



## CPS500

### Compact-Positioning-System for 1 ... 6 axes

- Linear and rotary axes in mixed mode feasible
- No programming language required
- All inputs and readouts in clear text
- 999 Programs, 4000 Sets
- Editing of programs during running operation feasible
- Automatic clamping
- Easy adaptation to different machines
- Optional as complete unit with integrated servo drives

Universal  
Positioning controller  
pre-programmed



## Abstract CPS500 rotary table / indexing attachments

The CPS500 is a free programmable CNC - positioning controller for 1 to 6 axes with position controlled drives. The programming is carried out in simplified plain text. Knowledge of a programming language is not required. The operation is easy and convenient thanks to the menu-driven sequences.

Via parameters which appear in plain text on a back-lighted 7" touch screen, the CPS500 can easily be adapted to the respective machine with or without a round table attachment. Special functions for round tables or rotary attachments are available.

An optional clamping is automatically processed and monitored. Numerous clamping parameters allow optimal adaptation to the machine and its sensors.

### The following operating modes are available:

- Reference run: Automatic searching for the machine reference position.
- Automatic: Execution of the selected program or the programmed pitch increments using the appropriate speeds.
- Program input: Programming is accomplished in the parameterized unit. Absolute and incremental as well as shortest way and segment programming is feasible. Time controlled endless movement, reference run or zero setting inside the program, dwell times and machine outputs as well as subroutines and loops allow universal programming.
- Manual mode: Run to any position by means of arrow keys or definite motion to a previously entered position. Zero point setting or continuous turning are also possible.
- Parameter input: Password protected parameter input of machine-specific parameters in different parameter levels.
- Test mode : Testing function for inputs and outputs. Very useful for initial startup or troubleshooting.

### Technical Data CPS 500 multi-axis control

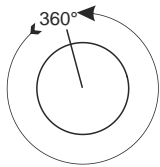
Program functions:	Absolute positioning with or without direction preset Relative positioning Segment division Endless move (time controlled) Reference run / zero setting inside program Machine function, activate, deactivate or toggle Jump, loop, subroutine Dwell time, input condition
Program memory:	999 Programs, declared in plain text 4000 Sets
Input angle:	0,0001 - 999,9999 °/U/m/mm/inch
Rotary Axes:	1 - 6, declared in plain text
Display:	7" Wide screen TFT 262.000 colours, LED back light
Input:	Resistive Touch
Axis resolution:	max. 1.073.741.842 (2 <sup>30</sup> ) Increments per meter of table rotation
Acceleration and deceleration time:	10 - 9999 ms as ramp time adjustable
Speed:	Programable in every set
Limits of travel:	adjustable through parameter
Clamping:	Automatic processed, several parameters for behaviour and reaction times
Other:	Freely definable warning and error texts with input function Customers logo and contact information storable as BMP
Ambience temperature:	0 ... 45°C
Dimensions:	160x213x36mm (HxWxD) without extension modules

Example for programming in degrees

The screenshot shows a CNC control interface with the following data:

Parameter	Rundtisch	Achse B	Achse C
Kettenmaß [°]	360.0000	0.0000	0.0000
Geschwindigkeit [U/min]	10.00	37.50	37.50

Callouts indicate: 'Programm name in decoded text' pointing to 'Programm 3' and 'Axis name in plain text' pointing to 'Rundtisch'.

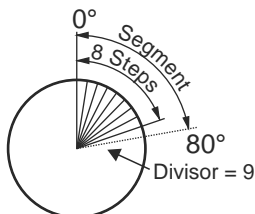


Incremental angle of axis A: turn „Rundtisch“ 360 degrees with 10 rpm speed. Axes B and C don't move in this set.

Example for pitch programming

The screenshot shows a CNC control interface with the following data:

Parameter	Rundtisch	Achse B	Achse C
Segment [°]	80.0000	0.0000	0.0000
Teiler	9	1	1
Geschwindigkeit [U/min]	2.45	37.50	37.50
Anzahl Schritte	8		

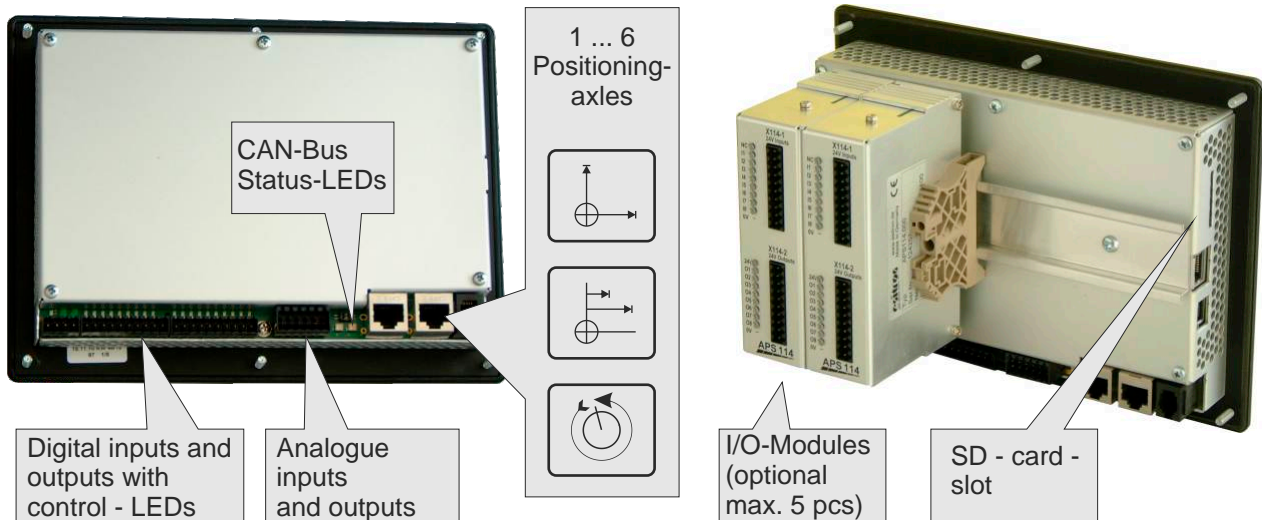


Programming of a 80° segment with a divisor of 9  
 $(80/9 = 8.8888 \text{ Grad})$   
 8 Steps with 2,45 rpm speed.

## Inputs and outputs

Signal inputs:	10 inputs, 24V, extensible to 50 inputs with I/O-modules, more via CAN-Bus, selection of 54 different functions e.g.: start, clamping sensors, Teach-In, ...
Signal outputs:	8 outputs, 24V 0,5A, extensible to 48 outputs with I/O modules(24V 0,8A), more via CAN-Bus, selection of 50 different functions e.g.: positioning status, M-function, clamping, ...
Connections:	Connector with tension springs CAN-bus: 2x RJ45

## Backview



## Complete units

The CPS500 is available as complete unit with integrated servo controller for brushless AC servomotors. Different versions of servo controllers are fitted depending on the required motor current.

## Example 1-axe table top unit



The table top model with its small design has all connections with robust industrial connectors at the rear. The maximum motor rated current is 10A in the table top model. There are 6RU table top units, consoles and control cabinets available for higher motor currents.

All data in this brochure have an informative character without warranty of characteristics. Changes without previous announcement reserved.

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