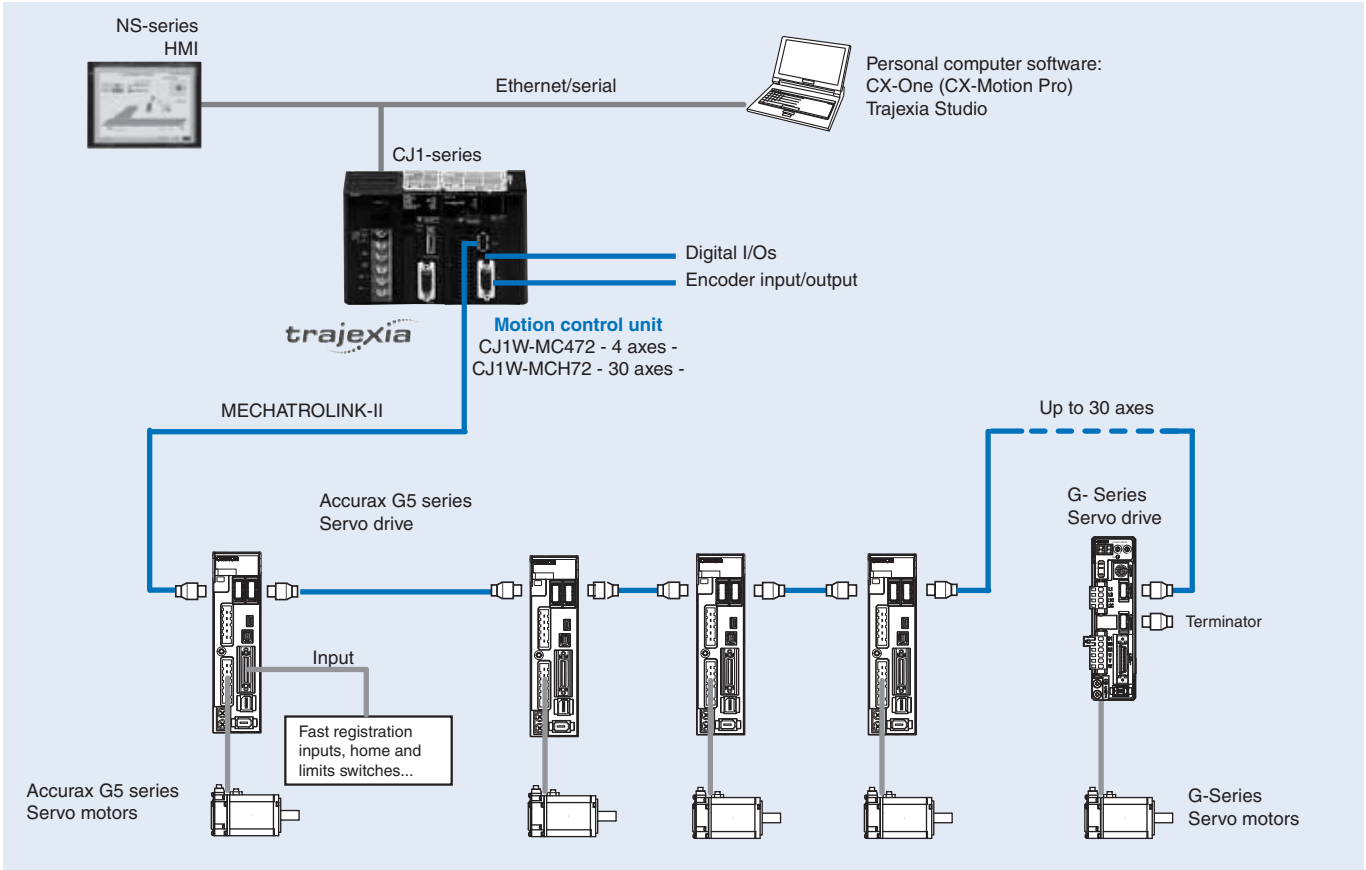
Trajexia-PLC CJ1W-MC472/ MCH72 - MECHATROLINK-II

Trajexia motion control unit

PLC-based motion controller unit over MECHATROLINK-II motion bus

- Models with 4 or 30 MECHATROLINK-II axes
- Selectable cycle time from 0.5 ms to 4 ms
- Control of servos and inverters over a single motion network
- Supports position, speed and torque control
- Advanced motion control such as CAM control, registration control, interpolation and axes synchronization via simple motion commands
- Serial port for master encoder axis
- Embedded digital I/Os
- I/O data exchange with the PLC CPU

System configuration



Specifications

General specifications

Item	Details
Model	CJ1W-MC□72
Ambient operating temperature	0 to 55°C
Storage temperature	-20° to 70°C
Ambient operating humidity	10% to 90% RH
Storage humidity	90% max. (without condensation)
Atmosphere	No corrosive gases
Vibration resistance	10 to 57 Hz (0.075 mm amplitude) 57 to 100 Hz, Acceleration: 9,8 m/s2, in X Y and Z directions for 80 minutes
Shock resistance	143 m/s² , 3 times each X, Y, Z directions
Insulation resistance	20 MOhm
Dielectric strength	500 V
Protective structure	IP20
International standards	CE: IEC61131-2, IEC61000-6-2, IEC61000-6-4
	cULus: UL508 (Industrial Control Equipment)
	Lloyds; RoHS compliant
Weight	180 g

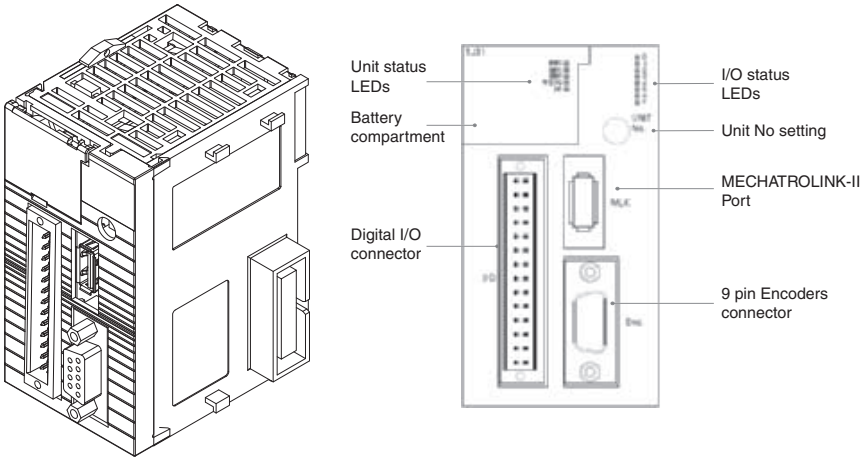
Trajexia Motion Control Unit

Item		Details	
Model		CJ1W-MCH72	CJ1W-MC472
Classification		CJ-series CPU bus unit	
Applicable PLCs		CJ-series	
Axes	Total number of axes	32	
	MECHATROLINK-II axes	30 maximum*1	4 maximum*2
	Master encoder axis	1 maximum	
	Virtual axis	32 maximum	
MECHATROLINK nodes	Total number of nodes	30	12
	Servo Drive	30 maximum	4 maximum
	Inverter	8 maximum	8 maximum
Cycle time		Selectable 0.5 ms, 1 ms , 2 ms or 4 ms	
Programming language		BASIC-like motion language	
Multi-tasking		Up to 14 tasks running simultaneously	
Built-in digital I/O		16 inputs, 2 with registration functionality. 8 outputs, 1 with hardware position switch functionality	
Measurement units		User definable	
Available memory for user programs		500 KB	
Data storage capacity		Up to 2 MB flash data storage	
Saving program data, motion controller unit		SRAM with battery backup and Flash-ROM	
Saving program data, personal computer		Via CX-Motion Pro/Trajexia Studio software	
Firmware update			
Encoder interface	Control method	Line driver AB output, Stepper pulse input/output	
	Encoder protocols	Abs SSI 200 kHZ, Abs EnDat 1 MHz and Incremental Line driver AB	
	Encoder Input max frecuency	6 MHz	
	Encoder/Pulse output max frecuency	2 MHz	
MECHATROLINK-II master port	Controlled devices	Accurax G5 and G-Series servo drives, MX2 inverters	
	Electrical characteristics	Conforms to MECHATROLINK standard	
	Transmission speed	10 Mbps	
	Stations Slave types	Servo drives and frequency inverters	
	Number of MECHATROLINK nodes/ Cycle time	Max. 30 nodes/ 4 ms Max. 16 nodes/ 2 ms Max. 8 nodes/ 1ms	Max. 12 nodes/ 4 ms Max. 12 nodes/ 2 ms Max. 8 nodes/ 1ms
	Number of inverters in position mode/ Cycle time	Max. 8 nodes/ 4 ms Max. 8 nodes/ 2 ms Max. 8 nodes/ 1ms	Max. 4 nodes/ 4 ms Max. 4 nodes/ 2 ms Max. 4 nodes/ 1ms
	Transmision distance	Max. 50 meters without using repeater	
Data exchange with PLC		CJ1W-MCH72 exchanges data with memory areas in the PLC. Mapping for cyclic data exchange in the PLC CPU to memory areas in the motion unit can be freely configured.	

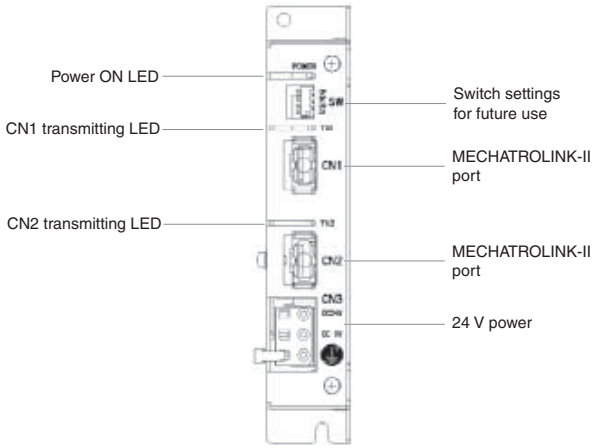
Notes: *1 It includes a maximum of 8 inverters in position mode.
*2 It includes inverters in position mode.

Nomenclature

CJ1W-MC□72 - Trajexia motion control unit

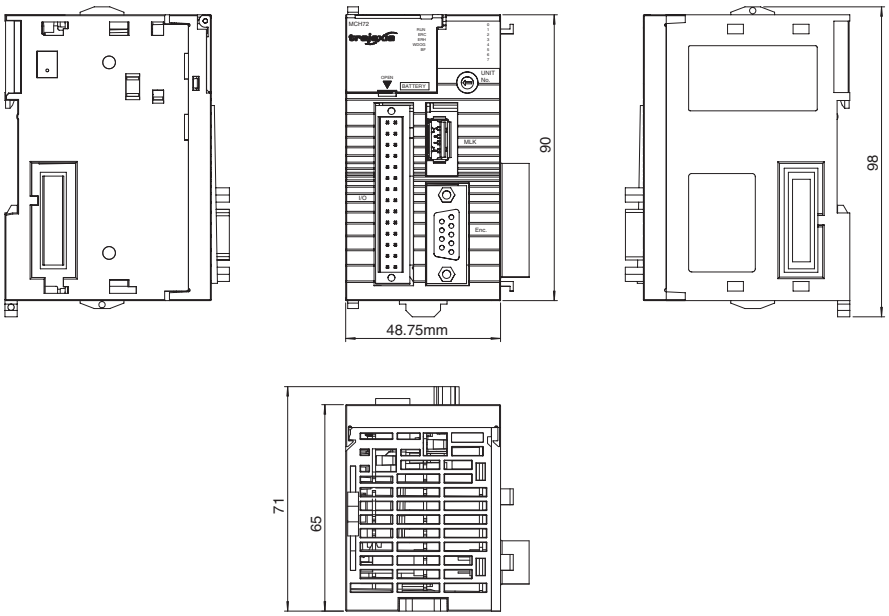


JEPMC-REP2000 - MECHATROLINK-II repeater

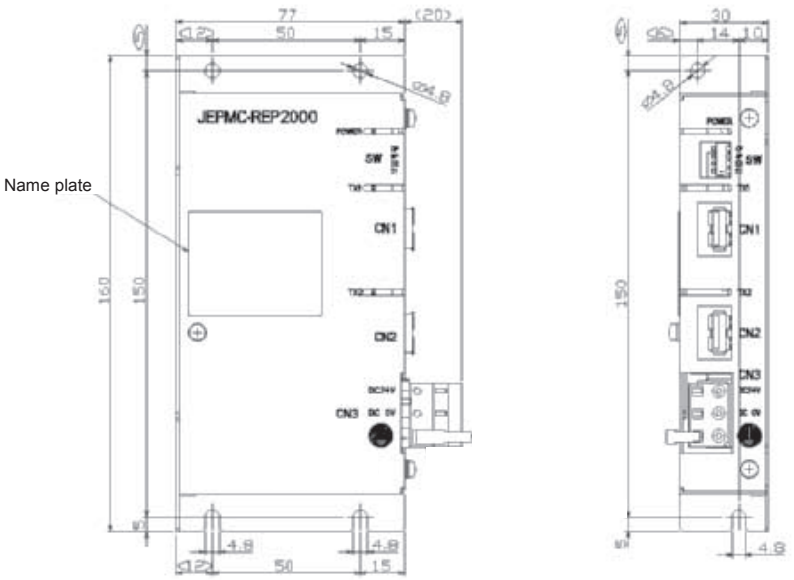


Dimensions

CJ1W-MC□72 - Trajexia motion control unit



JEPMC-REP2000 - MECHATROLINK-II repeater



Ordering information

Motion controller

Name	Model
Trajexia motion control unit, up to 30 MECHATROLINK-II axes	CJ1W-MCH72
Trajexia motion control unit, up to 4 MECHATROLINK-II axes	CJ1W-MC472

MECHATROLINK-II - related devices

Servo system

Name		Model
Accurax G5 servo drive ML-II built-in		R88D-KN□□□-ML2
G-Series servo drive ML-II built-in		R88D-GN□□H-ML2
MX2 inverter with MECHATROLINK-II option board	Frequency inverter	3G3MX2-A□
	ML2 option board	3G3AX-MX2-MRT

Note: Refer to servo systems and frequency inverter sections for detailed specs and ordering information

MECHATROLINK-II cables

Name	Remarks	Model
MECHATROLINK-II cables	0.5 meter	JEPMC-W6003-A5
	1 meter	JEPMC-W6003-01
	3 meters	JEPMC-W6003-03
	5 meters	JEPMC-W6003-05
	10 meters	JEPMC-W6003-10
	20 meters	JEPMC-W6003-20
	30 meters	JEPMC-W6003-30
MECHATROLINK-II terminator	Terminating resistor	JEPMC-W6022
MECHATROLINK-II repeater	Network repeater	JEPMC-REP2000

Computer software

Specifications	Model
CX-Motion Pro V1.3.3 or higher	CX-One
Trajexia Studio*1 V1.3.3 or higher	TJ1-Studio

*1. When the Trajexia Studio software is included in CX-One, then it is called CX-Motion Pro.

ALL DIMENSIONS SHOWN ARE IN MILLIMETERS.
To convert millimeters into inches, multiply by 0.03937. To convert grams into ounces, multiply by 0.03527.

Cat. No. I54E-EN-03 In the interest of product improvement, specifications are subject to change without notice.

Общество с ограниченной ответственностью «МосЧип» ИНН 7719860671 / КПП 771901001
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