

## **USER MANUAL**

DIGITAL TAPE MEASURE RX5

#### SCOPE OF DELIVERY

# SOLAFLEX MEASURING SET DIGITAL TAPE MEASURE RX5

- X Digital Tape Measure RX5
- X Belt Pouch
- X Centering Aid ZX0
- X Touchpen
- X Charging Cable USB-C
- X Quick Starter

# SOLAFLEX MEASURING SET PROFESSIONAL

- X Digital Tape Measure RX5
- X Laser Distance Meter LX40
- X Belt Pouch Tape Measure
- X Belt Pouch for Laser Distance Meter
- X 360° Smartphone Arm Holder
- X Centering Aid ZX0
- **X** Touchpen
- X Charging Cable USB-C for Tape Measure RX5
- X Chalk Line SX30
- X Laser Plano 3D green
- 2x Li-ion Battery Cells 18650, Li-ion Charger and Power Plug fo Laser Plano 3D green
- 2x AAA 1.5 V Batteries for Laser Distance Meter LX40
- X Laser Safety Glasses LB green
- X SOLA Deep Hole Marker TLM2
- X Replacement Refills SC TLM2
- X Quick Starter

#### Device Components, Display Elements and Control Elements



- 1 Laser stop FRONT / REAR
- 2 Tape retraction button activated when tape is pulled out
- **3 Tape Measure ON / OFF** press 2 seconds **Measurement data**press 1 x
- 4 Switch reference point FRONT/REAR

  Press both arrow buttons for 2 seconds

  Change the direction in freeform mode

  press arrow 1 x
- **5** Digital display
- **6** Charging port

# User Manual - RX5

#### **ABOUT THIS MANUAL**

Congratulations on purchasing your new Solaflex RX5!

You have acquired a Solaflex measuring device, which will make your work easier, more precise, and faster. To fully utilize the features of this measuring device and ensure safe operation, please follow these instructions:

- → Read this user manual thoroughly before using the device.
- → Keep the user manual stored with the device at all times.
- → Always provide the user manual when passing the device on to others.
- → Never obscure the attached warning labels.

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# 1. GENERAL INFORMATION

#### 1.1 SIGNAL WORDS AND THEIR MEANING

#### **DANGER**

For an imminent hazard that will lead to serious injury or death.

#### **WARNING**

For a potentially hazardous situation that could lead to serious injury or death.

#### **CAUTION**

For a potentially hazardous situation that could result in minor injury or property damage.

#### **NOTE**

For application instructions or other useful information.

#### 1.2 PICTOGRAMS AND ADDITIONAL INFORMATION

#### 1.2.1 WARNING SIGNS



General hazard warning

#### 1.2.2 SYMBOLE



Read the user manual before use



Do not expose device to temperatures above 60°C





Do not dispose of batteries and devices in household waste

## 2. DESCRIPTION

#### 2.1 DEVICE COMPONENTS, DISPLAY AND CONTROL ELEMENTS

- 1. Front measurement reference point
- 2. Rear measurement reference point
- 3. Tape retraction / stop button



#### 2.2 INTENDED USE

The Solaflex RX5 is an easy-to-use digital tape measure that can measure lengths and distances up to 5 meters can be digitally recorded and sent to processing software. Follow the instructions in this user manual. The device and accessories may pose hazards if they are used improperly or for unintended purposes by untrained individuals

# 3. TECHNICAL DATA

#### **DIGITAL TAPE MEASURE RX5**

Measurement Range	5 m	
Measurement Unit	mm	
EC Accuracy Class Tape	I	
Material and Tape Surface	steal, yellow, nylon extruded	
Tape Stop	Backstop	
Material Enclosure	ABS, TPE	
Accuracy	± 1 mm	
Power Supply	Li-Polymer battery (700 mAh)	
Operating Duration (at 20 °C)	8 h continuous use*	
Operating Temperature	-10 °C to +50 °C	
Storage Temperature	-20 °C to +60 °C	
Class of Protection	IP 54	
Weight	385 g	
Dimensions	155 x 45 x 85 mm	

<sup>\*...</sup> automatic shutdown after 5 minutes of inactivity.

#### **FUNCTIONS**

- → Option to select between mm and cm display.
- → Ability to switch between front and rear measurement reference points.

## 4. SAFETY INSTRUCTIONS

#### **4.1 RESPONSIBILITY AREAS**

#### **4.1.1 MANUFACTURER**

Solaflex is responsible for the safe delivery of the product, including the user manual and original accessories.

#### 4.1.2 OPERATOR

The operator is responsible for the proper use of the product, employing trained personnel, providing instructions, and ensuring operational safety.

- → Understands the safety information on the product and the instructions in the user manual.
- → Adheres to local workplace safety and accident prevention regulations, as well as employee protection laws and regulations.
- → Immediately notifies Solaflex of any safety issues with the product or its application.
- → Ensures that defective products are taken out of service and repaired professionally.

#### **4.2 PROHIBITED USE**

- → Using the device or accessories without proper instruction.
- → Using third-party accessories or additional equipment.
- → Operating outside the specified limits (see Chapter 3/Technical Data).
- → Operating under extreme temperature fluctuations without proper acclimatization.
- → Disabling safety features or removing warning labels.
- → Unauthorized opening of the device.
- → Making modifications or alterations to the device or accessories.
- → Failing to secure the operating area adequately

#### **4.3 OPERATIONAL LIMITS**

The Solaflex RX5 is suitable for use in surroundings permanently habitable by humans.

- → Do not use the product in explosive or aggressive environments.
- → Contact local safety authorities before working in hazardous areas, near electrical installations, or in similar conditions.

When determining measurements for business transactions (billing, invoicing, or allocation of consumption-based costs), only the measurements visually read from the tape measure may be used. The digital measuring unit (sensor) does not comply with the MID regulations.

#### 4.4 USAGE HAZARDS

#### 4.4.1 GENERAL



#### WARNING

Missing or incomplete instructions can lead to improper or incorrect use, resulting in accidents with serious personal, property, financial, or environmental damage.

- → Follow the manufacturer's safety instructions and operator's directives.
- → Protect the device and accessories from access by children.



#### WARNING

Dropping, prolonged storage, transport, or other mechanical impacts may result in inaccurate measurements. Before use, inspect the device for damage. Do not use damaged devices.

- → Repairs should only be carried out by Solaflex.
- → Verify the accuracy of the device before use (see Chapter 6/ Operation).

#### 4.4.2. CHARGER/BATTERIES



#### DANGER

Risk of fatal electric shock!

- Do not open the RX5.
- → Use the RX5 and it's charging port only in a dry environments and do not expose to liquids.



#### DANGER

Severe mechanical impacts can cause leakage, fire, or explosion of batteries, or toxic substances may be released.

- → Do not open batteries or expose them to mechanical stress.
- → Do not use damaged batteries, chargers, or charging stations.
- → Repairs should only be carried out by Solaflex



#### WARNING

High ambient temperatures and immersion in liquids can cause leakage, fire, or explosion of batteries, or toxic substances may be released.

- → Protect batteries during transport against mechanical impacts.
- → Do not overheat batteries or expose them to fire.
- → Avoid moisture ingress into batteries.



#### WARNING

Using chargers from other manufacturers may damage the rechargeable batteries. This can result in fire and explosion hazards.

Only use original Solaflex accessories.

#### WARNING



Improper disposal can cause serious injury to yourself and others, as well as environmental pollution. Burning plastic parts releases toxic fumes, which can cause illness. Batteries may explode if damaged or overheated, potentially causing poisoning, burns, chemical burns, or environmental contamination. Careless disposal allows unauthorized individuals to misuse the product.

- → The product must not be disposed of with household waste.

  Dispose of the device and accessories properly (see Chapter 11/Disposal).
- → Always protect the product from unauthorized access, especially by children.

#### 4.5 ELECTROMAGNETIC COMPATIBILITY (EMC)

Electromagnetic compatibility refers to the ability of products to function properly in an environment with electronic radiation and electrostatic discharge, without causing electromagnetic interference in other devices.

#### 4.5.1 INTERFERENCE WITH OTHER DEVICES BY RX5

Although the products meet the strict requirements of the relevant guidelines and standards, Solaflex cannot entirely rule out the possibility of interference with other devices (e.g., when using the product in combination with third-party devices such as field computers, PCs, radios, mobile phones, various cables, or external batteries).

- → When using computers and radios, pay attention to the manufacturer's specifications regarding electromagnetic compatibility.
- → Only use original Solaflex equipment and accessories.

#### 4.5.2 INTERFERENCE WITH RX5 BY OTHER DEVICES

Although the product meets the stringent requirements of relevant directives and standards, Solaflex cannot completely rule out the possibility that intense electromagnetic radiation in the immediate vicinity of broadcast transmitters, two-way radios, diesel generators, etc., may distort measurement results.

→ When measuring under these conditions, verify the plausibility of the measurement results.

# 5. INITIAL SETUP

#### **5.1 RECHARGEABLE BATTERY**

- 1. Fully charge the rechargeable battery with the charger before the first use.
- 2. After turning the device on, the battery level will be displayed on the screen.
- 3. Recharge the battery when only one bar is visible the battery will last approximately 1 hour, depending on environmental conditions. After the battery icon starts blinking, the remaining operating time is approximately 30 minutes.
- 4. The rechargeable battery is fully charged after 3 hours.

#### **5.2 BELT POUCH**

- → The RX5 can be stored in a belt pouch for transportation.
- → For measurements, the RX5 must be removed from the pouch.



#### **6.1 SWITCHING ON AND OFF**

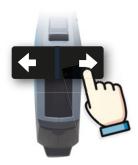
Before turning on the device, ensure that the tape is fully retracted,



- → ON Press and hold the main button for 2 seconds to turn on the RX5.
- → OFF Press and hold the main button for 2 seconds to turn off the RX5.

#### **6.2 UNIT SELECTION**

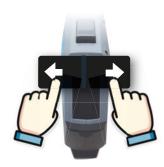
The unit can be changed via the tape measure when it is not connected to the Solaflex App. When Bluetooth is active and connected to the Solaflex App, the unit can be selected within the app.



- → cm display Press and hold the right arrow button to select the centimeter unit.
- → mm display Press and hold the left arrow button to select the millimeter unit.

#### **6.3 SELECT MEASUREMENT REFERENCE POINT**

By pressing both arrow buttons simultaneously for one second, the measurement reference point of the RX5 can be switched between the front stop surface and the rear stop surface.



#### **6.4 START MEASURING**

Pressing the tape retraction button releases the brake of the RX5, allowing the tape to be extended. When the tape retraction button is released, the brake is immediately activated, and the tape is fixed in place.

→ Always release the brake during tape extension to prevent wear.

Once the tape is positioned on the object to be measured, the stop surface of the RX5 serves as the measurement reference point. The corresponding measurement result can be read visually from the tape and is also displayed for verification on the screen.

If the RX5 is connected to the Solaflex App, this value can now be sent to the app by pressing the SEND button.

The most recent measured and sent value is also displayed on the screen.



#### THE DIFFERENT MEASUREMENT METHODS ARE EXPLAINED IN DETAIL IN THE MANUAL.

MORE INFORMATION







Videos & Tutorials

#### **6.5 BUTTONS**

#### 6.5.1 ON / OFF & SEND



Turning the RX5 on or off and sending the measurement value

#### 6.5.2 ARROW-BUTTONS



When the RX5 is not connected to any app, the two arrow buttons can be used to select the unit in cm or mm.

When the RX5 is connected to the Solaflex App, the arrow buttons serve as direction indicators for the next edge to be measured (freeform mode) or for selecting the coordinate to be measured (coordinate function).

By pressing both arrow buttons simultaneously, the measurement reference point can be shifted from the front edge to the rear edge

# 7. ACCURACY CHECK

Check the accuracy of the RX5 before each measurement.

Before starting the check, allow the device to acclimate to the environmental conditions.

Before use, inspect the tape print (especially the black bars) for completeness and damage.

The accuracy of the digital display is verified by ensuring that the displayed value on the tape at the stop surface matches the value shown on the display



#### 8. MAINTENANCE, STORAGE AND TRANSPORTATION

#### 8.1 CLEANING

- → Wipe off dirt with a soft, damp cloth.
- → To clean the sensors, carefully and slowly extend the tape fully until the word ,STOP' is visible on the tape. The cloth attached to the tape will clean the sensor surface of dirt.
- → Do not use aggressive cleaning agents or solvents.
- → Do not immerse the device in water!
- → Clean and dry dirty or wet devices, accessories, and transport containers before packing. Only pack the equipment when it is completely dry.
- → Keep connections clean and protect them from moisture

#### 8.2 STORAGE

#### 8.2.1 GENERAL

- → Store the equipment only within the specified temperature range (see Chapter 3/Technical Data).
- → After extended storage, check the accuracy of the measuring device before use.

#### 8.2.2 BATTERIES

- → Before prolonged storage, charge the battery to 80% capacity (see Chapter 6/Operation). Repeat this process every 6 months during storage.
- → After storage, fully charge the battery before use.

#### **8.3 TRANSPORTATION**

#### **8.3.1 GENERAL**

- → The device may be damaged by strong vibrations or a fall.
- → Never transport the product without casing.

  Always use the original packaging or an equivalent transport container.
- → Turn off the device before transportation.
- → Check the device for any damage before use.

#### 8.3.2 8.3.2 RECHARGEABLE BATTERIES

When transporting or shipping the RX5 with the installed batteries, the operator is responsible for complying with the applicable national and international regulations and requirements. Batteries are generally subject to hazardous materials regulations; however, they can be transported by the user on public roads without further restrictions. When shipping through third parties (e.g., freight forwarders or air cargo), specific packaging and labeling requirements, as well as any additional regulations set by the respective transport company, must be observed.

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## 9. OPERATING DATA OF THE RADIO MODULE

This module is equipped with an internal antenna but also features a connector for an external antenna.

To use the external antenna, the resistor must be adjusted to block the internal antenna. For any questions, please contact the manufacturer

A 50-ohm antenna can be directly connected to the HF port.

- → Frequency band 2402 2480 MHz BLE4.2
- → TX output power +8dBm
- → RX sensitivity down to -90dBm

#### 10. TROUBLESHOOTING

ERROR	POSSIBLE CAUSE	RECTIFY THE ERROR
The RX5 is turned on, but the display is not working	Battery is empty or ON button is defect	Charge or replace the battery, contact the retailer, and have the RX5 repaired
The status/battery voltage display is blinking	Low battery capacity	Charge the battery in time
The RX5 turns off immediately after being powered on	Battery empty	Charge battery
The measurement value on the tape does not match the value on the display	Tape / sensor dirty affected by temperature	Clean the tape, acclimate the RX5 to room temperature
End stop is at limit - measure- ment value shows 1mm	Tape / sensor dirty sensor tolerance overlap	Clean the tape, turn the RX5 off and on again
Warning: Long warned – re- tract the blade	Tape extended too far (more than 5m)	Rewind the tape to the stop position



In case of a malfunction, it may be necessary to retrieve information about the measuring device and forward it to Solaflex support.

By pressing all three control buttons simultaneously (send + left arrow + right arrow), the following information will be displayed:

- → Bluetooth ID Serial number
- → Bootloader Version
- → Firmware Version

# 11. DISPOSAL

Improper disposal can cause serious injury to yourself and others, as well as harm the environment.

Burning plastic parts releases toxic fumes that can cause illness. Batteries can explode if damaged or exposed to high heat, leading to poisoning, burns, caustic injuries, or environmental pollution.

Careless disposal allows unauthorized persons to misuse the product. Measuring tools, accessories, and packaging must be properly recycled in an environmentally responsible manner.



- → The product and accessories especially batteries must not be recycled in household waste.
- → Dispose of the product and accessories properly. Only recycle empty batteries.
- → Follow country-specific recycling regulations.

Your Solaflex dealer will take back batteries and old devices and ensure their proper disposal.



#### **ONLY FOR EU-COUNTRIES**

Power tools must not be disposed of with household waste! According to the European Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE) and its implementation into national law, non-functional electrical and electronic waste must be collected separately and subjected to environmentally sound recycling.

#### 12. MANUFACTURER'S WARRANTY

"The manufacturer guarantees to the original buyer (first purchaser) listed on the warranty card, that the device is free from defects for a period of two years from the date of delivery, excluding batteries.

The warranty covers repairs and/or replacements, at the discretion of the manufacturer. Defects resulting from improper handling by the buyer or third parties, natural wear and tear, and cosmetic defects that do not affect the use of the device, are not covered by this warranty. Claims under this warranty can only be made if the warranty card, completed by the seller and stamped with date and company seal, is submitted together with the device.

In the event of a warranty claim, the manufacturer will carry the transportation costs. The duration of the warranty is not extended by repairs or replacement parts carried out under the warranty.

Further claims are excluded unless mandatory national regulations dictate otherwise. In particular, the manufacturer is not liable for any direct or indirect damages, losses, or costs associated with the use of, or the inability to use, the device for any purpose. Implied warranties regarding the use or suitability of the device for a particular purpose are expressly excluded."

# **EU Declaration of Conformity**

**Declaration of Conformity** 



We Solaflex GmbH, A-6840 Götzis, Austria

declare under our sole responsibility that the product(s)

## Solaflex RX5

to which this declarations relates is in conformity with the following standards

EN61010-1:2010

EN61010-1 :2010/AMD1 :2016 EN61010-1 :20210/A1 :2019

EN62133-2:2017

EN62133-2:2017/AMD1:2021

EN61326-1:2013

EN301489-1 V2.2.3 :2019 EN301489-17 V3.2.4 :2020 EN300328 V2.2.2 :2019

EN50663:2017

following the provisions of Directive(s)

Radio Equipment Directive 2014/53/EU Electromagnetic Compatibility 2014/30/EU Low Voltage Directive 2014/34/EU RoHS Directive 2011/65/EU MID 2014/32/EU (Annex MI-008 & Annex D1)

Solaflex GmbH

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Götzis, 02/2022



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