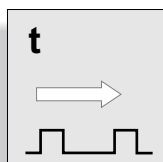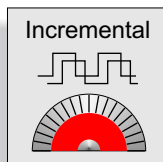# esitron®

CPS 300

Compact Positioning Controller

- Multi-axis controller 1 to 6 axes with linear interpolation
- 32 inputs (41 from 4 axes on)
- 16 outputs
- easy individual adaptation
- comfortable operating
- easiest programming
- large display
- clearly arranged keyboard
- storage of programm and parameter data on PC through software KLEWin (optional)

Incremental

SSi
SYNCHRON SERIAL INTERFACE

t

CE

Multi axes controller CPS 300

The CPS 300 is a free programmable CNC position controller for universal applications in machines equipped with up to 6 axes. The CPS 300 can even control the entire function in a large range of applications. PLC functions are accomplished with 16 inputs and 16 outputs which can be processed within the program flow. Various parameters provide facilities for easy adaptations to countless machine configurations. In every record of a program, a complete functional group (i.e. positions for all axes) can be programmed. The large display is clearly arranged.

Easy operating

Operating is exclusively done via clear-text menus and special function keys. This kind of operating is uniform to all operating modes.

The keyboard is split into an input area and an operating area. This simplifies handling.

Programming is realized without the usual cryptic commands. Programming is menu-guided and supported with clear text input masks. Thus, no programming experience is required.

Handling is very simple. This reduces time and costs for setting up operation and getting acquainted with the CPS 300.

Individual adapting

Various special functions can individually be adapted by parameters. A few examples:
- piece counter (3 modes)
- start signal handling (4 modes)
- programmable travel limitations
- position display (variable number of digits)
- gear factor etc., for each axle seperate

Certain operation modes can also be adapted individually, p.e. reference run:
- order of axes
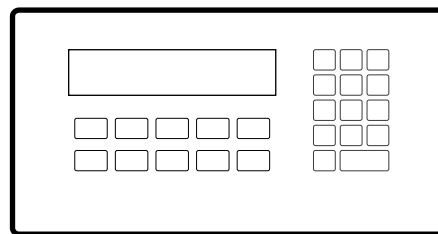- process of running reference (each axle seperate)
- speeds (each axle seperate)

All parameters are arranged into functional groups and protected by passwords.

Function scheme

Options:

3 analog inputs (10 bit res.) →

RS485 serial interface ←→

Absolute position feedback with SSI (synchronous serial interface) or direct processing of magentostrictive transducers. (P/Start-Stop interface)

16/25 inputs status, operation modes and limit switches

16 programmable inputs

16 outputs

controller release contacts

RS232 serial interface

auxil. axle

Some outputs are fixed assigned to status signals.

Operating modes

Automatic
  Single step
  Cycle run
  Continuous run
Manual mode
  Rapid motion
  Creep speed
  Step-by-step
  Position presetting
  Zero point setting
  Teach-in programming
Reference run
Program input
Parameter input
  Controller data
  Machine data
  Reference run
  Speeds
  Password setting
Error diagnosis
Data transmission
  Storage (KLEWin)
  Programming interface
  (DIN66025, optional)

Technical Data

1-6 axes, each one
  set-value output -10..+10V (12 Bit res.)
  encoder input up to 250kHz
  controller release (potential-free contact)
1 auxiliary axle set-value 0..+10V (res.8 bit)
32 (max.41) signal inputs 24V 10mA
16 signal outputs 24V 0,5A
  short-curcuit proof transistor outputs
Regulating time 2ms (3ms 4-6 axis)
Serial interface RS232C

LCD-Display 4x40 characters, illuminated
  all messages in clear text
Membrane keyboard, tactile acknowledge
Program storage
  99 programs, with a total of up to
  2000 records, power-fail safe

Clamping plug connectors
Operating voltage 85...264V AC; 50/60Hz
Operating temperature 0-45°C (32...113°F)
Dimensions WxHxD
  320x170x95 mm (up to 3 axes)
  320x170x115 mm (4-6 axes)

Programming

Positioning
  absolute
  relative
  linear interpolation
M-Functions
  set
  reset
  pulse output
  set and wait for acknowledge
Reference run
Set to zero
Control commands
  Jump
  Loop
  Subprogram call
  Dwell time
  Set-value of auxiliary axle
Input inquiry
  Conditional jump
  Conditional call
  Wait for condition
Supplementary functions
  Stop
  Consecutive records

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