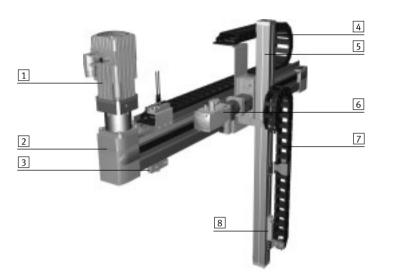


Key features

At a glance

- A linear gantry (YXCL) is an assembly of several axis modules (EHM.../DHMZ) to produce a movement in 2D space.
- Ideal for long gantry strokes and heavy loads
- High mechanical rigidity and sturdy design
- Frequently used in feeding or loading applications
- Use of tried and tested drives/axes from Festo



- 1 Servo motor for Y module
- 2 Y-axis
- 3 Profile mounting/adjusting kit

FESTO

- 4 Energy chain for Y module
- 5 Z-axis
- 6 Servo motor for Z module
- 7 Energy chain for Z module
- Multi-pin plug distributor which collectively transfers electrical signals such as end-position sensing

Description of the modules

Y module

Structure:

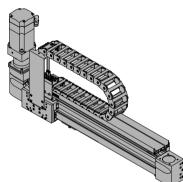
The Y module EHMY comprises a linear axis which is powered by a servo motor.

Adapters are installed on the slide of the Y-axis to connect the Z module.

The following elements are located on the motor side:

- Energy chain
- Multi-pin plug distributor for proximity sensor (if sensor package has been selected)

Sample image:



Description of the modules

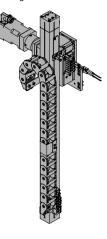
Z module

Structure:

The Z module EHMZ comprises an electric drive, the DHMZ comprises a pneumatic drive. In both variants, an energy chain is attached as a cable guide.

The Z module can be selected using the configurator, depending on the application.

Sample image:



Dispatch options Fully assembled:

The linear gantry is fully assembled. All cables and tubing are installed and connected.

Partially assembled:

The linear gantry is delivered partially assembled. The means that both axis modules (Y-/Z-axis) are assembled, each with an optional motor. The partially assembled system must be completed by the customer. Help can

be found in the assembly instructions provided. Optional accessories (\rightarrow 9) are enclosed. Note evenness \rightarrow table below.

System overview ¹⁾						
Size	YXCL-1	YXCL-2	YXCL-3	YXCL-4		
Max. working stroke	Y: 1900 mm	Y: 3000 mm	Y: 3000 mm	Y: 3000 mm		
	Z: 50 mm	Z: 800 mm	Z: 800 mm	Z: 800 mm		
Max. payload	Dependent on the selected dynamic response					
Mounting position	Horizontal					

1) Drive package depending on configuration selected.

Key features

Configurator: Handling Guide Online (HGO)

Selecting a handling system

Planning complex handling systems takes a lot of time. You can use the "Handling Guide Online" (HGO) configurator to design a customised handling system for your application in just a few steps.

- You can choose from the following systems:
- Single-axis system
- 2D linear gantry
- 2D planar surface gantry
- 3D gantry
- Single-axis system

Benefits:

- Automatic selection of all relevant components
- Automatic design and calculation of workload
- Quote created automatically
- CAD model available immediately

Movements in 2D in the vertical working space: Linear gantries as complete systems. Combining electric and pneumatic axes is possible.

Three-dimensional pantries as complete systems. Combining electric and pneumatic axes is possible.

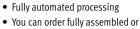
© 20 linear ganity

© 3D gantry

2D linear gantry

D Animation

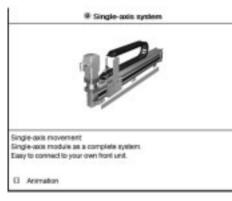
3D gantry



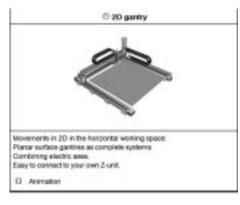
unassembled systems through the online shop

FESTO

• Lots of possible options



2D planar surface gantry



Entering the application data

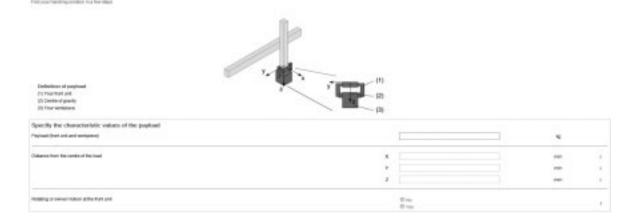
Payload

Payload

- Distance from the centre of the load • Drive system of the axis
- Working stroke
 - Reference cycle

Movements in 3D.

D Animation



Result of calculation

You will be offered a selection of calculated systems based on the application data you entered.

The following are available

- immediately:
- CAD model
- Technical data for the selected system
- Price information

Add to basket

Result of calculation

ind continue with the configuration: I -----

II NGL0 44% 000 mm II 2 NGL0 17% 000 mm II 3 NGL0 44% 000 mm II 4 NGL0 17% 000 mm III 4 NGL0 17% 000 mm III 4 NGL0 17% 000 mm III 5 NGL0 44% 000 mm	
0 VGL0 17% 000mm 0 VGL0 44% 000mm 4 VGL0 10% 000mm 4 VGL0 10% 000mm 5 VGL0 44% 000mm 6 VGL0 44% 000mm	
** 9645 **	
3 Bener ganty YXCL-0. #1	
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mandain Spenitra and 100,70 Mare Decomment Mark Stat. Tage CAMD-AL I please 30%	216 616

System overview

You will be given an overview of the • Request price whole system. • Send request

You will also have the following

options:

Your handling solution

Tosiai rendities		Gal preview
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Gud ayidam Gud aodara		



Standard components within the handling system

The handling system comprises a number of tried and tested standard components from Festo. Different components are used depending on the configuration. The single axes installed will be displayed in the HGO configurator on the "Result of calculation" page.

ORICE FRE A	ppopriate system are	d continue with the a	configuration: +
		System permit	
80	1	1903-0	
0	2	VICL 2	
		7901-0	
0		VIICL-0	
-	•	1901-0	
) linear ga	niny 1303, 2 #1		
The module		Cear write	Motor type
trive module	e excitent des EDIC-RE	Dear antiti	Deno Hotor BARD-42

Drives/axes

Y-axis Toothed belt axis EGC-TB-KF



- Electrical
- Rigid, closed profile
- Recirculating ball bearing guide for high loads and torques
- High dynamic response and minimum vibration

Toothed belt axis EGC-HD-TB



- Electrical
- Flat drive unit with rigid, closed profile
- Duo guide rail
- For maximum loads and torques, high feed forces and speeds and long service life

Z-axis Mini slide DGSL



Toothed belt axis EGC-TB-KF



• Electrical

• Pneumatic

• Flat design

• High load capacity

High dynamic response

• Easy adjustment of end positions

- Rigid, closed profile
- Recirculating ball bearing guide for high loads and torques
- High dynamic response and minimum vibration
- Small toothed disc diameter



Cantilever axis DGEA

Mini slide EGSL



- Electrical
- Compact design
- High load capacity
- High dynamic response
- Easy adjustment of end positions
- Electrical
- High rigidity
- High load capacity
- High dynamic response

Drives/axes Z-axis

Spindle axis EGC-BS-KF



- Electrical
- Rigid, closed profile
- Recirculating ball bearing guide for high loads and torques
- High dynamic response and
- minimum vibration
- Various spindle pitches

Possible axi	s combinations ¹⁾		
Size	Y module	Z module	
YXCL-1	Toothed belt axis	Mini slide	
	EGC-50-TB-KF	pneumatic: DGSL-6 electrical: EGSL-35	
YXCL-2	Toothed belt axis	Mini slide	
	EGC-80-TB-KF	pneumatic: DGSL-12/16	
	• Toothed belt axis with heavy-duty guide	electrical: EGSL-45/55	
	EGC-HD-125-TB	Cantilever axis	
		DGEA-18	
		• Spindle axis	
		EGC-70-BS-KF	
YXCL-3	Toothed belt axis	Mini slide	
	EGC-120-TB-KF	pneumatic: DGSL-20/25	
	• Toothed belt axis with heavy-duty guide	electrical: EGSL-75	
	EGC-HD-160-TB	Cantilever axis	
		DGEA-25/40	
		• Spindle axis	
		EGC-80-BS-KF	
YXCL-4	Toothed belt axis	Cantilever axis	
	EGC-185-TB-KF	DGEA-40	
	• Toothed belt axis with heavy-duty guide	• Spindle axis	
	EGC-HD-220-TB	EGC-120-BS-KF	

1) Drive package depending on configuration selected.

Key features

Standard components within the handling system

System configuration

The handling system comprises a number of tried and tested standard components from Festo. Different components are used depending on the configuration. You can alter the scope and design of the drive package in the HGO configurator on the "System configuration" page.

Motors and controllers

Servo motors EMMS-AS



Stepper motors EMMS-ST



Motor controller CMMP-AS for servo motor



• Complete integration of all components for controller and power section, including USB interface

• Dynamic, brushless, permanently

encoder, single-turn or multi-turn

• Digital absolute displacement

excited servo motor

• With optional brake

With or without brakeType of encoder: single-turn or

2-phase hybrid technology
Step angle 1.8°
With optional brake

Options:

multi-turn

- Integrated brake chopper
- Integrated EMC filters
- Automatic activation for a brake

Gear unit EMGA



- Low-backlash planetary gear unit
- Gear ratio
- i = 3 and 5
- Life-time lubrication

Options:

- Safety function: safe torque off (STO)/category 4, Performance Level e
- Additional digital inputs and outputs

• Fieldbus interface

- CANopen
- DeviceNet
- EtherCAT
- EtherNet/IP
- PROFIBUS DP
 PROFINET

Motor controller CMMS-ST for stepper motor



- Complete integration of all components for controller and power section, including RS232 interface
- Integrated brake chopper
- Integrated EMC filters
- Automatic activation for a brake

Options:

- Safety function: safe torque off (STO)/category 3, Performance Level d
- Fieldbus interface
- CANopen
- DeviceNet
- PROFIBUS DP

Module/motor combinations

We recommend that the linear gantry is operated with the proposed motors from Festo. These precisely match the mechanical system. When using third-party motors, it is essential that the technical limits are observed.

Module	Motor	
Y module		
EHMYEGC-50-TB-KF	EMMS-AS-40-M-LS	
EHMYEGC-80-TB-KF	EMMS-AS-70-S-LS	
EHMYEGC-120-TB-KF	EMMS-AS-100-S-HS	
EHMYEGC-125-TB-HD	EMMS-AS-70-S-LS	
EHMYEGC-160-TB-HD	EMMS-AS-100-S-HS	
EHMYEGC-185-TB-KF	EMMS-AS-100-S-HS	
EHMYEGC-220-TB-HD	EMMS-AS-140-S-HS	
Z module		
EHMZ-DGEA-18-TB-KF	EMMS-AS-55-S-LS	
EHMZ-DGEA-25-TB-KF	EMMS-AS-70-S-LS	
EHMZ-DGEA-40-TB-KF	EMMS-AS-100-S-HS	
EHMZ-EGC-70-BS-KF	EMMS-AS-55-S-LS	
EHMZ-EGC-80-BS-KF	EMMS-AS-70-S-LS	
EHMZ-EGC-120-BS-KF	EMMS-AS-100-S-HS	
EHMZ-EGSL-35-BS-KF	EMMS-ST-28-L	
EHMZ-EGSL-45-BS-KF	EMMS-AS-40-M-LS	
EHMZ-EGSL-55-BS-KF	EMMS-AS-55-S-LS	
EHMZ-EGSL-75-BS-KF	EMMS-AS-70-S-LS	

Designation	Description	Cable length	Part No.	Туре
For servo motor				
Motor cable ¹⁾				
	 For servo motor EMMS-AS-40-M-LS/ 	5 m	550306	NEBM-T1G8-E-5-Q7N-LE8
	EMMS-AS-55-S-LS	10 m	550307	NEBM-T1G8-E-10-Q7N-LE8
		15 m	550308	NEBM-T1G8-E-15-Q7N-L
Motor cable ¹⁾				
	• For servo motor EMMS-AS-70-S-LS/	5 m	550310	NEBM-M23G8-E-5-Q9N-LE8
	EMMS-AS-100-S-HS/EMMS-AS-140-S-HS	10 m	550311	NEBM-M23G8-E-10-Q9N-LE8
		15 m	550312	NEBM-M23G8-E-15-Q9N-LE8
Encoder cable ¹⁾				
	 For servo motor EMMS-AS-40-M-LS 	5 m	550314	NEBM-T1G8-E-5-N-S1G15
		10 m	550315	NEBM-T1G8-E-10-N-S1G15
ST SM		15 m	550316	NEBM-T1G8-E-15-N-S1G15
Encoder cable ¹⁾				
	• For servo motor EMMS-AS-70-S-LS/	5 m	550318	NEBM-M12W8-E-5-N-S1G15
	EMMS-AS-100-S-HS/	10 m	550319	NEBM-M12W8-E-10-N-S1G15
	LIVIIVIJ-743-100-3-113/ LIVIIVD-743-140-3-113	15 m	550319	NEBM-M12W8-E-10-N-S1G15
		11 CT	550320	NEDINI-WI12W&-E-13-N-31015

1) Cables especially suitable for the motor controller and motor. Degree of protection to IP65 (in assembled state)

Designation	Description	Cable length	Part No.	Туре
For stepper motor				
Motor cable ¹⁾				
	• For stepper motor EMMS-ST-28-L	1.5 m	1449600	NEBM-SM12G8-E-1.5-Q5-LE6
		2.5 m	1449601	NEBM-SM12G8-E-2.5-Q5-LE6
and the second s		5 m	1449602	NEBM-SM12G8-E-5-Q5-LE6
		7 m	1449603	NEBM-SM12G8-E-7-Q5-LE6
		10 m	1449604	NEBM-SM12G8-E-10-Q5-LE6
Encoder cable ¹⁾				
	For stepper motor EMMS-ST-28-L	5 m	550748	NEBM-M12G8-E-5-S1G9
		10 m	550749	NEBM-M12G8-E-10-S1G9
No the second se		15 m	550750	NEBM-M12G8-E-15-S1G9
Market and a second sec				

1) Cables especially suitable for the motor controller and motor. Degree of protection to IP65 (in assembled state)

Possible cable and tube lengths

• Cables and tubing are sized so that the length specified when ordering will be the minimum connection length from the energy chain output.

• Cables and tubing are only available in fixed lengths as stated in the table below. This can mean that the cable plug connectors of the different cables do not end at the same point.

Length	1 m	2 m	5 m	7 m	10 m
Motor cable	-				
Encoder cable	-				
Multi-pin plug connecting cable	-				
Tubing (for DHMZ only)				-	-

Standard components within the handling system

The handling system comprises a number of tried and tested standard components from Festo. Different components are used depending on the configuration. You can alter the scope and design of the accessories in the HGO configurator on the "System configuration" page.

- /		
System configuration		
Deckruit system		
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Binner Lie and Fair your (an edge)	in	
Acombility		
kuning nahar	B Country among the	
Porter and the manufacture	Train .	

Designation	Description		Cable length	Part No.	Туре
Programming cable					
all	High-speed USB 2.0 connecting cable		1.8 m	1501332	NEBC-U1G4-K-1.8-N-U2G4
Control cable					
and the second	For I/O interface to any controller		2.5 m	552254	NEBC-S1G25-K-2.5-N-LE26
Proximity sensor (in	ductive) for sensing the position of the slide on t	he Y-/Z-axis			
	Cable with open end				
and and	• For toothed belt axis EGC-TB,	PNP, N/C contact	7.5 m	551391	SIES-8M-PO-24V-K-7,5-0E
	EGC-HD-TB	PNP, N/O contact	7.5 m	551386	SIES-8M-PS-24V-K-7,5-0E
	• For spindle axis EGC-BS	NPN, N/C contact	7.5 m	551401	SIES-8M-NO-24V-K-7,5-0E
	 For mini slide EGSL For DC voltage Included if "Festo sensor package" is 	NPN, N/O contact	7.5 m	551396	SIES-8M-NS-24V-K-7,5-OE
	selected: • 2 pieces				
roximity sensor (in	ductive) for sensing the position of the slide on t	he Z-axis			
- 1	Cable with open end				
	 For cantilever axis DGEA 	PNP, N/C contact	2.5 m	150398	SIEN-M8NB-PO-K-L
	• For DC voltage	PNP, N/O contact	2.5 m	150394	SIEN-M8NB-PS-K-L
	Included if "Festo sensor package" is	NPN, N/C contact	2.5 m	150396	SIEN-M8NB-NO-K-L
	selected: • 2 pieces	NPN, N/O contact	2.5 m	150392	SIEN-M8NB-NS-K-L
Proximity sensor (m	agneto-resistive) for sensing the position of the s	slide on the Z-axis			
	Cable with open end				
all all	For mini slide DGSL	PNP, N/O contact	2.5 m	551373	SMT-10M-PS-24V-E-2,5-L-OE
a la	• For DC voltage	NPN, N/O contact	2.5 m	551377	SMT-10M-NS-24V-E-2,5-L-OE
	Included if "Festo sensor package" is				. ,
	selected:				

Designation	Description	Cable length	Part No.	Туре
Plug socket with cable				
	Connection between multi-pin plug distributor and control cabinet	5 m	525618	SIM-M12-8GD-5-PU
ST. J.W.		10 m	570008	SIM-M12-8GD-10-PU
Dlug connector				
Plug connector		1		
	For connection to the multi-pin plug distributor	-	562024	NECU-S-M8G3-HX
Multi-pin plug distributo	yr			
	• With the help of the multi-pin plug distributor, electrical signals	-	574586	NEDU-L4R1-M8G3L-M12G8
	such as end-position sensing can be collectively transferred Options:		574587	NEDU-L6R1-M8G3L-M12G8
	 4 individual connections 			
	 – 6 individual connections 			

Designation	Description	Part No.	Туре			
Interface						
	For additional I/Os	567855	CAMC-D-8E8A			
	For DeviceNet	547451	CAMC-DN			
	For EtherCAT	567856	CAMC-EC			
	For EtherNet/IP	1911917	CAMC-F-EP			
	For PROFINET RT	1911916	CAMC-F-PN			
	For PROFIBUS DP	547450	CAMC-PB			
Safety module						
	For safe torque off (STO)	1501330	CAMC-G-S1			

Designation	Description	Part No.	Туре
Switch module			
	If the safety module CAMC-G-S1 is not used, the switch module is absolutely essential for operating of the motor controller CMMP-ASM3	1501329	CAMC-DS-M1
Bus connection			
	For DeviceNet interface	525635	FBSD-KL-2X5POL
Plug connector			
	For CANopen interface	533783	FBS-SUB-9-WS-CO-K
	For PROFIBUS interface	533780	FBS-SUB-9-WS-PB-K

Designation	Description		Part no.	Туре			
Adjusting kit							
	• Used to mount the handling system on a vertical surface	EHMYEGC-50-TB-KF	8047576	EADC-E16-50-E7			
		EHMYEGC-80-TB-KF	8047577	EADC-E16-80-E7			
	• Following mounting, the axis can be	EHMYEGC-120-TB-KF	8047578	EADC-E16-120-E7			
	aligned horizontally	EHMYEGC-185-TB-KF	8047579	EADC-E16-185-E7			
		EHMYEGC-125-TB-HD	8047580	EADC-E16-125-E14			
		EHMYEGC-160-TB-HD	8047581	EADC-E16-160-E14			
		EHMYEGC-220-TB-HD	8047582	EADC-E16-220-E14			

Linear gantries Programming aid

Easy programming with

FCT software – Festo Configuration Tool

Software platform for electric drives from Festo

- All drives in a system can be managed and saved in a common project
- Easy to use thanks to graphically supported parameter entry
- Project and data management for all supported device types
- Universal mode of operation for all drives
- Work offline at your desk or online at the machine
- teroren. New property