Techno Inc.

C-Series C10 Machine Controller
Eurocard DIN Packaged System

FEATURES

♦ Available as 2- or 3- axis machine controller

♦ Remote START/STOP

♦ Bidirectional serial communication at up to 19200 baud

♦ 32K of on-board memory, capable of holding over 1200 3-axis motions

♦ Built-in forced air ventilation

♦ LED status display on front panel

♦ Commands can be executed as a "batch program" or each command can be executed in a command-by-command basis

♦ All power supplies are built-in & wired up
 – Motor: 36V / 2A for each axis
 – Logic: 5V / 1.5A

♦ Comes fully assembled and **READY TO USE**

READY TO USE OUT OF THE BOX!!!

ELECTRONICS

MOTION CAPABILITIES

• Linear interpolation on any 2 axes (XY, XZ or YZ) at rates up to 10K steps/sec.
• Motions up to $\pm$ 8,000,000 steps
• Switch-settable acceleration
• Can be programmed in both incremental & absolute coordinates

STEPPER AMPLIFIERS

• Each Stepper Motor Amplifier (model HL1100M313112) can produce up to 2A at 44V
• Total fault protection against:
  – Short circuit across phases
  – Short circuit to ground
  – Over / under voltage
  – Overtemperature

NOTE: This controller is **CE** compliant.

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APPLICATIONS

This controller is suitable for light- to moderate-duty cycle applications such as in laboratories or schools. It is suitable for driving slides up to 300 mm travel. Note that since the motors will be powered at 2A peak current, the load and force specifications should be correspondingly reduced.

NOT RECOMMENDED for continuous duty or production type applications.

The C10 Machine Controller consists of:

1 C10 enclosure, HL1400M3334
2 or 3 stepper drivers, HL1100M313112
1 Interface Card 4.0, HL1200M325000
1 serial computer cable, HL1700M2784
2 or 3 motor cables, HX1700M6143

Catalog Number	Part Description	Dimensions	Weight (lbs.)
HL1300MC10A	C10 3-Axis Controller	10" x 11" x 6.7"	26.4
HL1300MC10A-2	C10 2-Axis Controller		24

NOTE: The C10 3- and 2-Axis Controllers come complete with all power supplies, motor cables, amplifiers and a serial cable to computer.

ACCESSORIES

Catalog Number	Part Description
HL1100M313112	Stepper Motor Amplifier Card
HX1700M6143	10 ft. Motor Cable
H25Z61-DS1235AB	Battery-backed Memory

SOFTWARE / PROGRAMMING

• Direct control through simple ASCII codes.
• Can be programmed via many third-party software packages.
• Pal – English like language programming system (included).

COMMAND SUMMARY

Syntax	Description
@0<axes>	Define Axes: x=1, y=2, z=4
@0R<axes>	Home: x=1, y=2, z=4, confirm completion
@0r<axes>	Home: x=1, y=2, z=4, confirm immediately
@0d<Gx>,<Gy>, <Gz>	Set home speed
@0A Sx, Gx, Sy....Gz2	Incremental motion, confirm completion
@0a Sx, Gx, Sy... Gz2	Incremental motion, confirm immediately
@0M Sx, Gx, Sy... Gz2	Absolute motion
@0m Sx, Gx, Sy... Gz2	Absolute motion
@0P	Identify axes' positions
@0i	Enter program mode
@0f	Circular interpolation direction
@0y...	Perform circular interpolation

Program Mode	Description
0 Sx, Gx, Sy...Gz2	Incremental motion
3<Number>, <Offset>	Make a loop, or branch if <number>=0
6 Sx, Gx, Sy...Gz2	Move until impulse
7<Axes>	Home motors, x=1, y=2, z=4
mSx, Gx, Sy.....Gz2	Move absolute
eS	Select interpolation axes/plane: 0=x/y, 1=x/z, 2=y/z
f	Set direction of circular interpolation
y	Perform circular interpolation

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