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Weighing Terminal PUE 5 – platform connecting scale and personal computer in one housing

RADWAG presents a weighing terminal in hermetic stainless steel housing intended for industrial solutions. PUE 5 terminals are approved by notified body CMI (Ceský metrologický institut), type approval ZR 128/08-0054. It allows to build scales with resolutions 6000e.



Brief foredesign for PUE 5 assumed creating a device which would have the advantages of personal computer and to allow our customers and 3rd party companies to create their own applications not losing the possibility of building verified scales. PUE 5 weighing terminals is an original device that comprises both a computer and a weighing module. Both devices are connected via an internal interface. After connecting a weighing platform the weighing module is a fully functional scale with parameters in non-volatile memory on board. The computer with a 12.1" touch screen poses a display of the scale.

General description

The hermetic stainless steel housing allows the device to operate in rugged industrial conditions (moisture, dust). The terminal can be washed using chemical agents like disinfectants and detergents. A 12.1" TFT display with resolution 800 by 600 pixels gives perfect readability from different viewing angles. Terminals are operated using the touch screen. Together with advantages of contemporary operating systems it allows intuitive usage of software even by not trained staff.

Write your own piece of software for the terminal - ActiveX and DLL

Each terminal has attached free software. It intends to simplify creating programs by our customers and 3rd party companies. The free software includes DLL (Dynamic-Link Library) and an ActiveX control.

DLL is intended for Windows operating systems. It includes implementations of functions connected with operating on the internal weighing module. These functions can be called in external programs. It allows computer programmers to create their own software without being familiar with hardware, communication protocols. They can be used in programs written in different programming languages for Windows platform like VB, C++, C#.

The **ActiveX** control is a configurable GUI (Graphical User Interface) and simplifies creating ones own interface with a display and buttons typical for scales, without being familiar with hardware and communication protocols, by setting properties and implementing event handlers as well as using different graphical options. It is applicable in different programming environments, i.e. VB, C++, C#. ActiveX technology allows to share data between different applications running under control of Windows operating system. This technology facilitates writing programs – it saves time needed to implement ones own communication between programs.

RADWAG software

RADWAG develops its own programs implemented in PUE 5 weighing terminals: Collection of weighings, Labelling and Counting Pieces, Control of Prepackages.

Collection of weighings

This piece of software is intended for LAN solutions with many terminals.

The system collects weighings using, present in most companies, LAN (Local Area Network) Ethernet. It used MS SQL database system, which can be situated in a terminal or any computer connected to the same LAN system. These features allow to build one-stand systems. Software includes advanced configurable statistical module and advanced system of reports.

Labelling and counting pieces

Collecting weighings software can be enriched in two additional modules counting pieces and labelling (they can cooperate with each other). Each product from the assortment database can be weighed in the new unit "pieces" after marking an appropriate option in the program and after ascribing a reference mass to the product.

The labelling mode requires a label pattern designed in program "Edytor Etykiet" that can be obtained from www.radwag.pl. Every product in the assortment database requires a label source file for printing. In that case selecting a product for weighing means also choosing the label for printing. Currently the system cooperates with CITIZEN label printers. Installing printer drivers is essential to make it visible in the operating system. Printers can be connected to USB.

New system of prepackages control

Marketing PUE 5 weighing terminals with their own operating systems made possible building more functional prepackages control systems. The new system uses synchronising data in databases present in terminals and the main database. The new approach to the design of database systems simplifies cooperation with customers' systems. It also allows to make controls and print reports directly from the terminal and even one-stand operation while unplugged from the LAN system and than connecting it to synchronise data.

Cooperation with precise and laboratory balances

For customers who purchase different scales manufactured by RADWAG we can offer the possibility to connect these scales to a PUE 5 weighing terminal. As the device is fully compatible with personal computers it is possible to install on it such software as „Pomiar Win” or „Radkey” and connecting e.g. a laboratory balance to the RS232 connector.

If these simple solutions are not sufficient it is possible to use an ActiveX control, that simplifies designing a GUI (Graphical User Interface) in ones own application and passing weighings to a customer's application operating on a PUE 5 terminal.

Labelling system based on a PUE 5 weighing terminal cooperating with a precise scale of WLC series and a barcode scanner

System composition:

- Terminal PUE 5 with a weighing platform,
- Barcode scanner,
- Precise scale WLC.
- Label printer.

PC software has been enriched in a module that



allows toggling between the weighing platform of the terminal and the WLC scale. The bar code scanner is intended for selecting articles from the assortment database by reading barcodes placed on packages. After a weighing readout is confirmed a label is automatically printed on the CITIZEN label printer.

System implemented in:

VETOQUINOL BIOWET Ltd.
13-14 KOSYNIERÓW GDYŃSKICH Street
66-400 GORZÓW WLKP.
Poland

Peripherals and external devices



Apart from standard interfaces it is possible to install additional modules with interfaces in the terminal i.e. analogue voltage output 0-10V, current loop 0-20mA or 4-20mA, relay module, I/O module, additional platform module, ProfiBus module.

Standard peripheral devices that can be connected to PUE 5 weighing terminals: barcode scanner, transponder card reader, receipt printer, label printer, additional display, large remote display, external buttons TARE and PRINT, and all devices connectable to USB interfaces of standard personal computers after installing drivers.

Selected technical parameters

Housing	Stainless steel
No of verification intervals	6000e
Processor	Celeron M 800MHz
Chipset	INTEL 855GME
RAM	DDR 512MB
Hard Drive	HDD 120GB



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