece, it is important to note that we use a proprietary bronze alloy developed in-house. This Goldbronze 125 is composed of one-eighth gold and features an exceptionally high degree of purity in its alloy components. Bronze, historically favored for a wide range of maritime applications, takes on a new dimension in Goldbronze 125. Its extraordinary purity enhances both skin compatibility and corrosion resistance to seawater. While Goldbronze 125 also naturally develops a darker patina through oxidation, the inclusion of gold in the alloy significantly reduces its reactivity to environmental influences.

As a result, the surface darkens much more slowly than conventional bronze. Additionally, light oxidation can be easily removed using the special Goldbronze cleaning cloth provided with the watch. To eliminate the possibility of skin reactions entirely, the T50 GOLDBRONZE B is equipped with a titanium case back, combining technical ingenuity with wearer comfort.

**Propeller of Submarine U 15 made from ship's bronze and the T50 GOLDBRONZE B crafted from Goldbronze 125 (see page 27).**

The use of exceptional materials creates a fascinating connection between our company and the ship's bronze propeller (commonly referred to as a ship's screw) of the submarine U 15, a submarine of the German Navy's Class 206. Ship's bronze has a long-standing tradition, particularly in the manufacture of ship's propellers designed for seawater applications. For us, the skin compatibility of case materials in watchmaking is equally important. The reality is that this characteristic has been significantly limited in all conventional bronze alloys to date. Therefore, we have taken the innovative step of further developing bronze as a case material. The result is our patented Goldbronze 125 alloy, which was first introduced in 2023 with our diver's watch, the T50 GOLDBRONZE.

# INSTRUCTIONS FOR USE



### **Winding the watch (crown position 1)**

The crown is screwed down (crown position 0). To loosen the crown, turn it *counter-clockwise* (crown position 1). The movement is wound manually by turning the crown *clockwise*. Under normal circumstances, a few turns of the crown are enough to start the movement. We recommend 20 full turns of the crown for the initial use. Simply wearing the watch every day should suffice to keep the self-winding mechanism wound. The power reserve allows you to take off your watch overnight without having to rewind it. About 40 turns of the crown by hand will wind up the watch completely. Because the winding mechanism of your watch is designed for automatic winding with minimal winding speed, the watch should be wound at a moderate, consistent speed when winding by hand to avoid damaging the movement.

### **Time adjustment (crown position 3)**

In crown position 3, the motion is paused. This helps you to set the watch precisely. Please make sure the date changes at midnight and not at midday. Just move the hands forward until the date changes. Afterwards you attempt to set the time. We recommend moving the hands past the desired minute marker and then adjusting it backwards. The movement restarts as soon as the crown is no longer in position 3.

### **Quickset date adjustment (crown position 2)**

Set the crown in position 2 and turn it *clockwise* until the correct date appears in the date display window.

**Please take care to fasten the crown after making adjustments.**

# Ar-DEHUMIDIFYING TECHNOLOGY

## Indication colours of the drying capsule



Pale blue

Up to 25%  
saturation



Light blue

Up to 50%  
saturation



Medium blue

Up to 75%  
saturation



Dark blue

Drying capsule  
saturated



When the drying capsule is saturated, as indicated by a deep blue colour, we recommend you have it exchanged so you can continue to enjoy all the advantages of the Ar-Dehumidifying Technology (enhanced reliability, longer intervals between maintenance).

### **Perfect freedom from fogging**

All the watches in this series meet the technical requirements for waterproofness, as set out in standard DIN 8310. But even with watertight instruments, the air enclosed in the case contains water in a gaseous state. And air can also penetrate the seals. When the water vapour in the case condenses into liquid, the instruments are impossible to read. To prevent this from happening, we have developed the Ar-Dehumidifying Technology. The combination of a special drying capsule, EDR seals (**extreme diffusion reduction**) and a filling of protective gas guarantee that the crystal remains free from fogging, even in difficult conditions.

### **Longer service intervals**

The sophisticated Ar-Dehumidifying Technology considerably slows the aging process of the watch's inner workings and keeps the movement functioning properly for longer. That is why we issue a three-year warranty on all our watches featuring Ar-Dehumidifying Technology. When the drying capsule is saturated, as indicated by a deep blue colour (refer to picture on the left side), we recommend you have it exchanged so you can continue to enjoy all the advantages of the Ar-Dehumidifying Technology (enhanced reliability, longer intervals between maintenance).

## THE CAPTIVE DIVER'S SAFETY BEZEL

**The construction of the rotating bezel is extremely important in terms of safety. To prevent any risks to the life and health of the diver, the solution we use for the captive diver's bezel is based on two elements.**

One is the captive design of the rotating bezel, which differs greatly from that of conventional snap-in mechanisms. A special design prevents the rotating bezel from becoming detached as the result of catching or being accidentally knocked, causing the set time to be lost.

In addition to the captive design of the captive diver's bezel, it is also protected against accidental rotation – a feature which goes beyond the specifications laid down in DIN 8306. This standard stipulates that it should only be possible to adjust the set time of a diver's watch by turning the bezel anti-clockwise on one side.

A sophisticated mechanism prevents the safety bezel from being unintentionally rotated. This makes it impossible for the set time to be accidentally knocked and changed.





### How to adjust the set time using the captive safety bezel

1. To adjust the set time, first unlock the bezel. Press it down on opposite sides using two fingers. It is not possible to unlock the bezel using just one finger.



2. Hold down the bezel and turn it anti-clockwise to the desired set time. Once you release the bezel, the rotation protection is reapplied and the bezel is once again prevented from being accidentally adjusted.

Shown on the identical T50 model.

## USING THE DIVER'S BEZEL TO MEASURE TIME

The diver's bezel is a rotatable bezel that can be set to the minute and only be rotated in one direction to prevent accidental adjustment. It has a luminous main marker which can be used in various ways. It can be used to highlight important time periods. Use it, for example, to mark the start of a period of time; the elapsed time can then be read off at a glance at any time.





The Original - The Propeller of the legendary decommissioned Submarine U 15. This authentic component made from ship's bronze, weighing approximately 1.1 tons, reliably powered the U 15 above and below water for decades. Today, this impressive propeller proudly adorns our company headquarters.



Luminous design.

Colour-differentiated luminous paint for minute hand, second hand and key mark on the bezel for clear reading of set time.

# TECHNICAL DETAILS

## Mechanical Movement

- SW 300-1
- Self-winding mechanism
- 25 bearing jewels
- 28,800 semi-oscillations per hour
- Seconds stop function
- Anti-magnetic as per DIN 8309

## Case

- Case, crown and bezel made of Goldbronze 125, bead-blasted
- Sapphire crystal in front, anti-reflective on both sides
- Case back made of high-strength titanium, screw-fastened
- Crown screwable
- Meet the technical requirements for water resistance, as set out in standard DIN 8310
- Water-resistant and pressure-resistant to 500 m diving depth (= 50 bar), certified by an independent institute
- According to the technical demands for the diving norm DIN 8306
- Tested based on European diving equipment standards EN250 and EN14143, certified by an independent institute
- Low pressure resistant

## Dial and Hands

- Dark blue dial
- Indices coated with luminescent colour
- Hour, minute and second hand coated with luminescent colour

## SINN Technologies

- Captive safety bezel
- Ar-Dehumidifying Technology enhances functional reliability and freedom from fogging

## Functions

- Hours, minutes, seconds
- Date display
- Diver's bezel with minute ratcheting and luminous key mark
- Colour-differentiated luminous paint for minute hand, second hand and key mark on the rotating bezel for clear reading of set time



# ADVICE

## **Water resistance**

In its original condition, your watch fulfils the technical requirements of water resistance according to DIN 8310. The static compressive stress of your watch is given in bar. Each and every one of our watches is tested for water resistance. However, in everyday use it is important to note that seals can suffer from wear and ageing over time due to a wide range of factors which arise when wearing a wristwatch. We therefore recommend having the water resistance checked at least once a year. To ensure your watch retains its water resistance for as long as possible, rinse it with tap water if it comes into contact with seawater, chemicals or the like. Continual mechanical stress in the form of shocks and vibrations can also not only reduce water resistance, but also increase wear and tear of the movement. Care should therefore be taken to protect your watch from unnecessary impacts.

## **Accuracy**

The measured results of the watch's rate are always "snapshots" taken under laboratory conditions. For this reason, we also take each owner's individual movements into account when making a specific regulator correction. It is therefore only possible to judge the accuracy of your watch after it has been in operation for approximately eight weeks. In the event of a deviation, please keep a daily record of its timekeeping over an extended period, for example one week.

**Do you have any questions? Our employees will be pleased to advise you.**

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## SERVICE

### **Does your SINN watch need an inspection, repair, retrofitting or reconditioning?**

If possible, please use our service order form. For information about our service order form, please refer to the section entitled "Customer Service" on our website [www.sinn.de/en](http://www.sinn.de/en) and to the section entitled "Servicing and repairs" in our general terms and conditions at [www.sinn.de/en](http://www.sinn.de/en). We would be happy to send you a copy of the general terms and conditions.

Our international partners generally offer on-site service. However, should they be unable to provide a certain service, they will organise the safe dispatch and return of the SINN watch to our manufactory in Germany. Please be aware that our partners will wait until they have a sufficient number of SINN watches before they post a shipment, in order to keep transport costs and customs duties to a minimum. This will increase the processing time.

Alternatively, you can send your SINN watch to us directly. You will be required to cover the postage costs for the delivery and return shipment, which vary depending on the country. For insurance reasons, we strongly recommend sending us any return goods by registered parcel post. We regret that we are unable to accept deliveries with unpaid postage!

In case you have a chance to drop off your watch directly at our office in Frankfurt am Main we look forward to your visit. Please make a note of our opening times.

**For information about our service, please refer to the section entitled "Customer Service" on our website [www.sinn.de/en](http://www.sinn.de/en) or +49 (0)69 / 97 84 14-400.**

# Sinn

SPEZIALUHREN ZU FRANKFURT AM MAIN



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Technische Änderungen vorbehalten.

Technical specifications are subject to changes.



