CSM OmniScale
Installation Manual

Liability remarks

This installation manual and other documents are part of the product and contain important information for its safe and efficient use. To maintain the high quality level the product is continuously being developed, which may result in the product's technical details changing at short notice. As a result, the contents of this documentation may differ from the technical specifications of the product. No claims against the manufacturer can therefore be derived from the contents of the product documentation. CSM GmbH is not liable for technical or editorial errors or missing information.

CSM GmbH assumes no liability for damage resulting from improper use of the product and/or non-observance of the product documentation, in particular the safety instructions.

General instructions

NOTE!	
	The latest information concerning the status of the software and the installation manual can be found on the CSM Website.

Please carefully read this document and follow the operating instructions which it contains **before installing** the **OmniScale** hardware and software.

The equipment should not be used without prior familiarisation with the installation manual. The equipment should not be used beyond the limits which are specified in the technical data.

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Intended use

OmniScale is an alibi data storage device, used as an additional device to the Non-automatic weighing instrument (NAWI), connected externally or built in, which records the weighing result without changing the original characteristics of the NAWI.

Hardware installation

CAUTION!	
	▸ EMC hints have to be regarded, see chapter "EMC" on next page. ▸ You may connect or disconnect the serial interface while **OmniScale** is working or shut off without any damage to **OmniScale**. But be absolute sure to note the advice of the manufacturer of the host system to the connection of the serial interface.

1. The power supply to the OmniScale is provided using the supplied cable.
2. **Be sure to use the right polarity and the right voltage**, when connecting the power supply, see the following chapter "Power Supply".

NOTE!	
	If the **OmniScale** is to be operated using an external power supply, a suitable power supply must be obtained.

3. Connect the serial interface of OmniScale (DSUB9) with your system's serial interface, see the following chapter "Serial Interface".

CAUTION!	
	OmniScale can be connected or disconnected to the serial port in operation or switched off without damage. Be sure to follow the **host system** manufacturer's instructions for connecting the serial port to external printers or memory.

4. Insert a PC Card correctly initialized with OmniScale Manager into the device. The red LED flashes twice during start-up.

How to open the device with snap lid:

The hinged cover of the device can be opened as follows:

☞ Press against the hinge lightly from below (see Abb. 1-1).

⇨ The lock is released, the hinged cover opens.

☞ Open the hinged cover fully as shown in Abb. 1-2.

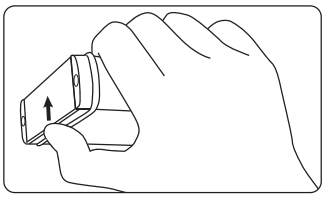


Abb. 1-1: Releasing the lock

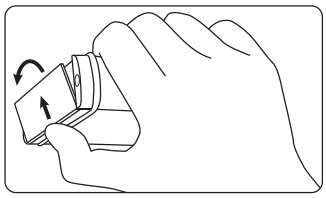
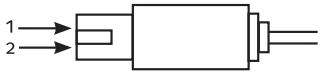


Abb. 1-2: Opening hinged cover

Power supply

Figure	Pin	Name	Signal
	1	GND	ground
	2	8-32 V	8 to 32 V DC power supply

CAUTION!	
	The power supply inputs 8-32 V are protected against reversed polarity. But shield, signal GND and case GND are connected internally. So, never connect these terminals to different electric potentials.

Serial interface

CAUTION!	
	There are several NAWIs with various interface levels. **Be sure to use RS232 if you connect OmniScale with such a NAWI.**

RS232 - D-SUB, 9-pin female

Pin	Name	Signal	Pin	Name	Signal
1	—	n.c.	6	—	n.c.
2	TXD	transmit data (output of OmniScale)	7	CTS	CTS input (input of OmniScale) do not connect for OmniScale-mode
3	RXD	receive data (input of OmniScale)	8	RTS	RTS output (output of OmniScale)
4	—	n.c.	9	—	n.c.
5	GND	signal ground			

EMC

CE	CSM GmbH explains, that the OmniScale is in compliance with the requirements of the European EMC-Directive 2014/30/EU. See connection, installation and operation hints below.

Connection and installation hints for operation:

- Shielded cables must be used for the signal line outside of a shielded cabinet.
- When leading your signal line into a shielded cabinet, make a electric contact with a large surface area from-cable shield to the cabinet shield directly at the opening of the cabinet where you lead your cable in.

CAUTION!	
	Shield and case are connected directly to the negative line (GND) of power supply.

Operation hints

CAUTION!	
	Avoid electrostatic discharge at the PC Card, while there is data access. Touch first the metallic case and afterwards the PC Card.

System under Legal Control

The **OmniScale System** is authorized by the **PTB** (Physikalisch Technische Bundesanstalt in Germany) as a peripheral under legal control with a **test certificate**.

OmniScale-System consists of three parts:

1. The **OmniScale** device
2. The software tool **OmniScale Manager**
3. The PC Card Reader/Writer which may be an **OmniDrive**, **OmniScale** or another **CSM PC Card drive**

- All three parts must **carry a label with the name of manufacturer, test certificate number, name and software signature** of the software tool. The OmniScale device already carries such a label. In the shipping contents are two additional labels which should be used for the PC Card Reader/Writer and the PC. The label for the software tool should be placed on the housing of the monitor or the PC on which **OmniScale Manager** is installed.
- The **user** should check the **software signature every day** before he starts working with the software **OmniScale Manager**. The software signature is shown after the start of the program for 10 seconds or using the menu *Help - About OmniScale Manager*.
- For more information read the **OmniScale Manager Help** using the menu *Help - Help Topics - Basics - Preface* and the following topics.
- Please note also the conditions mentioned in the **PTB Test Certificate**.
- It is recommended to read the memory cards several times a year and back up the data.

Technical data

Item	OmniScale as external box
Dimensions (W × H × D)	109 x 35 x 176 mm
Weight	approx. 430 g
Power Supply	8 bis 32V DC
Power Consumption no PC Card with PC-Card, no access with PC-Card, access	 approx. 400 mW approx. 550 mW approx. 1100 mW
RS323 Interface Connector	Baudrate, databits, stopbits and parity selectable **max. 115,200 Baud** (115.2k, 57.6k, 38.4k, 19.2k, 9.6k ... Baud) D-SUB 9-pol female
PC Card Slot	one slot for **PC Card Type III** at front
PC Card types	ATA Flash Card (type II and type III), ATA Compact Flash (with adapter)
LEDs	Operation: POWER (green LED) / access: BUSY (red LED)
Environment	**- 40 °C to + 85 °C** (operation and storage) humidity max. 90 % (non condensing)
Conformity	CE

CSM GmbH Germany is certified.

ISO 9001, ISO 14001
Certified Integrated Quality and Environmental Management System
www.tuv-sud.com/ms-cert

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