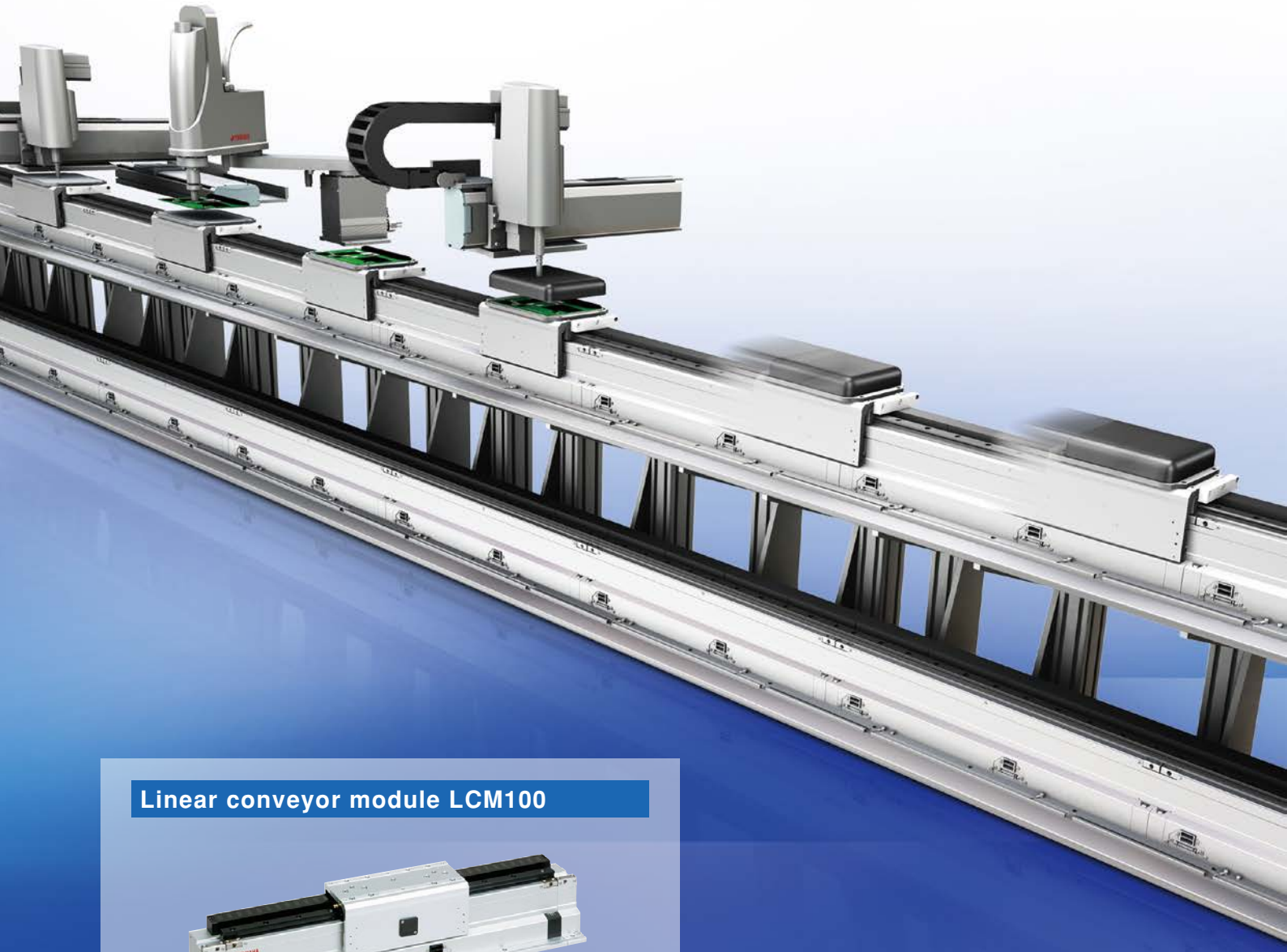
LCM100

Product Lineup

| LCM200 is introduced on another page. | |
|---|---|
| Features page | P.12 |
| Specifications page | P.159 |

# LINEAR CONVEYOR MODULES

From "flow" to "move"
Efficient transfer processes for increased profitability

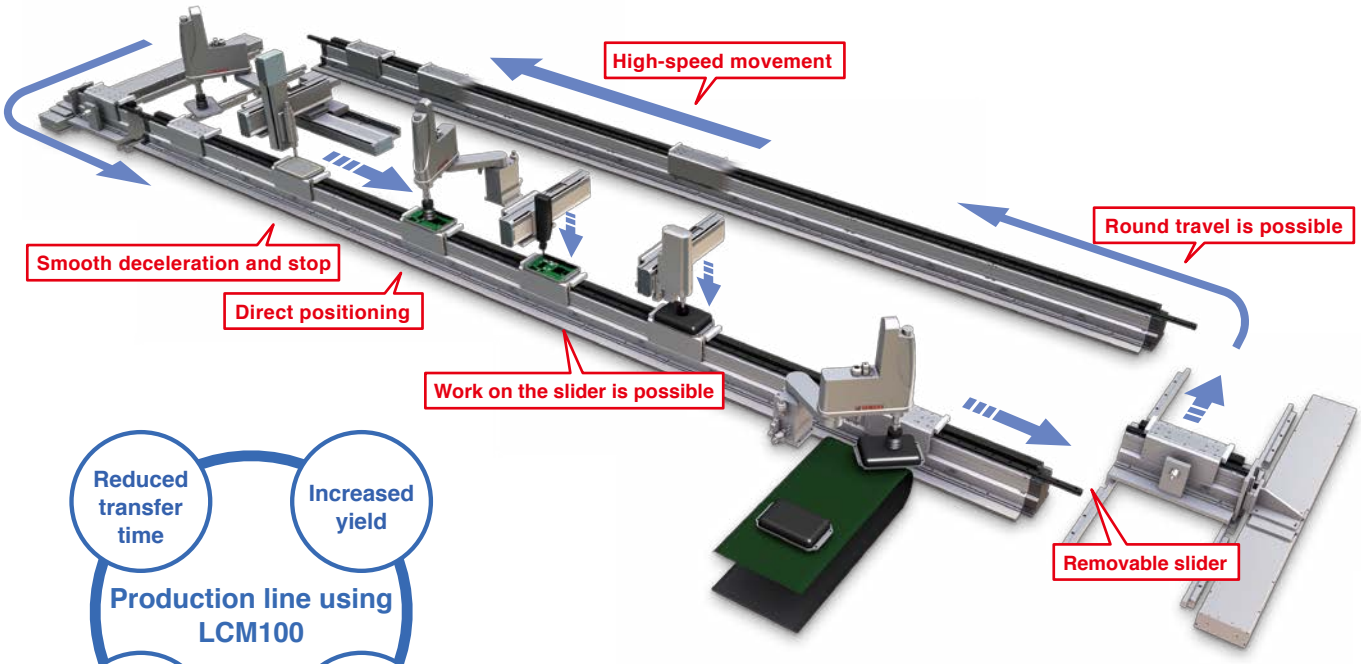


**Linear conveyor module LCM100**



Note. As the figure shown above illustrates CG images, they are different from the actual product.

# Linear Conveyor Module LCM100
# Constructing high-speed throughput lines.







## High-speed and high-accuracy transfer

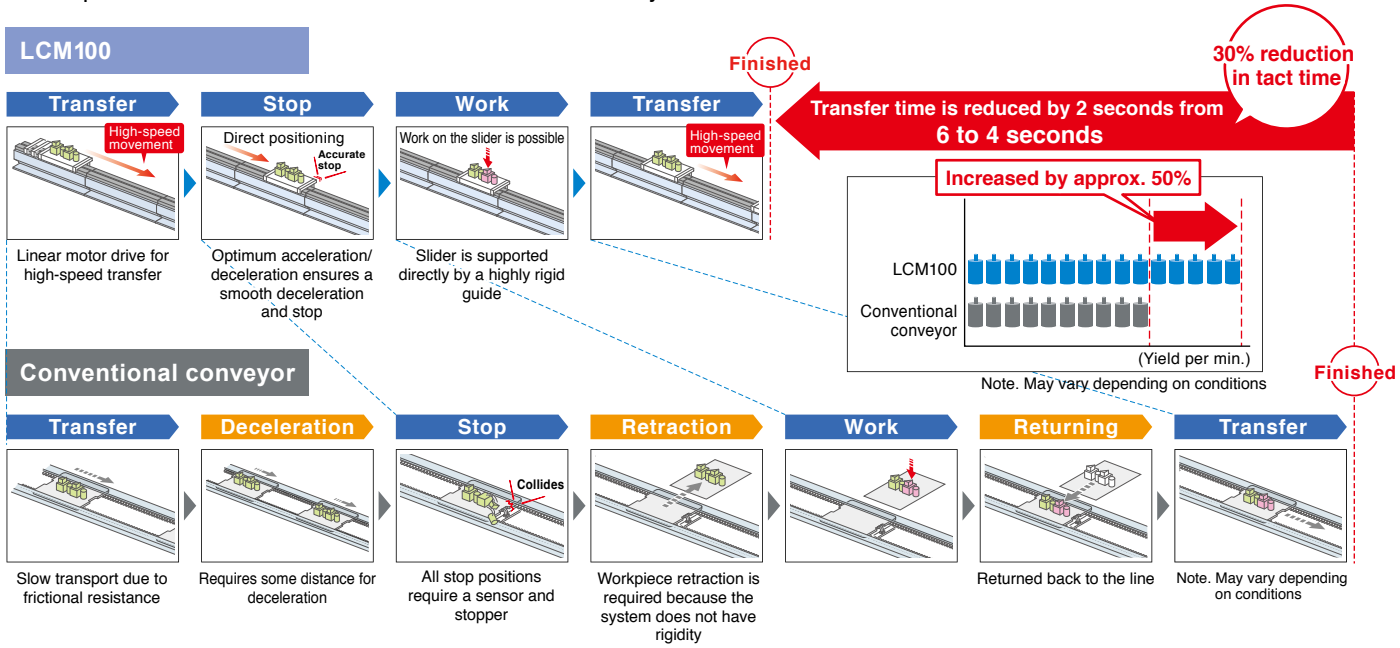
- Max. speed: **3000**mm/sec
- Max. acceleration: **2**G
- Max. load mass: **15**kg
- Repeated positioning accuracy: **+/-0.015**mm (standalone slider) Note

Note. This is the repeated positioning accuracy for a standalone slider when positioning from one direction (single-side approach).
Note. The positioning accuracy for the single-side approach after correction by RFID is 0.1 mm including the mutual difference between sliders.

POINT

## Increase productivity by shortening transport time

- Comparison between LCM100 and a conventional conveyor

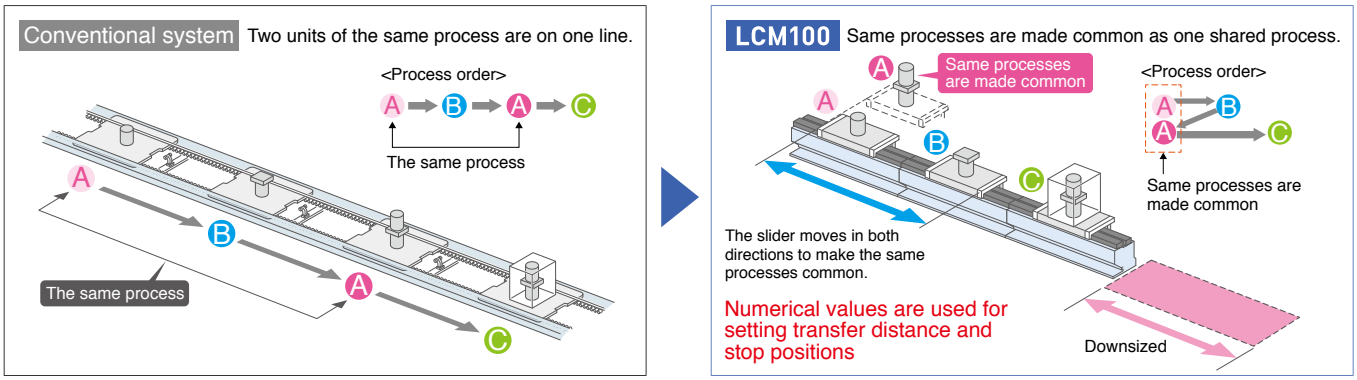


# The length of the transfer line can be adjusted freely by adding modules.

## POINT

### Save equipment space.

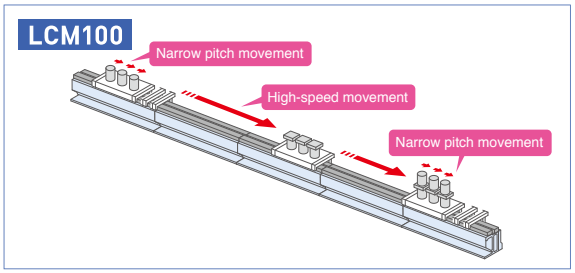
- Since the movement direction can be changed, the same processes are made common. This makes the equipment compact and results in cost reduction.
- Forward and backward movement at a high speed can be set freely.
- Flexible actions such as moving only some sliders backward is possible.




## POINT

### Can be moved efficiently between processes with different tacts

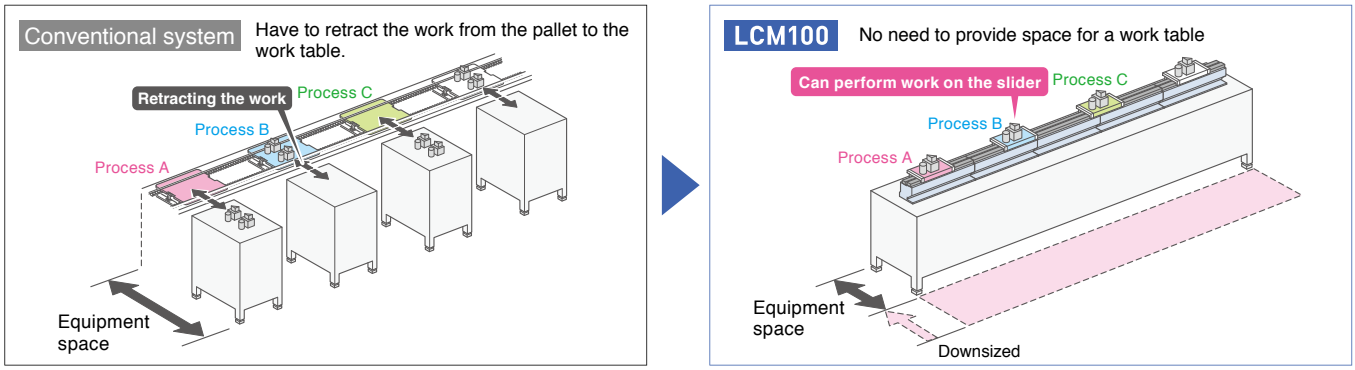
- Narrow pitch movement is possible.
- Movement time can be reduced by combining the use of different movements, such as using pitch-feed for the same processes in short-time processes while transferring three workpieces at the same time at a high speed in long-time processes.




## POINT

### Workpieces do not need to be retracted

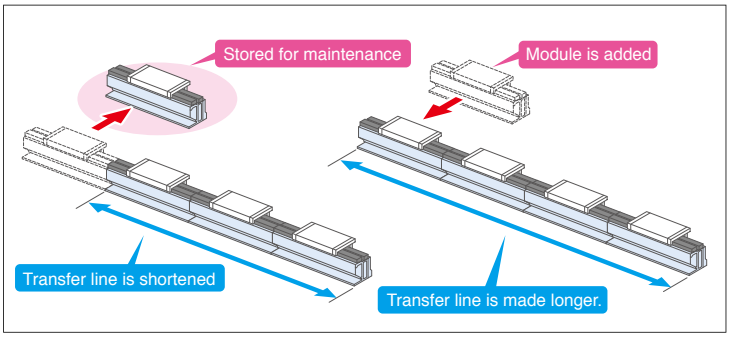
- As the work moves down, you can assemble and process them on the transfer line.
- Eliminates having to retract the work from the pallet to the work table.
- Reduces costs.



POINT

## Significant reduction of start-up time

- Just connect modules for easy construction of a transfer line.
- Lifting cylinders, sensors, stoppers, and other complex parts are not necessary.
- Operations can be performed by using only the LCC140 Controller.
- Economical as excess modules can be used for other lines or stored for maintenance.

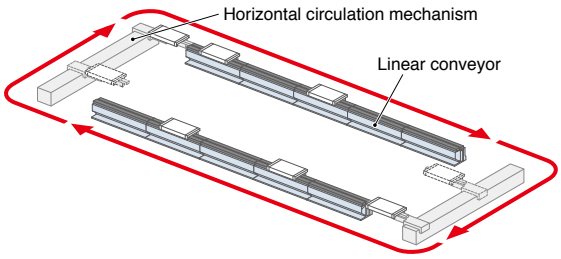



POINT

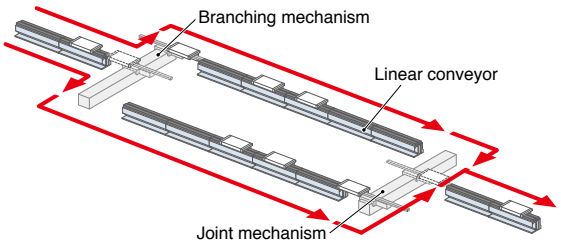
## Construct branching lines, joint lines, and other lines in flexible configurations.

- Layout examples by combining modules with circulation mechanisms

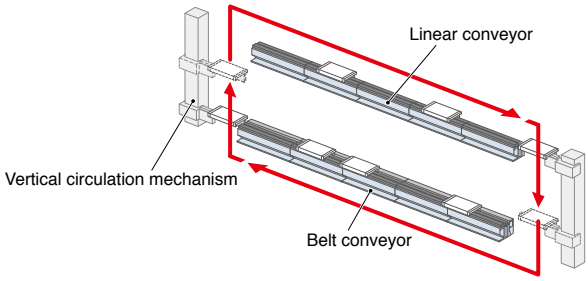
**Example of horizontal circulation**




**Example of horizontal branching**




**Example of vertical circulation**



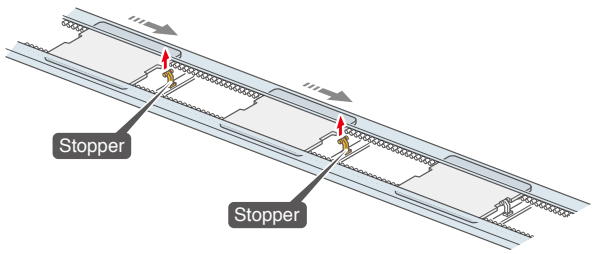

Note. The customer needs to prepare the return unit and the circulation mechanism.
Note. Modules convenient for the circulation are configured.

POINT

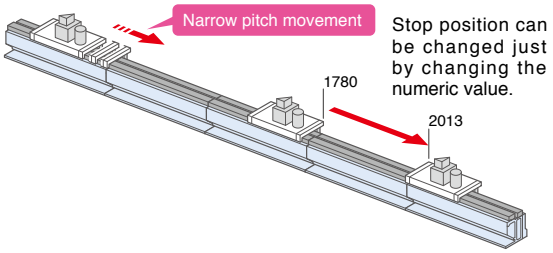
## Optimal for small batch production of various product types

- No need for mechanical stoppers or sensors. Change layout easily.
- Reconstruction can be finished quickly by just changing the program to set a stop position.
- Frequent unit changes for different models can be handled flexibly.

Conventional system Requires stopper position adjustment




**LCM100** Stop positions can be set just by changing the program settings.

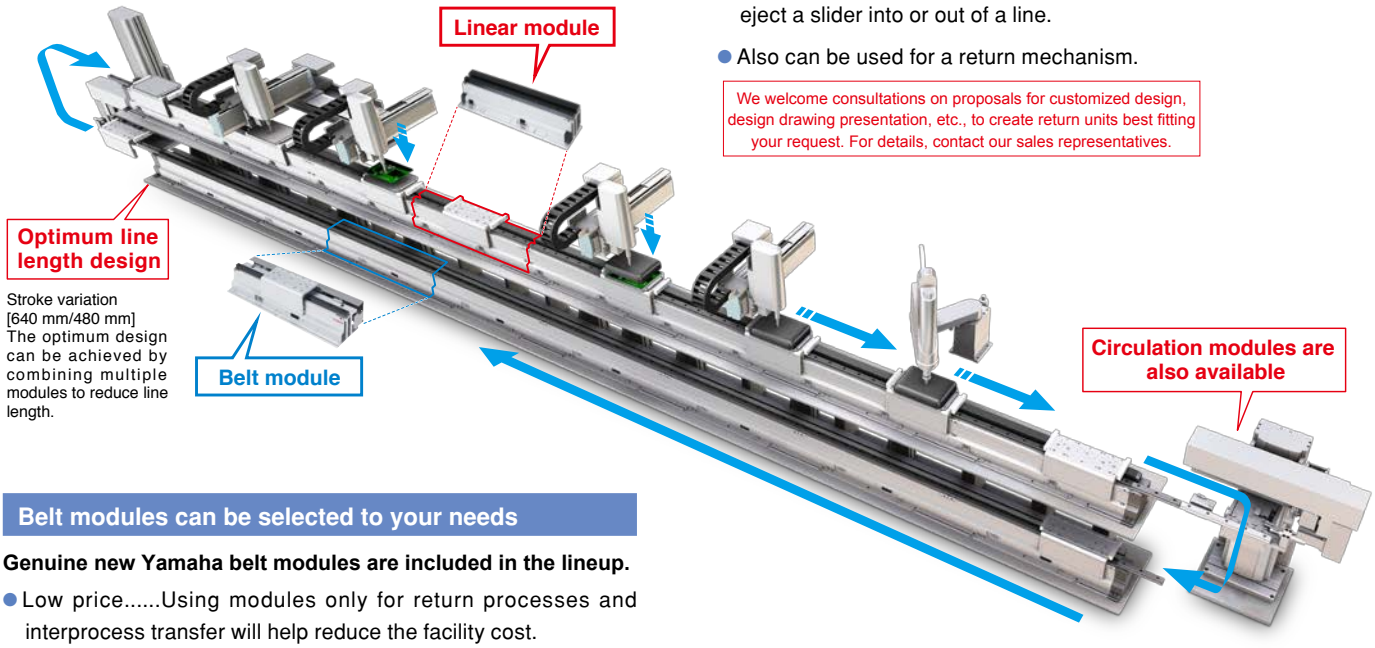


# Flexible set-up of the slider's acceleration/deceleration, forward/backward movement, positioning, and other actions. The variety of possible line structures has been greatly expanded to supersede conventional models.

## Simpler design and fewer processing steps

- LCM100-2MT, a module for circulation, is available to insert or eject a slider into or out of a line.
- Also can be used for a return mechanism.

We welcome consultations on proposals for customized design, design drawing presentation, etc., to create return units best fitting your request. For details, contact our sales representatives.




## Belt modules can be selected to your needs

**Genuine new Yamaha belt modules are included in the lineup.**

- Low price.....Using modules only for return processes and interprocess transfer will help reduce the facility cost.
- Easy control without controllers and no need to create robot programs

POINT

## Quick recovery by replacing the slider when machine trouble occurs

- Parts can be replaced easily.
- Parts can be kept for maintenance as they are standardized.
- Possible to minimize the downtime of a production line.


LCM100 module


Slider

POINT

## Easy maintenance

- Motors and scales do not make contact and are free from abrasion.
- As only the rails are sliding parts, dust generation is low.
- There are only a few consumable parts, which mean a long service life.

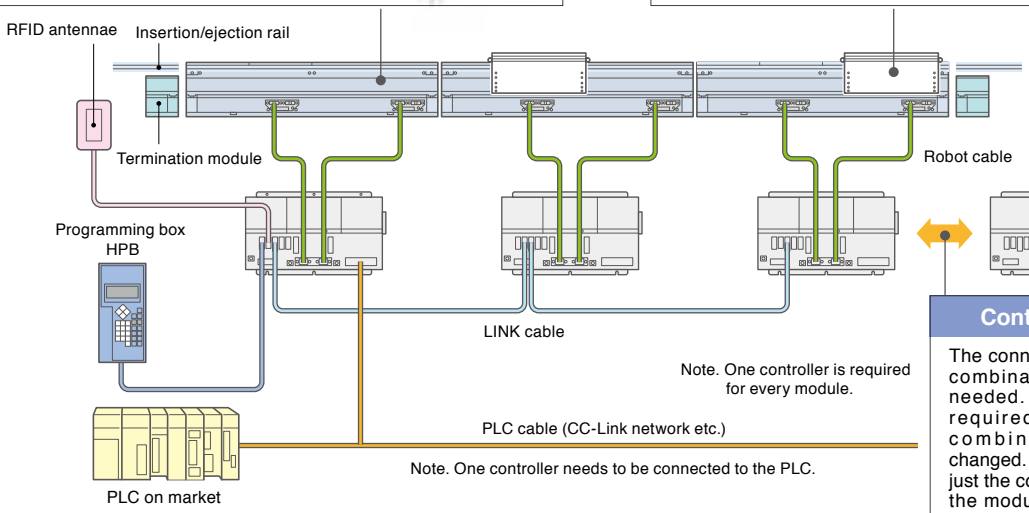
## System configuration diagram (when 3 sliders are connected)

### The module is standardized and can also be stored for maintenance.

If a short line is used and modules are in excess, they can be diverted to another line or stored for maintenance.

### Standardized slider

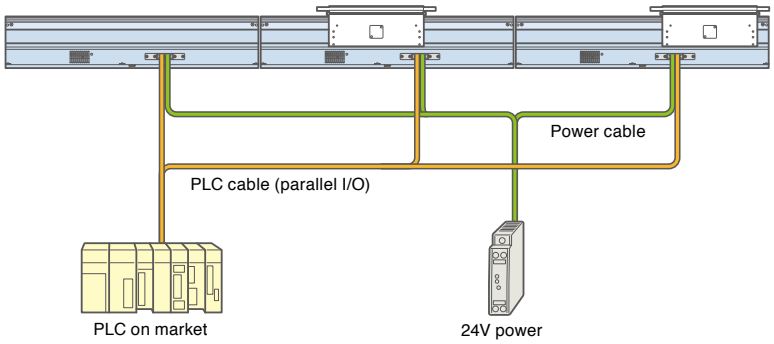
The slider is standardized and can be used for any line. It is also possible to share the slider on multiple lines. Production can be restored immediately by replacing a failed slider if trouble occurs.




### Controller is replaceable

The connected controller and module combinations can be changed as needed. Note that initial setting is required when a combination is changed. Replacing just the controller or the module is also possible.

## Belt module




This interface allows the customer to supply 24V power and select just the necessary signals to use.[Note]

Note. The customer will need to prepare the wiring on the user side.

## Linear module controller LCC140

### Program operation

The LCC140 controller can perform operations using registered programs and operations using remote commands from the PLC.
In addition to the control of input/output signals such as movement or positioning, processes related to the insertion/ejection of sliders can be performed.

### Controller-linking function

You can use the link cables dedicated to LCC140 controllers to connect the controllers when two or more modules are connected. You can handle multiple controllers as if they were one controller.

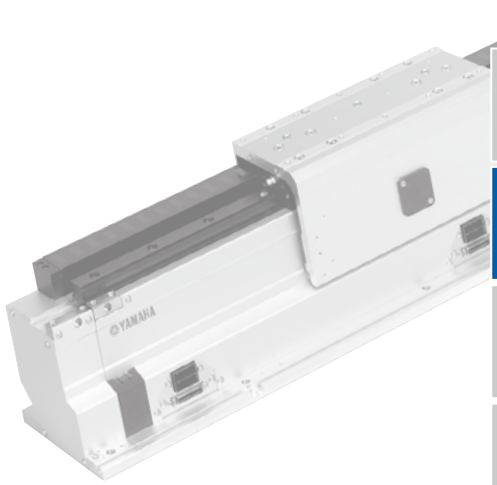
### SR1 controller base operation system

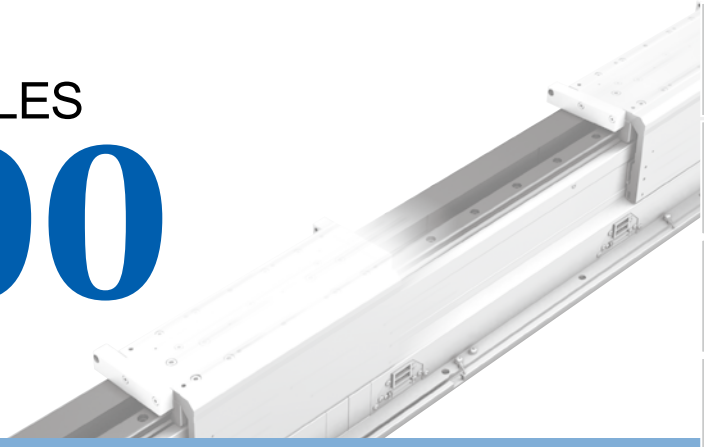
The same user interface as the SR1 controller is incorporated, and specifications and functions specific to the linear conveyor module have been added based on this user interface. A very user friendly operation system is provided.[Note 1]

### Position correction function using RFID

When multiple sliders are each stopped at a position of your choice, actual stop positions has an error width (machine difference) of 500 µm. This is because each slider has a different stopping accuracy. Link the RFID unit and LCC140 controller to suppress the machine difference of individual sliders to an error width of approximately 100 µm.[Note 2]

Note 1. Please note that some Yamaha single-axis controller SR1 functions are not available with the linear conveyor controller.
Note 2. All sliders stop within the width of 100µm that includes a teaching point.





LINEAR CONVEYOR MODULES

# LCM100

## CONTENTS






Main functions ▶ P.22

# LCM100 basic specifications

## Basic specifications of linear conveyor module

| | |
|---|---|
| Model | LCM100-4M / 3M / 2MT |
| Drive method | Moving magnet type, Linear motor with flat core |
| Repeat positioning accuracy | +/-0.015mm (single slider) Note 1 / width 0.1mm (mutual difference among all sliders) Note 2 |
| Scale | Electromagnetic type / resolution 5μm |
| Max. speed | 3000mm/sec |
| Max. acceleration | 2G |
| Max. payload | 15kg Note 3 Note 4 |
| Rated thrust | 48N |
| Total module length | 640mm (4M) / 480mm (3M) / 400mm (for 2MT circulation) |
| Max. number of combined modules | 16 (total length: 10240 mm) |
| Max. number of sliders | 16 (when 16 modules are combined) |
| Min. pitch between sliders | 420mm |
| Mutual height difference between sliders | 0.08mm |
| Max. external size of body cross-section | W136.5mm x H155mm (including slider) |
| Bearing method | 1 guide rail / 2 blocks (with retainer) |
| Module weight | 12.5kg (4M) / 9.4kg (3M) / 7.6kg (2MT) |
| Slider weight | 2.4kg / 3.4kg (when the belt module is used.) |
| Cable length | 3m / 5m |
| Controller | LCC140 |

Note 1. Repeated positioning accuracy when positioning in the same direction (pulsating).
Note 2. Positioning accuracy in the pulsating when using the position correction function with the RFID.
Note 3. Weight per single slider.
Note 4. When used together with the belt module, the max. payload becomes 14kg since the parts dedicated to the belt are attached to the slider.
Note. Operate LCM100 in the temperature environment (+/-5 °C) that installation and adjustment were performed.

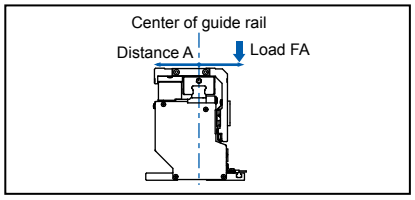
## Basic specifications of belt module

| | |
|---|---|
| Model | LCM100-4B / 3B |
| Drive method | Belt back surface pressing force drive Note 1 |
| Bearing method | 1 guide rail / 2 blocks (with retainer) |
| Max. speed | 560mm/sec |
| Max. payload | 14kg |
| Module length | 640mm (4B) / 480mm (3B) |
| Max. number of sliders | 1 slider / 1 module |
| Main unit maximum cross-section outside dimensions | W173.8mm×H155mm (including slider) |
| Cable length | None |
| Controller | Dedicated driver (Included) |
| Power supply | DC24V 5A |
| Communication I/F | Dedicated input/output 16 points |
| Module weight | 11.2kg (4B) / 8.8kg (3B) |

Note 1. Because the belt module works on the principle of using the friction of the belt to move the slider, the belt will be abraded and generate dust, making it unsuitable for environments that require a degree of cleanliness.

## Static tolerable load of slider

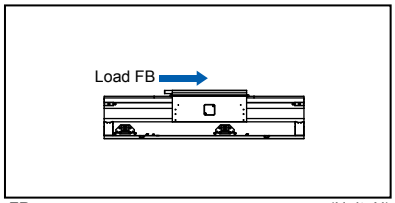
Static loads shown below are tolerable as references when performing the screw tightening, part assembly, or light press-fitting on the slider.




**FA** (Unit: N)

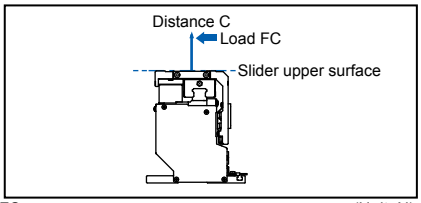
| A (mm) | Payload | | |
|---|---|---|---|
| | 5 kg | 10 kg | 15 kg |
| 0 | 2550 | 1560 | 1270 |
| 10 | 1790 | 1280 | 1170 |
| 20 | 1380 | 780 | 630 |
| 30 | 1130 | 520 | 420 |
| 40 | 900 | 390 | 310 |
| 50 | 720 | 310 | 250 |
| 60 | 600 | 260 | 210 |

Note. The loads shown above are tolerable loads at a position “A”mm away from the center of the guide rail.




**FB** (Unit: N)

| Payload | | |
|---|---|---|
| 5 kg | 10 kg | 15 kg |
| 38 | | |




**FC** (Unit: N)

| C (mm) | Payload | | |
|---|---|---|---|
| | 5 kg | 10 kg | 15 kg |
| 0 | 1190 | 850 | 780 |
| 10 | 970 | 710 | 650 |
| 20 | 760 | 610 | 560 |
| 30 | 630 | 530 | 490 |
| 40 | 540 | 480 | 430 |
| 50 | 470 | 430 | 390 |
| 60 | 410 | 390 | 360 |

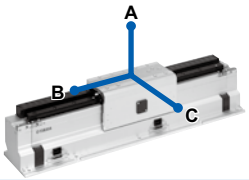
Note. The loads shown above are tolerable loads at a position “C”mm away from the slider upper surface.

## Allowable overhang

Distance from center of slider upper surface to carrier center-of-gravity at a guide service life of 10,000 km.

(Unit: mm)

| | A | B | C |
|---|---|---|---|
| 5kg | 677 | 325 | 325 |
| 10kg | 533 | 146 | 146 |
| 15kg | 468 | 90 | 90 |




## Ordering method

### Linear module

LCM100 - [ ] - [ ] - LCC140 - 10 - [ ]

| Model | Cable length Note 1 | Controller | Current sensor | Network option Note 2 |
|---|---|---|---|---|
| 4M: 640mm | 3L : 3m | | 10 : 10A | No entry : None |
| 3M: 480mm | 5L : 5m | | | CC : CC-Link |
| 2MT: Module for circulation | 3K: 3m (Flexible cable) | | | DN : DeviceNet™ |
| | 5K: 5m (Flexible cable) | | | EP : EtherNet/IP™ |

The above shows “one module + one controller” ordering method. When connecting modules, please separately inform the number of necessary modules.

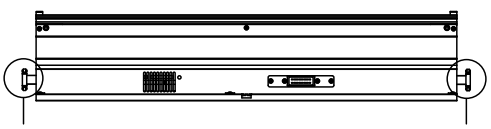
Note 1. The cable for 2MT has flexible specifications.
Note 2. For 2MT, be sure to select an appropriate network option.

### Belt module

LCM100 - [ ] - [ ]

| Model | Termination option for belt module Note 1, Note 2 |
|---|---|
| 4B: 640mm | No entry : None |
| 3B: 480mm | R: Linear module is connected to the right. |
| | L: Linear module is connected to the left. |
| | RL: Linear module is connected to both sides. |

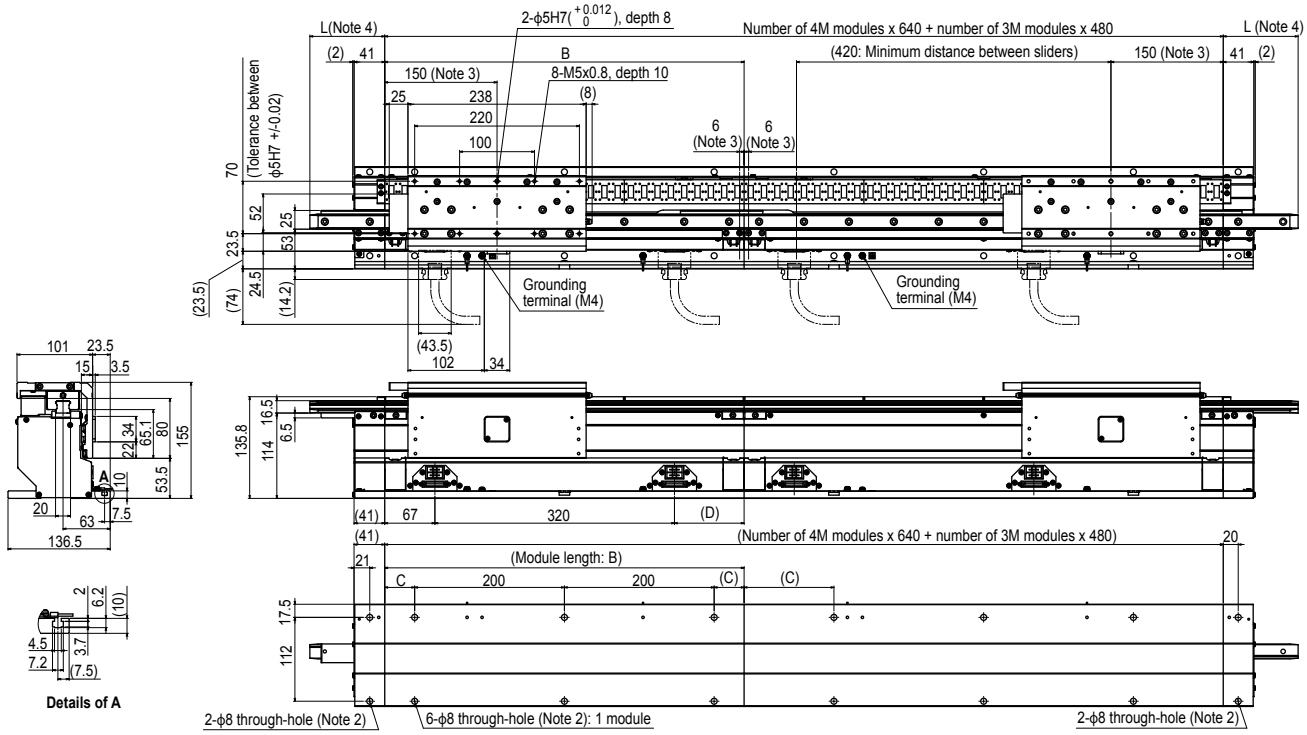
Note 1. Parts necessary to connect the belt module and linear module. Parts are incorporated into the belt module.
Note 2. Perform the bonding with the connection cable that comes from the belt module.



Connection cable (When the termination option L for the belt module is selected.)

Connection cable (When the termination option R for the belt module is selected.)

## LCM100-4M/3M Linear conveyor module (640mm/ 480mm)



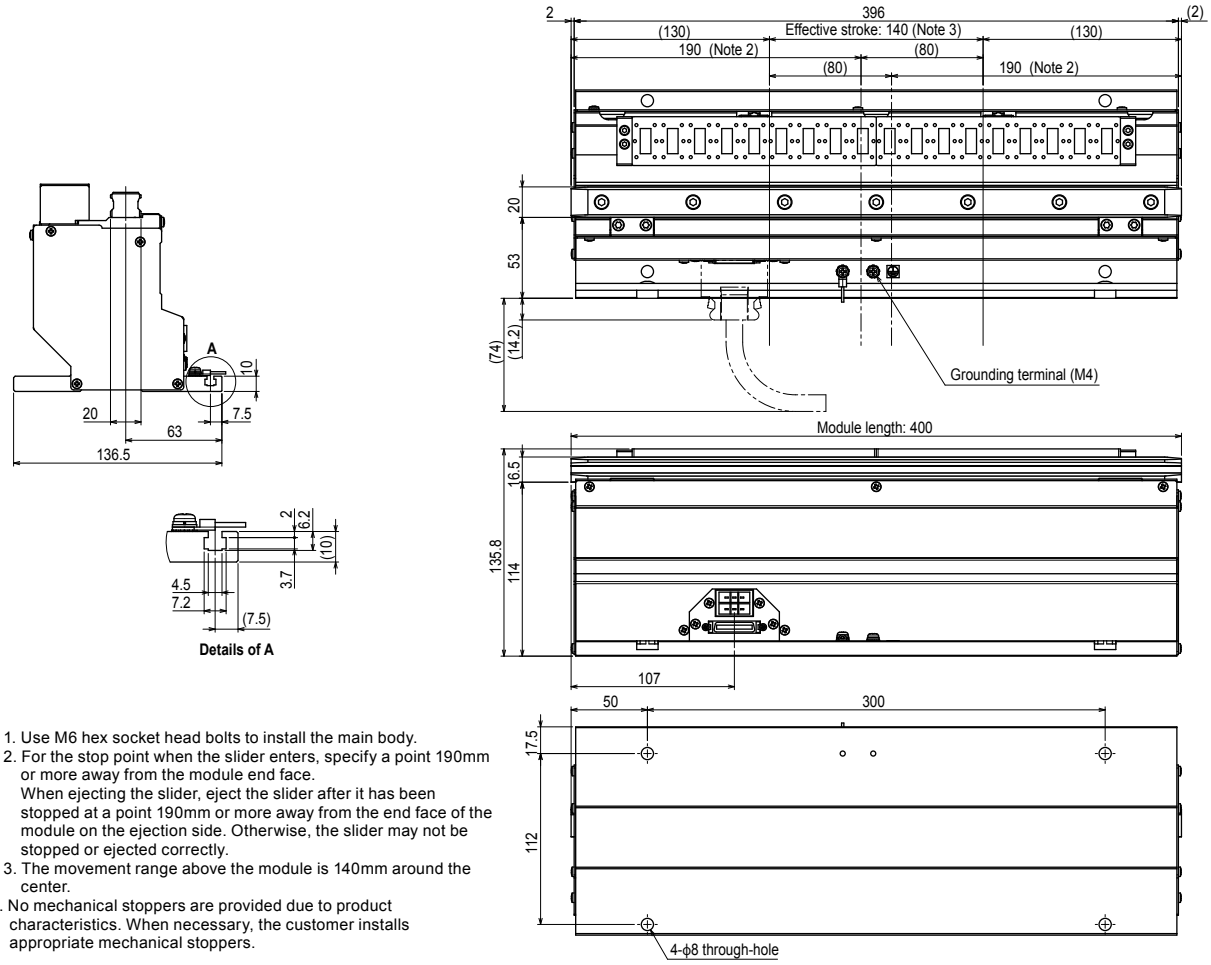

| Stroke variations | B | C | D |
|---|---|---|---|
| 4M | 640 | 120 | 253 |
| 3M | 480 | 40 | 93 |

Insertion/ejection rail length selection table

| Insertion/ ejection rail (mm) | L |
|---|---|
| | 44 |
| | 100 |
| | 340 |

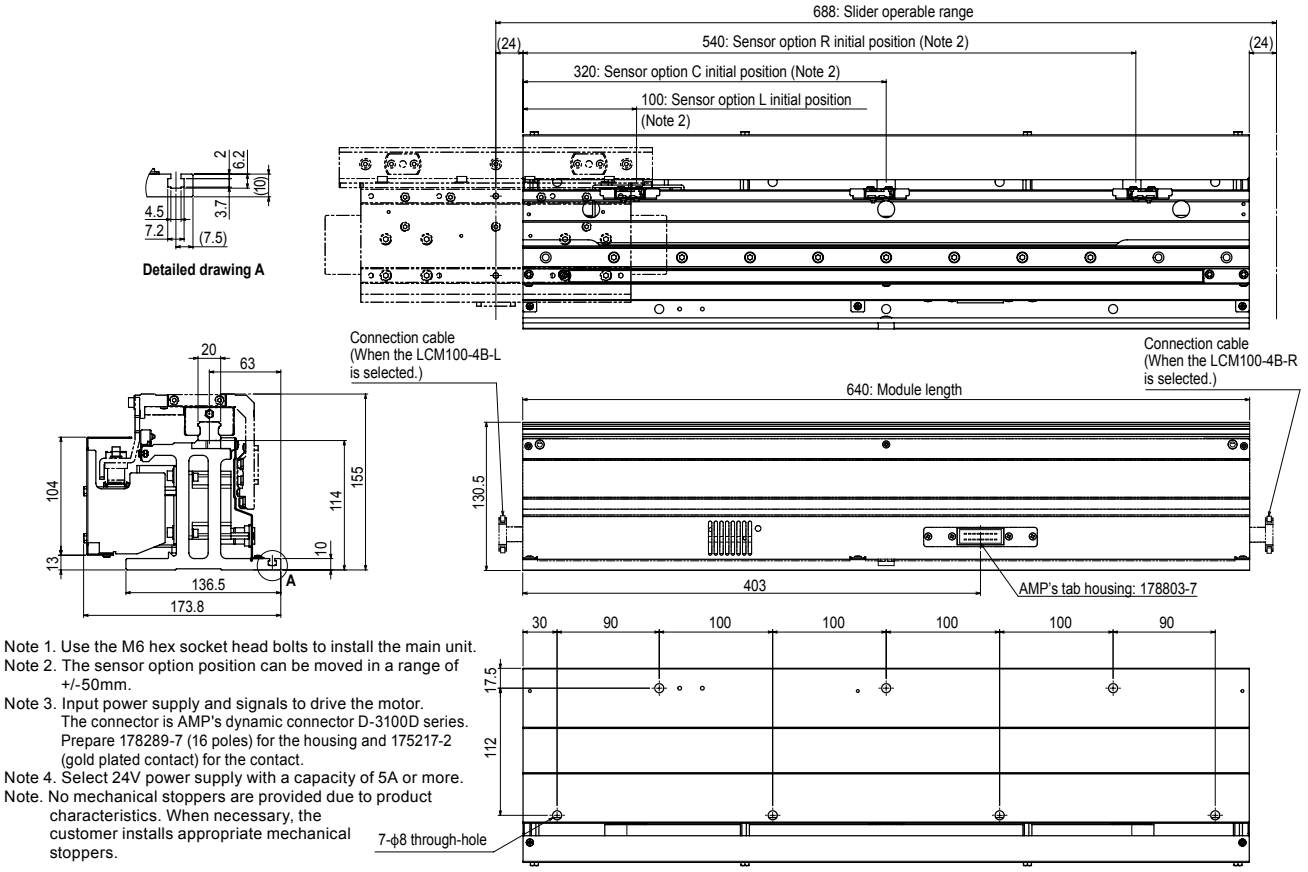
Note 1. All sliders and modules have the same dimensions.
Note 2. Use M6 hex socket head bolts to install the main body.
Note 3. An area of +/-6mm from both ends of each connected module and an area of 150mm from the line end become slider stop inhibited areas. (These dimensions are obtained when the slider is located at its center position.)
Note 4. Select an appropriate rail length of the insertion/ejection rail option from the "Insertion/ejection rail length selection table" shown on the left.
Note 5. The LCM100 is installed only in the horizontal direction.
Note 6. Module variations can be combined freely within the same line. (This figure shows that 3M on the left is combined with 4M on the right.)
Note 7. It is recommended to install rail support parts on the insertion/ejection rail. When no support parts are installed, the rail may be deflected by the slider's own weight, leading to poor rail accuracy or short service life of the guide.
Note. No mechanical stoppers are provided due to product characteristics. When necessary, the customer installs appropriate mechanical stoppers.

## LCM100-2MT Module for circulation



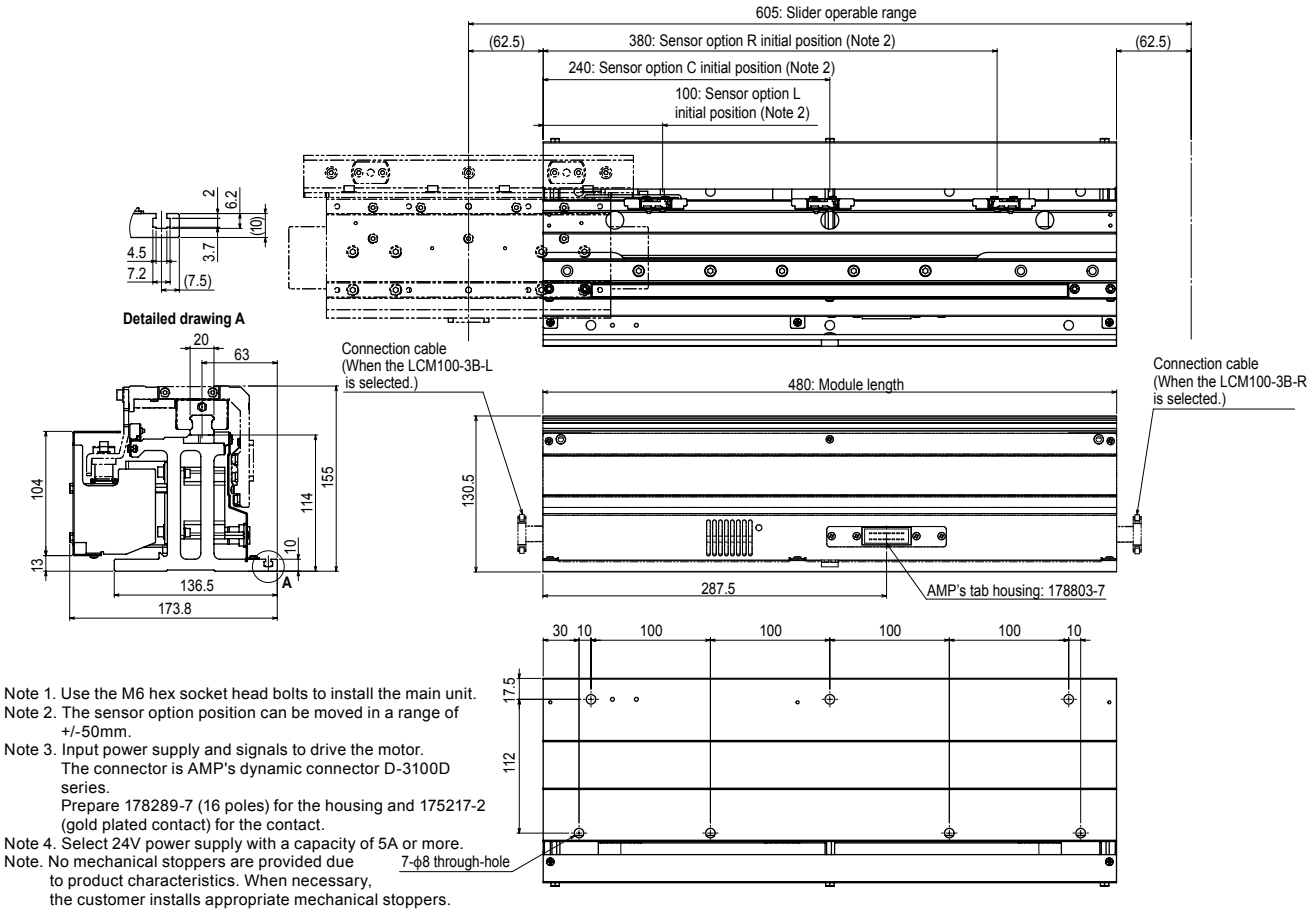

Note 1. Use M6 hex socket head bolts to install the main body.
Note 2. For the stop point when the slider enters, specify a point 190mm or more away from the module end face.
When ejecting the slider, eject the slider after it has been stopped at a point 190mm or more away from the end face of the module on the ejection side. Otherwise, the slider may not be stopped or ejected correctly.
Note 3. The movement range above the module is 140mm around the center.
Note. No mechanical stoppers are provided due to product characteristics. When necessary, the customer installs appropriate mechanical stoppers.

## LCM100-4B Belt module (640mm)



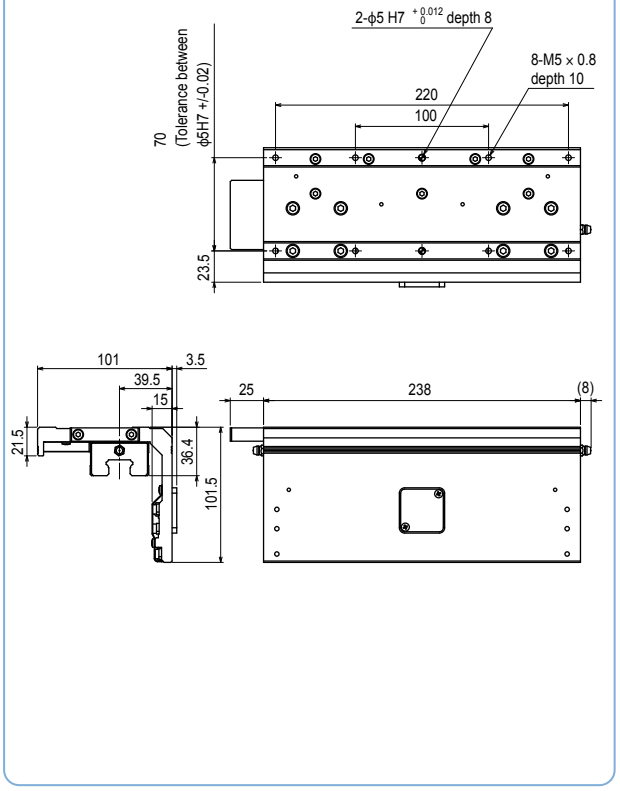

Note 1. Use the M6 hex socket head bolts to install the main unit.
Note 2. The sensor option position can be moved in a range of +/-50mm.
Note 3. Input power supply and signals to drive the motor.
The connector is AMP's dynamic connector D-3100D series.
Prepare 178289-7 (16 poles) for the housing and 175217-2 (gold plated contact) for the contact.
Note 4. Select 24V power supply with a capacity of 5A or more.
Note. No mechanical stoppers are provided due to product characteristics. When necessary, the customer installs appropriate mechanical stoppers.

## LCM100-3B Belt module (480mm)

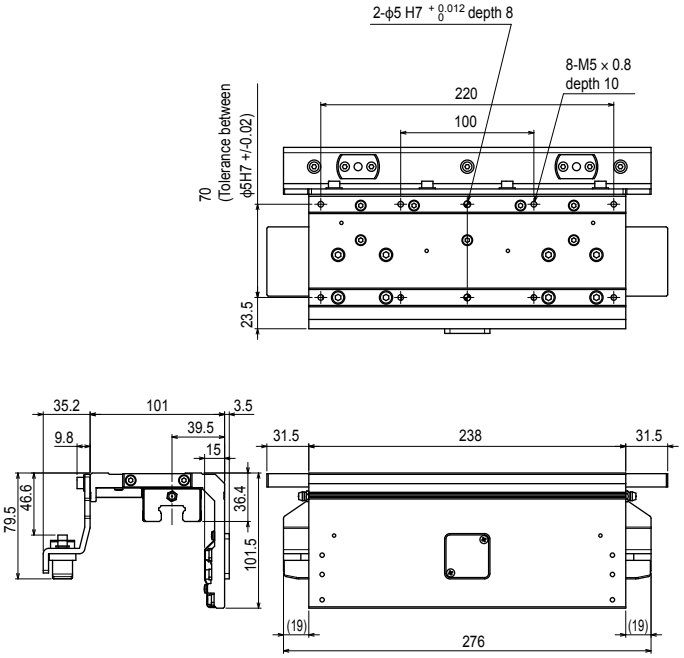



Note 1. Use the M6 hex socket head bolts to install the main unit.
Note 2. The sensor option position can be moved in a range of +/-50mm.
Note 3. Input power supply and signals to drive the motor.
The connector is AMP's dynamic connector D-3100D series.
Prepare 178289-7 (16 poles) for the housing and 175217-2 (gold plated contact) for the contact.
Note 4. Select 24V power supply with a capacity of 5A or more.
Note. No mechanical stoppers are provided due to product characteristics. When necessary, the customer installs appropriate mechanical stoppers.

## Linear module slider




## Belt module slider



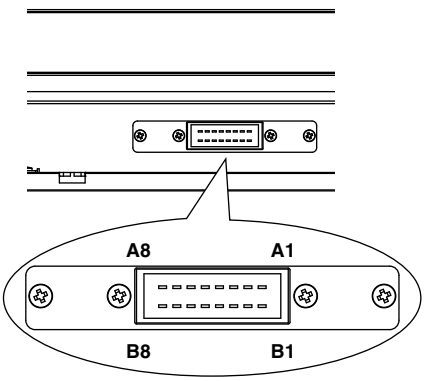

## Belt module outline diagram of input/output signal wiring

### Connector on front panel

| Pin No. | Signal name | Function |
|---|---|---|
| A1 | +24V | Power supply connection DC24V (+/-10%) |
| A2 | GND | |
| A3 | (Blank) | |
| A4 | Option sensor L | Detection output |
| A5 | Option sensor C | Detection output |
| A6 | Option sensor R | Detection output |
| A7 | ALARM | Alarm output |
| A8 | SPEED | Speed output |
| B1 | ALARM-RESET | Alarm reset input<br>ON [L]: Reset OFF [H]: Normal |
| B2 | INT.VR/EXT | Speed setting unit change-over input<br>ON [L]: Internal OFF [H]: External |
| B3 | CW/CCW | Rotation direction change-over input<br>ON [L]: CW OFF [H]: CCW |
| B4 | RUN/BRAKE | Brake input<br>ON [L]: Run OFF [H]: Instantaneous stop |
| B5 | START/STOP | Start/stop input<br>ON [L]: Start OFF [H]: Stop |
| B6 | VRH | (When using the dedicated speed setting unit) |
| B7 | VRM | Minus (-) side DC power supply for speed setting |
| B8 | VRL | Plus (+) side DC0 to 5V, 1mA or more |

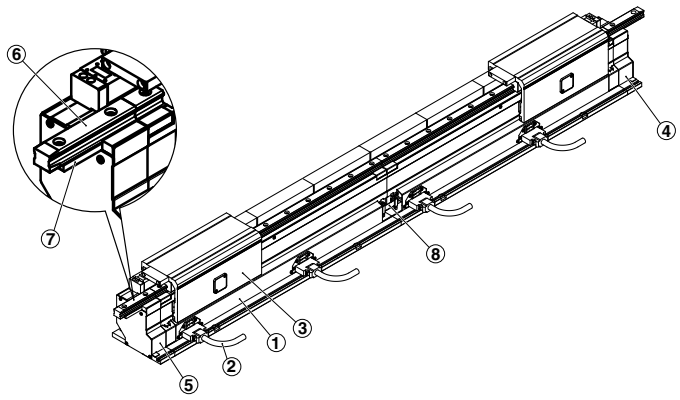
Note. For each input, a side to be connected to GND by the external switch is ON (L level).
Note. When both the START/STOP and RUN/BRAKE signals are turned ON (L level), the motor starts rotating. In this case, when the CW/CCW signal is turned ON (L level), the slider moves to the left as viewed from the connector side.
Conversely, when this signal is turned OFF (H level), the slider moves to the right.
Note. When the START/STOP signal is turned OFF (H level) in the RUN/BRAKE signal ON (L level) state, the motor stops naturally.
According to the operation speed, the slider may overrun several tens to hundreds of millimeters.
Note. When the RUN/BRAKE signal is turned OFF (H level) in the START/STOP signal ON (L level) state, the motor stops instantaneously to suppress the slider overrun to its minimal level.

### Pin assignment drawing




When investigating the linear conveyor module LCM100 actually, it is necessary to discuss the specifications and restrictions in detail. So, please contact YAMAHA or your dealer to hold hearings regarding your requests.

# LCM100/LCC140 Accessory parts




| |
|---|
| ① Module |
| ② Robot cable |
| ③ Slider |
| ④ Termination option (R side) |
| ⑤ Termination option (L side) |
| ⑥ Insertion/ejection rail |
| ⑦ Module connection block (with fastening bolts) |
| ⑧ Module connection cable |

## LCM100 main body

### LCM100 module

Linear module

①

Belt module

**Linear module**

| | |
|---|---|
| Model | LCM100-4M |
| | KDJ-M2020-40 (640mm) |
| | LCM100-3M |
| | KDJ-M2020-30 (480mm) |
| | LCM100-2MT (for circulation) |
| | KDJ-M2022-20 (400mm) |

**Belt module**

| | |
|---|---|
| Model | LCM100-4B |
| | KDJ-4K111-40 (640mm) |
| | LCM100-3B |
| | KDJ-4K111-30 (480mm) |

### Robot cable for linear module

Robot cables for the number of modules are required.

②

| | |
|---|---|
| Model | For LCM100-4M/3M |
| | KDJ-M4710-30 (3m×2 pcs.)<br>KDJ-M4710-50 (5m×2 pcs.) |
| | For LCM100-2MT |
| | KDJ-M4721-30<br>(Flexible cable 3m×1 pc.)<br>KDJ-M4721-50<br>(Flexible cable 5m×1 pc.) |

### Slider

For linear module

For belt module

③

**Linear module**

| | |
|---|---|
| Model | KDJ-M2264-00 |

**Belt module**

| | |
|---|---|
| Model | KDJ-M2264-10 |

## Parts for LCM100

### Termination option for linear module (R side)

This part is attached to the right end of the module.
One termination module per line is required. Note 1
Additionally, even when using only one module without connections, one termination module is required.

④

| | |
|---|---|
| Model | KDJ-M2021-R0 |

### Termination option for linear module (L side)

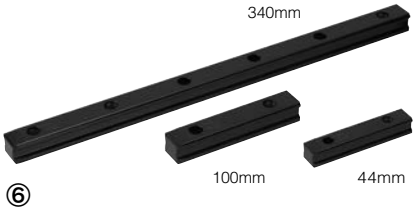
This part is attached to the left end of the module.
One termination module per line is required. Note 1
Additionally, even when using only one module without connections, one termination module is required.

⑤

| | |
|---|---|
| Model | KDJ-M2021-L0 |

### Insertion/ejection rail

Tapered rail.
Up to two rails per line can be installed. Note 1




⑥

| | |
|---|---|
| Model | 44mm : KDJ-M6200-00<br>(With a dedicated 44mm connection block) |
| | 100mm : KDJ-M2222-10 |
| | 160mm : KDJ-M2222-20 Note |
| | 220mm : KDJ-M2222-30 Note |
| | 280mm : KDJ-M2222-40 Note |
| | 340mm : KDJ-M2222-50 |

Note. Not in stock. We require some lead time for delivery.

### Module connection block (with fastening bolts)

This block connects modules.
([Number of modules making up the line Note 1] - 1) blocks are required.
Additionally, when installing insertion/ejection rails, one block per rail is required.

⑦

| | |
|---|---|
| Model | KDJ-M6100-00 (44mm) |
| | KDJ-M6100-10 (100mm) Note |

Note. Use this model when installing 100 mm insertion/ejection rails to L side.

### Module connection cable

This cable connects modules.
([Number of modules] - 1) cables per line are required. Note 1

⑧

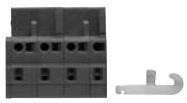
| | |
|---|---|
| Model | KDJ-M4811-00 |

Note 1. A state, in which multiple modules are connected, is called “line”.

## Parts for LCC140 controller

### Power connector + connection lever

One set of parts per LCC140 is required.



| Model | KAS-M5382-00 |
|---|---|

### HPB dummy connector

When performing the operation with the programming box HPB removed, connect this dummy connector to the HPB connector.
One connector per LCC140 is required.

| Model | KDK-M5163-00 |
|---|---|

### SAFETY connector

One connector per LCC140 is required.


Not wired (plug + shell kit) Wired Note

| Model | Not wired : KDK-M5370-10 |
|---|---|
| | Wired Note : KDK-M5370-00 |

Note. The wired connector is that the wiring for the emergency stop cancel was performed inside the connector. Select this model when performing the operation check or debugging with single linear conveyor.

## Parts for line configuration

### LINK cable

([Number of modules] - 1) cables per line are required.

| Model | 1m : KDK-M5361-10 |
|---|---|
| | 3m : KDK-M5361-30 |
| | 5m : KDK-M5361-50 |

### Terminator connector

When connecting modules, two connectors per line are required.


| Model | KDK-M5361-00 |
|---|---|

### Dust cover (for LINK connector)

This dust cover is attached to the insertion port, into which the LINK cable terminator connector is not inserted.
When using only one module without connections, two dust covers are required.

Note. The dust cover is essential for the 2MT.

| Model | KDK-M658K-00 (for MDR20 pin) |
|---|---|

## Selection parts

### Proximity sensor for belt module

A sensor for checking the slider position. Install this to prevent slider collisions and to ensure smooth action.


| Model | L (Left): KDJ-M2205-L0 |
|---|---|
| | C (Center): KDJ-M2205-C0 |
| | R (Right): KDJ-M2205-R0 |

### Programming box HPB/HPB-D

All operations, such as robot manual operation, program input or edit, teaching, and parameter setting can be performed with this programming box.
As an interactive interface with the screen display is used, even personnel who use this programming box for the first time can easily understand how to operate it.

| Model | HPB: KBB-M5110-01 |
|---|---|
| | HPB-D: KBB-M5110-21 (CE specifications / with 3-position enable switch) |


HPB-D

Backside of HPB-D (with enable switch)

### Support software POPCOM+

#### PC supporting software POPCOM+

| POPCOM+ software model | KBG-M4966-00 |
|---|---|

#### POPCOM+ environment

| OS | Windows XP (32bit), Vista, 7, 8 / 8.1, 10 (Supported version: V.2.1.1 or later) |
|---|---|
| CPU | Processor that meets or exceeds the suggested requirements for the OS being used. |
| Memory | Suggested amount of memory or more for the OS being used. |
| Hard disk | 50MB of available space required on installation drive. |
| Disk operation | RS-232C |
| Applicable controllers | SRCX to SR1, DRCX, TRCX, ERCX, ERCD, LCC140 Note 1 |

Note 1. LCC140 is applicable to Ver. 2.1.1 or later.
Note. Windows is the registered trademark of US Microsoft Corporation in U.S.A. and other countries.

#### Data cables (5m)

Communication cable for POPCOM+.
Select from USB cable or D-sub cable.

USB

D-Sub

| Model | USB type (5m) | KBG-M538F-00 |
|---|---|---|
| | D-Sub type 9pin-9pin (5m) | KAS-M538F-10 |

Note. This USB cable supports Windows 2000/XP or later.
Note. Data cable jointly used for POPCOM+, VIP+, RCX-Studio Pro.
Note. USB driver for communication cable can also be downloaded from our website.

# LCM100

## RFID

### RFID (manufactured by BALLUFF GmbH)*

Reader/writer cable

* This cable is a flexible cable.

| Model | 3m : KDK-M6300-00 |
|---|---|
| | 5m : KDK-M6300-10 |
| | 10m : KDK-M6300-20 |

### RFID (manufactured by OMRON)

Antenna amplifier controller cable

| Model | 0.5m+2m : KDK-M6300-A0 |
|---|---|

### Dust cover (for RFID)

This cover is attached to the insertion port if RFID is not used. (Included as standard)

| Model | KDK-M658K-10 (for MDR26 pin) |
|---|---|

Whether or not the RFID system can be used may vary depending on the destination place (country). Before selecting a RFID system, please contact YAMAHA.

## Maintenance parts

### Robot cable for LCM100

| Model | Fixed cable |
|---|---|
| | KDJ-M4751-30 (3m×1 pc.)<br>KDJ-M4751-50 (5m×1 pc.) |
| | Flexible cable |
| | KDJ-M4755-30 (3m×1 pc.)<br>KDJ-M4755-50 (5m×1 pc.) |

### Lithium battery for system backup


| Model | KDK-M4252-00 |
|---|---|

### Replacement filter for LCC140 (5 pcs. in package)

| Model | KDK-M427G-00 |
|---|---|

## Controller for linear module

# LCC140 basic specifications

## Basic specifications of LCC140 controller

| | |
|---|---|
| **Controllable robot** | Linear conveyor module LCM series |
| **Outside dimensions** | W402.5×H229×D106.5mm |
| **Main body weight** | 4.8kg |
| **Input power voltage** | Single-phase AC200 to 230V +/-10% or less (50/60Hz) |
| **Maximum power consumption** | 350VA (LCM100-4M 1 slider is driven.) |
| **External input/output** | SAFETY |
| | RS-232C (dedicated to RFID) |
| | RS-232C (for HPB / doubles as POPCOM+) |
| **Network option** | CC-Link Ver. 1.10 compatible, Remote device station (2 stations) |
| | DeviceNet™ Slave 1 node |
| | EtherNet/IP™ adapter 2 ports |
| **Programming box** | HPB, HPB-D (Software version 24.01 or later) |

## External view of LCC140