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## Operating instructions



**Simulators TARAsim**

**SIM5**

# Operating instructions TARAsim SIM5

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## 1 Information about these operating instructions

### 1.1 Symbols and displays in the text

Symbol	Meaning
	This symbol indicates tips and helpful information for optimum and economic use of the product.
	This symbol indicates actions to be performed by the personnel.
	This symbol indicates the result of an action.
	This symbol indicates individual bullet points.
	This symbol indicates a precondition before performing an action.

### 1.2 Associated documents

Data sheets on the simulators can be found at the following Internet address:

<http://www.reiss-gmbh.com/english/datasheets.htm>

## 2 Product description

<b>Advice</b>	Please carefully read this manual completely before commissioning the simulator. Do not discard. The operator shall be liable for any damage caused by installation or operating errors.
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Simulator TARAsim SIM5.0 is designed for checking the digital input for amperometric sensors of the brand TARAbase / TARAline / TARAtec / TARAsens of a controller (modbus-master). The simulator is supplied with power by the controller and it outputs the concentration set at the potentiometer.

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This manual primarily refers to the simulator. Please pay attention to the corresponding manual of the peripheral devices.

### 2.1 Function

Simulators of the type TARAsim SIM5.0 generate continuously variable concentrations depending on the setting of the potentiometer:

TARAsim SIM5.0-ppm-M0c	TARAsim SIM5.0-%-M0c
0 ... approx. 20 ppm	0 ... approx. 20 %

Thereby generally the basic function of the digital Modbus RTU input of the controller can be checked.

The controller shall comply with the following requirements for the analog input of amperometric sensors:

TARAsim	requirements
SIM5.0-ppm-M0c	<ul style="list-style-type: none"><li>• power supply 9 ... 30 V DC, approx. 56-20 mA</li><li>• processing of a digital Modbus RTU signal of a concentration in ppm</li></ul>
SIM5.0-%-M0c	<ul style="list-style-type: none"><li>• power supply 9 ... 30 V DC, approx. 56-20 mA</li><li>• processing of a digital Modbus RTU signal of a concentration in %</li></ul>

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### 3 Intended use

Only trained and authorised staff should operate the simulator.

Each application beyond this manual is a not intended use so the warranty becomes void and the liability is disclaimed.

We do not accept liability for injury to persons or damage to property if the operating instructions in this manual have not been followed, or the original state of the simulator has been changed, or the simulator has been used under conditions other than those specified.

If using the simulator outside Germany, please comply with the corresponding local regulations.

### 4 Scope of supply

Keep the packaging for the simulator completely. In case of repair or warranty return the simulator in this package.

Check that the delivery is intact. In case of damage please contact your supplier.

Check that the delivery is complete by comparing with the below mentioned scope of supply.

component	number	TARAsim SIM5.0
Simulator (according to type)	1	✓
Operating instructions	1	✓

### 5 Comissioning

- ✓ the electrical connection of TARAsim SIM5.0 fits to the electrical connection of the controller.
- ✓ the controller complys with the above mentioned requirements (chapter 2.1, page 4)
  - Unscrew the sensor cable from the sensor.
  - Screw the sensor cable onto TARAsim SIM5.0.
  - Adjust the required concentration signal output simulation at TARAsim SIM5.0 with the potentiometer.



For the PIN assignment and the adjustment of the Modbus parameters please pay attention to the enclosed data sheet “Modbus protocol M0”.

In the row “MODBUS-Parameter“ the default values adjusted at simulator TARAsim SIM5.0 can be found.



If the power supply of the controller is incorrect the simulator will not output any values.

Register entry	TARAsim SIM5.0-ppm-M0c	TARAsim SIM5.0-%M0c
X_SPAN	5,9 nA/ppm	14 nA/%
unit	(3) ppm	(0) %
digits	(2) 00.00	(2) 00.00
Measuring range	20	20
Simulatable concentration range	0 ... 21.7 ppm	0 ... 20.6 %

### 6 Storage

The simulator can be stored in the original packing at a dust-free place.

### 7 **Technical data**

Please find information about the technical data at the following internet address:

<http://www.reiss-gmbh.com/english/datasheets.htm>

### 8 **Disposal**

- Follow the locally valid waste disposal regulations.

### 9 **Warranty**

We grant a manufacturer's warranty of two years on the simulator subject to appropriate application.

Should there be mechanical damage or should the serial number be illegible, the warranty becomes void.

#### **Return of a simulator for check/reconditioning:**

Only shipments are accepted that are returned with carriage paid. Otherwise they will be returned to the sender.

On checked/reconditioned simulators we grant a warranty of one year from the date of check/reconditioning. Should there be mechanical damage or should the serial number be illegible, this warranty becomes void.

### 10 **Liability disclaimer**

The simulator is manufactured with the greatest care.

Should any malfunctions occur in the simulator despite this, no liability claims may be lodged against the manufacturer in case of damage resulting from this malfunction.

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