



[www.phytron.co.uk/ServiceBus-Comm](http://www.phytron.co.uk/ServiceBus-Comm)

## ServiceBus-Comm<sup>®</sup>

### Communication software for parameterising and control of stepper motor power stages

The phytron communication software Service-Bus-Comm<sup>®</sup>, designed for Windows<sup>®</sup>, assists the user to program and operate stepper motor power stages – e.g. ZMX<sup>+</sup>, MCD<sup>+</sup>, MR8<sup>+</sup>, CCD<sup>+</sup> – equipped with Service-Bus<sup>1</sup> interface.

Operating parameters such as run current, stop current, step resolution, current delay time or other parameters depending on the type of power stage, can be edited by PC, saved and transmitted to each power stage by ServiceBus.

ServiceBus-Comm<sup>®</sup> helps to monitor the actual current, the power stage- or the motor

temperature during operation. Status windows report input conditions and make it possible to set outputs or to display detailed error messages.

Optionally, ServiceBus instructions and functions can be handled by individual software. Readable ASCII string instructions are editable e.g. with LabView<sup>®</sup>, HyperTerminal or C language.

Up to 32 stepper motor axes can be simultaneously distributed by ServiceBus-Comm<sup>®</sup>.

<sup>1</sup> All types of phytron control units with Service-Bus are labeled by the appendix +.

#### In Focus

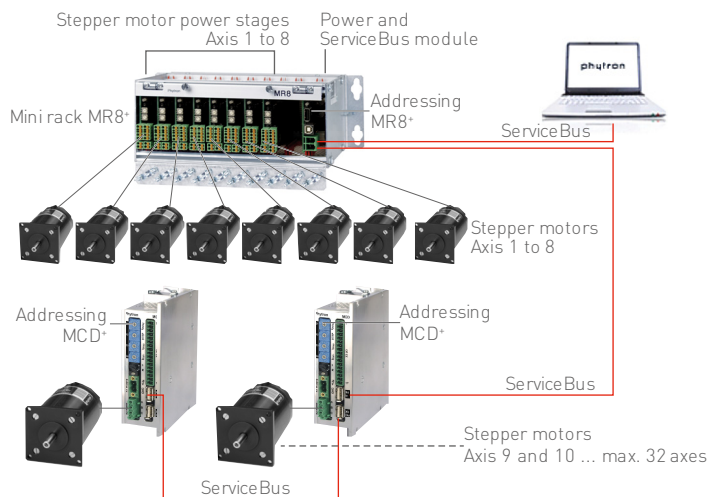
- Communication software for stepper motor power stages with ServiceBus

ServiceBus-Comm<sup>®</sup> is a registered trade mark of the Phytron-Elektronik GmbH.

- Putting into operation, configuration and error diagnosis
- Programming power stage parameters
- Online status display for safe operation and easy maintenance
- Parameter memory for data backup
- Designed for PC under Windows<sup>®</sup> 95, 98, 2000, NT, XP, 7
- Browser independent installation software
- Installation from CD
- RS 485/4-wire connection of the power stages or ServiceBus modules
- Connection to the PC by USB, RS 485/4-wire or RS 422

#### Highlights

Example: 10 axes at the ServiceBus



## Control

## Program Windows

The screenshot displays the ServiceBus-Comm software interface for controlling a power stage. The main window, titled "[00] ZSS32.200.0,6", contains several sections:

- Axis name:** A text field containing "ZSS32.200.0,6" and a "Set!" button.
- Current setting:** Three sliders for "Stop cur.:", "Run cur.:", and "Boost cur.:". The "Run cur.:" slider is set to 0.60 A.
- Save settings:** Buttons for "Save actual parameters", "Load basic parameters", and "Transmit settings".
- More power stage parameters:**
  - Step resolution: 1/8 Step
  - Current delay time: 40 ms
  - Pref. motor direction: Positive
  - Activation: Activated
  - Input logic level: Einstellung >>
  - Copper frequency: 75 kHz
  - Current Shape (CS): Standard
  - Operation mode: Bus & Switch
- Power stage short status:** A list of error indicators:
  - Error: Undervoltage
  - Error: Overtemperature
  - Error: Short circuit in power stage
  - Hardware reset (Watchdog?) [Delete]
  - Power stage in basic position

An inset window titled "Power stage status and test functions" provides additional information:

- Test functions:** Buttons for "1 rev. +", "1 rev. -", "Set basic position", and "Reset!".
- Power stage status:**
  - Pwr stage - software version: PAB V2.8 LB
  - Ready (green dot), Under voltage (grey dot), Over temperature (grey dot), Short circuit (grey dot), Output (green dot), Input (grey dot).
  - Total status (HEX): 0030
  - Power stage temperature: 25.8 °C
  - Power stage voltage: 43.3 V
  - Actual motor current (rms-value): 0.0 A

A tree view on the left shows the "Power stages" hierarchy, including PAB, MR8+, MCD+, CCD+, CLD+, and ZMX+, with the selected stage expanded to show its sub-parameters.

## phytron products with ServiceBus support:

- MCD+
- MR8+
- ZMX+
- PAB+
- CLD+
- CCD+

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