ARTISAN®
TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

**Artisan Technology Group**
(217) 352-9330 | sales@artisantg.com | artisantg.com

**Full-service, independent repair center**
with experienced engineers and technicians on staff.

**We buy your excess, underutilized, and idle equipment**
along with credit for buybacks and trade-ins.

**Custom engineering**
so your equipment works exactly as you specify.

- Critical and expedited services
- In stock / Ready-to-ship
- Leasing / Rentals / Demos
- ITAR-certified secure asset solutions

**Expert team | Trust guarantee | 100% satisfaction**

All trademarks, brand names, and brands appearing herein are the property of their respective owners.

Find the *Fastech EzM-42XL-A* at our website: ***Click HERE***

# Ezi-SERVO®

## Closed Loop Stepping System

- Miniaturized Compact Size
- Embedded Controller
- Position Table
- Closed Loop System
- No Gain Tuning / No Hunting
- High Resolution / Fast Response

**Plus-R MINI**




CE

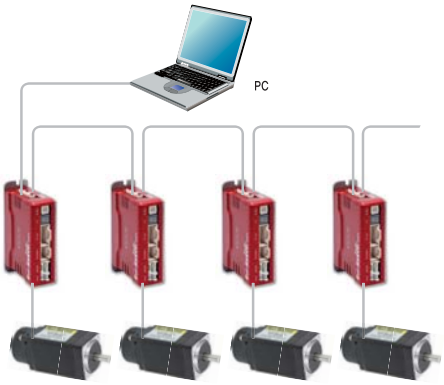
FASTECH
Fast, Accurate, Smooth Motion

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

# Features

### 1. Network Based Motion Control

A maximum of 16 axis can be operated from a PC through RS-485 communications. All of the Motion conditions are set through the network and saved in Flash ROM as a parameter. Motion Library(DLL) is provided for programming under Windows 2000 / XP / 7 / 8 / 10 / Vista.



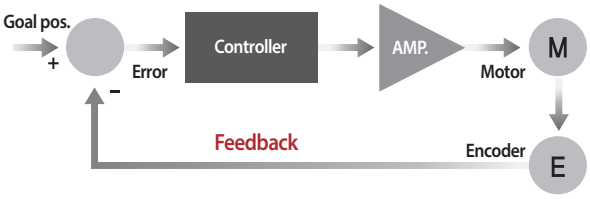

### 2. Position Table Function

Position Table can be used for motion control by digital input and output signals of host controller. You can operate the motor directly by sending the position table number, start / stop, origin search and other digital input values from a PLC. The PLC can monitor the In-Position, origin search, moving / stop, servo ready and other digital output signals from a drive. A maximum of 64 positioning points can be set from PLC.



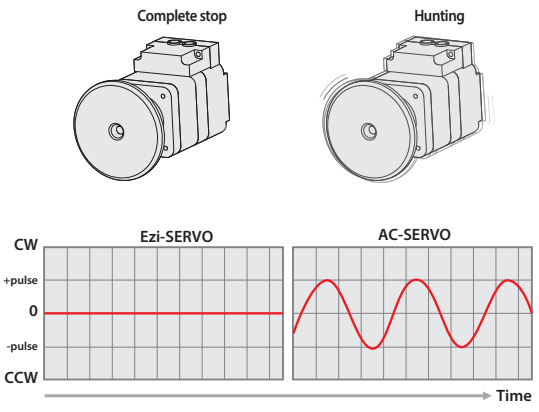

### 3. Closed Loop System

Ezi-SERVO Plus-R MINI is an innovative closed loop stepping motor and controller that utilizes a high-resolution motor mounted encoder to constantly monitor the motor shaft position. The encoder feedback feature allows the Ezi-SERVO Plus-R MINI to update the current motor shaft position information every 25 micro seconds. This allows the Ezi-SERVO Plus-R MINI drive to compensate for the loss of position, ensuring accurate positioning. For example, due to a sudden load change, a conventional stepper motor and drive could lose a step creating a positioning error and a great deal of cost to the end user!




### 4. No Hunting

Traditional servo motor drives overshoot their position and try to correct by overshooting the opposite direction, especially in high gain applications. This is called null hunt and is especially prevalent in systems that the break away or static friction is significantly higher than the running friction.
The cure is lowering the gain, which affects accuracy or using Ezi-SERVO Plus-R MINI Motion Control System! Ezi-SERVO Plus-R MINI utilizes the unique characteristics of stepping motors and locks itself into the desired target position, eliminating Null Hunt. This feature is especially useful in applications such as nanotech manufacturing, semiconductor fabrication, vision systems and ink jet printing in which system oscillation and vibration could be a problem.

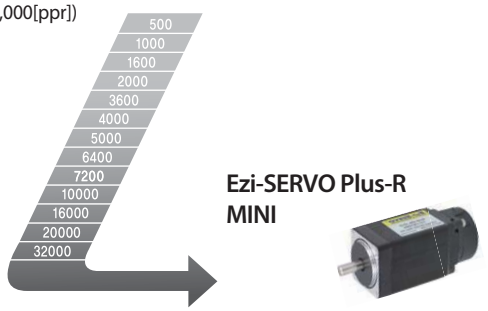





Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

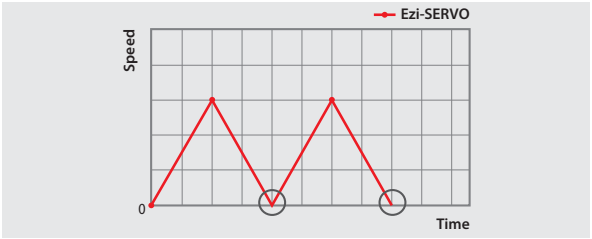
## 5. High Resolution

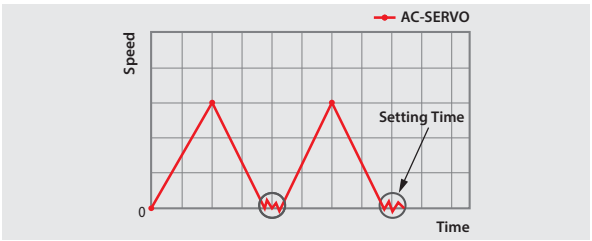
The unit of the position command can be divided precisely.
(Max. 32,000[ppr])




## 6. Fast Response

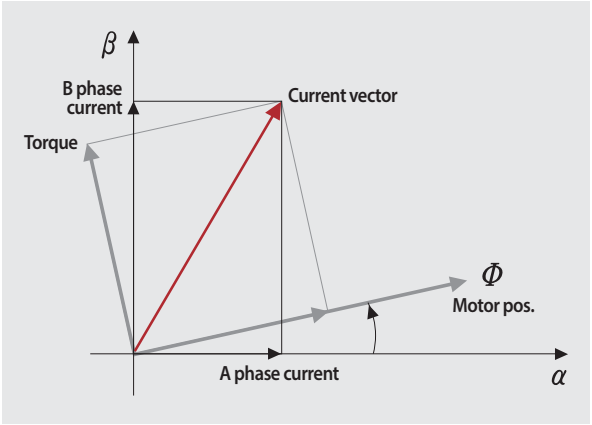
Similar to conventional stepping motors, Ezi-SERVO Plus-R MINI instantly synchronizes with command pulses providing fast positional response. Ezi-SERVO Plus-R MINI is the optimum choice when zero-speed stability and rapid motions within a short distance are required. Traditional servo motor systems have a natural delay between the commanding input signals and the resultant motion because of the constant monitoring of the current position, necessitating in a waiting time until it settles, called settling time.



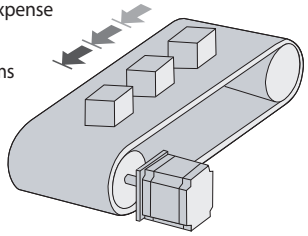

## 7. Smooth and Accurate

Ezi-SERVO Plus-R MINI is a high-precision servo drive, using a high-resolution encoder with 32,000[ppr].
Unlike a conventional Microstep drive, the on-board high performance DSP(Digital Signal Processor) performs vector control and filtering, producing a smooth rotational control with minimum ripples.



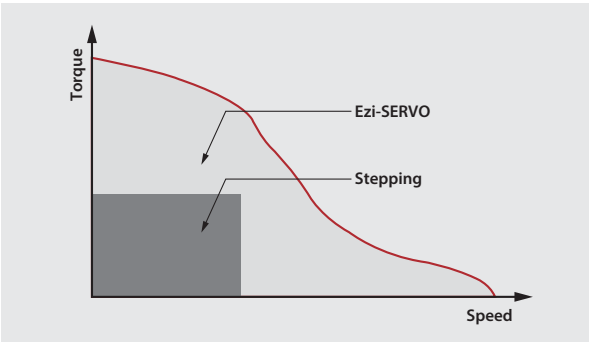

## 8. No Gain Tuning

Conventional servo systems, to ensure machine performance, smoothness, positional error and low servo noise, require the adjustment of its servo's gains as an initial crucial step. Even systems that employ autotuning require manual tweaking after the system is installed, especially if more that one axis are interdependent.
Ezi-SERVO Plus-R MINI employs the best characteristics of stepper and closed loop motion controls and algorithms to eliminate the need of tedious gain tuning required for conventional closed loop servo systems.
This means that Ezi-SERVO Plus-R MINI is optimized for the application and ready to work right out of the box! The Ezi-SERVO Plus-R MINI system employs the unique characteristics of the closed loop stepping motor control, eliminating these cumbersome steps and giving the engineer a high performance servo system without wasting setup time. Ezi-SERVO Plus-R MINI is especially well suited for low stiffness loads(For example, a belt and pulley system) that sometime require conventional servo systems to inertia match with the added expense and bulk of a gearbox.
Ezi-SERVO Plus-R MINI also performs exceptionally, even under heavy loads and high speeds!



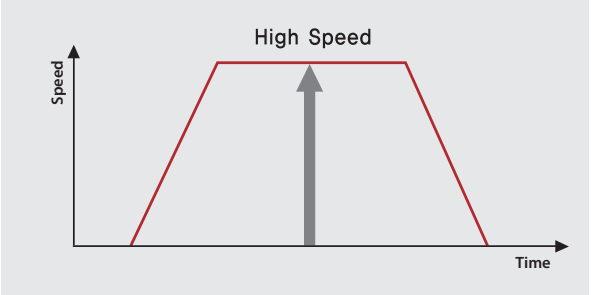
## 9. High Torque

Compared with common step motors and drives, Ezi-SERVO Plus-R MINI motion control systems can maintain a high torque state over relatively long period of time. This means that Ezi-SERVO continuously operates without loss of position under 100% of the load. Unlike conventional Microstep drives, Ezi-SERVO Plus-R MINI exploits continuous high-torque operation during high-speed motion due to its innovative optimum current phase control.




## 10. High Speed

The Ezi-SERVO Plus-R MINI functions well at high speed without the loss of Synchronism or positioning error. Ezi-SERVO Plus-R MINI's ability of continuous monitoring of current position enables the stepping motor to generate high-torque, even under a 100% load condition.






Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

# Part Numbering Method

## Ezi-SERVO-PR-MI-20M-F-BK-PN05-□






Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

## Motor, Drive Combination

| UNIT No. | MOTOR No. | DRIVE No. |
|---|---|---|
| Ezi-SERVO-PR-MI-20M-F | EzM-20M-F | EzS-NDR-MI-20M-F |
| Ezi-SERVO-PR-MI-20L-F | EzM-20L-F | EzS-NDR-MI-20L-F |
| Ezi-SERVO-PR-MI-28S-D | EzM-28S-D | EzS-NDR-MI-28S-D |
| Ezi-SERVO-PR-MI-28M-D | EzM-28M-D | EzS-NDR-MI-28M-D |
| Ezi-SERVO-PR-MI-28L-D | EzM-28L-D | EzS-NDR-MI-28L-D |
| Ezi-SERVO-PR-MI-35M-D | EzM-35M-D | EzS-NDR-MI-35M-D |
| Ezi-SERVO-PR-MI-35L-D | EzM-35L-D | EzS-NDR-MI-35L-D |
| Ezi-SERVO-PR-MI-42S-A | EzM-42S-A | EzS-NDR-MI-42S-A |
| Ezi-SERVO-PR-MI-42S-B | EzM-42S-B | EzS-NDR-MI-42S-B |
| Ezi-SERVO-PR-MI-42S-C | EzM-42S-C | EzS-NDR-MI-42S-C |
| Ezi-SERVO-PR-MI-42M-A | EzM-42M-A | EzS-NDR-MI-42M-A |
| Ezi-SERVO-PR-MI-42M-B | EzM-42M-B | EzS-NDR-MI-42M-B |
| Ezi-SERVO-PR-MI-42M-C | EzM-42M-C | EzS-NDR-MI-42M-C |
| Ezi-SERVO-PR-MI-42L-A | EzM-42L-A | EzS-NDR-MI-42L-A |
| Ezi-SERVO-PR-MI-42L-B | EzM-42L-B | EzS-NDR-MI-42L-B |
| Ezi-SERVO-PR-MI-42L-C | EzM-42L-C | EzS-NDR-MI-42L-C |
| Ezi-SERVO-PR-MI-42XL-A | EzM-42XL-A | EzS-NDR-MI-42XL-A |
| Ezi-SERVO-PR-MI-42XL-B | EzM-42XL-B | EzS-NDR-MI-42XL-B |
| Ezi-SERVO-PR-MI-42XL-C | EzM-42XL-C | EzS-NDR-MI-42XL-C |

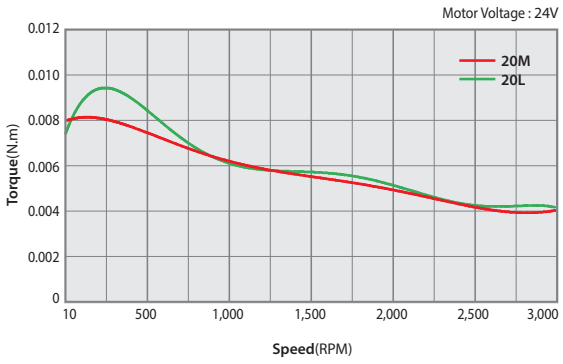


Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

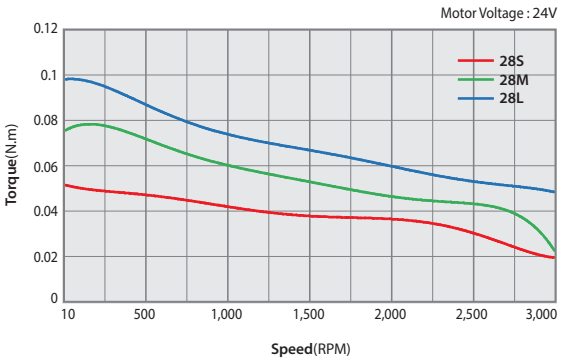
# Motor Specification Table

| Model | | Unit | 20 | | 28 | | | 35 | | 42 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 20M | 20L | 28S | 28M | 28L | 35M | 35L | 42S | 42M | 42L | 42XL |
| DRIVE METHOD | | - | BI-POLAR | | | | | | | | | | |
| Number OF PHASES | | - | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| VOLTAGE | | VDC | 2.75 | 3 | 3 | 3 | 3 | 2.88 | 4.59 | 3.36 | 4.32 | 4.56 | 7.2 |
| CURRENT per PHASE | | A | 0.5 | 0.5 | 0.95 | 0.95 | 0.95 | 0.6 | 0.85 | 1.2 | 1.2 | 1.2 | 1.2 |
| RESISTANCE per PHASE | | Ohm | 5.5 | 6 | 3.2 | 3.2 | 3.2 | 4.8 | 5.4 | 2.8 | 3.6 | 3.8 | 6 |
| INDUCTANCE per PHASE | | mH | 2 | 2.6 | 2 | 2.7 | 3.2 | 6.1 | 6.5 | 5.4 | 7.2 | 8 | 15.6 |
| HOLDING TORQUE | | N·m | 0.016 | 0.025 | 0.069 | 0.098 | 0.118 | 0.050 | 0.176 | 0.32 | 0.44 | 0.5 | 0.65 |
| ROTOR INERTIA | | g·cm$^2$ | 2.5 | 3.3 | 9 | 13 | 18 | 8 | 11 | 35 | 54 | 77 | 114 |
| WEIGHTS | | g | 50 | 80 | 110 | 140 | 200 | 180 | 260 | 250 | 280 | 350 | 500 |
| LENGTH(L) | | mm | 28 | 38 | 32 | 45 | 50 | 26 | 38 | 34 | 40 | 48 | 60 |
| ALLOWABLE OVERHUNG LOAD (DISTANCE FROM END OF SHAFT) | 3mm | N | 18 | 18 | 30 | 30 | 30 | 22 | 22 | 22 | 22 | 22 | 22 |
| | 8mm | | 30 | 30 | 38 | 38 | 38 | 26 | 26 | 26 | 26 | 26 | 26 |
| | 13mm | | - | - | 53 | 53 | 53 | 33 | 33 | 33 | 33 | 33 | 33 |
| | 18mm | | - | - | - | - | - | 46 | 46 | 46 | 46 | 46 | 46 |
| ALLOWABLE THRUST LOAD | | N | Lower than motor weight | | | | | | | | | | |
| INSULATION RESISTANCE | | Mohm | 100 MΩ MIN.(at 500VDC) | | | | | | | | | | |
| INSULATION CLASS | | - | CLASS B(130˚C) | | | | | | | | | | |
| OPERATING TEMPERATURE | | ˚C | 0 to 55 | | | | | | | | | | |

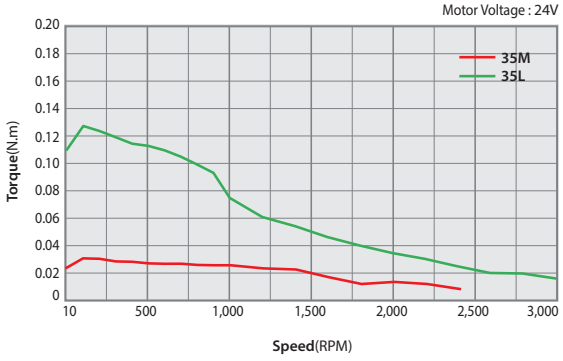
### Ezi-SERVO Plus-R MINI_ 20 Series



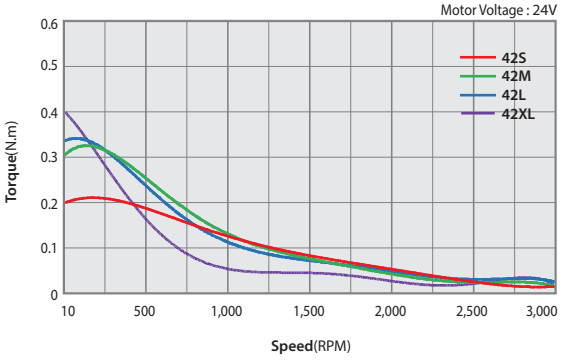

### Ezi-SERVO Plus-R MINI_ 28 Series




### Ezi-SERVO Plus-R MINI_ 35 Series



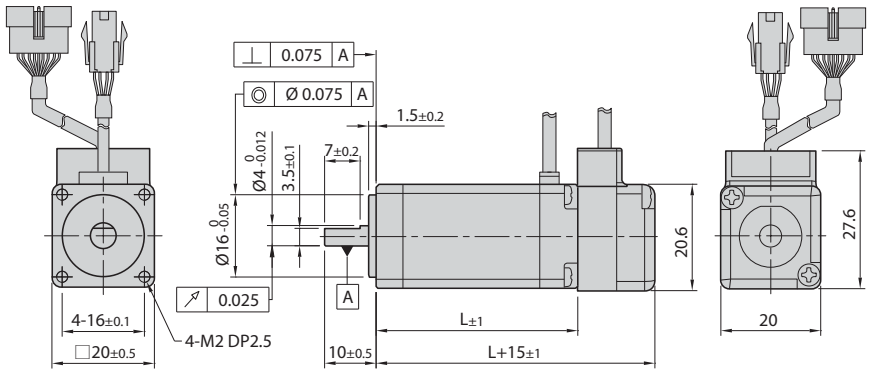

### Ezi-SERVO Plus-R MINI_ 42 Series





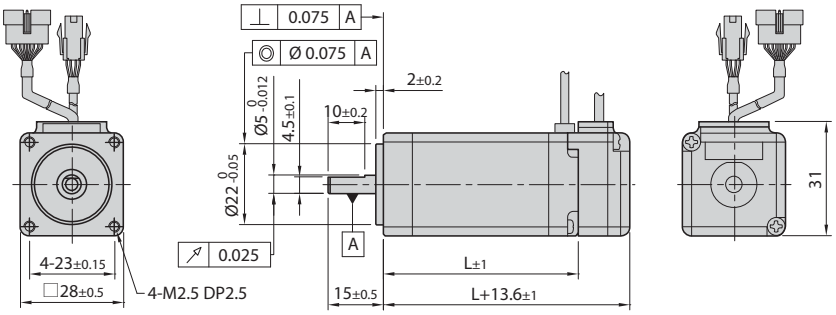

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

# Motor Drawing



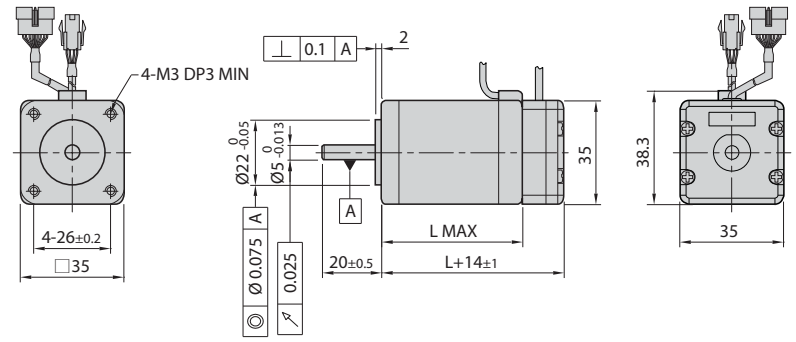

## 20mm

| Model name | Length(L) |
|---|---|
| EzM-20M | 28 |
| EzM-20L | 38 |



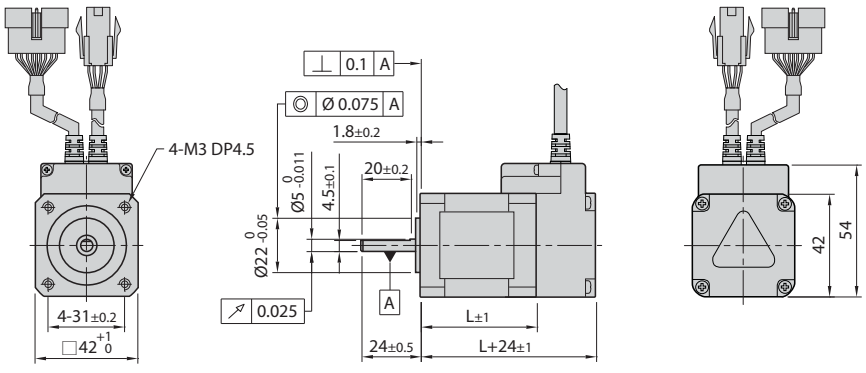

## 28mm

| Model name | Length(L) |
|---|---|
| EzM-28S | 32 |
| EzM-28M | 45 |
| EzM-28L | 50 |




## 35mm

| Model name | Length(L) |
|---|---|
| EzM-35M | 26 |
| EzM-35L | 38 |




## 42mm

| Model name | Length(L) |
|---|---|
| EzM-42S | 34 |
| EzM-42M | 40 |
| EzM-42L | 48 |
| EzM-42XL | 60 |



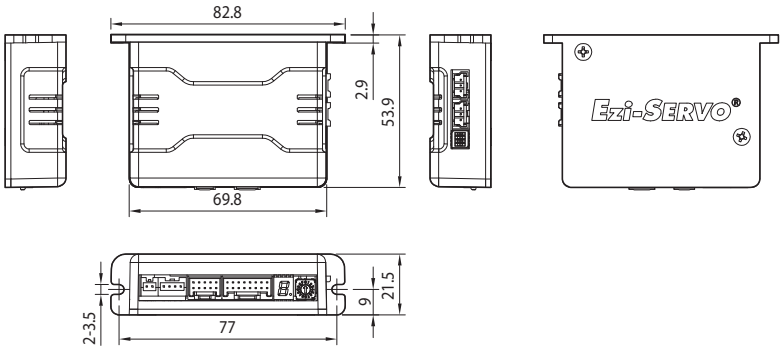
Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

# Drive Specification

## Specifications

| Motor Model | | EzM-20 Series | EzM-28 Series | EzM-35 Series | EzM-42 Series |
|---|---|---|---|---|---|
| Drive Model | | EzS-NDR-MI-20 Series | EzS-NDR-MI-28 Series | EzS-NDR-MI-35 Series | EzS-NDR-MI-42 Series |
| Input Voltage | | 24VDC ±10% | | | |
| Control Method | | Closed Loop Control with 32bit DSP | | | |
| Multi Axes Drive | | Maximum 16 axes through Daisy-Chain | | | |
| Position Table | | 64 Motion command Steps(Speed, External start, Jump, Loop, Wait and PT finish etc.) | | | |
| Current Consumption | | Max. 500mA(Except Motor Current) | | | |
| Operating Condition | Ambient Temperature | · In Use : 0 ~ 50˚C · In Storage : -20 ~ 70˚C | | | |
| | Humidity | · In Use : 35 ~ 85% RH(Non-Condensing) · In Storage : 10 ~ 90% RH(Non-Condensing) | | | |
| | Vib. Resist. | 0.5G | | | |
| Function | Rotation Speed | 0 ~ 3,000[rpm] | | | |
| | Resolution[ppr] | · 4,000[ppr] Encoder model : 500 / 1,000 / 1,600 / 2,000 / 3,600 / 5,000 / 6,400 / 7,200 / 10,000 / 4,000<br>· 10,000[ppr] Encoder model : 500 / 1,000 / 1,600 / 2,000 / 3,600 / 5,000 / 6,400 / 7,200 / 10,000<br>· 16,000[ppr] Encoder model : 500 / 1,000 / 1,600 / 2,000 / 3,600 / 5,000 / 6,400 / 7,200 / 10,000 / 16,000<br>· 20,000[ppr] Encoder model : 500 / 1,000 / 1,600 / 2,000 / 3,600 / 5,000 / 6,400 / 7,200 / 10,000 / 20,000<br>· 32,000[ppr] Encoder model : 500 / 1,000 / 1,600 / 2,000 / 3,600 / 5,000 / 6,400 / 7,200 / 10,000 / 32,000<br>(Selectable by Parameter) | | | |
| | Protection | Over Current Error, Over Speed Error, Position Tracking Error, Over Load Error, Over Temperature Error, Over Regenerated Voltage Error, Motor Connect Error, Encoder Connect Error, Motor Voltage Error, In-Position Error, System Error, ROM Error, Position Overflow Error | | | |
| | In-Position Selection | 0~15(Selectable by Parameter) | | | |
| | Position Gain Selection | 0~15(Selectable by Parameter) | | | |
| | Rotational Direction | CW / CCW(Selectable by Parameter) | | | |
| I/O Signal | Input Signal | 3dedicated input(LIMIT+, LIMIT-, ORIGIN), 7 programmable output(Photocoupler Input) | | | |
| | Output Signal | 1 dedicated output(Compare Out), 1programmable output(Photocoupler Output), Brake signal | | | |
| Communication Interface | | The RS-485 serial communication with PC Transmission speed : 9,600 ~ 921,600bps | | | |
| Position Control | | Incremental mode / Absolute mode<br>(Data Range : -134,217,727 to +134,217,727pulse, Operating speed : Max. 3,000[rpm]) | | | |
| Return to Origin | | Origin Sensor, Z phase, ±Limit sensor, Torque | | | |
| GUI | | User Interface Program within Windows | | | |
| Software | | Motion Library(DLL) for windows 2000 / XP / 7 / 8 / 10 / Vista | | | |

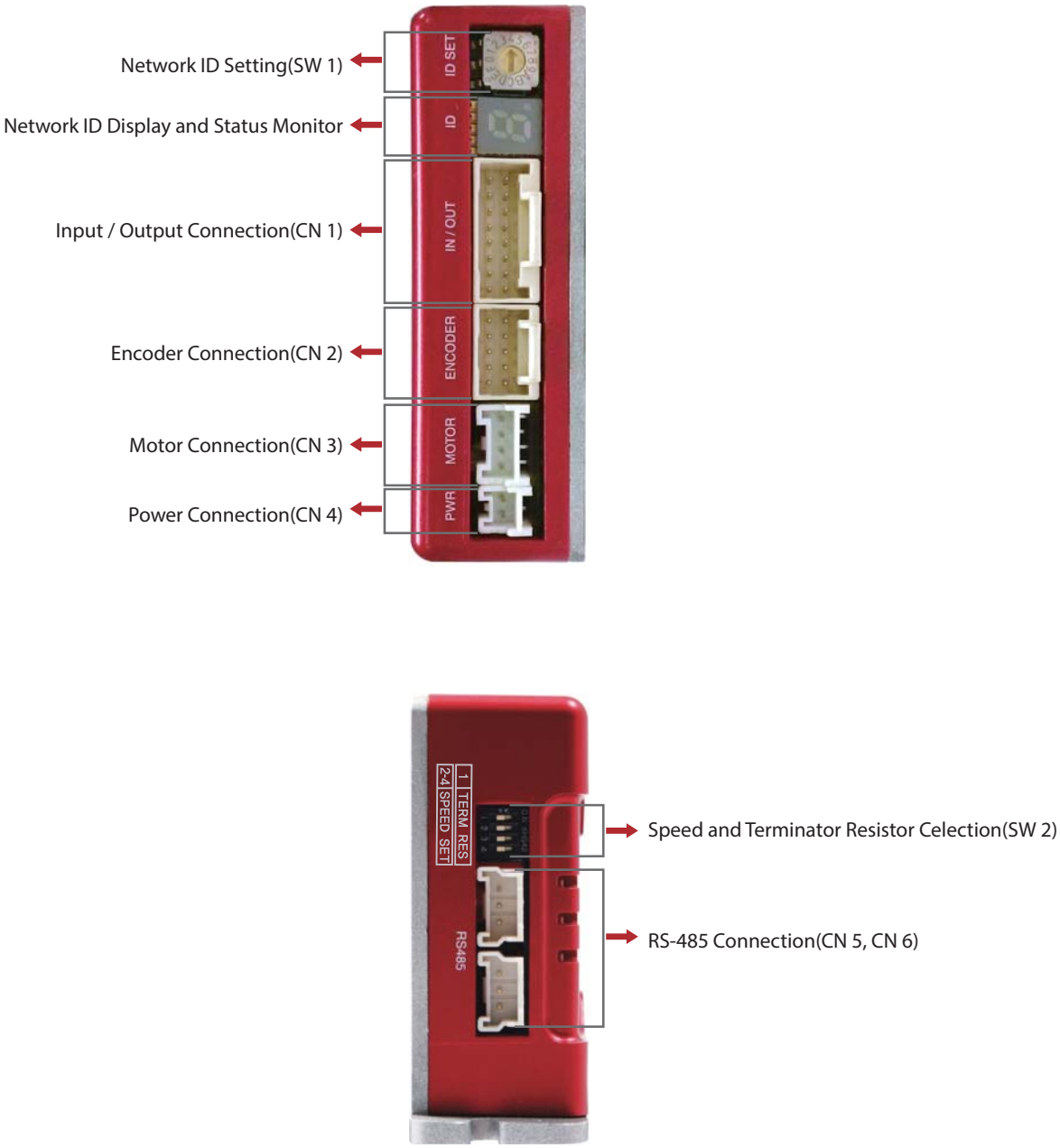
## Drive Dimension(mm)






Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

## Setting and Operation






Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

# System Operation Manual

## Status Monitor LED

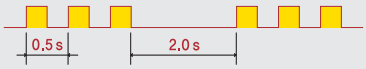
### 1. Protection function and 7-Segment flash times

| Times | Protection | Conditions |
|---|---|---|
| 1 | Over Current Error | The current through power devices in inverter exceeds the limit value |
| 2 | Over Speed Error | Motor speed exceed 3,000[rpm] |
| 3 | Position Tracking Error | Position error value is higher than 90˚ in motor run state *1 |
| 4 | Over Load Error | The motor is continuously operated more than 5 second under a load exceeding the Max. torque |
| 5 | Over Temperature Error | Inside temperature of drive exceeds 55℃ |
| 6 | Over Regenerative Voltage Error | Back-EMF more than 50V |
| 7 | Motor Connect Error | The power is ON without connection of the motor cable to drive |
| 8 | Encoder Connect Error | Cable connection error with Encoder Connector in drive |
| 10 | In-Position Error | After operation is finished, a position error occurs |
| 11 | System Error | Error occurs in drive system |
| 12 | ROM Error | Error occurs in parameter storage device(ROM) |
| 15 | Position Overflow Error | Position error value is higher than 90˚ in motor stop state *1 |

*1 : The given value can be changed by parameter.

※Please refer to the manual

**7-Segment Flash(ex : Position Tracking Error)**

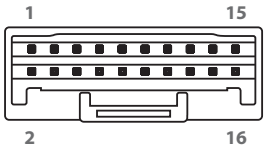



## Connector

### 1. Input / Output Signal(CN 1)

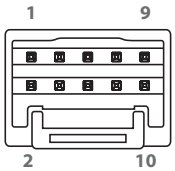
| No. | Function | I/O |
|---|---|---|
| 1 | 24VDC | Input |
| 2 | 24VDC GND | Input |
| 3 | BRAKE+ | Output |
| 4 | BRAKE- | Output |
| 5 | +Limit Sensor | Input |
| 6 | -Limit Sensor | Input |
| 7 | Origin Sensor | Input |
| 8 | Digital IN 1 | Input |

| No. | Function | I/O |
|---|---|---|
| 9 | Digital IN 2 | Input |
| 10 | Digital IN 3 | Input |
| 11 | Digital IN 4 | Input |
| 12 | Digital IN 5 | Input |
| 13 | Digital IN 6 | Input |
| 14 | Digital IN 7 | Input |
| 15 | Compare Out | Output |
| 16 | Digital OUT 1 | Output |




### 2. Encoder Connector(CN 2)

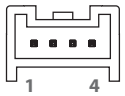
| No. | Function | I/O |
|---|---|---|
| 1 | A+ | Input |
| 2 | A- | Input |
| 3 | B+ | Input |
| 4 | B- | Input |
| 5 | Z+ | Input |
| 6 | Z- | Input |
| 7 | 5VDC | Output |
| 8 | 5VDC GND | Output |
| 9 | F. GND | ---- |
| 10 | F. GND | ---- |




### 3. Motor Connection(CN 3)

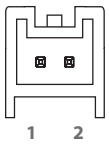
| No. | Function |
|---|---|
| 1 | B Phase |
| 2 | / B Phase |

| No. | Function |
|---|---|
| 3 | / A Phase |
| 4 | A Phase |




### 4. Power Connection(CN 4)

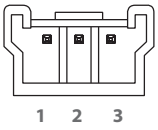
| No. | Function |
|---|---|
| 1 | 24VDC ±10% |
| 2 | GND |




### 5. RS-485 Communication Connector(CN 5, CN 6)

RS-485 Communication Port to connect with Host Controller.

| No. | Function |
|---|---|
| 1 | +DATA |
| 2 | -DATA |
| 3 | GND |






Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

# Cable Connector

### 1. Input / Output Signal(CN 1)

| ITEM | Specification | Marker |
|---|---|---|
| Housing | 501646-1600 | MOLEX |
| Terminal | 501648-1000(AWG 26~28) | MOLEX |

### 2. Encoder Connector(CN 2)

| ITEM | Specification | Maker |
|---|---|---|
| Housing | 501646-1000 | MOLEX |
| Terminal | 501648-1000(AWG 26~28) | MOLEX |

### 3. Motor Connection(CN 3)

| ITEM | Specification | Maker |
|---|---|---|
| Housing | PAP-04V-S | JST |
| Terminal | SPHD-001T-P0.5 | JST |

### 4. Power Connection(CN 4)

| ITEM | Specification | Maker |
|---|---|---|
| Housing | PAP-02V-S | JST |
| Terminal | SPHD-001T-P0.5 | JST |

### 5. RS-485 Communication Connector(CN 5, CN 6)

| ITEM | Specification | Maker |
|---|---|---|
| Housing | 35507-0300 | MOLEX |
| Terminal | 50212-8100 | MOLEX |

# Switch

### 1. Network ID Selection Switch(SW 1)

| Position | ID number |
|---|---|
| 0 | 0 |
| 1 | 1 |
| 2 | 2 |
| 3 | 3 |
| 4 | 4 |
| 5 | 5 |
| 6 | 6 |
| 7 | 7 |

| Position | ID number |
|---|---|
| 8 | 8 |
| 9 | 9 |
| A | 10 |
| B | 11 |
| C | 12 |
| D | 13 |
| E | 14 |
| F | 15 |




※ Maximum 16 axis can be connected in one network.

### 2. Speed and Terminator Resistor Selection Switch(SW 2)

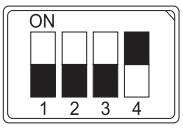
The purpose of this is to setting the communication speed and connect a terminator resistor if drive is installed at the end of network.
SW 2.1 used for connecting the terminator resistor.
SW 2.2~SW 2.4 used for setting speed as follows.

| SW 2.1 | SW 2.2 | SW 2.3 | SW 2.4 | Baud Rate[bps] |
|---|---|---|---|---|
| - | OFF | OFF | OFF | 9,600 |
| - | ON | OFF | OFF | 19,200 |
| - | OFF | ON | OFF | 38,400 |
| - | ON | ON | OFF | 57,600 |
| - | OFF | OFF | ON | 115,200*1 |
| - | ON | OFF | ON | 230,400 |
| - | OFF | ON | ON | 460,800 |
| - | ON | ON | ON | 921,600 |

※ Possible to use common PCI Bus type RS-485 communication board for High speed communication.
(Please contact with Distributor)

*1 : Default setting value

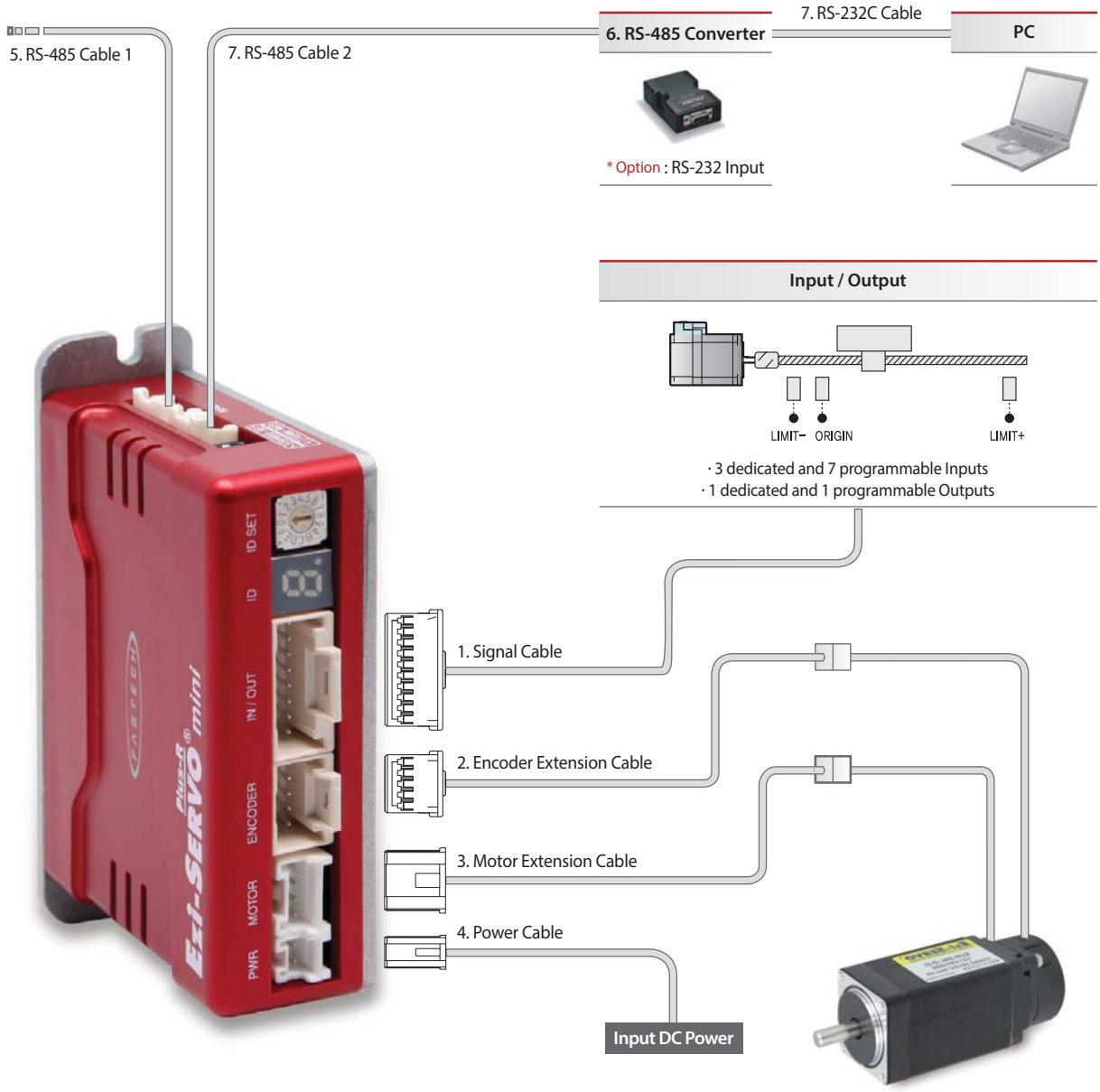
If SW 2.1 is OFF, terminator resistor is disconnected.
If SW 2.2 is ON, terminator resistor is connected.






Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

# System Configuration




| Type | Signal Cable | Encoder Cable | Motor Cable | Power Cable | RS-485 Cable |
|---|---|---|---|---|---|
| Standard Length | - | 30cm | 30cm | - | - |
| Max. Length | 20m | 20m | 20m | 2m | 30m |



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

# Option

## 1. Signal Cable

Available to connect between Control System and Ezi-SERVO Plus-R MINI.

| Model Name | Length[m] | Remark |
|---|---|---|
| CSVA-S-□□□F | □□□ | Normal Cable |
| CSVA-S-□□□M | □□□ | Robot Cable |

※ □□□ is for Cable Length. The unit is 1m and Max. 20m length.

## 2. Encoder Extension Cable

Available to extended connection between Encoder and Ezi-SERVO Plus-R MINI.

| Model Name | Length[m] | Remark |
|---|---|---|
| CSVI-E-□□□F | □□□ | Normal Cable |
| CSVI-E-□□□M | □□□ | Robot Cable |

※ □□□ is for Cable Length. The unit is 1m and Max. 20m length.

## 3. Motor Extension Cable

Available to extended connection between motor and Ezi-SERVO Plus-R MINI.

| Model Name | Length[m] | Remark |
|---|---|---|
| CMNB-M-□□□F | □□□ | Normal Cable |
| CMNB-M-□□□M | □□□ | Robot Cable |

※ □□□ is for Cable Length. The unit is 1m and Max. 20m length.

## 4. Power Cable

Available to connect between Power and Ezi-SERVO Plus-R MINI.

| Model Name | Length[m] | Remark |
|---|---|---|
| CMNB-P-□□□F | □□□ | Normal Cable |
| CMNB-P-□□□M | □□□ | Robot Cable |

※ □□□ is for Cable Length. The unit is 1m and Max. 2m length.

## 5.RS-485 Cable 1

| Model Name | Length[m] | Remark |
|---|---|---|
| CGNB-R-0R6F | 0.6 | Normal Cable |
| CGNB-R-001F | 1 | |
| CGNB-R-1R5F | 1.5 | |
| CGNB-R-002F | 2 | |
| CGNB-R-003F | 3 | |
| CGNB-R-005F | 5 | |

※ Common cable to connect Ezi-SERVO ALL, Ezi-STEP ALL, Ezi-MOTIONLINK and Ezi-SERVO Plus-R MINI thru by Network.

## 6. FAS-RCR(RS-232C to RS-485 Converter)

| Item | Specification |
|---|---|
| Transmission speed | Max. 115.2Kbps |
| Comm. Distance | RS-232C : Max. 15m<br>RS-485 : Max. 1.2km |
| Connector | RS-232C : DB9 Female<br>RS-485 : RJ-45 |
| Dimension | 50×75×23mm |
| Weight | 38g |
| Power | Powered from PC<br>(Usable for external DC5~24V) |

## 7. RS-485 Cable 2

FAS-RCR to Ezi-SERVO ALL, FAS-RCR to Ezi-STEP ALL,
FAS-RCR to Ezi-SERVO Plus-R MINI, FAS-RCR to Ezi-MOTIONLINK

| Model Name | Length[m] | Remark |
|---|---|---|
| CGNA-R-0R6F | 0.6 | Normal Cable |
| CGNA-R-001F | 1 | |
| CGNA-R-1R5F | 1.5 | |
| CGNA-R-002F | 2 | |
| CGNA-R-003F | 3 | |
| CGNA-R-005F | 5 | |

## 8. RS-232C Cable

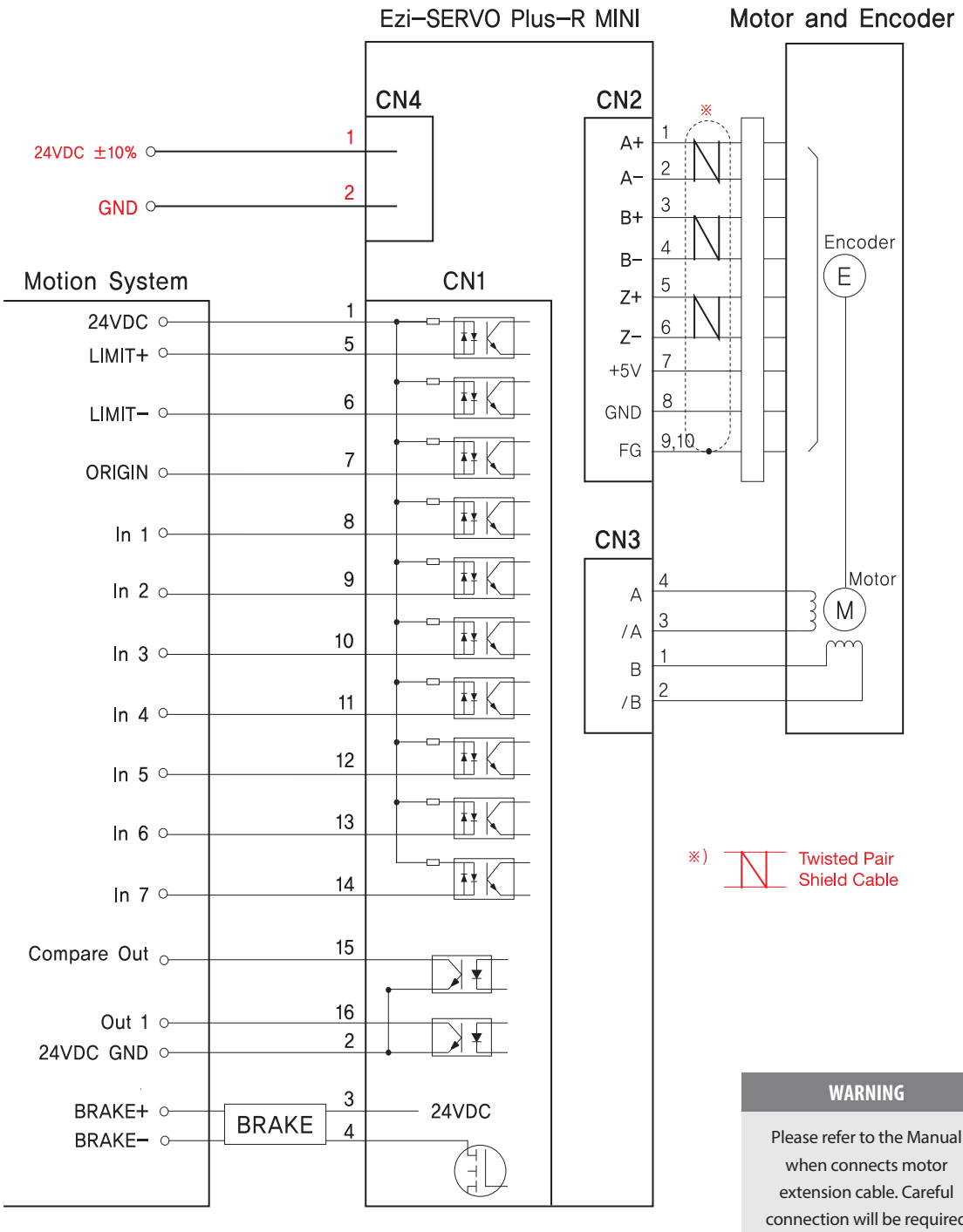
| Model Name | Length[m] | Remark |
|---|---|---|
| CGNR-C-002F | 2 | Normal Cable |
| CGNR-C-003F | 3 | |
| CGNR-C-005F | 5 | |



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

# External Wiring Diagram

## Ezi-SERVO Plus-R MINI




**WARNING**

Please refer to the Manual when connects motor extension cable. Careful connection will be required to protect from any damages.



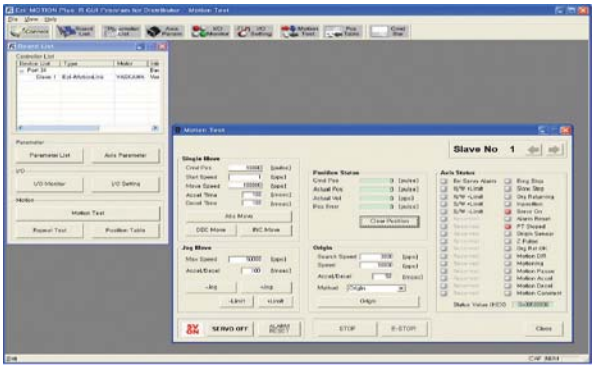
Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

# Graphic User Interface(GUI)

## Screen Configuration

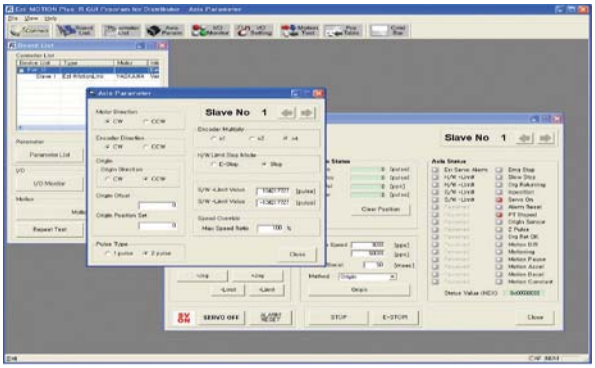
### 1. Controller Lists and Motion Test

This screen display the controller list that connected to system.
You can make a single move, jog and origin command and also the motor status is displayed.



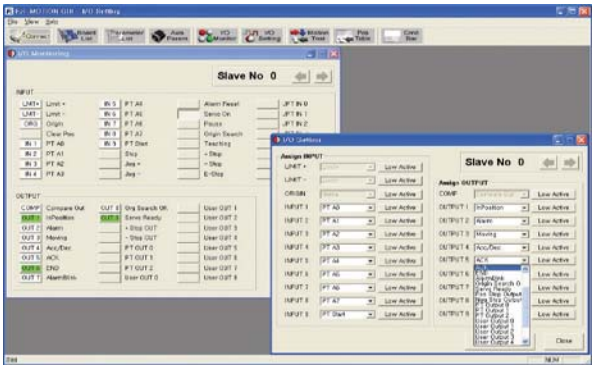
### 2. Axis Parameter Setup

You can select various parameters that frequently used.
(ex : sensor input logic)



### 3. I/O Monitoring and Setting

You can select various digital input and output signals of controller.



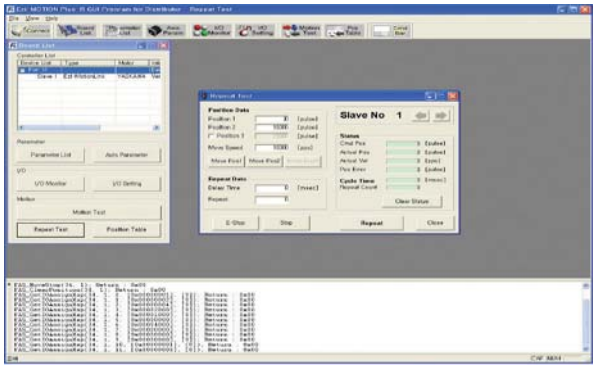
### 4. Parameter List

All of the parameters are displayed and modified on this screen.



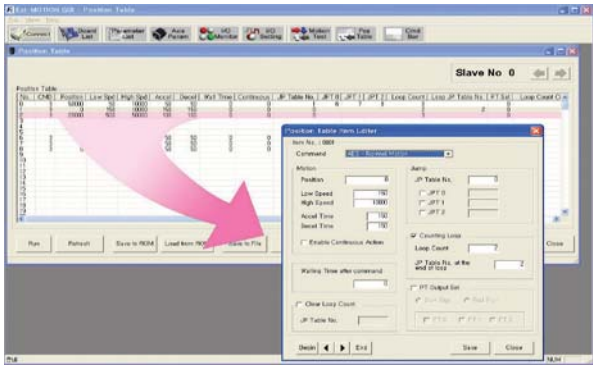

### 5. Motion Repeat and Monitor Status

Target position, speed, delay time and repeat count are selected for repeat motion test. Motion library(DLL) is also displayed on screen.



### 6. Position Table

You can edit the position table and execute it. The position table data can be saved and loaded from Flash ROM and Windows file.





Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

FASTECH

*Fast, Accurate, Smooth Motion*

**FASTECH Co., Ltd.**
Rm#1202, 401-dong, Bucheon Techno-Park,
655, Pyeongcheon-ro, Bucheon-si Gyeonggi-do,
Republic of Korea (Zip:14502)
TEL : +82-32-234-6300 FAX : +82-32-234-6302
E-mail : fastech@fastech.co.kr
Homepage : www.fastech.co.kr

©Copyright 2010 FASTECH Co., Ltd.
All Rights Reserved. Jan 18, 2018 Rev. 07

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

**Artisan Technology Group** is an independent supplier of quality pre-owned equipment

## Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

## We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

## Learn more!

Visit us at **artisantg.com** for more info on price quotes, drivers, technical specifications, manuals, and documentation.

Artisan Scientific Corporation dba Artisan Technology Group is not an affiliate, representative, or authorized distributor for any manufacturer listed herein.

We're here to make your life easier. How can we help you today?

(217) 352-9330 | sales@artisantg.com | artisantg.com

ARTISAN® TECHNOLOGY GROUP