

CJ1W-MCH72 - MECHATROLINK-II

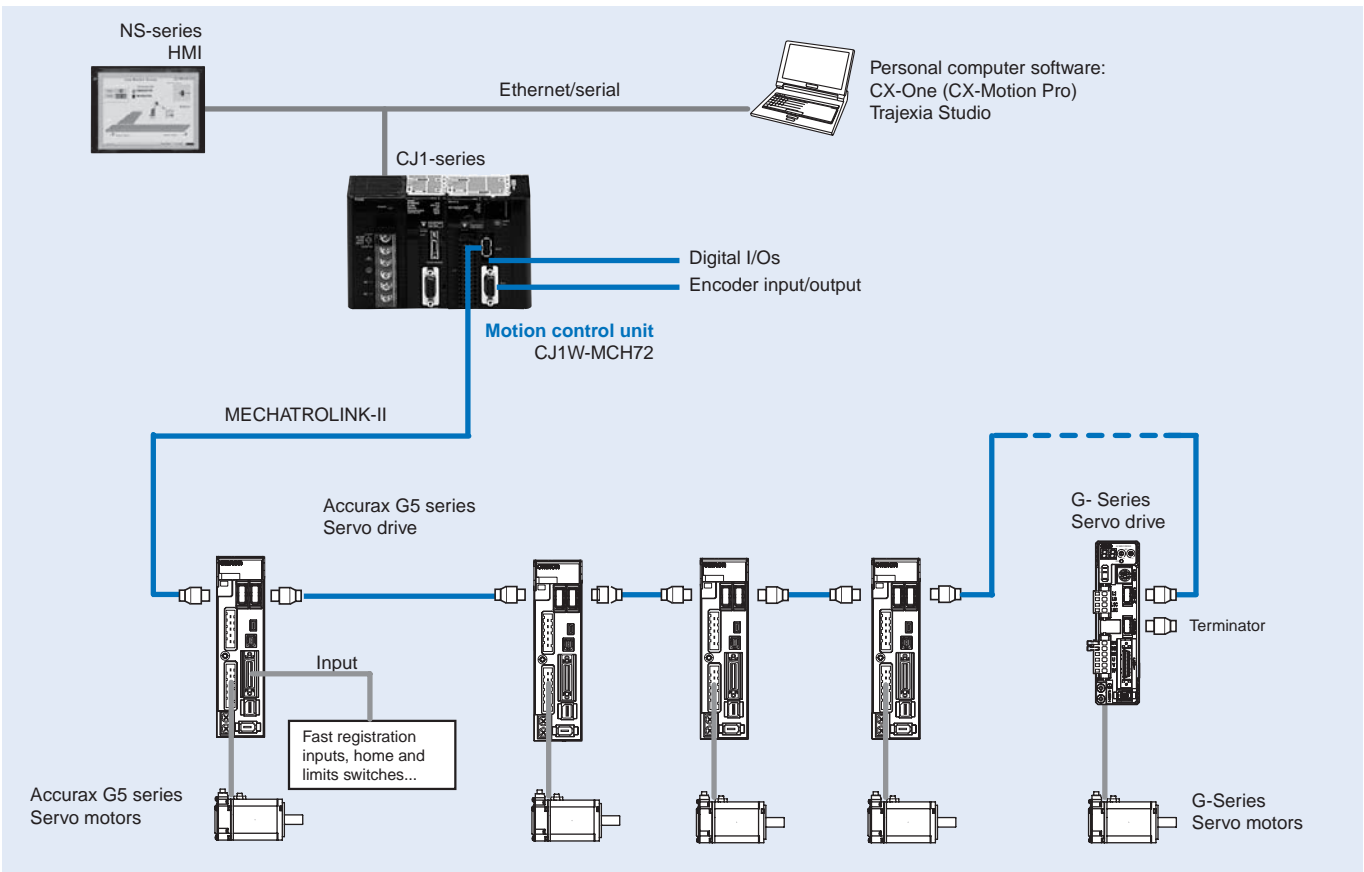
Motion control unit

Advanced multi-axes motion controller unit over MECHATROLINK-II motion bus

- Control of up to 30 physical 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 external encoder
- Embedded digital I/Os
- I/O data exchange with the PLC CPU



System configuration



Specifications

General specifications

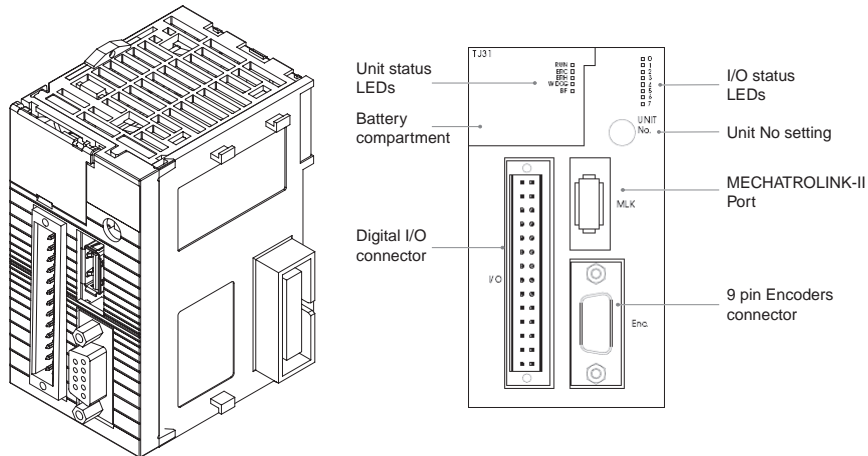
Item	Details
Model	CJ1W-MCH72
Ambient operating temperature	0 to 55°C
Storage temperature	-20° to 70°C
Ambient operating humidity	10% to 90% RH
Storage humidity	90% max. (without condensation)
Atmosphere	No corrosive gases
Vibration resistance	10 to 57 Hz (0.075 mm amplitude) 57 to 100 Hz, Acceleration: 9,8 m/s ² , in X Y and Z directions for 80 minutes
Shock resistance	143 m/s ² , 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: UL508C (Industrial Control Equipment) Lloyds; RoHS compliant
Weight	180 g

Trajexia Motion Control Unit

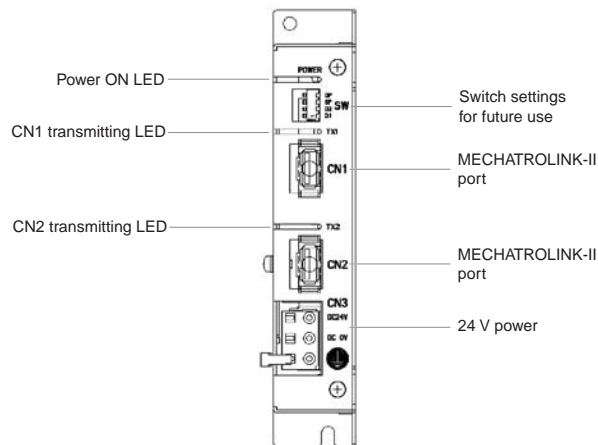
Item	Details	
Classification	CJ-series CPU bus unit	
Applicable PLCs	CJ-series	
Number of axes	30 (31 total with virtual axis)	
Number of inverters	8 maximum (Inverters in speed or torque mode)	
Cycle time	Selectable 0.5 ms, 1 ms, 2 ms or 4 ms	
Programming language	BASIC-like motion language	
Multi-tasking	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 output
	Encoder protocols	Abs SSI 200 kHz, Abs EnDat 1 MHz and Incremental Line driver AB
	Encoder Input max frequency	6 MHz
	Encoder/Pulse output max frequency	2 MHz
MECHATROLINK-II master port	Controlled devices	Accurax G5 and G-Series servo drives
	Electrical characteristics	Conforms to MECHATROLINK standard
	Transmission speed	10 Mbps
	Stations Slave types	Servo drives and frequency inverters
	Transmission 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.	

Nomenclature

CJ1W-MCH72 - Trajexia motion control unit



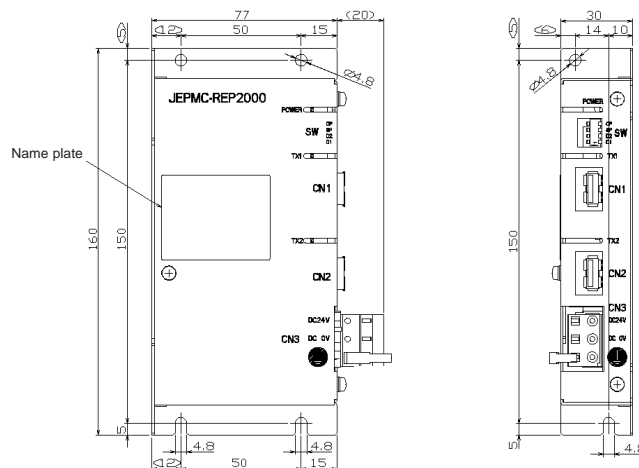
JEPMC-REP2000 - MECHATROLINK-II repeater

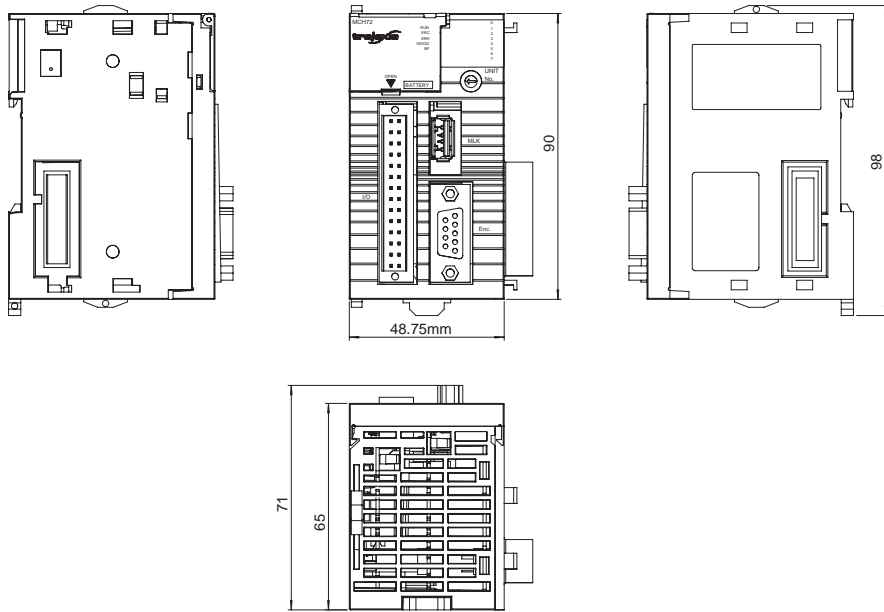


Dimensions

CJ1W-MCH72 - Trajexia motion control unit

JEPMC-REP2000 - MECHATROLINK-II repeater





Ordering information

Motion controller

Name	Model
Trajexia motion control unit - MECHATROLINK-II	CJ1W-MCH72

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

Note: Refer to servo systems section 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 V1.2 or higher	CX-One
Trajexia Studio ^{*1} V1.2 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.