



## The Development Tool “EvalKit2”

Stepper motors are very flexible and low expensive actuators applied in numerous devices and appliances. Due to their wide variety of applications and drive tasks, there is need for different and adapted control circuit types, drive modes and software implementations. The development, test and optimization of any new stepper drive system is normally a time consuming and expensive procedure.



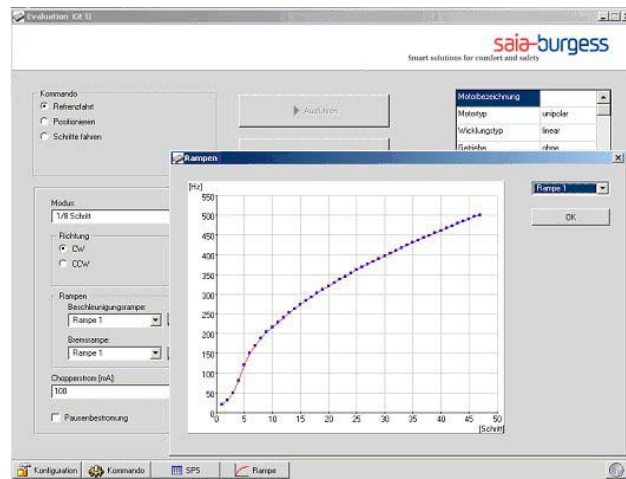
For this reason we designed “EvalKit2”, a PCB where all important driver circuits and drive modes are implemented. In addition, software tools were developed to perform miscellaneous drive sequences and functions. They can be commanded, evaluated, visualized and documented by a windows-based computer very conveniently and without special expert knowledge. Our PCB in combination with this implemented software enables the design engineer to test, to modify and to optimize any stepper motor drive application within short time and at low development costs.

### Quick parameter setup with PC software

All commands are windows-based. In the Configuration Window you can basically choose between computer command control or stand-alone modes (for instance 0 to 10VDC input control for accomplishing a defined motion angle).

Computer commanded, you can easily set motion angles and speeds or create different ramp curves. For linear stepper motors the input is possible directly in mm, for gearmotors the speed can be set in rpm of the output shaft.

All settings can be uploaded again to the computer.



### Easy running and parameter optimization

After setting motion parameters you can run motors in the Command Window. A selector tool is provided for many step modes like full step, half step, wave and microstep mode. Test special start or stop procedures in your application by using ramp tables. For generation of ramps you find a helpful tool by clicking on the button “Ramps”. The chopper driver for bipolar motors has a special feature: Current threshold adjustment is possible. Current level can be modified in accordance to the torque demand at any moment. If you have enough experience you can now use your own ramp tables and optimised phase currents in the environment of your application.



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## Test the motor in your system

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Now you can test your new drive within your appliance.

Do you have to manage reference switches, start-stop-buttons or other control inputs? You just need some clicks in the PLC-Window. Create a sequence table with several commands accepted by the EvalKit2. Up to 65535 loops can be defined and commanded. The PLC-sequence can be downloaded to the hardware and after a new power up the Kit is working in Stand Alone mode.

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## Technical Details

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Supply voltage:	3 ... 55VDC/24VAC
Driver units:	unipolar and bipolar
Max. phase current:	2,3A
Step modes:	11 (full,half,wave ... microstep)
Max. step frequency:	10kHz
Input/Output:	4 open collector outputs 1 relais contact output 3 digital inputs 1 analog input 0 ... 10VDC
MCU:	32kB Flash-ROM, 512Byte RAM
PLC:	max. 256 steps, 65536 loops
Interface:	RS232, RS485, USB-Adapter
Dimensions:	Euro-PCB 160x100x30mm
Case:	optional metal case deliverable
Software:	Freeware <i>StepControl 8</i>

Test the Freeware without hardware after search, download, install stepcon\_80.exe by using a special demo mode ([www.saia-burgess.com](http://www.saia-burgess.com)).

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For further information please contact your Saia-Burgess sales company or see our website [www.saia-burgess.com](http://www.saia-burgess.com) .

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