# OmniScale CR

- **Modern data recorder to be connected to data sources via RS232 interface line**
- **PC Windows application for collecting, archiving, searching and printing of data under legal control**
- **Replacement for Alibi Printers under legal control**
- **PTB Test Certificate D09-09.28**
- **Type-approval certificate under German law 7.690/02.46**
- **Use ATA Flash-Cards as removable and flexible storage media**
- **Easy handling and installation**
- **Robust, compact and cost-saving**
- **Operating temperature: -40 °C to +85 °C**

*OmniScale* is a modern alternative to the traditional alibi printer, whenever data has to be recorded, archived, searched and printed out under legal control.

**Instead of manual searching** for interesting data in endless printer outputs, now **PC systems** can **efficiently** be used for this purpose.

**File management** under Windows provides optimal and reliable archive and back-up possibilities.

***Possible Data Sources***

- **Weighing terminals and scales**
- **Mix or batch units**
- **Bottling plant**
- **Devices for flow measuremant e.g. filling stations**
- **Daniel Gas Chromatographs**
- **Many other data sources**

***Approved as legal metrology device***

*OmniScale* System is authorized by the **PTB**[1] as a device under legal control according the **directive 90/384/EEC** (Non-automatic Weighing Instruments). It fulfills the conditions described in the **WELMEC**[2] guidelines for such systems.

**Identification** of the application and **protection against data manipulation** are realized as key features.

**vemm tec** is the owner of the national type approval of the PTB for the **OmniScale including Daniel Adapter** as a "**Digital data storage for calorific value**


**Meters**" and of the test certificate "Verifiable data storage" for calibrated electro mechanical Scales for use in custody transfer with the **B-Protocol**[3].

***OmniScale device***

*OmniScale* can directly be connected via RS232 to the data source instead of an alibi printer.

The **data communication** is **compatible** with the so called **B-Protocol**[3].

**ATA Flash-Cards** are used as **data storage media**. Depending on the resulting data amount, a suitable card can be chosen between 32 MByte and 2 GByte.

The memory can be configured as **one-time memory or as ring memory.** Activating the ring memory *option*, the data recording is not stopped after reaching the memory's end, but the oldest data is overwritten.

Hence, a well-defined amount of data sets and recording duration is available. Old and no longer needed data will automatically be deleted.

***OmniScale Manager (OSM)***

For handling and data management a **32 Bit Windows application**[4] is provided.

This tool supports all main functions, like

- preparing the ATA Flash-Card for data recording (**Init-Card**)
- data transfer from Card to file (**Read-Card**)
- **display** of a document containing saved data
- **searching** for specific text in the document and
- producing a **printout** of this document partial or in total.

[1] PTB: Physikalisch Technische Bundesanstalt Germany
[2] WELMEC: Western European Metrology Cooperation
[3] Industrial standard, supported by alibi-printers
[4] System requirements: Win Vista, XP, 2000, NT 4.0 or 9x/Me

***ASCII Export***

For the use of the data in other applications, a special function is available which stores the data in a file in ASCII-format.

These data may be read by or imported in many software tools and may be used for documentation, statistics or other helpful applications.

***PC Card Drive***

For the data exchange between ATA Flash-Card and PC a **PC Card Drive** is needed. For this purpose the CSM **Omni*Drive*** is highly recommended. It is optimally qualified and easy to use.

Alternatively, for low-cost applications the *Omni-Scale* device can be used in a special mode that allows direct data transfer via the a PC COM-Port interface.

For readout of the data the *OmniScale* has to be disconnected from the data source, connected with a PC and installed there. However, the high data transfer rate of Omni*Drive* can not be reached with *OmniScale*.

**Specification OmniScale**

| **Item** | **OmniScale device as external box**[1] | |
|---|---|---|
| Dimensions (W x H x D) | 109 mm x 35 mm x 164 mm (176 mm) [2] | |
| Weight | approx. 430 g | |
| Power Supply [3] | **5 V DC** [2] or **8-32 V DC** via 2-pole low voltage connector | |
| Power Consumption [4] | Device type **5 V DC:**<br>approx. 300 mW (without PC Card),<br>approx. 500 mW to 750 mW [4]<br>(with PC Card, write access) | Device type **8-32 V DC:**<br>approx. 500 mW (without PC Card),<br>approx. 800 mW to 1200 mW [4]<br>(with PC Card, write access) |
| RS232-Interface | baudrate, databits, stopbits and parity selectable, **max. 115.200 Baud** (115,2 k, 57,6 k, 38,4 k, 19,2 k, 9,6 k ... Baud) | |
| Connector | D-SUB 9-pol female | |
| PC Card Slot | one slot for **PC Card Typ II** at front | |
| PC Card types | ATA Flash Card Typ II, ATA Compact Flash Card (with adapter) | |
| LEDs | Betrieb: POWER (grüne LED) / Zugriff: BUSY (rote LED) | |
| Temperature | **- 40 °C** to **+85 °C** (operation and storage) | |
| Humidity | max. 90 % (non condensing) | |
| Conformity | CE | |

[1] **please ask for:** other mechanical versions, e.g. 3 ½“, 19“, PCB-module or front cover
[2] **depth with front cover**
[3] **please ask for:** an optional AC adapter, or power supply from PC via keyboard adapter, instead power supply from data-source
[4] The power consumption depends significantly on the used ATA Flash Card. In case of using CSM SuperStore Flash Cards you get typ. 550 mW (5 V) or 880 mW (8-32 V).

**Shipping Content:**

- ***OmniScale*** in external box, with Installation Guide
- ***Power Supply Cable*** (2nd end open) to supply OmniScale from data source
- ***CD*** *with* ***OmniScale Manager*** and detailed Windows-Help-File
- ***Manual***

**Zusätzliche Produkte:**

- **Daniel Adapter** for connection of the OmniScale to a Daniel Gaschromatograph
- ***OmniDrive USB2 Professional*** Universal PC Card Reader for USB 2.0 interface for data exchange with PCs
- ***ATATOOL*** (in conjunction with Omni*Drive*) Software tool for analysis and recovery of ATA Flash Cards
- ***CSM SuperStore ATA Flash Card***

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