



SIWAREX[®] U

Device manual

Version: 06/2008

For modules with order number 7MH4950-1AA01 and 7MH4950-2AA01



1 Preface

1.1 Purpose of the manual

In this manual you will find all the necessary information on the setup and operation of SIWAREX U.

1.2 Required basic knowledge

In order to be able to understand the manual, a general knowledge of SIMATIC automation technology is required. In addition, knowledge of weighing technology is beneficial.

1.3 Scope of this manual

This manual is valid for SIWAREX U modules which have been produced since October 2007.

Model	Name	Order number	From product revision (Version)	
SIWAREX U	SIWAREX U	7MH4950-1AA01	HW 1.0	FW 1.1
		7MH4950-2AA01		

Table 1-1 Scope of this manual

Note

The manual describes the weighing electronics SIWAREX U as part of the system SIMATIC S7 300 and ET 200M and is to be used in addition to the SIMATIC manuals.

Note

This manual contains the description of the modules which were valid at the time of publication.

We reserve the right to attach product information containing up-to-date information about the modules to new modules or modules in a later version.

The structure of the manual is oriented towards activities which have to be performed as part of configuration, commissioning and servicing.

Chapter	Description of contents
1 <i>Preface</i>	Notes on using this manual
2 <i>Scope of delivery</i>	Description of the scope of delivery of SIWAREX U.
3 <i>Preface</i>	Overview of the <ul style="list-style-type: none"> - Design - Functionality - System integration of SIWAREX U.
4 <i>Hardware configuration and installation</i>	Description of: <ul style="list-style-type: none"> - The individual hardware modules - Assembly and installation - The pin assignment - The preparation for operation.
5 <i>Weighing functions</i>	Description of all scale parameters and associated functions.
6 <i>Commands</i>	Description of the commands SIWAREX U can execute.
7 <i>Messages and diagnostics</i>	Description of the messages with notes on troubleshooting.
8 <i>Communication in SIMATIC S7</i>	Description of the data exchange with the SIMATIC CPU. This chapter is meant for those who write application software.
9 <i>Communication with other systems</i>	Description of the communication with other automation systems
10 <i>Remote display</i>	Connection to remote display Siebert S102
11 <i>Setting the scale – SIWATOOL U</i>	Description of: <ul style="list-style-type: none"> - The software installation - The software functions.
12 <i>Order numbers and accessories</i>	Ordering instructions for optional components such as: <ul style="list-style-type: none"> - Digital remote displays - Ex interface.
13 <i>Technical data</i>	Technical data
14 <i>Index</i>	Index
15 <i>Abbreviations</i>	List of abbreviations

Table 1-2 Chapter overview

1.4 Further support

Do you have more questions regarding the use of SIWAREX U? Then please contact your Siemens representative in the office or business location that is responsible for your area or technical support for SIWAREX Tel.: +49 (0)721 595 2811.

Up-to-date information on the subject of SIWAREX weighing technology can be found on the Internet site.

<http://www.siwarex.com>

2 Scope of delivery, compatibility

2.1 Scope of delivery

The scope of delivery of SIWAREX U comprises the manufacturer's conformity declaration and a supplementary sheet with the up-to-date additional information about the product.

To configure SIWAREX U in SIMATIC S7 you need the configuration package SIWAREX U for SIMATIC S7 with the order number 7MH4950-1AK01, which must be ordered separately.

The configuration package is composed of the following components:

- The Windows program SIWATOOL U for the setting of the scale during commissioning
- SIMATIC software for the operation of SIWAREX U in SIMATIC S7
- Device manuals in several languages.

For the first programming steps, the software "Getting Started" is very helpful. It can be found on the delivery CD or can be obtained for free on the Internet (www.siwarex.com).

To configure SIWAREX U in SIMATIC PCS7 you need the configuration package SIWAREX U for SIMATIC PCS7 with the order number 7MH4 683-3BA64, which must be ordered separately.

The configuration package is composed of the following components:

- The Windows program SIWATOOL U for the setting of the scale during commissioning
- Standard software (FB) for the operation of SIWAREX U in SIMATIC PCS 7
- Device manuals in several languages
- Ready-made face plates blocks for the operating station.

The required and optional accessories are listed in Chapter [12 Order numbers](#) and accessories.

2.2 Compatibility

The SIWAREX U modules with the new order number **7MH4950-*AA01** are fully compatible as regards software with the modules with order number 7MH4601-1*A01, which were produced from May 1997 to ca. November 2007.

1BSCOPE OF DELIVERY, COMPATIBILITY

As regards hardware, compatibility is also guaranteed, although from ca. November 2007 the modules work with a lower supply voltage for the load cells (6 V instead of 10 V), thus requiring less energy. The remaining hardware features (ports, frame size, pin assignment, etc.) remain unchanged. In this way, the replacement of a defective module 7MH4601-1*A01 with the order number 7MH4950-AA01 is possible without any difficulty.

Newly implemented was the possibility with the modules 7MH4950-AA01 to process the communication with the SIMATIC CPU alternatively via a function block, which is prepared in the project "Getting Started". The functioning of the new function block has already proven itself with the SIWAREX modules (SIWAREX FTA, SIWAREX FTC, SIWAREX CS).

The program SIWATOOL U was also updated and corresponds in its design and functionality to the SIWATOOL programs for SIWAREX FTA, SIWAREX FTC, SIWAREX CS, and SIWAREX MS.

With the new SIWATOOL U, the modules with the order number 7MH4601-1*A01, which were produced up to ca. October 2007, can also be operated. In this way, the saved scale data (xxx.sku) can be imported into the new SIWATOOL U environment and further used (xxx.swu).

12 Order numbers and accessories

There are essential and optional accessories for SIWAREX U.

The essential accessories are indicated in the following table.

	Order no.
SIWAREX U for SIMATIC S7 and ET 200M, incl. bus connectors, weight 0.3 kg	
• One-channel design ^{1) A)} for the connection of one scale	7MH4950-1AA01
• Two-channel design ^{2) A)} for the connection of two scales	7MH4950-2AA01
SIWAREX U device manual	
• In various languages Free download on the Internet at: www.siemens.de/waergetechnik	
Configuration package³⁾ SIWAREX U for SIMATIC S7 from Version 5.4 on CD-ROM	7MH4950-1AK01
• PC software SIWATOOL U (various languages), new design	
• Sample program "Getting started" – ready-made application for SIMATIC S7	
• Device manual SIWAREX U on CD (various languages), new design	
• HSP Hardware Support Package for incorporation of SIWAREX U in STEP 7	
Configuration package SIWAREX U for PCS 7, Version 6.x in German and English on CD-ROM, block for CFC plan and face-plate (image block)	7MH4683-3BA64
SIWATOOL connection cable^{A)} from SIWAREX U/CS with serial PC port, for 9-pin PC ports (RS 232), length 3 m	7MH4607-8CA
Installation material (absolutely necessary)	
Front connector 20-pin with screw contacts (required for each SIWAREX module)	6ES7392-1AJ00-0AA0
Shield connection element sufficient for two SIWAREX U modules	6ES7390-5AA00-0AA0