Systematic positioning

Unipos 330 DATA SHEET

The versatile control unit for handling, assembly technology, linear robots

The unipos 330 is a universal, modular CNC continuous path control for up to 3 axes (interpolating) in connection with a PLC for controlling most reliable applications for machine construction automation technology, machine tools and special applications.

Depending on the design, either stepper motors or servomotors are used as axis drives.

The integrated panel PC with the LINUX operating system allows convenient programming of your application and the user interface (HMI).

Features

- Interpolating continuous path control for a maximum of 3 servo axes
- CNC programming using G code
- 1 to 3 axes / stepper motors or servomotors
- Processor: 32-bit microcontroller, 400 MHz, without fan
- 7" touch screen, resolution: 800 x 480 DPI, TFT colour
- 3x freely programmable keys
- Connection option for up to three drives
- Either servomotors or stepper motors
- Modular overall structure
- USB interface, on the front side
- Ethernet network interface TCP/IP, on the front side
- Remote maintenance via the internet
- Option: Integrated emergency stop SIL3, emergency stop circuit guided on connector
- LINUX operating system

NC servomotor axes

- Axis controllers: 1 to 3 servo controllers integrated in the device
- Motor types: Various manufacturers, Föhrenbach linear motor
- Commutation via measuring system
- Intermediate circuit voltage: 325 volts
- Nominal current / axis: 3 amperes
- Peak current / axis: 9 amperes
- Measuring systems:
  Resolver, 1Vss-SinCos, Incr. encoder, EnDat2.1, EnDat2.2, Hall-UVW, Hiperface-Sick-5V, Hiperface-Sick-8V, Tamagawa-17-Bit-single-turn, Tamagawa-17-Bit-multi-turn

NC stepper motor axes

- Number of axes: 1 to 3 axes integrated in the device
- Stepper motor power output stages for 2-phase stepper motors
- Multistep operation, 256 micro steps
- Motor types: Various manufacturers
- Operating voltage: 9V…48V, maximum 2.8A
- Holding torques: Up to 3.10 Nm

Communication / interfaces

- 24x digital input PNP (24VDC), 16x digital output / (24 VDC, 1A, total max. 8A); on SUB-D connector
- Option: 8x analogue input (0-10V), 2x analogue output (0-10V) on Sub-D connector
- 1x Ethernet port 10/100 Base-T (front side of housing)
- 1x USB 2.0 (front side of panel PC)
- Option: Fieldbus port: CANopen on back side
- Extension via CANopen: Decentralised in-outputs

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Modularity

- Panel PC, motor controller can be installed separately
- Extension via CANopen / plug-in cards:
  Decentralised in-outputs, other servo controllers
- Option: Emergency stop system

Programming

- CNC: Programming with common DIN commands
  (G code / ISO programming)
- PLC: Ladder diagram
- HMI: Graphics-based programming

Housing

- Painted steel sheet
- Four housing feet, foldable on front side for inclination
- Cooling with fan

Directives, standards

- CE conformity
- EU Machinery Directive 2006/42/EC
- EMC Directive 2014/30/EU
- EN 60204-1: 2014-10 (Electrical Safety)
- EU Low Voltage Directive 2014/35/EU
- EU Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS) 2011/65/EU

Operating voltage, operating conditions

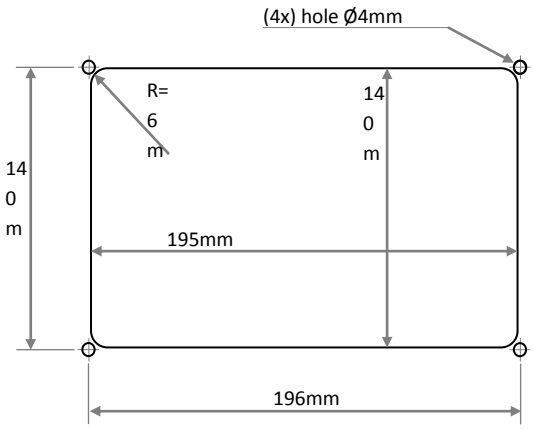
- 230VAC +/- 10%, max. 2,200 watts
- Low-power device connection on back of the device
- Digital I/O: 24VDC / max. 8A (total)
- Protection class: IP20
- Temperatures:
  - Storage temperature: -20°C to +60°C
  - Operating temperature: 0°C to +40°C

Dimensions

- Width: 314 mm
- Height: 215 mm
- Depth: 440 mm

Control buttons

USB connector, freely programmable keys



Cut-out dimensions for external panel installation in switch cabinet

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