Chipsmall

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!
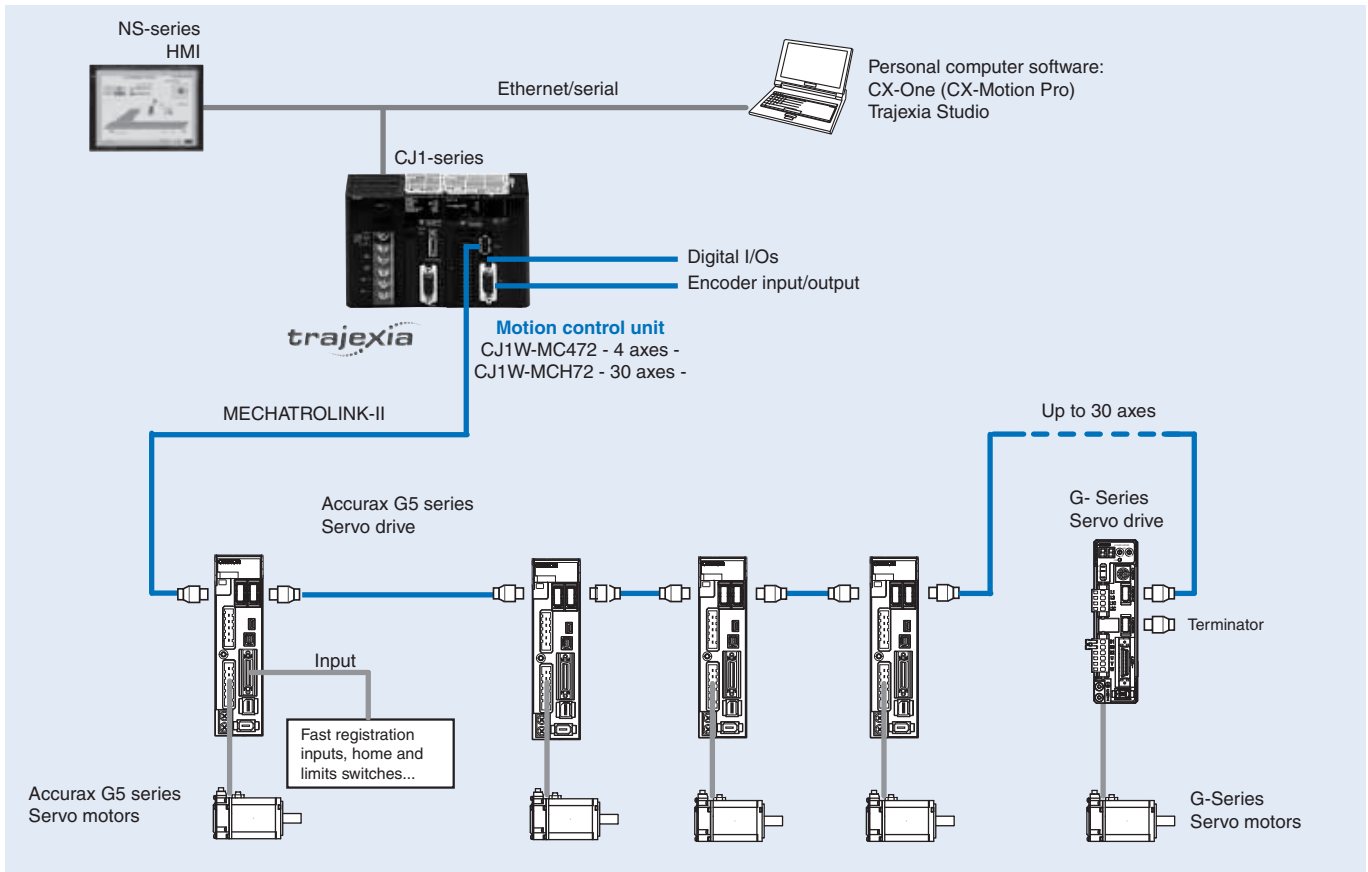
Contact us

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

NS-series HMI

Ethernet/serial

Personal computer software:
CX-One (CX-Motion Pro)
Trajexia Studio

CJ1-series

Digital I/Os

Encoder input/output

Motion control unit
CJ1W-MC472 - 4 axes -
CJ1W-MCH72 - 30 axes -

MECHATROLINK-II

Up to 30 axes

Accurax G5 series
Servo drive

G- Series
Servo drive

Terminator

Input

Fast registration inputs, home and limits switches...

Accurax G5 series
Servo motors

G-Series
Servo motors

OMRON

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.	

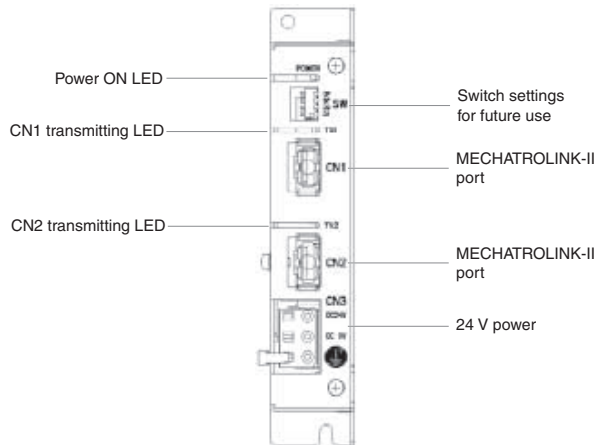**Notes:** *1 It includes a maximum of 8 inverters in position mode.
*2 It includes inverters in position mode.

Nomenclature

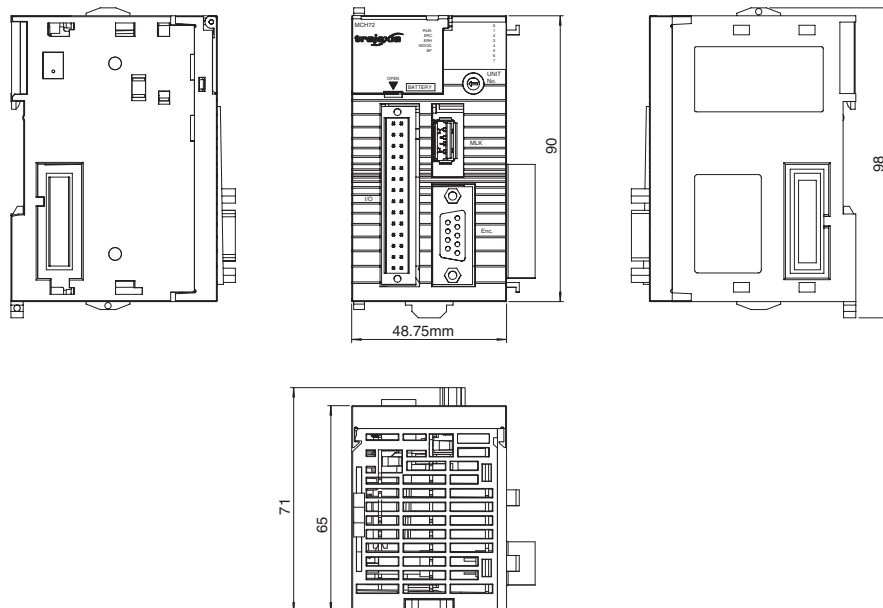### CJ1W-MC□72 - Trajexia motion control unit

Unit status LEDs
Battery compartment
Digital I/O connector

I/O status LEDs
Unit No setting
MECHATROLINK-II Port
9 pin Encoders connector

JEPMC-REP2000 - MECHATROLINK-II repeater

Power ON LED
CN1 transmitting LED
CN2 transmitting LED
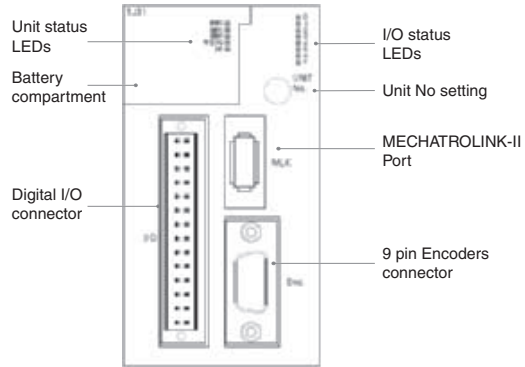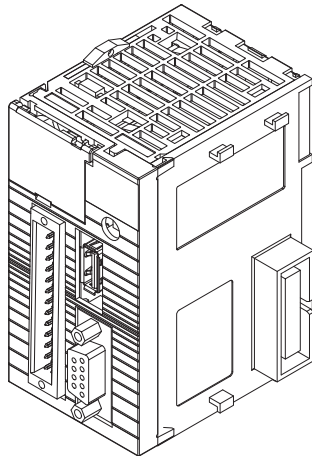
Switch settings for future use
MECHATROLINK-II port
MECHATROLINK-II port
24 V power

Dimensions

CJ1W-MC□72 - Trajexia motion control unit

90

48.75mm

98

71

65

OMRON

JEPMC-REP2000 - MECHATROLINK-II repeater

Name plate
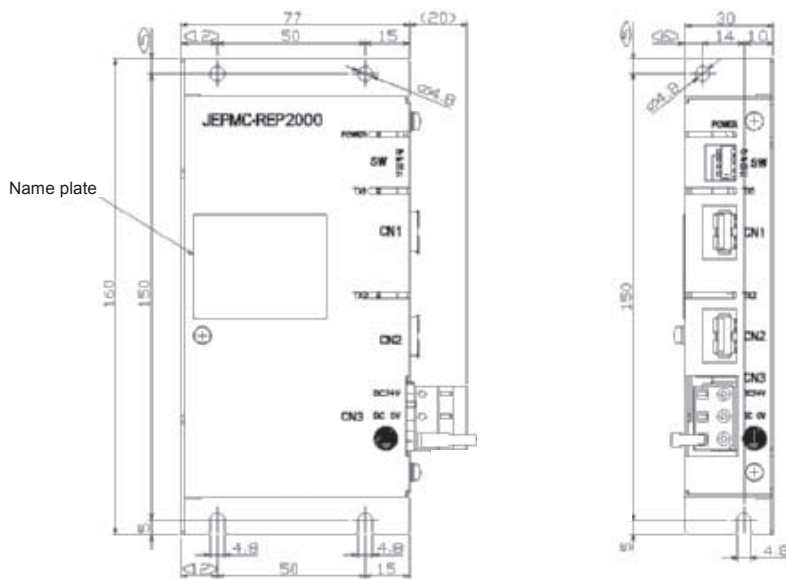
Ordering information

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.

In the interest of product improvement, specifications are subject to change without notice.

Motion controllers