

## SPV-9000

# Short-Form-Information      Welding-Process-Visualization

The SPV-9000 software is a powerful tool for the visualization of welding process parameters. In combination with our welding controller **MTW-9000** all relevant welding parameters can be monitored and controlled. It is also a useful tool for the documentation and storage of process records.

The SPV-9000 software allows a complete trace ability of nonconforming results and/or disoperation. It is a very helpful tool to meet the requirements of common quality management standards.

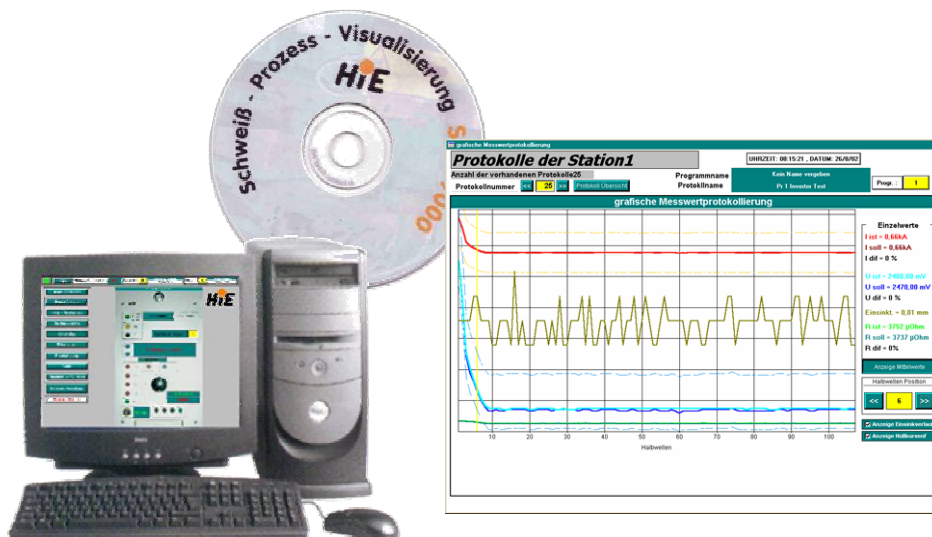
The operating shell with clear structured windows and function keys helps the operator to handle the software within short time.

### Range of Performance of the SPV-9000 Software:

- Backup of the configuration parameters for each controller
- Project related administration of welding sets / programs
- Centralized administration of the configuration of up to 100 different controllers
- Record keeping of process data, non conformities, changes of parameters etc.
- Graphical analysis of welding records
- Fast parameter changes by intuitive operating shell
- Individual login for each user

### Options:

- Networking of up to 50 welding controllers
- Part related administration of parameters/programs
- Alarm signal via SMS to the mobile phone in case of trouble
- Remote monitoring (intranet, remote data transmission)
- Operation via touch screen possible
- Export to MS-Excel



# SPV-9000 Screens

The screenshot displays the SPV-9000 software interface, which is used for recording and analyzing welding data. It consists of several windows:

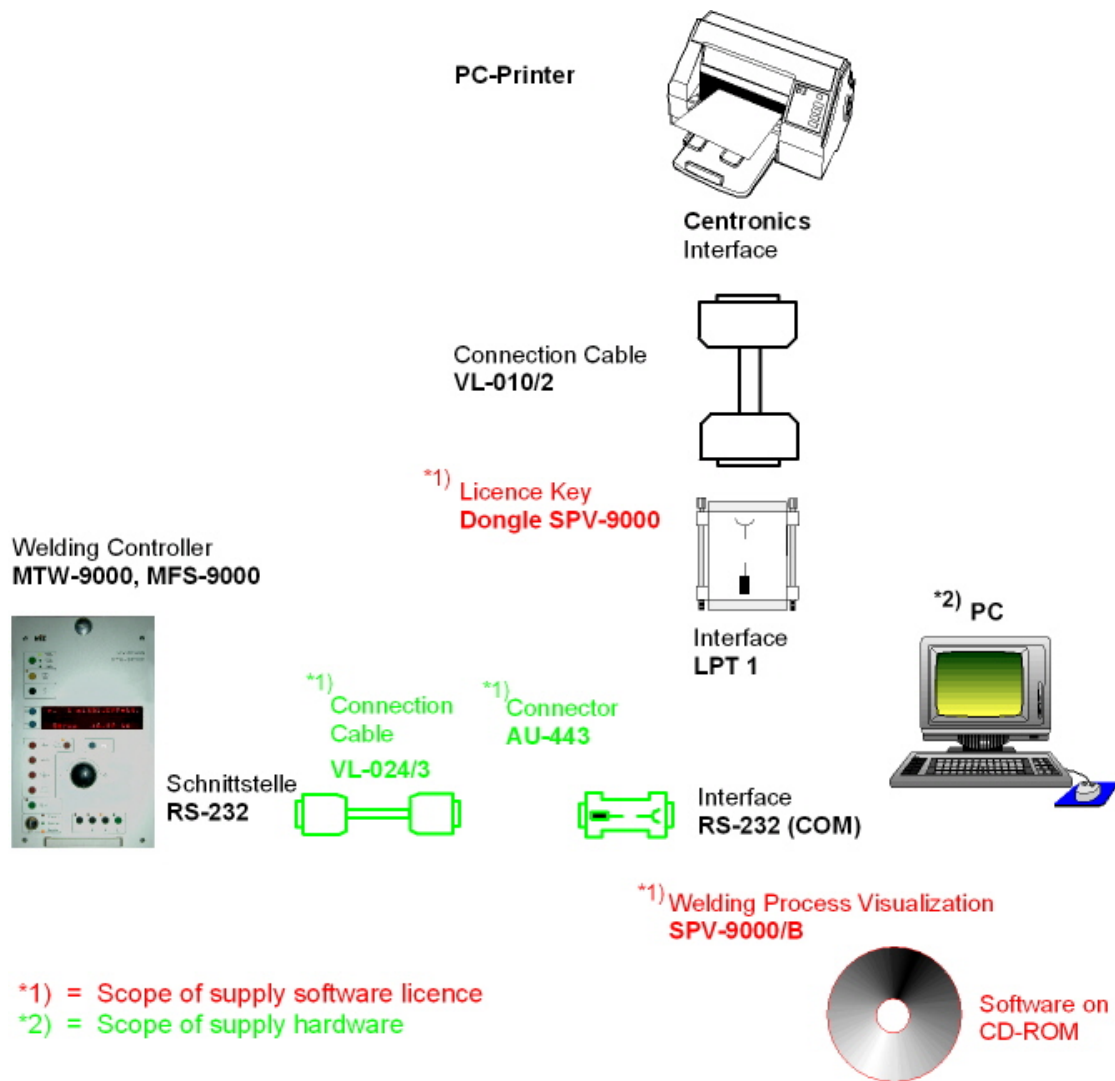
- Top Window:** Shows measurement data for a specific protocol (No. 25). It includes a table with columns for time (min), voltage (U [mV]), current (I [mA]), and resistance (R [µhm]). The data shows a steady state with minor fluctuations.
- Protocol Settings Window:** Allows users to configure the recording protocol, including the number of protocols to record (25) and the program name ('Pr 1 Inverter Test').
- Graphical Measurement Protocol Overview Window:** Provides a visual summary of the recorded data. It shows a graph of current (I) and voltage (U) over time, with key values such as average current (I<sub>ist</sub> = 0.66kA) and average voltage (U<sub>ist</sub> = 2478.00 mV) displayed.

- The recorded data can be printed out on an external printer or written into an Excel file.
- The list design can be adapted to company specific requirements.
- The following parameters can be visualized in parallel in one graph:
  - Current
  - Voltage
  - Resistance
  - Depth
- The measured current and voltage values are recorded together with the results of the related teach welding
- The graphical tools include the visualization of deviations of current, voltage or resistance compared to the related teach welding curves.
- The measured curves of current or voltage can be enveloped. Transgressions and under runs are marked in the graph. Every welding spot can be analysed half wave wise.

## SPV-9000 System Overview

### SPV-9000 Software plus Hardware Package RS-232

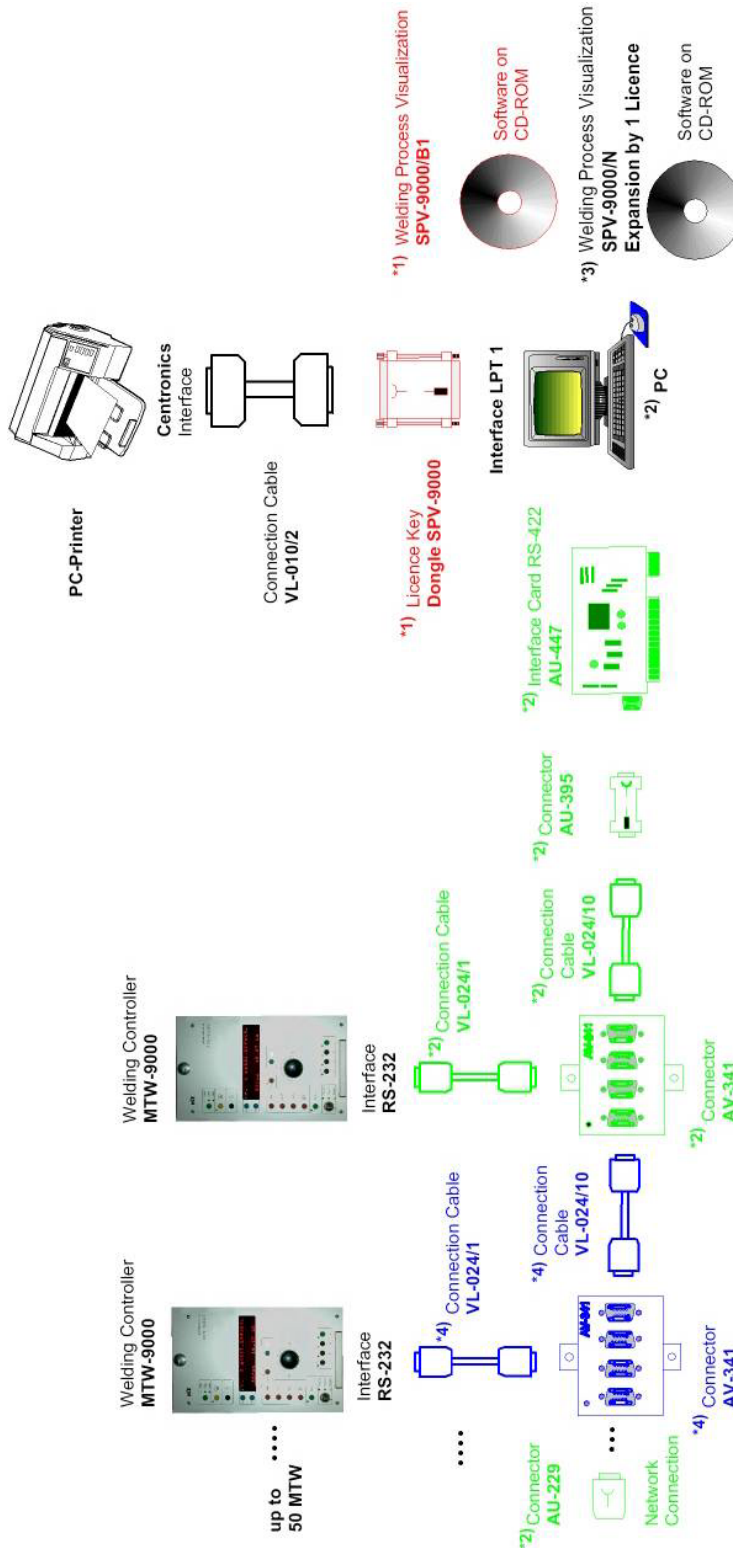
Connection of only one welding controller via RS-232 PC-interface (not networkable).



\*1) = Scope of supply software licence  
 \*2) = Scope of supply hardware

## SPV-9000 Software plus Hardware Package RS-422

Connection of one or more welding controller via additional RS-422 PC-interface card (networkable).

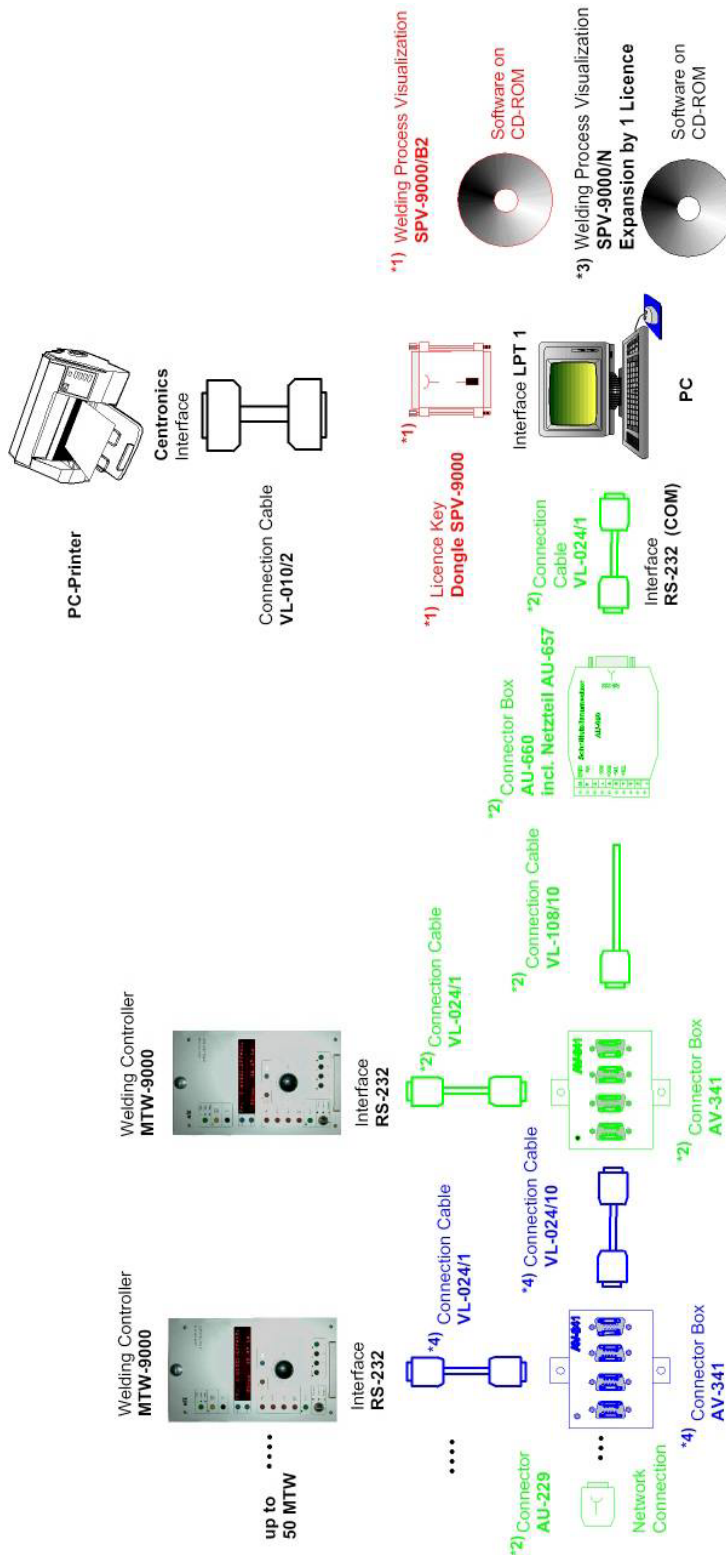


- \*1) = Scope of supply basic software licence
- \*2) = Scope of supply basic hardware package RS-422 (networkable)
- \*3) = Scope of supply additional software licence
- \*4) = Scope of supply additional hardware package

Remark: In case of cable lengths more than 10 meters, the VL-024 must be replaced by VL-025/xx.

## SPV-9000 Software plus Hardware Package RS-232 – RS-422

Connection of one or more welding controller via RS-232 and additional external RS-422 PC-interface (networkable).



- \*1) = Scope of supply basic software licence
- \*2) = Scope of supply basic hardware package RS-232- RS-422 (networkable)
- \*3) = Scope of supply additional software licence
- \*4) = Scope of supply additional hardware package

Remark: In case of cable lengths more than 10 meters, the VL-024 must be replaced by VL-025/xx.

## SPV-9000 System Requirements

### PC or Notebook

- PC :** CPU 600MHz, 128 MB RAM, 10 GB HDD, CD-ROM, LPT 1-Port.  
Single licence (not networkable) : RS-232 interface  
Networkable licence: RS-422 interface
- Monitor :** Screen size min. 17" (or 15" TFT), resolution: 1024x768, VGA, 16 Mio. colors
- Operating system :** Windows 95, Windows 98SE, Windows ME, XP, 2000
- MTW-9000:** MTW Software version 6.13 or higher