

User Manual

ST902-MEK

Date: December 2025

Doc Version: 1.0

Thank you for choosing our product. Please read the instructions carefully before operation. Follow these instructions to ensure that the product is functioning properly. The images shown in this manual are for illustrative purposes only.



For further details, please visit our Company's website <https://ltsecurityinc.com/>.

Copyright © 2025 LT Security Inc. All rights reserved.

Without the prior written consent of LT Security Inc., no portion of this manual can be copied or forwarded in any way or form. All parts of this manual belong to LT Security Inc. and its subsidiaries (hereinafter the "Company" or "LTS").

Disclaimer

This manual contains information on the operation and maintenance of the LTS equipment. The copyright in all the documents, drawings, etc. in relation to the LTS supplied equipment vests in and is the property of LT Security Inc. The contents hereof should not be used or shared by the receiver with any third party without express written permission of LT Security Inc.

The contents of this manual must be read before starting the operation and maintenance of the supplied equipment. If any of the content(s) of the manual seems unclear or incomplete, please contact LTS before starting the operation and maintenance of the said equipment.

It is an essential pre-requisite for satisfactory operation and maintenance that the operating and maintenance personnel are fully familiar with the design and that the said personnel have received thorough training in operating and maintaining the machine/unit/equipment. It is essential for the safe operation of the machine/unit/equipment that personnel have read, understood and followed the safety instructions contained in the manual.

In case of any conflict between terms and conditions of this manual and the contract specifications, drawings, instruction sheets or any other contract-related documents, the contract conditions/documents

shall prevail. The contract specific conditions/documents shall apply as a priority.

LTS offers no warranty, guarantee or representation regarding the completeness of any information contained in this manual or any of the amendments made thereto. LTS does not extend the warranty of any kind, including, without limitation, any warranty of design, merchantability or fitness for a particular purpose.

LTS does not assume responsibility for any errors or omissions in the information or documents which are referenced by or linked to this manual. The entire risk as to the results and performance obtained from using the information is assumed by the user.

LTS in no event shall be liable to the user or any third party for any incidental, consequential, indirect, special, or exemplary damages, including, without limitation, loss of business, loss of profits, business interruption, loss of business information or any pecuniary loss, arising out of, in connection with, or relating to the use of the information contained in or referenced by this manual, even if LTS has been advised of the possibility of such damages.

This manual and the information contained therein may include technical, other inaccuracies or typographical errors. LTS periodically changes the information herein which will be incorporated into new additions/amendments to the manual. LTS reserves the right to add, delete, amend or modify the information contained in the manual from time to time in the form of circulars, letters, notes, etc. for better operation and safety of the machine/unit/equipment. The said additions or amendments are meant for improvement/better operations of the machine/unit/equipment, and such amendments shall not give any right to claim any compensation or damages under any circumstances.

LTS shall in no way be responsible (i) in case the machine/unit/equipment malfunctions due to any non-compliance of the instructions contained in this manual (ii) in case of operation of the machine/unit/equipment beyond the rate limits (iii) in case of operation of the machine and equipment in conditions different from the prescribed conditions of the manual.

The product will be updated from time to time without prior notice. The latest operation procedures and relevant documents are available on <https://ltsecurityinc.com/>.

If there is any issue related to the product, please contact us.

LT Security Inc.

Address 17333 Freedom Way, City of Industry, CA 91748

Phone 626-435-2838

Fax 626-435-2815

For business related queries, please write to us at: Sales@ltsecurityinc.com.

To know more about our global branches, visit <https://ltsecurityinc.com/>.

About the Manual

This manual introduces the operations of **ST902-MEK**.

All figures displayed are for illustration purposes only. Figures in this manual may not be exactly consistent with the actual products.

Features and parameters with ★ are not available in all devices.



Document Conventions

Conventions used in this manual are listed below:

GUI Conventions

For Device	
Convention	Description
< >	Button or key names for devices. For example, press <OK>.
[]	Window names, menu items, data table, and field names are inside square brackets. For example, pop up the [New User] window.
/	Multi-level menus are separated by forwarding slashes. For example, [File/Create/Folder].

Symbols

Convention	Description
	This represents a note that needs to pay more attention to.
	The general information which helps in performing the operations faster.




	The information which is significant.
	Care taken to avoid danger or mistakes.
	The statement or event that warns of something or that serves as a cautionary example.

Table of Contents

- 1 OVERVIEW 7**
 - 1.1 FEATURES7
 - 1.2 APPEARANCE.....7
 - 1.3 TECHNICAL SPECIFICATIONS.....9
- 2 TERMINAL DESCRIPTION..... 11**
- 3 INSTALLATION SET-UP..... 13**
 - 3.1 INSTALL ON THE WALL VIA THE BACKPLATE 13
- 4 COMMUNICATION METHODS..... 14**
 - 4.1 WIEGAND MODE..... 14
- 5 VERIFICATION METHODS 15**
 - 5.1 PASSWORD VERIFICATION 18

1 Overview

ST902-MEK is a high-security RFID reader, that supports 125kHz and 13.56MHz cards. This features tamper-proof alarm functionality and offer Wiegand only. Also, Wiegand communication protocol also enable integration with third-party access control devices.

ST902-MEK offers physical keypads and flexible authentication methods. It supports ID cards at 125kHz and IC cards at 13.56MHz, with a verification speed under 0.3 seconds and recognition distance of up to 4cm. It also features a tamper switch, indicators, and an audio buzzer.

The ST902-MEK installation is compatible with:

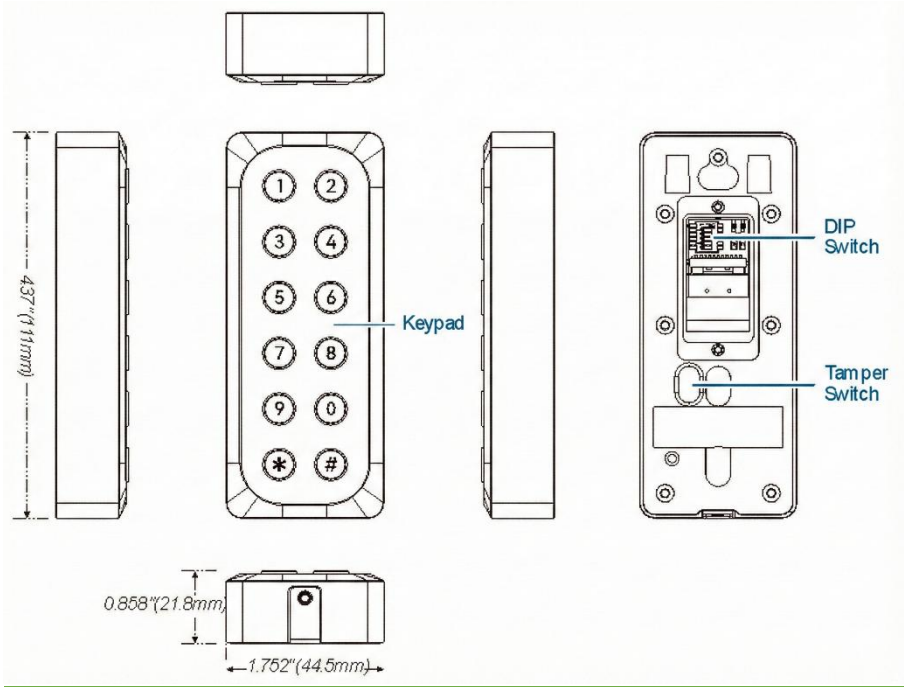
- Mullion mount
- Flat surface mount

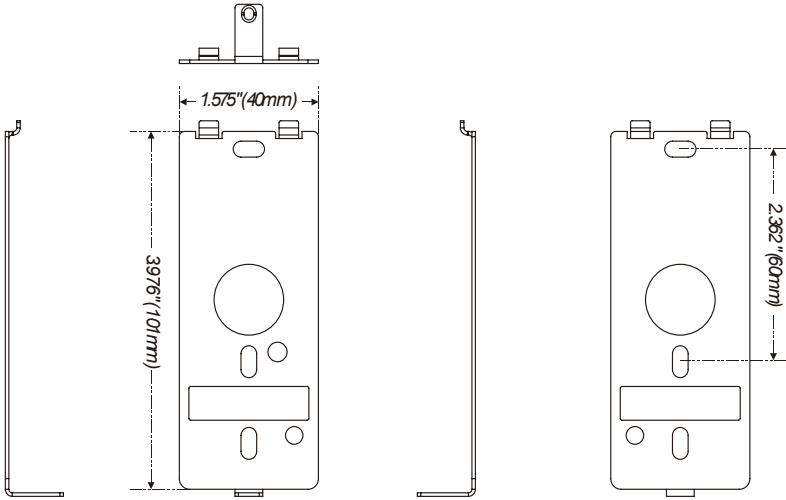
1.1 Features

- Support multi-frequency 125kHz ID card and 13.56MHz IC card, including DESFire EV1 / EV2 / EV3 and NTAG.
- Wiegand only
- Tamper detection and alarm.
- Multiple authentication methods: card or card with PIN code.
- Achieved IP65 protection rating with dustproof and waterproof.

1.2 Appearance

ST902-MEK



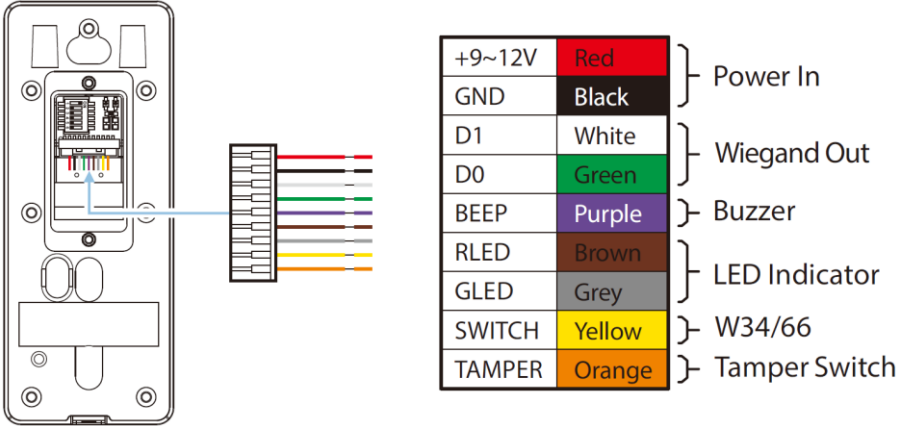


1.3 Technical Specifications

Model	KR902
Hardware	Physical Keypad: 12keys RFID Module: ID & IC Tamper Switch: Support
Authentication Method	Card / Password
Card Type	ID Card@125kHz & IC Card@13.56MHz (Standard)
Verification Speed	<0.3s @ Card
Recognition Distance	<4cm @ Card

Communication	Wiegand output only (W34 / 66) Note: Support Wiegand format switching (Default: W34)
Visual Indicator	LED Indicators Power On:Blue = Standby Status: Green = Verification successful Red = Verification failed
Audio Indicator	Buzzer
Tamper Switch	Support
Operating Environment	Indoor/Outdoor
Power Supply	9V~12V DC
Operating Temperature	-20°C to 60°C
Operating Humidity	10%-90% RH (Non-condensing)
Dimensions (L*W*H)	111*44.5*21.8mm
Gross Weight	0.16Kg
Net Weight	0.13Kg
Installation	Compatible with mullion mount or any flat surface mounting
Housing Material	ABS Plastic
Ingress Protection Rating	IP65 (water & dust proof)
Certifications	ISO9001,ISO14001,CE,FCC,RoHS
Factory ID	AC03-KR92H-01

2 Terminal Description



Name	Interface	Color	Description
Power In	+9~12V	Red	+9~12V DC Input Note: <i>Minimum AC adapter:12V, 0.5A, Recommended AC adapter:12V, 1A.</i>
	GND	Black	
Wiegand Out	D1	White	Wiegand Output1
	D0	Green	Wiegand Output0
Beeper	BEEP	Purple	Beep Input

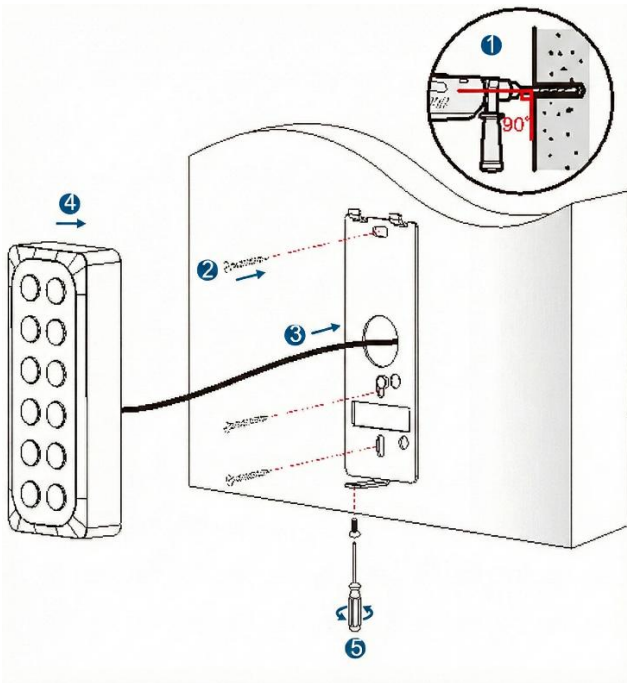
Name	Interface	Color	Description
LED Indicator	RLED	Brown	Red LED Input
	GLED	Grey	Green LED Input
W34/66	SWITCH	Yellow	Used to switch the Wiegand format. The default ungrounded is W34. Grounded to W66.
TAMPER	TAMPER	Orange	Used for the tampering alarm function. Cancel Alarm: <i>The tamper alarm is deactivated after a magnet is placed for 5 seconds.</i>

3 Installation Set-up

The device supports a variety of installation methods; the user can be freely selected according to actual needs.

3.1 Install On the Wall Via The Backplate

1. Drill holes in the wall at suitable locations according to the holes in the backplate.
2. Fix the backplate on the wall with the wall mounting screws.
3. Pass the cable through the wiring hole and then snap the device onto the backplate from top to bottom.
4. Fasten the device to the backplate with a security screw.



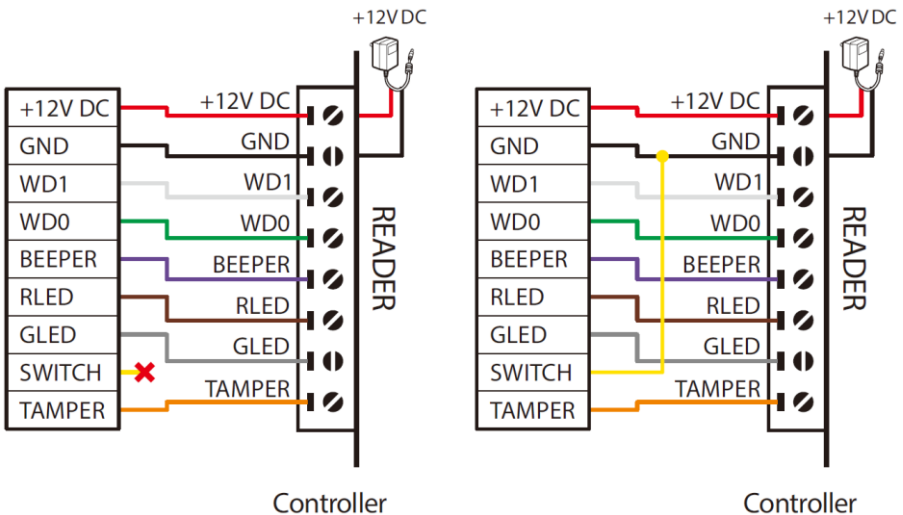
4 Communication Methods

The ST902-MEK can communicate with the control panel via either RS-485 (OSDP) or Wiegand.

4.1 Wiegand Mode

Connect the reader to the controller via Wiegand as follows and then connect the +12V power supply. The controller shown in the diagram is only partially wired. The Wiegand wiring reference is shown below:

1. Wiegand format is W34 (default): 2. Wiegand format is W66:



Notes:

- The default Wiegand format is W34. It can be switched to W66 when

supporting IC cards.

- *The format can be switched via the terminal SWITCH. By default, it is W34 when SWITCH is not grounded, and it becomes W66 when SWITCH is grounded.*

5 Verification Methods

5.1 Password Verification

The * key is the delete key. The # key is the confirmation key.

The reader supports 1~8-digit password verification.