TECHNO CO., LTD.

PLC Motion Controller

Features

It is a motion controller with built-in PLC (FA-M3 made of Yokogawa Electric Corporation). It is a standalone type, and it controls NC and robot without the load of the ladder.It integrates the exact motion functions such as multi axes interpolation, synchronous control, contouring and electronic cam.It is possible to connect with PC easily, and the operation is possible from EXCEL and VB software by DLL application.It can be operated from the PLC ladder, then PC/PLC/MC operate jointly.Moreover, one PLC can easily do the line controls of the transportation, the processing, assembly, and the inspection, etc. by the parallel run of PLMC.

PLMC-MⅡEX

Application examples

Multi axes control, Robot control (Scalar, link and parallel), Semiconductor manufacturing equipment, High-speed press (Servo press and Feeder), Machining, Grinding, Bending, Cutting (Glass, Cloth, Rubber and metal), Spooling machine, Electronic cam, Handling machine, DNC processing machine, Metal processing machine, Optical forming, Transportation machine and Packaging machine

Specifications

Item	Specifications
Number of controlled axes	Standard: 4 or 9 axes (Exclusive: 15 axes)
Axis control functions	Spindle (SPIN), Same command for 2 axes (Parallel axes), Tangent control, Rotary axis surroundings processing (Infinity rotation), Flexible electronic cam, Axis unit system conversion, Sensor latch, and Diameter command (Lathe specification)
Accel./decel. control	Linear type, Exponential type and S character type
Axis command	Positioning, Linear interpolation, Circular interpolation, Helical interpolation, Point positioning, Torque command and Independent multi axes control
IO command	Output ON/OFF, M code, and Input judgment
Other command	Timer, JMP, and Logical origin setting
Coordinate system	Logical coordinates and Machine coordinates
Contouring	Path operation (No stop between blocks), Continuous operation of minute interpolations and Form compensation
Compensation functions	BL compensation, PE compensation, Tool length/Tool diameter compensation
Network	Ethernet connection (By way of PLC)
PC communication	DLL connection (By way of PLC), Standard operation software and DLL
Ladder operation	It instructs and controls all functionses of PLMC from the ladder.
A large amount of data	Dynamic data loading (PLC)
Operation language	G code, Techno code, Subprogram and Times specification CALL
Operation	Manual operation, Memory operation, teaching and DNC operation (PC/PLC)
Multitasking	Mastering, Slave, Reset, Background, EXIT and Alarm
Macro-function	Variable, Arithmetic operation, and Condition judgment
Input processing (By way of PLC)	Emergency stop, ONSW, Origin (Each axis), Logical origin setting, General purpose inputs (Ri0-48), Handle palser axis selection, Handle palser magnification, Override function, Operation mode, Effective/invalid of panel, Axis operation (Bit/code specification), and Program selection
M-Ⅱ input	Servo alarm and Over travel (Each axis)
Output control (By way of PLC)	SVM (Servo main power supply), ALARM, INPOS, READY, RUN, PAUSE, PRDY, MODE 0-2 (Mode output), Spindle control, General purpose outputs (Ro0-63)
M-Ⅱ output	Servo ON (Each axis) and Servo reset (Each axis)
Operation panel (By way of PLC)	Various automatic/manual operations and Override
Axis operation analysis	Time series loging of multi axes
Exclusive use	Coordinates conversion (Link and parallel) and Others
MECHATROLINK connection	Σ servo, MYVIS (Image processing system), Spindle inverter

MECHATROLINK specifications

		M-Ⅰ	M-Ⅱ	
		17-byte	17-byte	32-byte
Command	Servo	-	×	×
	Stepping Motor Drivers	-	-	-
	Intelligent I/O	-	-	-
	Simple I/O	-	-	-
	Inverter	-	-	-
Transmission cycle			0.5ms to 4ms	

Contact Information

TECHNO CO., LTD.
1304-5 Shimofujisawa, Iruma, Saitama, 358-0011 Japan
TEL : +81-4-2964-3677
FAX : +81-4-2964-3322
E-mail : mail@open-mc.com
URL : http://www.open-mc.com