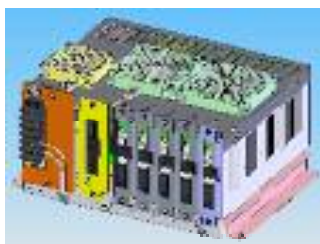


Motion + Multi Servo-amp.
Multi Axes Motion AMP.

Multi-Servo AMP with NC/Robot Control Technology provides cost down and high reliability for any precise machines, and it is typically applied for winding, precise cutting, robot control and electric-cam machines.

■ **Motion Control**

NC/Robot Control
 7axes Interpolation
 Multitask
 G code Techno code
 auto/manual mode
 Direct NC (DNC)
 Rich Motion Functions



■ **Multi Servo AMP.**

position/velocity loop
 AC-servo Max 7 axes

■ **AC Servo AMP**

Panasonic (MINAS)
 TAMAGAWA
 50w - 750w

■ **Compact ▪ Cable-less**

AC100 ~ 200 v
 250w × 150h × 210d

■ **Peripheral Device**

PC • Touch Screen
 PLC • Vision System

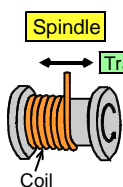
■ **Input/Output**

42 inputs 42 outputs
 Max (256/256)

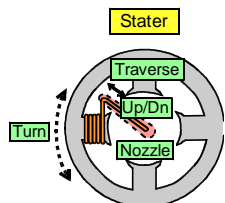
■ **NC/ROBOT CONTROL**

Winding, precise cutting, robot (SCARA/X Y θ parallel) and electric-cam machines are the most popular application.

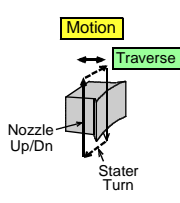
■ **Winding**



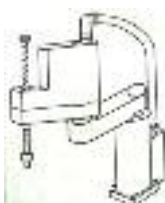
■ **Nozzle winding**



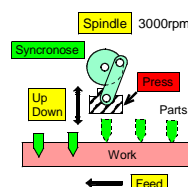
■ **SCARA ROBOT**



■ **Precise Cutting**



■ **Electric-cam machine**



■ **Cost Down**

◆ **Compact & Embedded software**

Multi Axes Motion Amp. is embedded in a machine without making a control box.

◆ **Cable-less**

Cable and wiring are not necessary. Note: External wiring (motor/IO) is required.

■ **Reliability**

◆ **one module**

Motion /Servo/IO control is all in one: Minimum Hardware

■ **Profit of Techno precise motion**

◆ **G code and TECHNO code**

Customers can easily determines the type of operations by G code and/or TECHNO code without consulting the special knowledge for servo-control.

◆ **Rich Motion Control Functions**

On the basis of various experiences, we customize rich functions in order to suite customer's requests.

◆ **Confidentiality**

We maintain high security and protect customers know-how.

Hardware/Servo Amp.
TIETECH CO.,LTD. <http://www.tietech.co.jp>
 1-3-4 Shioyacho Minami-ku Nagoya Aichi JAPAN
 Zip Code: 457-0078
 TEL 052-824-7376 FAX 052-811-0777

Motion Controller/Software
TECHNO CO., LTD. <http://www.open-mc.com>
 1304-5 Shimofujisawa Iruma Saitama JAPAN
 Zip Code: 358-0011
 TEL 04-2964-3677 FAX 04-2964-3322

Multi Axes Motion AMP. general outline

■ motion control Standard: black Option: blue Custom: green

Basic Functions	contouring, acceleration/deceleration, G code /Techno code, 7 axes interpolation circle interpolation, helical interpolation, automatic/manual mode, PC operation machine-panel operation, parameter, internal status, variable management, backlash compensation
Rich Motion Functions	macro variable/operation, multitask (8 task) direct nc (DNC), synchronization control, tangent control, parallel axes, spindle control, manual pulse generator, precision position sensor, electric cam, tool length compensation, tool diameter compensation, pith error compensation, form compensation, corner override, winding command
Options for standard package	winding (spindle/flier/nozzle) robot (SCARA/X Y θ plane, precise cutting, electric cam.
custom-made	special coordinate system (special kinematics), role control, injection molding, servo-press, high speed synchronization control.
input/output	42 inputs, 42 outputs Max (256/256)
communication	PC • PLC • Touch Panel • Vision System

■ servo amp.

basic	position loop, speed loop, current loop
# of axes	Max 7 axes, total 2.5 kw
auxiliary function	External Regenerative Resistance
position sensor	encoder (incremental/absolute), resolver

■ servo motor

Panasonic	MINAS A 4	50w	100 w	200 w	400 w	750 w
Tamagawa	TBL-i	50w	100 w	200 w	400 w	750 w

Easy set up with standard package.

Standard packages for winding, precise cutting, robot (SCARA/X Y θ parallel) and electric-cam machine are available. How-to DVDs and documents will help to implement the standard package on customer's machine, and it is so easy!

Custom-made

When customer requires special functions which are not available in standard packages, the custom-made is also available. The specific function will be advanced compared to other controllers.

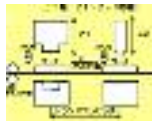
Achievements

winding machine, cutting machine, precision grinder, lathe, dispenser, robot, electric cam, multi axes transfer, equipment of photovoltaic/Flat-panel-display/Semiconductors products, moulder, EDM, molding, high speed synchronization control, multidimensional Measurement

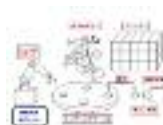
■ precision cutting



■ electric cam



■ multi head machine



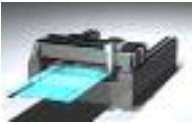
■ cutting machine



■ milling machine



■ precision stage



■ multi axes robot



■ servo press



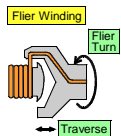
■ direct nc cutting



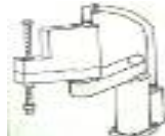
■ 5 axes CAM



■ flier winding



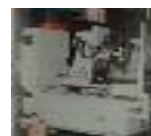
■ SCARA robot



■ 3D-digitizer



■ rigid tapping



■ milling /EDM



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