

# CSM OmniScale - Operating Instructions - Installation

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## Manufacturer contact

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## Liability remarks

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This document has been validated. All the instructions were correct at the time of production. CSM GmbH reserves the right to make technical changes to the hardware or the software or the documentation without prior notification.

CSM GmbH does not accept any liability for damage of any kind which is directly or indirectly caused by the use of OmniScale or the associated software or by mistakes or omissions in the documentation.

The hardware, software and documentation are supplied in "as-is" condition and without any guarantee concerning their functionality in the end user's environment.

## General instructions

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The latest information concerning the status of the software and detailed installation instructions can be found on the **CSM OmniScale Manager** disk in the readme.txt file.

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 operating instructions. The equipment should not be used beyond the limits which are specified in the technical data.

The **OmniScale** should always be transported or posted in the original packing.

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## Intended use

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**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



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".
3. Plug the connector into the socket provided on the rear of the **OmniScale**.

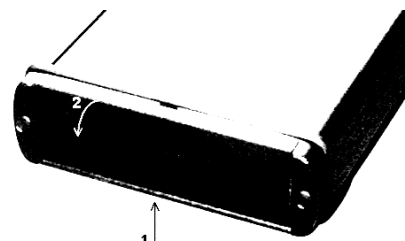


If the **OmniScale** is to be operated using an external power supply, a suitable power supply must be obtained from CSM GmbH.

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

### To open the device with snap lid without tools

1. push from the bottom against the snap lid and
2. turn it down



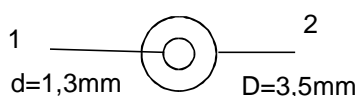
## Power supply

There are 2 types of the device concerning the power supply:

1. **5V DC**
2. **8 - 32V DC**

To identify the power supply of Your device, see type plate at the bottom of the device and compare the power supply connector at the rear of the device with the following description:

### Power supply 5V



Pin	Name	Signal
1 (inner)	+5V	+5V DC power supply
2 (outer)	GND	ground



**Shield**, signal **GND** and **case GND** are connected internally to GND of the power supply.

Therefore it must be guaranteed that the inner contact of the walkman-plug is sufficiently isolated to prevent a short circuit between +5V and the case GND.

### Power supply 8 to 32V



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



#### Attention!

The power supply inputs 8-32V 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

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

### RS232 – D-SUB 9-pin female

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

## EMC

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CSM GmbH explains, that the **OmniScale** is in compliance with the requirements of the European EMC-Directive **89/336/EEC**. See connection, installation and operation hints below.

### Connection and installation hints for operation with minimum interference problems:

- 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.



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

### Operation hints:



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 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**.

## Specification OmniScale

Item	OmniScale as external box <sup>1)</sup>	
Dimensions	109 (W) x 35 (H) x 164 (D) mm	
Weight	approx. 400g	approx. 430g
Power Supply <sup>2)</sup>	5 V DC -2.5% / +5% (4.875V to 5.25V)	8 - 32V DC
Power Consumption no PC Card with PC Card, no access with PC Card, access	ca. 300mW ca. 400mW ca. 800mW	ca. 400mW ca. 550mW ca. 1100mW
RS232 Interface	baudrate, databits, stopbits and parity selectable <b>max. 115,200 Baud</b> (115.2k, 57.6k, 38.4k, 19.2k, 9.6k ... Baud)	
Connector	D-SUB 9-pol female	
PC Card Slot	one slot for <b>PC Card Type III</b> 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	<b>- 40°C to + 85°C</b> (operation and storage) humidity max. 90% (non condensing)	
Conformity	CE	

<sup>1)</sup> please ask for: other mechanical versions, e.g. 3 ½", 19", PCB-module or protection cover for PC Card Slot

<sup>2)</sup> please ask for: optional AC adapter, or power supply from PC via keyboard adapter