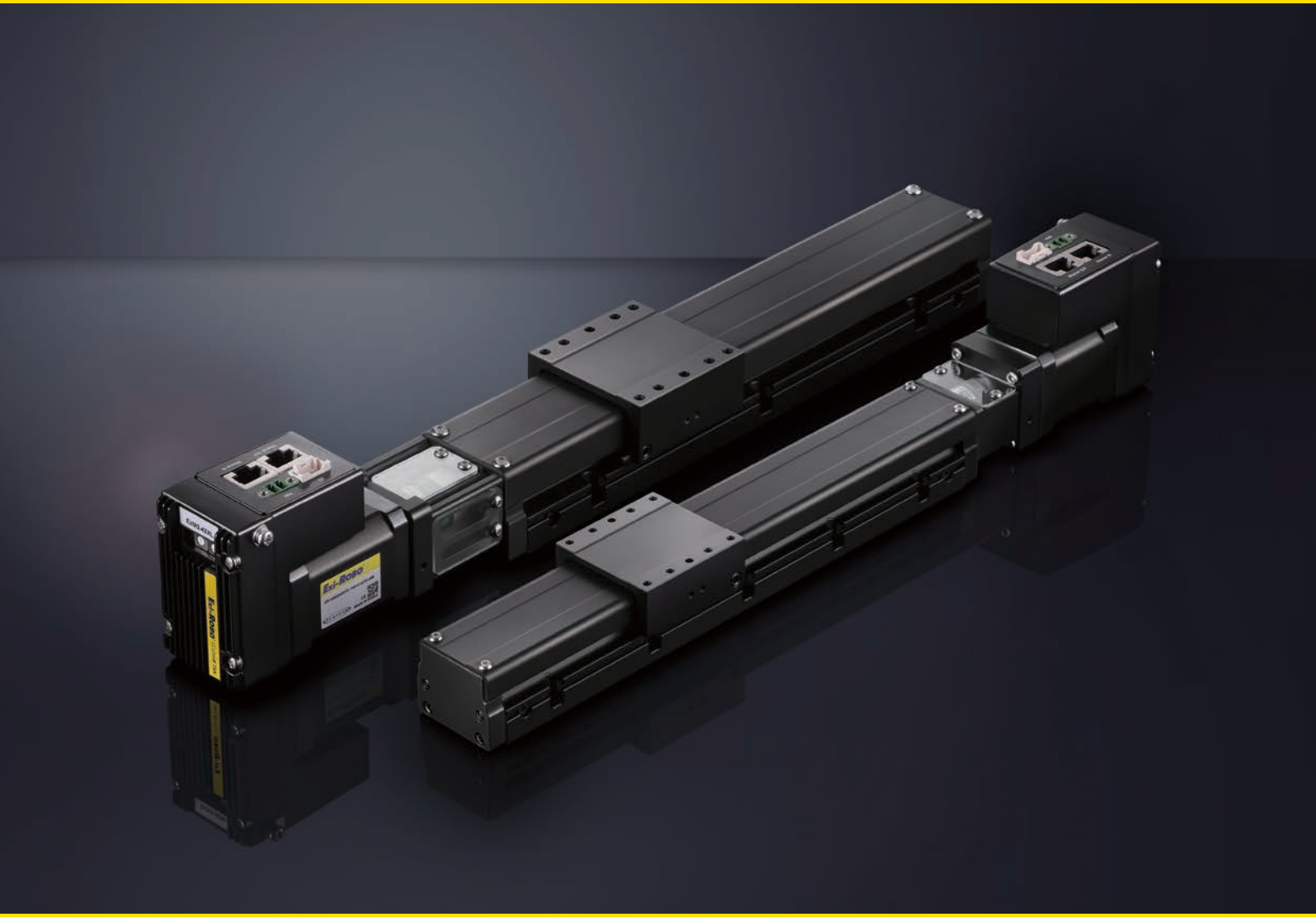
Ezi-Robo®

CC-Link IE TSN

IGS

Precise Actuator System

- Slider Type Electric Actuator with Stepper Motor & Ball Screw
- Repeatability (±0.005 mm)
- CiA402 Drive Profile
- CC-Link IE TSN-compatible Closed Loop Stepper System
- Tuning Not Required, No Hunting
- Low Heat Generation, High Torque, High Resolution, Fast Response



FASTECH

Fast Accurate Smooth Motion

Ezi-ROBO®

Precise Actuator System

CC-LinkIE TSN

IGS

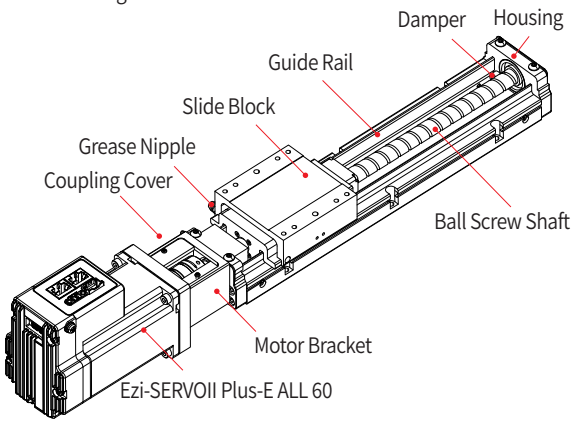
*IGS : Integrated Guide Standard Actuator



Compact Electric Slider

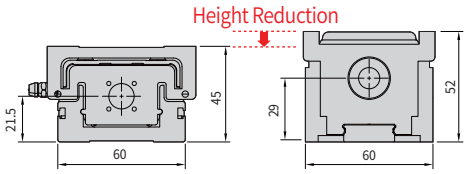
Ezi-ROBO IGS is an integrated product that combines a ball screw actuator※ and a stepper motor from the Ezi-SERVO series. By eliminating the need for precise alignment during assembly, it significantly reduces labor and setup time.

※ Ball screw actuator: A compact unit that integrates a ball screw and a slide guide.



Space-Saving with a Compact Size

By installing a specialized linear guide on the body frame instead of using a conventional linear guide, the overall height can be significantly reduced.



Ezi-ROBO IGS30 Cross-Section

Cross-Section of Other Actuator

Various Product Lineup

To accommodate various environments, we offer four models in the straight type and two models in the parallel type.
The parallel type features a belt and pulley system, making the overall length shorter than that of the straight type for the same stroke.

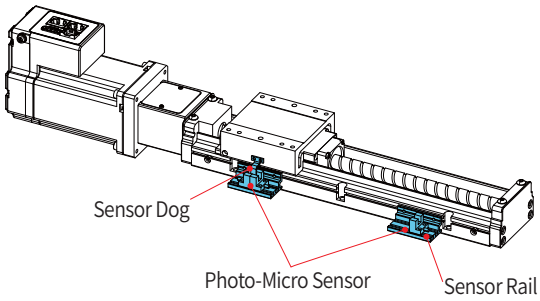
Straight Type	Parallel Type
	

Simple Homing

The Ezi-ROBO IGS a home sensor set is provided as an option to simplify home return operations. This set includes all the components needed for home return.

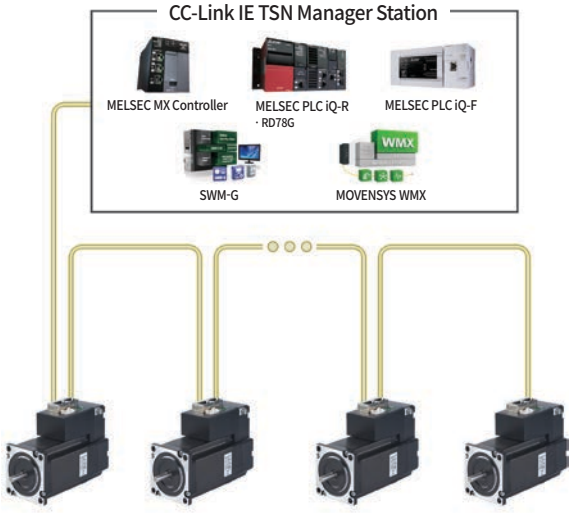
ex) Ezi-ROBO-IGS-60S + Home Sensor

Sensor & Sensor Dog



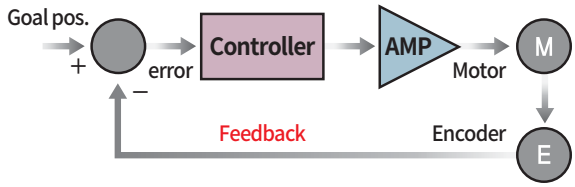
CC-Link IE TSN-compatible Motion Control

Ezi-SERVO CC-Link IE TSN ALL is stepper motor control system using CC-Link IE TSN, high speed Ethernet (1 Gbps Full-Duplex) based industrial network.
Ezi-SERVO CC-Link IE TSN ALL employs CiA402 drive profile and supports Profile Position Mode (PP Mode), Homing Mode (HM Mode) and Cyclic Synchronous Position Mode (CSP Mode).



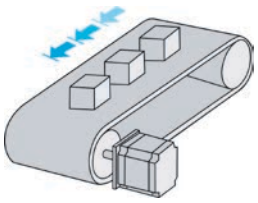
Closed-Loop System

Ezi-SERVO is an innovative Closed-Loop System that utilizes a high-resolution motor mounted encoder constantly to monitor the current position. The encoder feedback allows the Ezi-SERVO to update the current position every 50 µs. It allows the Ezi-SERVO 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 but Ezi-SERVO automatically correct the position by encoder feedback.



Tuning Not Required

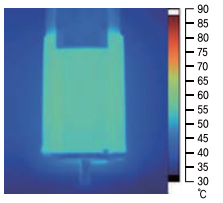
To ensure machine performance, conventional servo systems require the adjustment of its servo's gains as an initial crucial step. Even systems that employ auto-tuning require manual tuning after the system is installed.
Ezi-SERVO employs the best characteristics of the stepper motor to eliminate the need of tedious gain tuning required for conventional closed-loop servo systems. Ezi-SERVO is especially well suited for low-rigidity loads (e.g., a belt and pulley system) that sometimes require conventional servo systems to use the additional bulky and expensive gearbox.



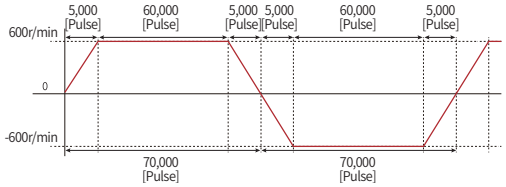
Low Heat Generation / Energy Savings

(Motor Current Control according to load)

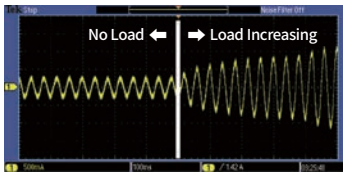
Ezi-SERVO automatically controls motor current according to load. Ezi-SERVO reduces motor current when otor load is low and increases motor current when load is high. By optimizing the motor current, motor heat can be minimized and energy can be saved.



Motor temperature [Measured by Thermal Imaging Camera]



Condition to measure the motor temperature
[4 hours operation, Motor surface temperature saturation]

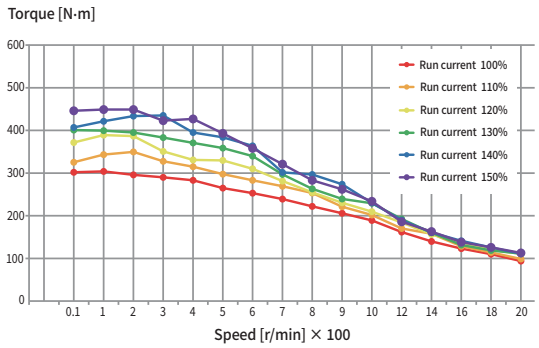


Motor Current
[Example of the Motor Current Control according to load]

High Torque

(Motor Current Setting)

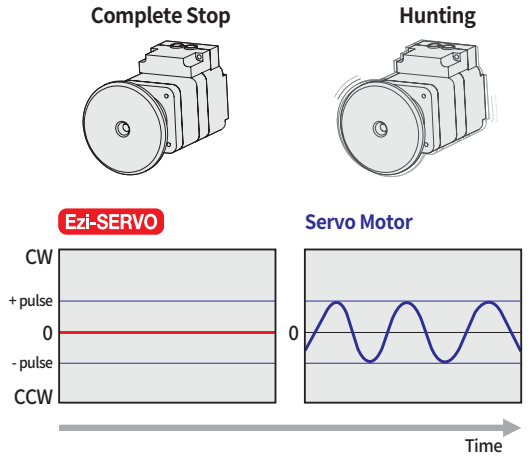
Ezi-SERVO features an internal voltage boosting circuit that increases the motor supply voltage above the drive's input voltage. This elevated motor voltage enhances torque at high speeds and allows the run current to be set up to 150 %. As a result, torque is also improved at low speeds. Ezi-SERVO can achieve approximately 30 % torque improvement across the entire speed range.



※ The torque at low speed is improved about 30 %
Measurement Conditions: Drive = Ezi-SERVO-CT-ALL-42L

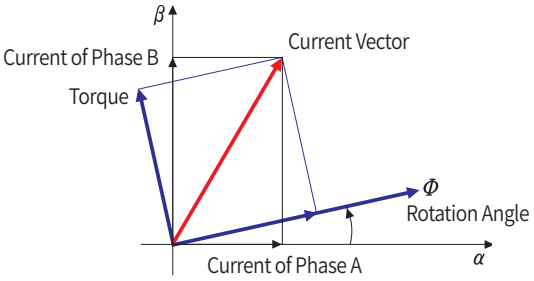
No Hunting

Ezi-SERVO utilizes the unique characteristics of stepper motors and locks itself into the desired target position, preventing vibration and eliminating Null Hunt which happens to the conventional servo systems.
This feature is especially useful in applications such as vision systems in which system oscillation and vibration could be a problem.



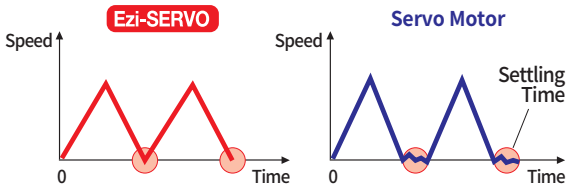
Smooth and Accurate Operation

Ezi-SERVO is a high-precision servo drive, using a high-resolution encoder with 20,000 pulse/revolution. Unlike a conventional Microstep drive, the on-board high performance MCU (Micro Controller Unit) performs vector control and filtering, producing a smooth rotational control with minimum ripples.



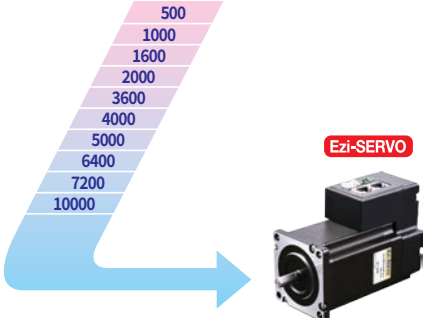
Fast Response

Similar to conventional stepper motors, Ezi-SERVO instantly synchronizes with command pulses providing fast positional response. Ezi-SERVO 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 called settling time between the command input signals and the resultant motion because of the onstant monitoring of the current position.



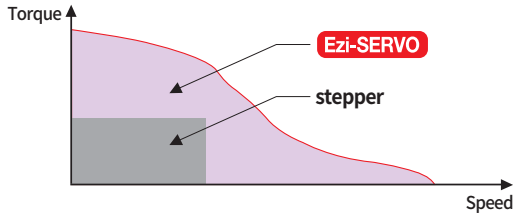
High Resolution

The unit of the position command can be divided precisely. (Max. 10,000 pulse/revolution)



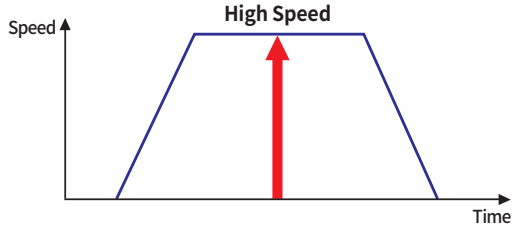
High Torque / Continuous Operation

Compared with common stepper motors and drives, Ezi-SERVO 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 exploits continuous high torque operation during high speed motion due to its innovative optimum current phase control.



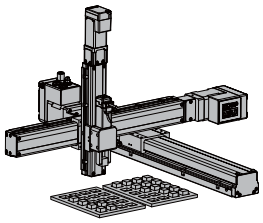
High Speed

The Ezi-SERVO operates well at high speed without the loss of synchronism or positioning error. Ezi-SERVO 's ability to monitor current position continuously enables the stepper motor to generate high torque, even under a 100 % load condition.

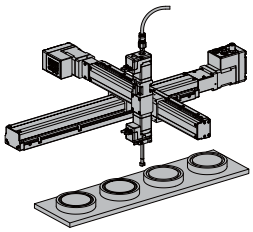


Examples

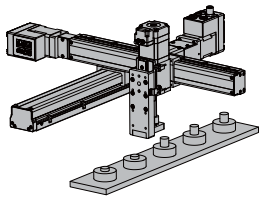
Pallet-to-Pallet Workpiece Placement System



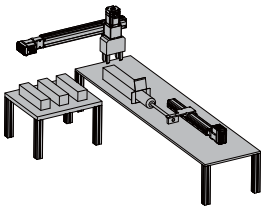
Automatic Dispensing



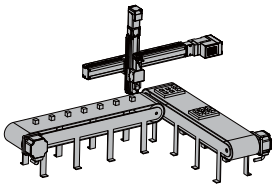
Component Assembly System



Packaging



Conveyor Logistics Transfer



Ezi-ROBO IGS Part Numbering

Ezi-ROBO-IGS-40 S-100-R 2-42 BK U A-CT-ALL-R-Option

- **Series**
- **Model Type**
- **Installation Dimensions**
  - 40:42 mm 50:52 mm 60:60 mm
- **Actuator Type**
  - S : Straight
  - PL : Parallel
- **Stroke**
  - 50 ~ 500 mm
- **Ball Screw Grade**
  - R : Standard
- **Lead**
  - 2 : 2 mm 5 : 5 mm 10 : 10 mm
- **Option**
  - Sensor
- **Drive Series**
  - CT-ALL : CC-Link IE TSN ALL
- **Encoder Resolution**
  - A : 10,000 P/R
- **Motor Direction**
  - U : Up D : Down
  - L : Left R : Right
  - PL : Parallel Left
  - PR : Parallel Right
  - PD : Parallel Down
- **Motor Brake**
  - No Symbol : None
  - BK : With Brake
- **Motor Size**
  - 42:42 mm 60:60 mm

Applicable Product Series

Product	Specifications
Ezi-SERVO CC-Link IE TSN ALL	CC-Link IE TSN Compatible, Motor+Drive Integrated type



Ezi-SERVO CC-Link IE TSN ALL

Actuator and Drive Combination

Unit Part Number	Motor-Drive Integrated Model Number
Ezi-ROBO-IGS-40S-□*1--42□*2A-CT-ALL-R	Ezi-SERVO-CT-ALL-RB42LH-A-R
Ezi-ROBO-IGS-50S-□*1--42□*2A-CT-ALL-R	Ezi-SERVO-CT-ALL-RB42LH-A-R
Ezi-ROBO-IGS-60S-□*1--60□*2A-CT-ALL-R	Ezi-SERVO-CT-ALL-RB60L-A-R
Ezi-ROBO-IGS-40PL-□*1--42□*2A-CT-ALL-R	Ezi-SERVO-CT-ALL-RB42LH-A-R
Ezi-ROBO-IGS-50PL-□*1--42□*2A-CT-ALL-R	Ezi-SERVO-CT-ALL-RB42LH-A-R

Actuator and Drive Combination with Brake

Unit Part Number	Motor-Drive Integrated Model Number
Ezi-ROBO-IGS-40S-□*1-42BK□*2A-CT-ALL-R	Ezi-SERVO-CT-ALL-RB42LH-A-BK-R
Ezi-ROBO-IGS-50S-□*1-42BK□*2A-CT-ALL-R	Ezi-SERVO-CT-ALL-RB42LH-A-BK-R
Ezi-ROBO-IGS-60S-□*1-60BK□*2A-CT-ALL-R	Ezi-SERVO-CT-ALL-RB60L-A-BK-R
Ezi-ROBO-IGS-40PL-□*1-42BK□*2A-CT-ALL-R	Ezi-SERVO-CT-ALL-RB42LH-A-BK-R
Ezi-ROBO-IGS-50PL-□*1-42BK□*2A-CT-ALL-R	Ezi-SERVO-CT-ALL-RB42LH-A-BK-R

*1: Indicates the stroke.
*2: Indicates the motor direction.

Actuator Combination

Unit Part Number			Ezi-ROBO-IGS-40		Ezi-ROBO-IGS-50		Ezi-ROBO-IGS-60	
Installation Dimensions		[mm]	42		52		60	
Actuator Type	Straight Type		○	○	○	○	○	○
	Parallel Type		○	○	○	○	-	-
Lead		[mm]	2	5	5	10	5	10
Ball Screw Grade		R(Standard)						
Stroke (mm)	50		○	○	○	○	○	○
	100		○	○	○	○	○	○
	150		○	○	○	○	○	○
	200		○	○	○	○	○	○
	250		○	○	○	○	○	○
	300		-	-	○	○	○	○
	400		-	-	○	○	○	○
	500		-	-	○	○	○	○
Motor Size		[mm]	42L		42L		60L	
Motor Brake			○		○		○	
Encoder Resolution	Standard Motor	[P/R]	B(20,000)		B(20,000)		B(20,000)	
	Motor + Drive Integrated		A(10,000)		A(10,000)		A(10,000)	
Sensor	NPN		○	○	○	○	○	○
	PNP		○	○	○	○	○	○

• For more details on the options, please refer to page 24 of the catalog.

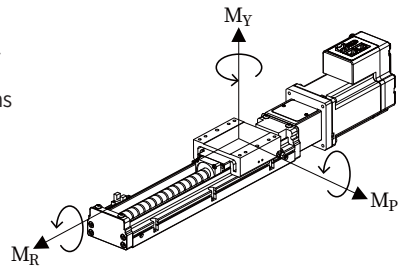
Specifications of Drive

<table>
<tr><th colspan="2">Part Number</th><th>Ezi-SERVO-CT-ALL-RB42 series</th><th>Ezi-SERVO-CT-ALL-RB60 series</th></tr>
<tr><td colspan="2">Input Voltage</td><td colspan="2">24 V DC ± 10 %</td></tr>
<tr><td colspan="2">Control Method</td><td colspan="2">Closed loop control with 32 bit MCU</td></tr>
<tr><td colspan="2">Current Consumption</td><td colspan="2">Max. 500 mA/axis (Except motor current)</td></tr>
<tr><td rowspan="3">Operating Condition</td><td>Ambient Temperature</td><td colspan="2">· In Use: 0 ~ 50 °C
· In Storage: -20 ~ 70 °C</td></tr>
<tr><td>Humidity</td><td colspan="2">· In Use: 35 ~ 85 % RH (Non-Condensing)
· In Storage: 10 ~ 90 % RH (Non-Condensing)</td></tr>
<tr><td>Vib. Resist.</td><td colspan="2">0.5 g</td></tr>
<tr><td rowspan="3">Function</td><td>Rotation Speed</td><td colspan="2">0 ~ 2,000 r/min</td></tr>
<tr><td>Resolution</td><td colspan="2">Encoder Resolution [P/R] | Configurable Resolution [P/R]
10,000 | 500 1,000 1,600 2,000 3,600 5,000 6,400 7,200 10,000
(Selectable by parameter)</td></tr>
<tr><td>Error Type</td><td colspan="2">Over Current Error, Over Speed Error, Position Tracking Error, Over Load Error, Over Temperature Error, Over Regenerative Voltage Error, Motor Connection Error, Encoder Connection Error, Main Power Voltage Error, In-Position Error, ROM Error, Position Overflow Error, Torque Off Circuit Error</td></tr>
<tr><td rowspan="3">CC-Link IE TSN</td><td>Communication Protocol</td><td colspan="2">CC-Link IE TSN Class B</td></tr>
<tr><td>Operation Mode</td><td colspan="2">CiA402 Drive Profile: Cyclic Synchronous Position Mode, Profile Position Mode, Homing Mode</td></tr>
<tr><td>Synchronization</td><td colspan="2">Minimum Cycle Time: 250 µs / Synchronous Communication(CSP, PP, HM) / Asynchronous Communication(PP, HM)</td></tr>
<tr><td rowspan="2">I/O Signal</td><td>Input Signals</td><td colspan="2">3 dedicated inputs (LIMIT+, LIMIT-, ORIGIN), 3 user inputs (photocoupler inputs)</td></tr>
<tr><td>Output Signals</td><td colspan="2">2 user outputs (photocoupler outputs), 1 Brake signal output</td></tr>
</table>

How to Read the Specifications

Model			Ezi-ROBO-IGS-40S-□*1 Ezi-ROBO-IGS-40PL-□*1				
① Actuator Type			Straight Type/Parallel Type				
② Lead		[mm]	2, 5				
③ Stroke		[mm]	50	100	150	200	250
④ Repeatibliity		[mm]	±0.005				
⑤ Maximum Speed*2	Standard Motor	[mm/s]	Lead 2 : 80, Lead 5 : 200				
	Motor + Drive Integrated	[mm/s]	Lead 2 : 65, Lead 5 : 165				
⑥ Permissible Load*3	Horizontal	[kg]	4				
	Vertical	[kg]	3				
⑦ Permissible Moment*4		[N·m]	M_P : 34.7 M_Y : 34.7 M_R : 64.8				
⑧ Actuator Weight	Straight	[kg]	0.7	0.8	0.9	1	1.1
	Parallel		0.8	0.9	1	1.1	1.1
⑨ Motor + Brake Weight	Motor	[kg]	0.47 ~ 0.52(Depending on Motor Type)				
	Brake		0.25				

*1: □ includes options and drive type.
*2: The maximum speed is limited by the motor's maximum speed and permissible rotational speed of ball screw.
*3: The load attachment standards for permissible load in the horizontal and vertical directions are as follows.
*4: The direction definitions for permissible moments are as follows.



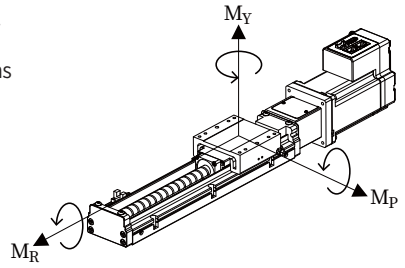
Description of Specification Items

No.	Item	Descriptions
①	Actuator Type	Classified into straight and parallel types.
②	Lead	The distance that the ball screw travels in the linear direction when the motor rotates once.
③	Stroke	This is the maximum distance that the load can be reciprocated.
④	Repeatibility	This value indicates the amount of error that occurs when the same position is commanded repeatedly in the same direction. (The accuracy is the value when the temperature and load are constant.)
⑤	Maximum Speed	This is the maximum speed at which the load can be.
⑥	Permissible Load	The maximum load that can be transported when the compact linear actuator is used in the horizontal or vertical direction.
⑦	Permissible Moment	The maximum force the guide that can handle when a workpiece is placed off-center relative to the compact linear actuator's guide.
⑧	Actuator Weight	The weight of the actuator (measured with the motor installed).
⑨	Motor + Brake Weight	The combined weight of the motor and brake.

Specification [IGS40 Type]

Model			Ezi-ROBO-IGS-40S-□*1 Ezi-ROBO-IGS-40PL-□*1				
Actuator Type			Straight Type/ Parallel Type				
Lead		[mm]	2, 5				
Stroke		[mm]	50	100	150	200	250
Repeatbliity		[mm]	±0.005				
Maximum Speed*2	Standard Motor	[mm/s]	Lead 2 : 80, Lead 5 : 200				
	Motor + Drive Integrated	[mm/s]	Lead 2 : 65, Lead 5 : 165				
Permissible Load*3	Horizontal	[kg]	4				
	Vertical	[kg]	3				
Permissible Moment*4		[N·m]	M_P : 34.7 M_Y : 34.7 M_R : 64.8				
Actuator Weight	Straight	[kg]	0.7	0.8	0.9	1	1.1
	Parallel		0.8	0.9	1	1.1	1.1
Motor + Brake Weight	Motor	[kg]	0.47 ~ 0.52(Depending on Motor Type)				
	Brake		0.25				

*1: □ includes options and drive type.
*2: The maximum speed is limited by the motor's maximum speed and permissible rotational speed of ball screw.
*3: The load attachment standards for permissible load in the horizontal and vertical directions are as follows:
*4: The direction definitions for permissible moments are as follows.



Permissible load Table by Speed and Acceleration / Deceleration

Lead 2 mm — Permissible load Unit : kg

Mounting Direction	Horizontal			Vertical		
Speed [mm/s]	Acceleration[m/s²]					
	0.5	1	3	0.5	1	3
20	4	4	4	3	3	3
40	3	3	-	2	2	-
60	2.5	2.5	-	2	2	-
80	2.5	2.5	-	2	1	-

Lead 5 mm — Permissible load Unit : kg

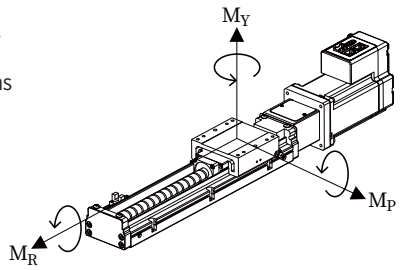
Mounting Direction	Horizontal					Vertical				
Speed [mm/s]	Acceleration[m/s²]									
	0.5	1	3	5	7	0.5	1	3	5	7
20	4	4	4	4	4	3	3	3	3	2.5
50	3	3	3	3	3	2	2	2	2	1.5
100	2.5	2	2	2	-	1.5	1.5	1.5	1.5	-
150	2	2	2	-	-	1.5	1.5	1	-	-
200	2	2	-	-	-	1.5	1.5	-	-	-

Applicable models			
Ezi-SERVO CC-Link IE TSN	Ezi-SERVO CC-Link IE TSN 4X	Ezi-SERVO CC-Link IE TSN ALL	

Specification [IGS50 Type]

Model			Ezi-ROBO-IGS-50S-□ *1 Ezi-ROBO-IGS-50PL-□ *1							
Actuator Type			Straight Type/ Parallel Type							
Lead		[mm]	5, 10							
Stroke		[mm]	50	100	150	200	250	300	400	500
Repeatibliity		[mm]	±0.005							
Maximum Speed*2	Standard Motor	[mm/s]	Lead 5 : 200, Lead 10 : 400							
	Motor + Drive Integrated	[mm/s]	Lead 5 : 165, Lead 10 : 330							
Permissible Load*3	Horizontal	[kg]	10							
	Vertical	[kg]	Lead 5 : 9.5, Lead 10 : 7.5							
Permissible Moment*4		[N·m]	M_P : 131.4 M_Y : 131.4 M_R : 164							
Actuator Weight	Straight	[kg]	1.1	1.2	1.4	1.5	1.6	1.8	2.1	2.3
	Parallel		1.3	1.4	1.6	1.7	1.8	2.1	2.3	2.5
Motor+Brake Weight	Motor	[kg]	0.47 ~ 0.52(Depending on Motor Type)							
	Brake		0.25							

*1: □ includes options and drive type.
*2: The maximum speed is limited by the motor's maximum speed and permissible rotational speed of ball screw.
*3: The load attachment standards for permissible load in the horizontal and vertical directions are as follows:
*4: The direction definitions for permissible moments are as follows.



Permissible load Table by Speed and Acceleration / Deceleration

Lead 5 mm — Permissible load Unit : kg

Mounting Direction	Horizontal				Vertical			
Speed [mm/s]	Acceleration[m/s²]							
	0.5	1	3	5	0.5	1	3	5
20	10	10	10	4.5	9.5	9.5	6	1.5
50	7.5	7.5	7.5	1.5	7	7	4.5	0.5
100	6	6	6	-	5.5	5.5	2	-
150	5.5	5	-	-	4.5	3	-	-
200	5	5	-	-	2.5	1	-	-

Lead 10 mm — Permissible load Unit : kg

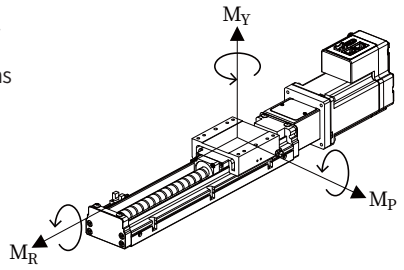
Mounting Direction	Horizontal						Vertical					
Speed [mm/s]	Acceleration[m/s²]											
	0.5	1	3	5	7	10	0.5	1	3	5	7	10
20	10	10	10	8.5	4.5	1.5	7.5	7	4.5	3	2	0.5
50	7.5	7.5	7.5	7.5	4	1	7	6.5	4.5	3	1.5	-
100	6	6	6	6	3	-	5.5	5.5	3.5	2	1	-
150	5.5	5	5	4.5	1.5	-	5	4.5	3	1.5	0.5	-
200	5	5	4.5	3.5	0.5	-	4.5	4	2.5	1	-	-
250	4.5	4.5	4.5	0.5	-	-	3	2.5	1	-	-	-
300	4.5	4.5	3	-	-	-	2.5	2	0.5	-	-	-
350	4.5	4	1.5	-	-	-	2	1.5	-	-	-	-
400	4.5	4	-	-	-	-	1.5	1	-	-	-	-

Applicable models			
Ezi-SERVO CC-Link IE TSN	Ezi-SERVO CC-Link IE TSN 4X	Ezi-SERVO CC-Link IE TSN ALL	

Specification [IGS60 Type]

Model			Ezi-ROBO-IGS-60S-□ *1								
Actuator Type			Straight Type								
Lead		[mm]	5, 10								
Stroke		[mm]	50	100	150	200	250	300	400	500	600
Repeatibliity		[mm]	±0.005								
Maximum Speed*2	Standard Motor	[mm/s]	Lead 5 : 200, Lead 10 : 400								
	Motor + Drive Integrated	[mm/s]	Lead 5 : 165, Lead 10 : 330								
Permissible Load*3	Horizontal	[kg]	13								
	Vertical	[kg]	Lead 5 : 10, Lead 10 : 12.5								
Permissible Moment*4		[N·m]	M_P : 172.1 M_Y : 172.1 M_R : 224.9								
Actuator Weight		[kg]	1.3	1.4	1.6	1.7	1.9	2.1	2.4	2.7	3.0
Motor+Brake Weight	Motor	[kg]	1.54 ~ 1.80(Depending on Motor Type)								
	Brake		0.44								

*1: □ includes options and drive type.
*2: The maximum speed is limited by the motor's maximum speed and permissible rotational speed of ball screw.
*3: The load attachment standards for permissible load in the horizontal and vertical directions are as follows:
*4: The direction definitions for permissible moments are as follows.



Permissible load Table by Speed and Acceleration / Deceleration

Lead 5 mm — Permissible load Unit : kg

Mounting Direction	Horizontal				Vertical		
Speed [mm/s]	Acceleration[m/s²]						
	0.5	1	3	5	0.5	1	3
20	13	13	13	1.5	10	10	10
50	9.5	9.5	9.5	-	7	7	7
100	7.5	7.5	0.5	-	5.5	5.5	-
150	7	6.5	-	-	5	5	-
200	6.5	4	-	-	4.5	0.5	-

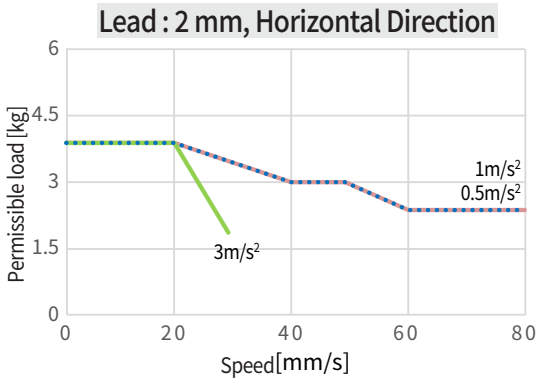
Lead 10 mm — Permissible load Unit : kg

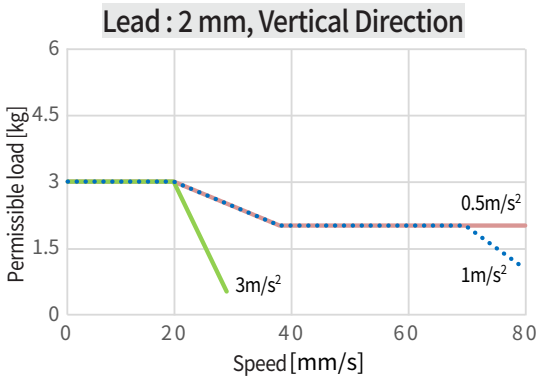
Mounting Direction	Horizontal						Vertical					
Speed [mm/s]	Acceleration[m/s²]											
	0.5	1	3	5	7	10	0.5	1	3	5	7	10
20	13	13	13	13	13	3.5	12.5	12.5	12.5	11.5	7	1.5
50	9.5	9.5	9.5	9.5	9.5	-	9	9	9	8.5	4.5	-
100	7.5	7.5	7.5	7.5	6	-	7.5	7.5	7	6.5	2.5	-
150	7	6.5	6.5	6.5	-	-	6.5	6.5	6.5	2.5	-	-
200	6.5	6	6	4.5	-	-	6	6	5.5	1.5	-	-
250	6	6	5.5	-	-	-	6	5.5	1.5	-	-	-
300	6	5.5	1.5	-	-	-	5.5	5	-	-	-	-
350	6	5.5	-	-	-	-	4.5	3	-	-	-	-
400	6	5.5	-	-	-	-	3.5	2	-	-	-	-

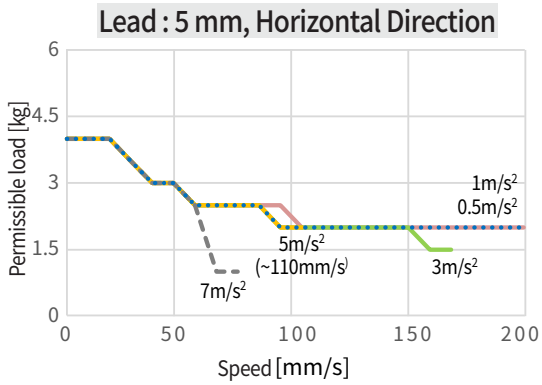
Applicable models			
Ezi-SERVO CC-Link IE TSN	Ezi-SERVO CC-Link IE TSN 4X	Ezi-SERVO CC-Link IE TSN ALL	

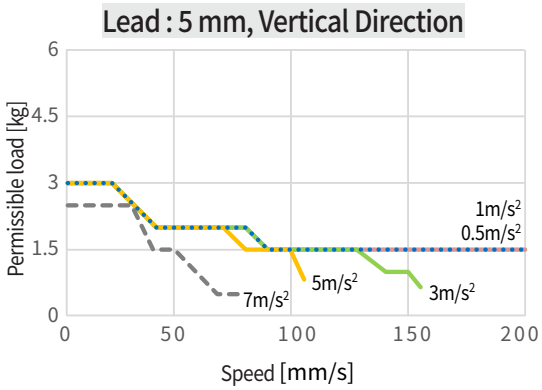
Permissible load Graph by Speed and Acceleration / Deceleration

IGS-40

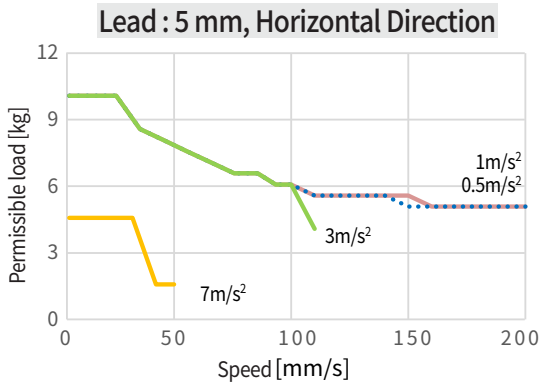


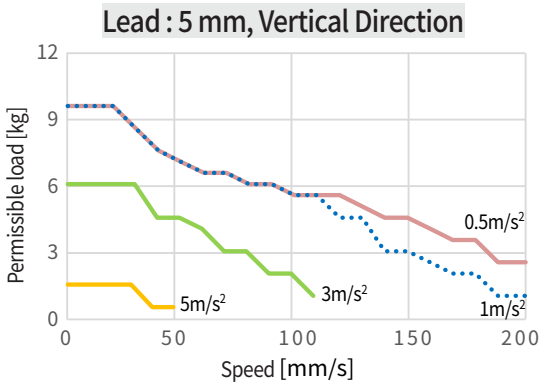


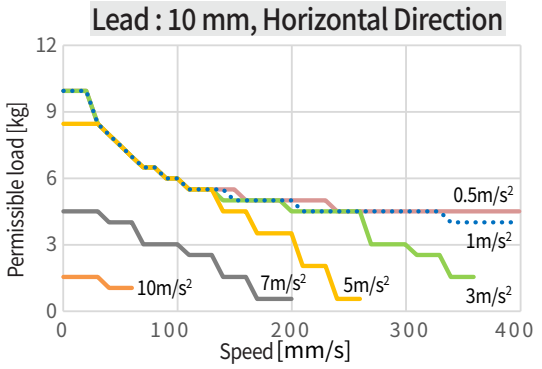


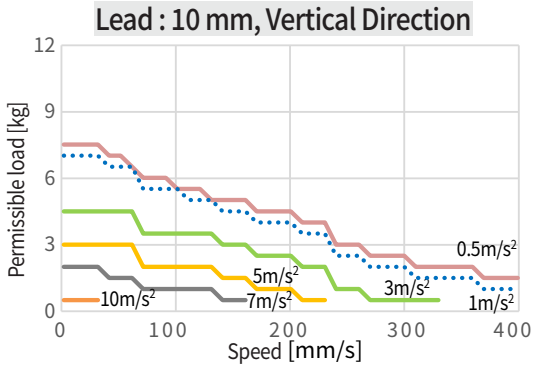


IGS-50



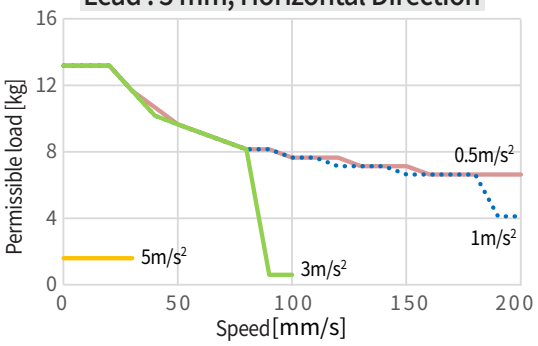




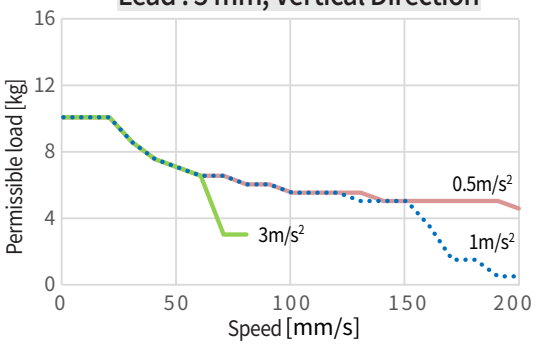


IGS-60

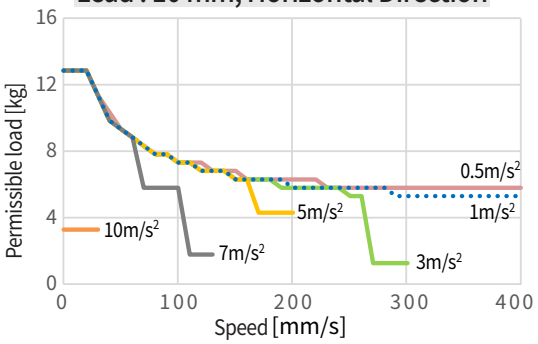
Lead : 5 mm, Horizontal Direction



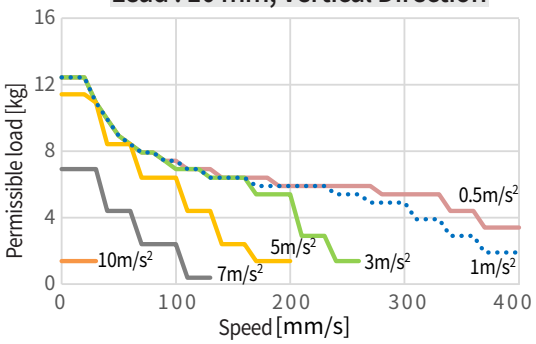
Lead : 5 mm, Vertical Direction



Lead : 10 mm, Horizontal Direction



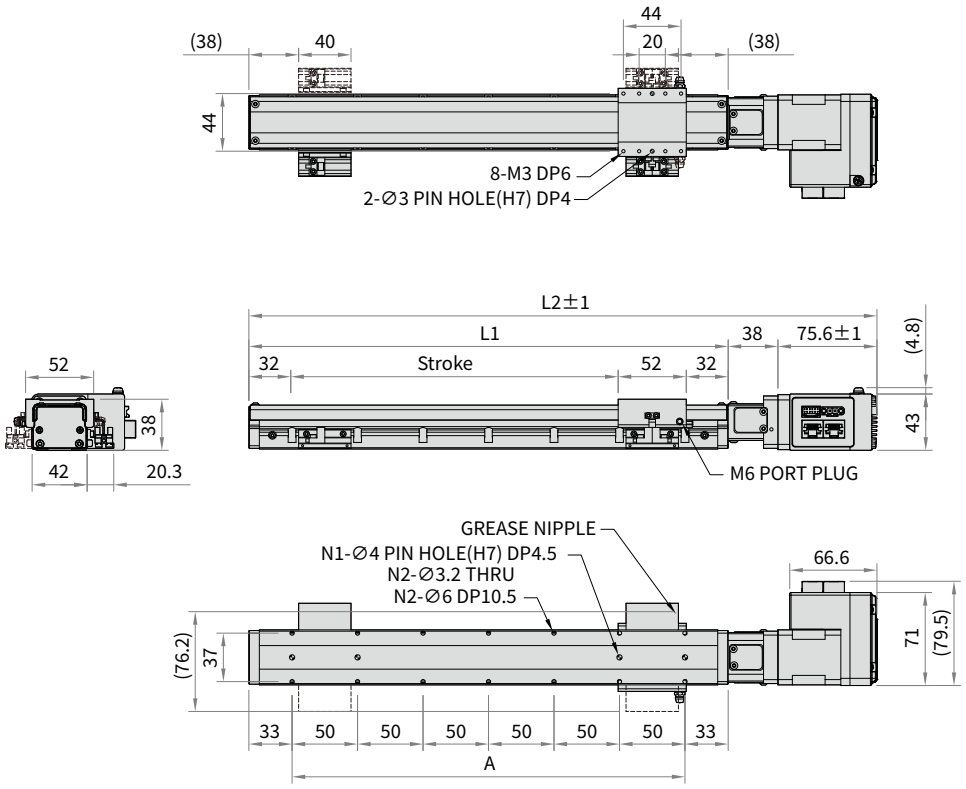
Lead : 10 mm, Vertical Direction



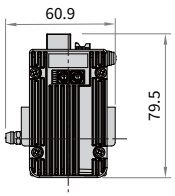
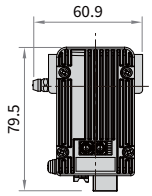
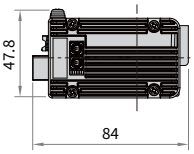
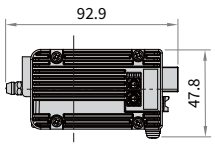
Dimensions of Product : Straight Type [mm]

When using an integrated drive

Ezi-ROBO-IGS-40S-□-R2-42LA-CT-ALL-R-P
Ezi-ROBO-IGS-40S-□-R5-42LA-CT-ALL-R-P



- Motor Direction

Up	Down	Left	Right
			

※ The symbol "□" indicates the stroke.
The drawings in this catalog are based on products equipped with a CC-Link IE TSN ALL R connector type drive.
Some dimensions differ depending on the drive type. Please refer to the product drawings for detailed information.

Unit : mm

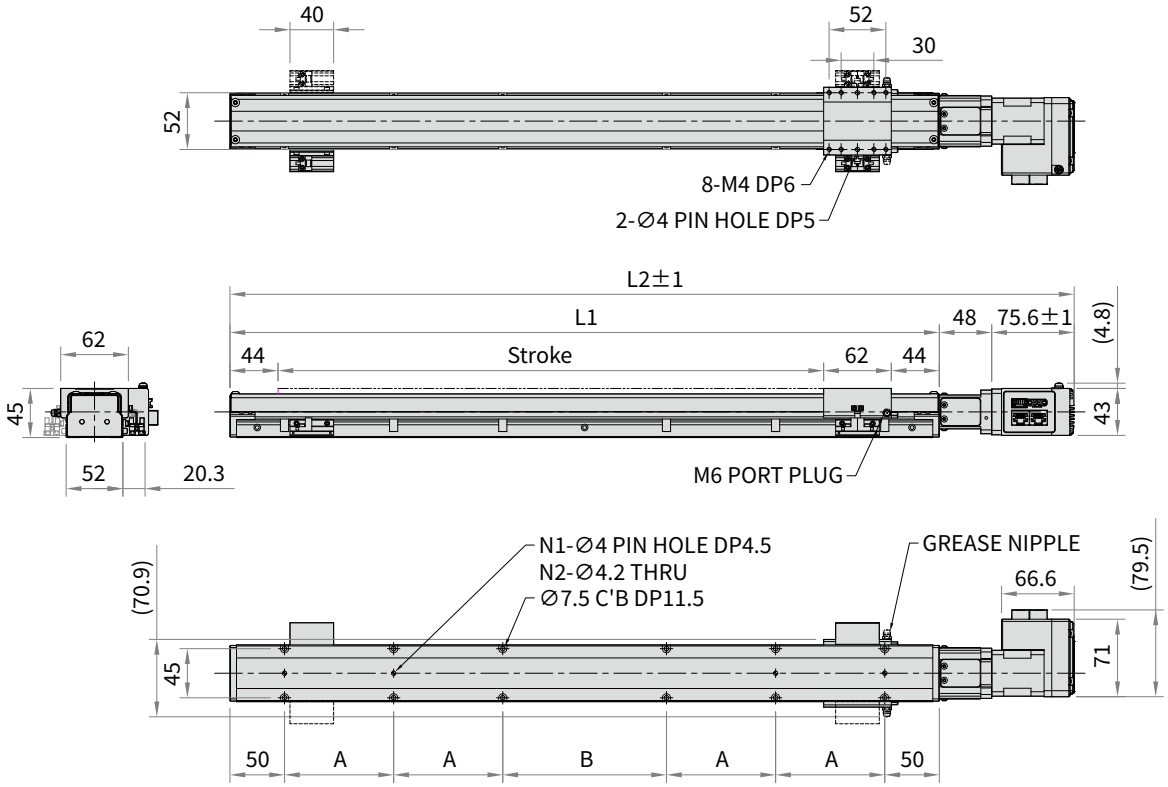
Stroke, S	L1	L2 (Overall Length)		Number of Positioning Pin Holes, N1	Number of Mounting Holes, N2	Mounting Hole Pitch, A
		ALL Motor	BT Motor			
50	166	279.6	285	3	6	100
100	216	329.6	335	4	8	150
150	266	379.6	385	4	10	200
200	316	429.6	435	4	12	250
250	366	479.6	485	4	14	300

※ The mounting hole pitch varies depending on the stroke. Please refer to the individual drawings for details.

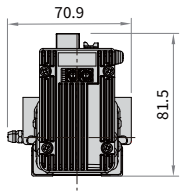
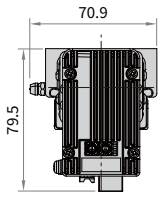
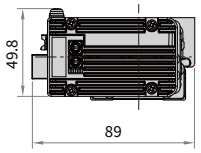
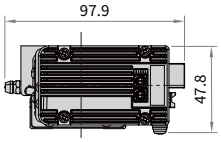
Dimensions of Product : Straight Type [mm]

When using an integrated drive

Ezi-ROBO-IGS-50S-□-R5-42LA-CT-ALL-R-P
Ezi-ROBO-IGS-50S-□-R10-42LA-CT-ALL-R-P



- Motor Direction

Up	Down	Left	Right
			

※ The symbol "□" indicates the stroke.
The drawings in this catalog are based on products equipped with a CC-Link IE TSN ALL R connector type drive.
Some dimensions differ depending on the drive type. Please refer to the product drawings for detailed information.

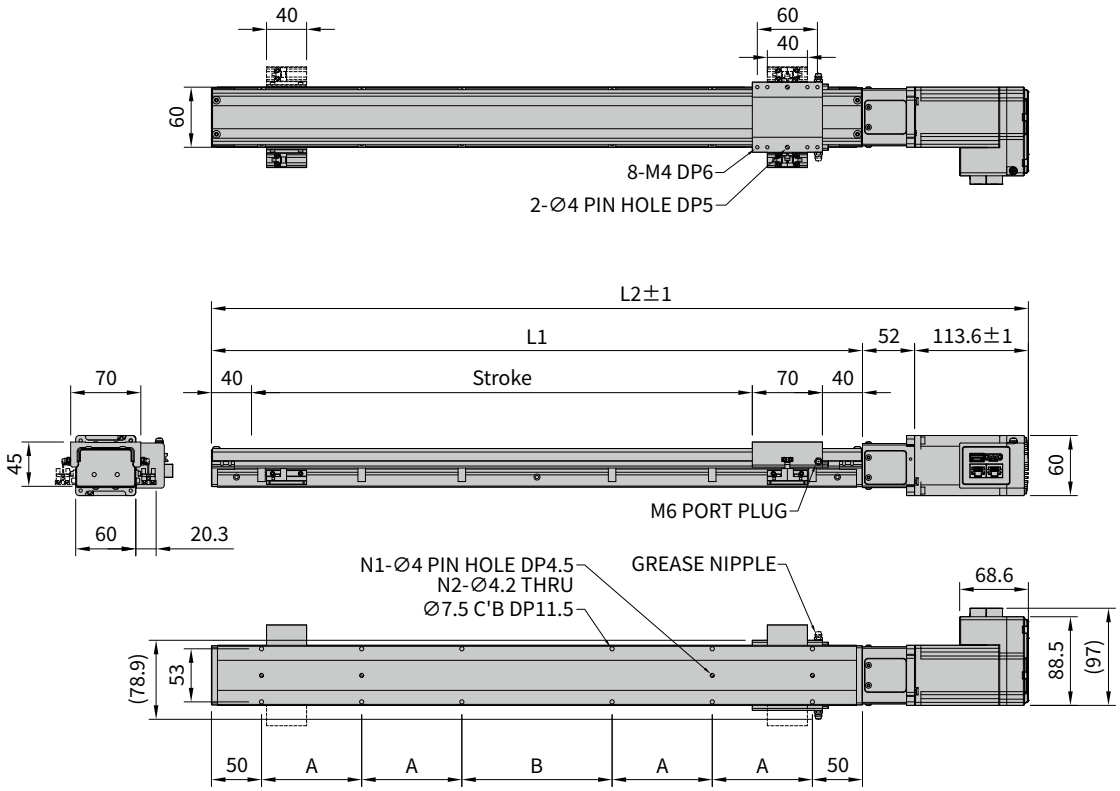
Unit : mm

Stroke, S	L1	L2 (Overall Length)		Number of Positioning Pin Holes, N1	Number of Mounting Holes, N2	Mounting Hole Pitch, A	Mounting Hole Pitch, B
		ALL Motor	BT Motor				
50	200	323.6	329	2	4	100	-
100	250	373.6	379	2	4	150	-
150	300	423.6	429	3	6	100	-
200	350	473.6	479	4	8	100	50
250	400	523.6	529	4	8	100	50
300	450	573.6	579	4	8	100	150
400	550	673.6	679	4	12	100	50
500	650	773.6	779	4	12	100	150

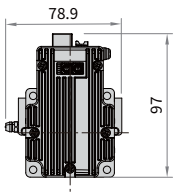
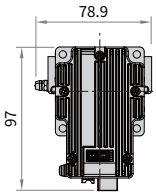
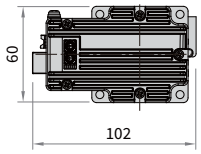
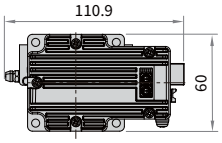
Dimensions of Product : Straight Type [mm]

When using an integrated drive

Ezi-ROBO-IGS-60S-□-R5-60LA-CT-ALL-R-P
Ezi-ROBO-IGS-60S-□-R10-60LA-CT-ALL-R-P



- Motor Direction

Up	Down	Left	Right
			

※ The symbol "□" indicates the stroke.
The drawings in this catalog are based on products equipped with a CC-Link IE TSN ALL R connector type drive.
Some dimensions differ depending on the drive type. Please refer to the product drawings for detailed information.

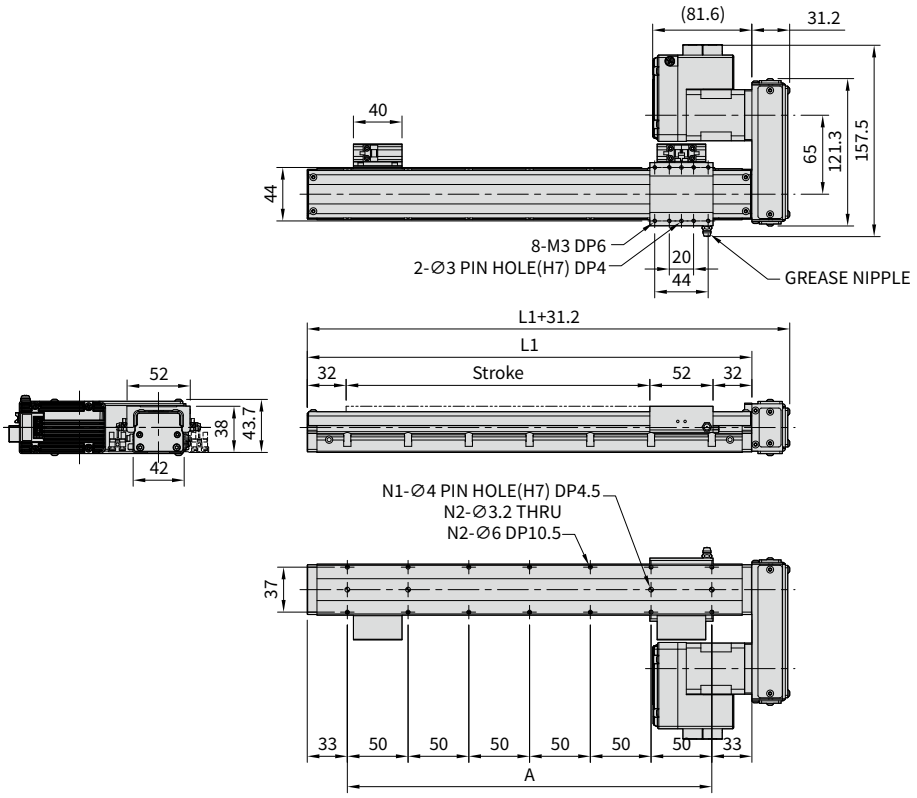
Unit : mm

Stroke, S	L1	L2 (Overall Length)		Number of Positioning Pin Holes, N1	Number of Mounting Holes, N2	Mounting Hole Pitch, A	Mounting Hole Pitch, B
		ALL Motor	BT Motor				
50	200	365.6	370	2	4	100	-
100	250	415.6	420	2	4	150	-
150	300	465.6	470	3	6	100	-
200	350	515.6	520	4	8	100	50
250	400	565.6	570	4	6	100	-
300	450	615.6	620	4	8	100	150
400	550	715.6	720	4	12	100	450
500	650	815.6	820	4	12	100	150

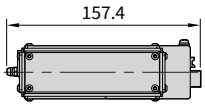
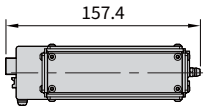
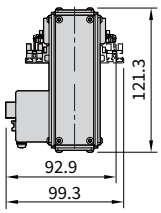
Dimensions of Product : Parallel Type [mm]

When using an integrated drive

Ezi-ROBO-IGS-40PL-□-R2-42PRA-CT-ALL-R-P
Ezi-ROBO-IGS-40PL-□-R5-42PRA-CT-ALL-R-P



- Motor Direction

Right	Left	Down
		

※ The symbol "□" indicates the stroke.
The drawings in this catalog are based on products equipped with a CC-Link IE TSN ALL R connector type drive.
Some dimensions differ depending on the drive type. Please refer to the product drawings for detailed information.

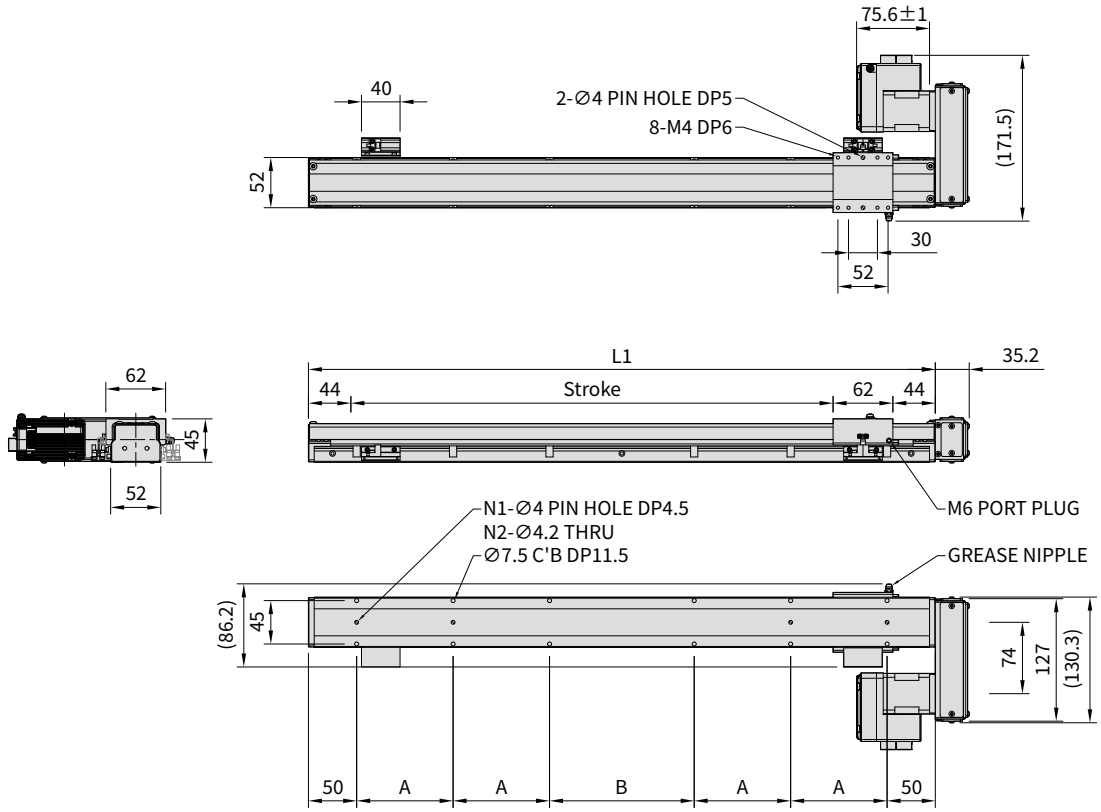
Unit : mm

Stroke, S	L1	Number of Positioning Pin Holes, N1	Number of Mounting Holes, N2	Mounting Hole Pitch, A
50	166	3	6	100
100	216	4	8	150
150	266	4	10	200
200	316	4	12	250
250	366	4	14	300

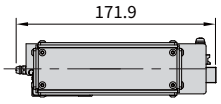
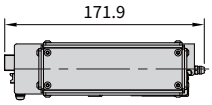
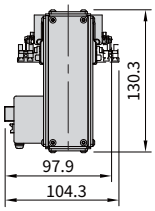
Dimensions of Product : Parallel Type [mm]

When using an integrated drive

Ezi-ROBO-IGS-50PL-□-R5-42PRA-CT-ALL-R-P
Ezi-ROBO-IGS-50PL-□-R10-42PRA-CT-ALL-R-P



- Motor Direction

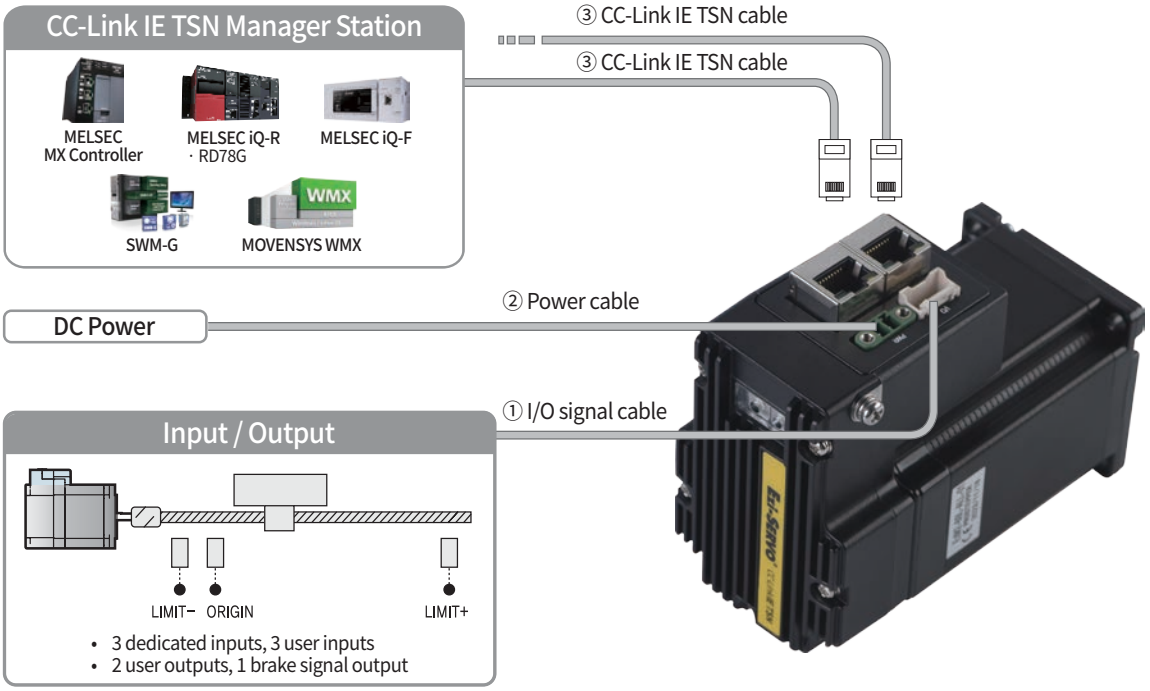
Right	Left	Down
		

※ The symbol "□" indicates the stroke.
The drawings in this catalog are based on products equipped with a CC-Link IE TSN ALL R connector type drive.
Some dimensions differ depending on the drive type. Please refer to the product drawings for detailed information.

Unit : mm

Stroke, S	L1	Number of Positioning Pin Holes, N1	Number of Mounting Holes, N2	Mounting Hole Pitch, A	Mounting Hole Pitch, B
50	200	2	4	100	-
100	250	2	4	150	-
150	300	3	6	100	-
200	350	4	8	100	50
250	400	4	8	100	-
300	450	4	8	100	150
400	550	4	12	100	50
500	650	4	12	100	150

System Configuration

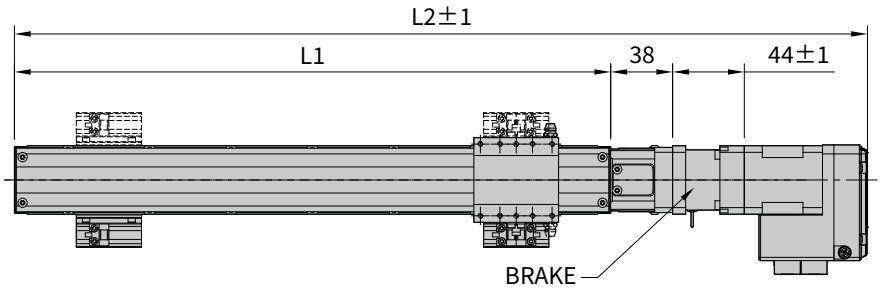


Cable Type	Max. Cable Length	Remarks
① I/O Signal Cable	20 m	Options (Sold separately)
② Power Cable	2 m	
③ CC-Link IE TSN Cable	100 m	

Dimensions with Brake Mounted

When using an integrated drive

Ezi-ROBO-IGS-40S-□-R2-42BKLA-CT-ALL-R-P
Ezi-ROBO-IGS-40S-□-R5-42BKLA-CT-ALL-R-P



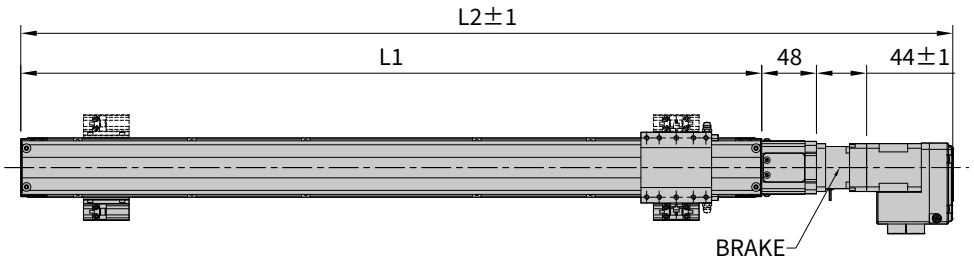
Unit : mm

Stroke	L1	L2 (Overall Length)			
		Before Brake Installation		After Brake Installation	
		ALL Motor	BT Motor	ALL Motor	BT Motor
50	166	279.6	285	323.6	329
100	216	329.6	335	373.6	379
150	266	379.6	385	423.6	429
200	316	429.6	435	4736.	479
250	366	479.6	485	523.6	529

※ The symbol "□" indicates the stroke.

When using an integrated drive

Ezi-ROBO-IGS-50S-□-R5-42BKLA-CT-ALL-R-P
Ezi-ROBO-IGS-50S-□-R10-42BKLA-CT-ALL-R-P



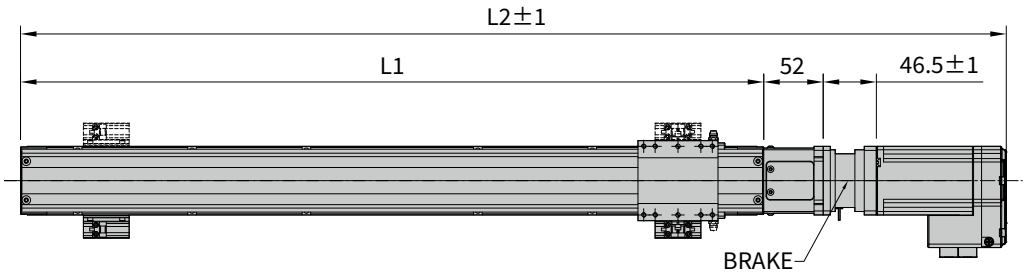
Unit : mm

Stroke	L1	L2 (Overall Length)			
		Before Brake Installation		After Brake Installation	
		ALL Motor	BT Motor	ALL Motor	BT Motor
50	200	367.6	373	411.6	417
100	250	417.6	423	461.6	467
150	300	467.6	473	511.6	517
200	350	517.6	523	561.6	567
250	400	567.6	573	611.6	617
300	450	617.6	623	661.6	667
400	550	717.6	723	761.6	767
500	650	817.6	823	861.6	867

※ The symbol "□" indicates the stroke.

When using an integrated drive

Ezi-ROBO-IGS-60S-□-R5-60BKLA-CT-ALL-R-P
Ezi-ROBO-IGS-60S-□-R10-60BKLA-CT-ALL-R-P



Unit : mm

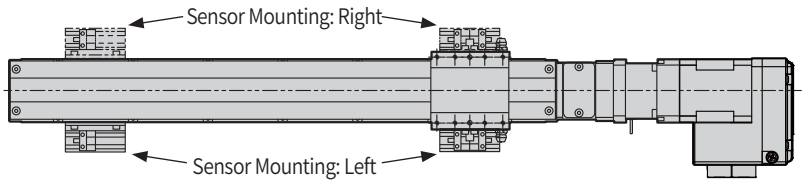
Stroke	L1	L2 (Overall Length)			
		Before Brake Installation		After Brake Installation	
		ALL Motor	BT Motor	ALL Motor	BT Motor
50	200	365.6	370	412.1	416.5
100	250	415.6	420	462.1	466.5
150	300	465.6	470	512.1	516.5
200	350	515.6	520	562.1	566.5
250	400	565.6	570	612.1	616.5
300	450	615.6	620	662.1	666.5
400	550	715.6	720	762.1	766.5
500	650	815.6	820	862.1	866.5

※ The symbol "□" indicates the stroke.

Option Name and Combination

Option : R-LT-01
① ② ③

①	Sensor	**No Symbol** : No Sensor **N** : NPN Type Sensor	**R** : Sensor Rail Only **P** : PNP Type Sensor
②	Sensor Mounting Direction	**LT** : Left Mounting	**RT** : Right Mounting
③	Number of Sensors	**01** : 1 **03** : 3	**02** : 2



• Motor Direction: Left

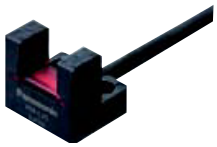
Item		IGS-40	IGS-50	IGS-60
①	Sensor	○	○	○
②	Sensor Mounting Direction	○	○	○
③	Number of Sensors	○	○	○

Home Sensor Set

1. Type

Part Number	Sensor Output	Applicable products
PM-L25	NPN	IGS-40S, IGS-50S, IGS-60S IGS-40PL, IGS-50PL
PM-L25-P	PNP	

2. Components (PM-L25)



PM-L25

3. Specifications

Type	NPN Type	PNP Type
Sensor Part Number	PM-L25 (Panasonic)	PM-L25-P (Panasonic)
Power Supply Voltage	5 ~ 24 V DC ±10 %, Ripple (P-P) 10 % or less	5 ~ 24 V DC ±10 %, Ripple (P-P) 10 % or less
Current Consumption	15 mA or less	15 mA or less
Control Output	NPN Open Collector Output 5 ~ 24 V DC, 50 mA or less Residual Voltage 2 V or less (at 50 mA load current)	PNP Open Collector Output 5 ~ 24 V DC, 50 mA or less Residual Voltage 2 V or less (at 50 mA load current)
Indicator LED	Detection Display (Red)	Detection Display (Red)
Sensor Logic	Normally Open / Normally Closed (Selectable depending on connection)	Normally Open / Normally Closed (Selectable depending on connection)

4. Precautions for Home Sensor Set Installation

- Use the home sensor set in environments where the installation surface temperature does not exceed 55 °C.
- Do not install the home sensor while power is applied, as this may cause injury or equipment damage.
- After exposure to vibration or impact, check the sensor to ensure it remains properly mounted and functional.
- Accumulated dust on the sensor may cause malfunctions. Regular cleaning or replacement is recommended.

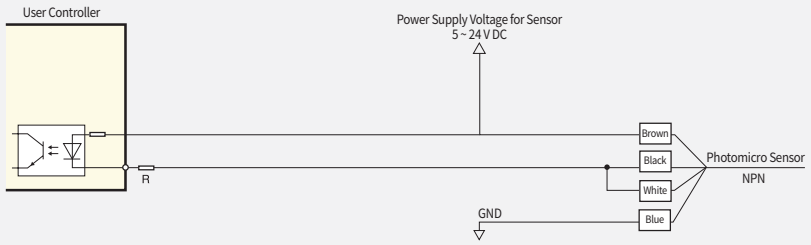
5. Precautions for Sensor Cable Extension

- The cable can be extended up to a maximum of 100 meters using a cable with a cross-sectional area of at least 0.3 mm^2. However, as the cable length increases, voltage drop may occur. Therefore, ensure that the voltage supplied at the end of the sensor's accessory cable remains within the rated range.

Home Sensor Cable Installation

1. NPN Type

• With User's Controller



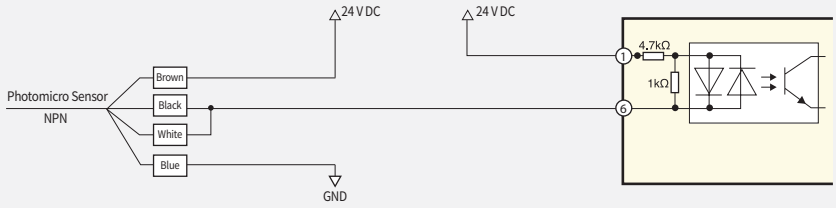
When applying N.C (Normally Closed), connect the output wire to the black lead.

When applying N.O (Normally Open), connect the output wire to the white lead.

Any unused output wires must be properly insulated.

The power supply voltage for the sensor is 5 ~ 24 V DC, and the sensor's signal current can be used up to 50 mA. For detailed information, please refer to the controller specifications and wire accordingly. If the sensor's signal current exceeds the current range of the controller or sensor, please connect a current-limiting resistor (R).

• With Embedded Motion Controller Type Products (e.g., Ezi-SERVO CC-Link IE TSN ALL)



When applying N.C (Normally Closed), connect the output wire to the black lead.

When applying N.O (Normally Open), connect the output wire to the white lead.

Any unused output wires must be properly insulated.

2. PNP Type

• With User's Controller



When applying N.C (Normally Closed), connect the output wire to the black lead.

When applying N.O (Normally Open), connect the output wire to the white lead.

Any unused output wires must be properly insulated.

The power supply voltage for the sensor is 5 ~ 24 V DC, and the sensor's signal current can be used up to 50 mA. For detailed information, please refer to the controller specifications and wire accordingly. If the sensor's signal current exceeds the current range of the controller or sensor, please connect a current-limiting resistor (R).

• With Embedded Motion Controller Type Products (e.g., Ezi-SERVO CC-Link IE TSN ALL)



When applying N.C (Normally Closed), connect the output wire to the black lead.

When applying N.O (Normally Open), connect the output wire to the white lead.

Any unused output wires must be properly insulated.

Supported FASTECH Drive Types

Built-in Torque-Off Function Drive



Multi-Axis Drive (Max. 4-Axis)



Motor+Drive Integrated type



Batteryless Absolute Encoder type



- Further details on the products shown in the image above are available on our website.
- If you have questions regarding products not included in this catalog, or any other inquiries, please feel free to contact us.

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Fast Accurate Smooth Motion

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※ Please note that the color and size of the products in this catalog may differ depending on the measurement method and the specifications can be changed without prior notice for quality improvement.

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