Planar surface gantries

FESTO



At a glance

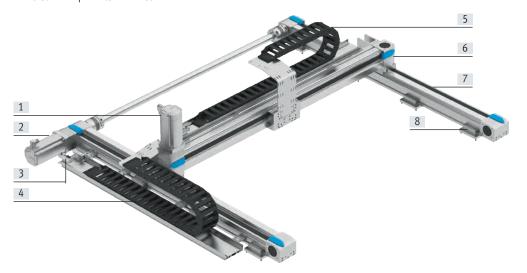
The planar surface gantry facilitates movement in 2D space.

Depending on the requirements, the gantry is either composed of several axis modules (YXCF) or using the planar surface gantries EXCM or EXCH (YXMF). All of these are triedand-tested components from Festo.

- Can be used universally for light to very heavy workpieces or high payloads
- Especially suitable for very long strokes
- High mechanical rigidity and sturdy design
- Freely positionable/any intermediate positions

Range of applications:

- For any movements in 2D space
- Very high requirements for precision and/or very heavy workpieces combined with long strokes (YXCR)
- Cost-effective handling unit in a compact format for small parts handling and simple tasks (YXCR-B)
- [1] Servo motor for the Y-module
- [2] Servo motor for the X-module
- [3] Multi-pin plug distributor which collectively transfers all electrical signals such as for end-position sensing
- [4] Energy chain for the X-module
- [5] Energy chain for the Y-module
- [6] Y-axis
- [7] X-axis
- [8] Profile mounting/adjusting kit



Description of the modules

X-module

Design:

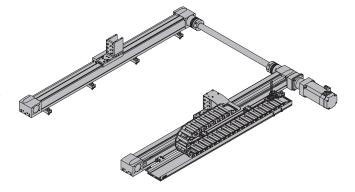
Depending on the configuration, the X-module comprises either two drive axes joined together by a connecting shaft (YXCF) or one drive axis + separate guide axis (YXCF-B).

They are powered by a servo or stepper motor.

Adapters are mounted on the slides of the X-axes to connect the Y-module. The position of the motor and energy chain can be selected using the configurator. The following components are located on the motor side:

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

Sample image:



Description of the modules

Y-module

Design:

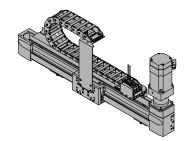
The Y-module EHMY comprises a linear axis which is powered by a servo or stepper motor.

The position of the motor and energy chain is dependent on the position of the motor on the X-module.

The following components are located on the motor side:

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

Sample image:



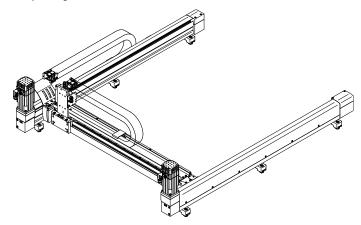
XY-module (EXCM, EXCH)

Design:

A slide is moved in a two-dimensional space (X-axis/Y-axis) via a toothed belt. The system is powered by two fixed motors. The motors are coupled to the toothed belt. The belt is guided by pulleys so that the slide can move to any position in a working space when the motors are actuated.

When using attachment components, additional processes can be carried out by independent Z-axes.

Sample image:



Dispatch options

Fully assembled:

The planar surface gantry is fully assembled. All cables are installed and connected. The system is already set up on delivery, but must be adapted to the particular mounting surface during installation.

Note flatness → table below.

Partially assembled:

The planar surface gantry is delivered partially assembled. This means that both axis modules (X-/Y-axis) are assembled, each with optional motors. The partially assembled system must be completed by the customer. Help can be found in the assembly instructions provided.

Optional accessories (→ page 10) are enclosed.

Note flatness → table below.

System overview¹⁾

Size	YXCF-1	YXCF-2	YXCF-3	YXCF-4	YXMF-1	YXMF-2	YXMF-3
Max. working stroke	X: 1900 mm	X: 3000 mm	X: 3000 mm	X: 3000 mm	X: 700 mm	X: 2000 mm	X: 2500 mm
	Y: 1800 mm	Y: 1820 mm	Y: 1755 mm	Y: 1640 mm	Y: 510 mm	Y: 1000 mm	Y: 1500 mm
Max. payload	Dependent on the selected dynamic response						
Required flatness of the mounting surface	e ≤ 0.1 mm/m						
Mounting position	Horizontal						

Size	YXCF-1-B	YXCF-2-B	
Max. working stroke	X: 800 mm	X: 1000 mm	
	Y: 600 mm	Y: 800 mm	
Max. payload	Dependent on the selected dynamic response		
Required flatness of the mounting surface	≤ 0.1 mm/m		
Mounting position	Horizontal		

1) Drive package depends on the configuration selected.

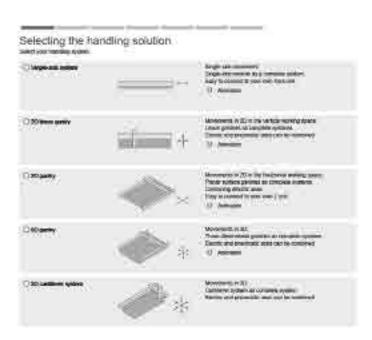
Configurator: Handling Guide Online (HGO)

Selecting a handling system

Planning complex handling systems takes a lot of time. You can use the configurator "Handling Guide Online" (HGO) 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
- 3-dimensional gantry
- 3D cantilever system

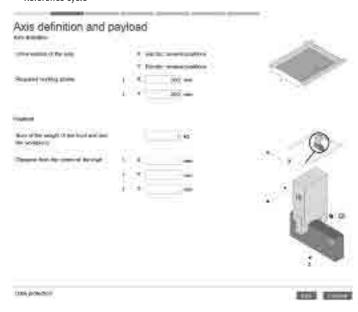


Advantages:

- · Automatic selection of all relevant components
- Automatic design and calculation of the workload
- Quote created automatically
- CAD model available immediately
- Configuration-specific parameters for servo drives available immediately
- Complete Eplan project can be ordered according to the individual configuration
- · Fully automated processing
- You can order fully or partially assembled systems through the Online Shop
- Lots of possible options

Entering the application data

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



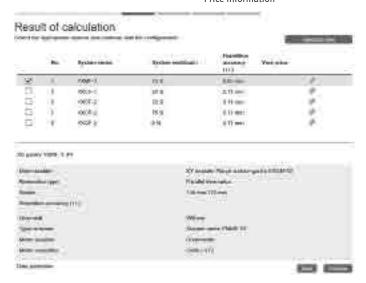
Configurator: Handling Guide Online (HGO)

Result of calculation

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

The following are available immediately:

- CAD model
- Datasheet of the selected system
- Price information



System overview

You will be given an overview of the complete system.

You will also have the following options:

- Show price
- Send request
- · Add to basket



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 configurator HGO on the "Result of calculation" page.

Drives/axes

X-axis

Toothed belt axis EGC-TB-KF



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

Spindle axis ELGC-BS



- Electric
- Optimal installation space to working space ratio
- Protected against external influences by internal guide
- Various spindle pitches

Guide axis ELFC



- Driveless linear guide unit with guide and freely movable slide unit
- The guide axis is designed to support forces and torques in multi-axis applications

Y-axis

Toothed belt axis EGC-TB-KF



• Electric

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

Spindle axis ELGC-BS



- Electric
- Optimal installation space to working space ratio
- Protected against external influences by internal guide
- Various spindle pitches

Toothed belt axis EGC-HD-TB



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

→ Internet: www.festo.com/catalogue/...

Possible axis	combinations ¹⁾	
Size	X-module	Y-module
YXCF-1	Toothed belt axis EGC-50-TB-KF	Toothed belt axis EGC-50-TB-KF
YXCF-1-B	Spindle axis ELGC-60-BS	Spindle axis ELGC-45-BS Spindle axis ELGC-60-BS
YXCF-2	Toothed belt axis EGC-80-TB-KF	Toothed belt axis EGC-80-TB-KF Toothed belt axis with heavy-duty guide EGC-HD-125-TB
YXCF-2-B	Spindle axis ELGC-80-BS	Spindle axis ELGC-60-BS Spindle axis ELGC-80-BS
YXCF-3	Toothed belt axis EGC-120-TB-KF	Toothed belt axis EGC-120-TB-KF Toothed belt axis with heavy-duty guide EGC-HD-160-TB
YXCF-4	Toothed belt axis EGC-185-TB-KF	Toothed belt axis EGC-185-TB-KF Toothed belt axis with heavy-duty guide EGC-HD-220-TB
YXMF-1	Planar surface gantry EXCM-30	Planar surface gantry EXCM-30
YXMF-2	Planar surface gantry EXCM-40, EXCH-40	Planar surface gantry EXCM-40, EXCH-40
YXMF-3	Planar surface gantry EXCH-60	Planar surface gantry EXCH-60

¹⁾ Drive package depends on the configuration selected.

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 drive package in the configurator HGO on the "System configuration" page.

Motors and controllers Servo motors EMMT-AS



Servo motors EMMB-AS



Gear unit EMGA



- Dynamic, brushless, permanently excited servo motor
- Digital absolute displacement encoder in single-turn or multi-turn version
- · With optional brake
- Dynamic, brushless, permanently excited servo motor
- Digital absolute displacement encoder in single-turn or multi-turn version
- With optional brake
- · Low-backlash planetary gear
- Gear ratioi = 3 and 5
- Life-time lubrication

Servo motors EMME-AS



Stepper motors EMMS-ST



- Dynamic, brushless, permanently excited servo motor
- Digital absolute displacement encoder in single-turn or multi-turn version
- · With optional brake
- 2-phase hybrid technology
- Step angle 1.8°
- With optional brake

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 drive package in the configurator HGO on the "System configuration" page.

Servo drive CMMT-AS, for servo motor



- · Universal servo drive
- For synchronous servo motors
- Integrated EMC filters
- Integrated brake chopper
- · Integrated braking resistor
- · Position controller
- Speed controller
- · Force controller
- · Range of control functions

Options:

- Safety function: safe torque off (STO)/category 4, Performance Level e
- Safe stop 1 (SS1)
- Safe brake control (SBC) up to SIL3/ category 3, Performance Level e
- Bus protocols
 - EtherCAT
 - PROFINET RT/IRT
 - EtherNet/IP
 - Modbus TCP

Servo drive CMMT-ST, for stepper motor



- Servo drive for operating stepper motors and brushless direct current motors
- Options for point-to-point and interpolating motion and for precise positioning
- Primary voltage from 24 ... 48 V DC
- Position controller
- Speed controller
- Force controller
- Range of control functions

Options:

- Safety function: safe torque off (STO)/category 3, Performance Level e
- Safe stop 1 time controlled (SS1-t)
- Bus protocols
 - EtherCAT
 - PROFINET RT/IRT
 - EtherNet/IP
 - Modbus TCP

Planar surface gantries

Ordering data – Accessories

Module/motor combinations

We recommend that the planar surface 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			
	Servo motor			Stepper motor
X-module				
EHMX-EGC-50-TB-KF	-	EMME-AS-40-M-LV	-	EMMS-ST-42-S
EHMX-EGC-80-TB-KF	EMMT-AS-60-L-LS	EMME-AS-60-M-LS	-	EMMS-ST-57-S
	EMMT-AS-100-M-HS			
EHMX-EGC-120-TB-KF	EMMT-AS-80-L-LS	EMME-AS-80-S-LS	-	-
	EMMT-AS-80-L-HS			
EHMX-EGC-185-TB-KF	EMMT-AS-100-L-HS	-	-	-
	EMMT-AS-150-M-HS-R2	-	-	-
EHMX-ELGC-60-BS	-	-	EMMB-AS-80-07	EMMS-ST-57-M
EHMX-ELGC-80-BS	-	-	EMMB-AS-80-07	EMMS-ST-87-M
Y-module				
EHMYEGC-50-TB-KF	-	EMME-AS-40-S-LV	_	EMMS-ST-57-M
EHMYEGC-80-TB-KF	EMMT-AS-60-S-LS	EMME-AS-60-M-LS	-	EMMS-ST-57-S
EHMYEGC-120-TB-KF	EMMT-AS-80-L-LS	EMME-AS-80-S-LS	-	EMMS-ST-87-S
	EMMT-AS-80-L-HS			
EHMYEGC-125-TB-HD	EMMT-AS-60-L-LS	EMME-AS-60-M-LS	-	EMMS-ST-57-S
EHMYEGC-160-TB-HD	EMMT-AS-80-M-LS	EMME-AS-80-S-LS	-	EMMS-ST-87-S
	EMMT-AS-80-L-HS			
EHMYEGC-185-TB-KF	EMMT-AS-100-L-HS	EMME-AS-100-M-HS	_	-
	EMMT-AS-100-H-HS	-	-	-
EHMYEGC-220-TB-HD	EMMT-AS-100-L-HS	EMME-AS-100-M-HS	-	-
	EMMT-AS-100-H-HS	-	-	-
EHMY-RP-ELGC-45-BS	_	_	EMMB-AS-40-01	EMMS-ST-42-S
EHMY-RP-ELGC-60-BS	_	-	EMMB-AS-60-04	EMMS-ST-57M
EHMY-RP-ELGC-80-BS	-	-	EMMB-AS-60-04	EMMS-ST-87-M
XY-module (EXCM, EXCH)				
EXCM-30	-	-	-	EMMS-ST-42-S
EXCM-40	-	-	-	EMMS-ST-57-M
EXCH-40	EMMT-AS-80-M-LS	-	-	-
EXCH-40	EMMT-AS-80-L-HS	-	-	-
EXCH-60	EMMT-AS-100-M-HS	-	-	-
	EMMT-AS-150-M-HV-R3	-	-	-

Ordering data				
0	Description	Cable length	Part no.	Туре
		[m]		
For servo motor EMMT-A	S			
Motor cable				
	For EMMT-AS-60/80R2 with CMMT-AS	2.5	5251374	NEBM-M23G15-EH-2.5-Q7N-R3LEG14
	2)	5	5251375	NEBM-M23G15-EH-5-Q7N-R3LEG14
		7.5	5251376	NEBM-M23G15-EH-7.5-Q7N-R3LEG14
		10	5251377	NEBM-M23G15-EH-10-Q7N-R3LEG14
		15	5251378	NEBM-M23G15-EH-15-Q7N-R3LEG14
		20	5251379	NEBM-M23G15-EH-20-Q7N-R3LEG14
	For EMMT-AS-100R2 with CMMT-AS	2.5	5251381	NEBM-M23G15-EH-2.5-Q9N-R3LEG14
	For EMMT-AS-150R2 with CMMT-AS	5	5251382	NEBM-M23G15-EH-5-Q9N-R3LEG14
		7.5	5251383	NEBM-M23G15-EH-7.5-Q9N-R3LEG14
		10	5251384	NEBM-M23G15-EH-10-Q9N-R3LEG14
		15	5251385	NEBM-M23G15-EH-15-Q9N-R3LEG14
		20	5251386	NEBM-M23G15-EH-20-Q9N-R3LEG14
	For EMMT-AS-150R3 with CMMT-AS	2.5	5251395	NEBM-M40G15-EH-2.5-Q11N-R3LEG14
		5	5251396	NEBM-M40G15-EH-5-Q11N-R3LEG14
		7.5	5251397	NEBM-M40G15-EH-7.5-Q11N-R3LEG14
		10	5251398	NEBM-M40G15-EH-10-Q11N-R3LEG14
		15	5251399	NEBM-M40G15-EH-15-Q11N-R3LEG14
		20	5251400	NEBM-M40G15-EH-20-Q11N-R3LEG14
For servo motor EMME-A		[m]		
Motor cable	\$	ti		
motor cubic	S	[]		
			5391541	NEBM-M16G8-E-2.5-07-LE8-1
	• For EMME-AS-40/60 with CMMT-AS	2.5	5391541 5391543	NEBM-M16G8-E-2.5-Q7-LE8-1 NEBM-M16G8-E-5-Q7-LE8-1
		2.5	5391543	NEBM-M16G8-E-5-Q7-LE8-1
		2.5	1	-
		2.5 5 7.5	5391543 5391548	NEBM-M16G8-E-5-Q7-LE8-1 NEBM-M16G8-E-7.5-Q7-LE8-1
		2.5 5 7.5 10	5391543 5391548 8085952	NEBM-M16G8-E-5-Q7-LE8-1 NEBM-M16G8-E-7.5-Q7-LE8-1 NEBM-M16G8-E-10-Q7-LE8-1
		2.5 5 7.5 10 15	5391543 5391548 8085952 8085953	NEBM-M16G8-E-5-Q7-LE8-1 NEBM-M16G8-E-7.5-Q7-LE8-1 NEBM-M16G8-E-10-Q7-LE8-1 NEBM-M16G8-E-15-Q7-LE8-1
	For EMME-AS-40/60 with CMMT-AS	2.5 5 7.5 10 15 20	5391543 5391548 8085952 8085953 611113	NEBM-M16G8-E-5-Q7-LE8-1 NEBM-M16G8-E-7.5-Q7-LE8-1 NEBM-M16G8-E-10-Q7-LE8-1 NEBM-M16G8-E-15-Q7-LE8-1 NEBM-M16G8-E-20-Q7-LE8-1
	For EMME-AS-40/60 with CMMT-AS	2.5 5 7.5 10 15 20 2.5 5 7.5	5391543 5391548 8085952 8085953 611113 5391540 5391545 5391547	NEBM-M16G8-E-5-Q7-LE8-1 NEBM-M16G8-E-7.5-Q7-LE8-1 NEBM-M16G8-E-10-Q7-LE8-1 NEBM-M16G8-E-15-Q7-LE8-1 NEBM-M16G8-E-20-Q7-LE8-1 NEBM-M16G8-E-2.5-Q9-LE8-1 NEBM-M16G8-E-5-Q9-LE8-1 NEBM-M16G8-E-5-Q9-LE8-1
	For EMME-AS-40/60 with CMMT-AS	2.5 5 7.5 10 15 20 2.5 5 7.5 10	5391543 5391548 8085952 8085953 611113 5391540 5391545	NEBM-M16G8-E-5-Q7-LE8-1 NEBM-M16G8-E-7.5-Q7-LE8-1 NEBM-M16G8-E-10-Q7-LE8-1 NEBM-M16G8-E-15-Q7-LE8-1 NEBM-M16G8-E-20-Q7-LE8-1 NEBM-M16G8-E-2.5-Q9-LE8-1 NEBM-M16G8-E-5-Q9-LE8-1 NEBM-M16G8-E-7.5-Q9-LE8-1 NEBM-M16G8-E-7.5-Q9-LE8-1 NEBM-M16G8-E-10-Q9-LE8-1
	For EMME-AS-40/60 with CMMT-AS	2.5 5 7.5 10 15 20 2.5 5 7.5 10 15	5391543 5391548 8085952 8085953 611113 5391540 5391545 5391547 5391549 5391550	NEBM-M16G8-E-5-Q7-LE8-1 NEBM-M16G8-E-7.5-Q7-LE8-1 NEBM-M16G8-E-10-Q7-LE8-1 NEBM-M16G8-E-15-Q7-LE8-1 NEBM-M16G8-E-20-Q7-LE8-1 NEBM-M16G8-E-2.5-Q9-LE8-1 NEBM-M16G8-E-5-Q9-LE8-1 NEBM-M16G8-E-7.5-Q9-LE8-1 NEBM-M16G8-E-10-Q9-LE8-1 NEBM-M16G8-E-10-Q9-LE8-1 NEBM-M16G8-E-10-Q9-LE8-1
	For EMME-AS-40/60 with CMMT-AS	2.5 5 7.5 10 15 20 2.5 5 7.5 10	5391543 5391548 8085952 8085953 611113 5391540 5391545 5391547 5391549	NEBM-M16G8-E-5-Q7-LE8-1 NEBM-M16G8-E-7.5-Q7-LE8-1 NEBM-M16G8-E-10-Q7-LE8-1 NEBM-M16G8-E-15-Q7-LE8-1 NEBM-M16G8-E-20-Q7-LE8-1 NEBM-M16G8-E-2.5-Q9-LE8-1 NEBM-M16G8-E-5-Q9-LE8-1 NEBM-M16G8-E-7.5-Q9-LE8-1 NEBM-M16G8-E-7.5-Q9-LE8-1 NEBM-M16G8-E-10-Q9-LE8-1
Encoder cable	For EMME-AS-40/60 with CMMT-AS	2.5 5 7.5 10 15 20 2.5 5 7.5 10 15	5391543 5391548 8085952 8085953 611113 5391540 5391545 5391547 5391549 5391550	NEBM-M16G8-E-5-Q7-LE8-1 NEBM-M16G8-E-7.5-Q7-LE8-1 NEBM-M16G8-E-10-Q7-LE8-1 NEBM-M16G8-E-15-Q7-LE8-1 NEBM-M16G8-E-20-Q7-LE8-1 NEBM-M16G8-E-2.5-Q9-LE8-1 NEBM-M16G8-E-5-Q9-LE8-1 NEBM-M16G8-E-7.5-Q9-LE8-1 NEBM-M16G8-E-10-Q9-LE8-1 NEBM-M16G8-E-10-Q9-LE8-1 NEBM-M16G8-E-10-Q9-LE8-1
Encoder cable	For EMME-AS-40/60 with CMMT-AS	2.5 5 7.5 10 15 20 2.5 5 7.5 10 15	5391543 5391548 8085952 8085953 611113 5391540 5391545 5391547 5391549 5391550	NEBM-M16G8-E-5-Q7-LE8-1 NEBM-M16G8-E-7.5-Q7-LE8-1 NEBM-M16G8-E-10-Q7-LE8-1 NEBM-M16G8-E-15-Q7-LE8-1 NEBM-M16G8-E-20-Q7-LE8-1 NEBM-M16G8-E-2.5-Q9-LE8-1 NEBM-M16G8-E-5-Q9-LE8-1 NEBM-M16G8-E-7.5-Q9-LE8-1 NEBM-M16G8-E-10-Q9-LE8-1 NEBM-M16G8-E-10-Q9-LE8-1 NEBM-M16G8-E-10-Q9-LE8-1
Encoder cable	For EMME-AS-40/60 with CMMT-AS For EMME-AS-80/100 with CMMT-AS	2.5 5 7.5 10 15 20 2.5 5 7.5 10 15 20	5391543 5391548 8085952 8085953 611113 5391540 5391545 5391547 5391549 5391550 611114	NEBM-M16G8-E-5-Q7-LE8-1 NEBM-M16G8-E-7.5-Q7-LE8-1 NEBM-M16G8-E-10-Q7-LE8-1 NEBM-M16G8-E-15-Q7-LE8-1 NEBM-M16G8-E-20-Q7-LE8-1 NEBM-M16G8-E-20-Q7-LE8-1 NEBM-M16G8-E-5-Q9-LE8-1 NEBM-M16G8-E-7.5-Q9-LE8-1 NEBM-M16G8-E-10-Q9-LE8-1 NEBM-M16G8-E-15-Q9-LE8-1 NEBM-M16G8-E-20-Q9-LE8-1
Encoder cable	For EMME-AS-40/60 with CMMT-AS For EMME-AS-80/100 with CMMT-AS	2.5 5 7.5 10 15 20 2.5 5 7.5 10 15 20	5391543 5391548 8085952 8085953 611113 5391540 5391545 5391547 5391549 5391550 611114	NEBM-M16G8-E-5-Q7-LE8-1 NEBM-M16G8-E-7.5-Q7-LE8-1 NEBM-M16G8-E-10-Q7-LE8-1 NEBM-M16G8-E-15-Q7-LE8-1 NEBM-M16G8-E-20-Q7-LE8-1 NEBM-M16G8-E-2.5-Q9-LE8-1 NEBM-M16G8-E-5-Q9-LE8-1 NEBM-M16G8-E-7.5-Q9-LE8-1 NEBM-M16G8-E-10-Q9-LE8-1 NEBM-M16G8-E-10-Q9-LE8-1 NEBM-M16G8-E-20-Q9-LE8-1 NEBM-M16G8-E-20-Q9-LE8-1
Encoder cable	For EMME-AS-40/60 with CMMT-AS For EMME-AS-80/100 with CMMT-AS	2.5 5 7.5 10 15 20 2.5 5 7.5 10 15 20	5391543 5391548 8085952 8085953 611113 5391540 5391545 5391547 5391549 5391550 611114	NEBM-M16G8-E-5-Q7-LE8-1 NEBM-M16G8-E-7.5-Q7-LE8-1 NEBM-M16G8-E-10-Q7-LE8-1 NEBM-M16G8-E-15-Q7-LE8-1 NEBM-M16G8-E-20-Q7-LE8-1 NEBM-M16G8-E-2.5-Q9-LE8-1 NEBM-M16G8-E-5-Q9-LE8-1 NEBM-M16G8-E-7.5-Q9-LE8-1 NEBM-M16G8-E-10-Q9-LE8-1 NEBM-M16G8-E-15-Q9-LE8-1 NEBM-M16G8-E-20-Q9-LE8-1 NEBM-M16G8-E-15-Q9-LE8-1 NEBM-M16G8-E-15-Q9-LE8-1 NEBM-M16G8-E-20-Q9-LE8-1
Encoder cable	For EMME-AS-40/60 with CMMT-AS For EMME-AS-80/100 with CMMT-AS	2.5 5 7.5 10 15 20 2.5 5 7.5 10 15 20 2.5 5 7.5 10	5391543 5391548 8085952 8085953 611113 5391540 5391545 5391547 5391549 5391550 611114 5212312 5212313 5212314	NEBM-M16G8-E-5-Q7-LE8-1 NEBM-M16G8-E-7.5-Q7-LE8-1 NEBM-M16G8-E-10-Q7-LE8-1 NEBM-M16G8-E-15-Q7-LE8-1 NEBM-M16G8-E-15-Q7-LE8-1 NEBM-M16G8-E-20-Q7-LE8-1 NEBM-M16G8-E-5-Q9-LE8-1 NEBM-M16G8-E-7.5-Q9-LE8-1 NEBM-M16G8-E-10-Q9-LE8-1 NEBM-M16G8-E-15-Q9-LE8-1 NEBM-M16G8-E-15-Q9-LE8-1 NEBM-M16G8-E-15-Q9-LE8-1 NEBM-M16G8-E-15-Q9-LE8-1 NEBM-M16G8-E-15-Q9-LE8-1 NEBM-M16G8-E-15-Q9-LE8-1 NEBM-M16G8-E-15-Q9-LE8-1

Planar surface gantries

Ordering data – Accessories

Ordering data				
		Cable length	Part no.	Туре
		[m]		
For servo motor EMMB-AS				
Motor cable				
	For EMMB-AS-40/60/80 with CMMT-AS	2.5	5219197	NEBM-H6G4-E-2.5-Q13N-LE4
		5	5219198	NEBM-H6G4-E-5-Q13N-LE4
		7.5	5219199	NEBM-H6G4-E-7.5-Q13N-LE4
		10	5219200	NEBM-H6G4-E-10-Q13N-LE4
		15	8097203	NEBM-H6G4-E-15-Q13N-LE4
Encoder cable				
	For EMMB-AS-40/60/80 with CMMT-AS	2.5	5219213	NEBM-REG6-E-2.5-Q14N-REG6
		5	5219214	NEBM-REG6-E-5-Q14N-REG6
		7.5	5219215	NEBM-REG6-E-7.5-Q14N-REG6
		10	5219216	NEBM-REG6-E-10-Q14N-REG6
		15	8097200	NEBM-REG6-E-15-Q14N-REG6
Connecting cable for brake				
Connecting capte for brake	For EMMB-AS-40/60/80 with CMMT-AS	2.5	5219205	NEBM-H7G2-E-2.5-Q14N-LE2
		5	5219206	NEBM-H7G2-E-5-Q14N-LE2
		7.5	5219207	NEBM-H7G2-E-7.5-Q14N-LE2
		10	5219208	NEBM-H7G2-E-10-Q14N-LE2
		15	8097206	NEBM-H7G2-E-15-Q14N-LE2
Ad	the state of the s			
Adapter for encoder cable (al	osolutely essential) • For EMMB-AS-40/60/80 with CMMT-AS	Fan ain ala Ausa	i.ei.eb CM	AT AC
	FOI EMIMID-AS-40/00/80 WILLI CIVIMIT-AS	0.5	version with CM 8097197	NEFM-REG6-K-0.5-R3G8
		0.5	809/19/	NEFWI-REGO-R-U.3-R3G8
	For EMMB-AS-40/60/80 with CMMT-AS	For multi-turn	version with CMA	ΛΤ-AS ¹⁾
		0.5	8097195	NEFM-REG6-K-0.5-B-R3G8
		For multi-turn	version with CMA	MB-AS ¹⁾
		0.5	8097196	NEFM-REG6-K-0.5-B-REG6

¹⁾ The required battery is not included in the scope of delivery

Designation	Description	Cable length [m]	Part no.	Туре
For stepper motor EMN	IS-ST			
Motor cable ¹⁾				
	For stepper motor EMMS-ST-42/57G2 with CMMT-ST	2.5	1450369	NEBM-S1G9-E-2.5-Q5-LE6
	Straight plug	5	1450370	NEBM-S1G9-E-5-Q5-LE6
		7	1450371	NEBM-S1G9-E-7-Q5-LE6
		10	1450372	NEBM-S1G9-E-10-Q5-LE6
		15	5085055	NEBM-S1G9-E-15-Q5-LE6
		20	5085056	NEBM-S1G9-E-20-Q5-LE6
	For stepper motor EMMS-ST-42SE-G3 with CMMT-ST	2.5	550326	NEBU-M12G5-K-2.5-LE4
	Straight plug Motor to mechanics EXCM-30	5.0	541328	NEBU-M12G5-K-5-LE4
	For stepper motor EMMS-ST-42/57G2 with CMMT-ST	2.5	1450737	NEBM-S1W9-E-2.5-Q5-LE6
	Angled plug	5	1450738	NEBM-S1W9-E-5-Q5-LE6
		7	1450739	NEBM-S1W9-E-7-Q5-LE6
		10	1450740	NEBM-S1W9-E-10-Q5-LE6
		15	610856	NEBM-S1W9-E-15-Q5-LE6
	For stepper motor EMMS-ST-87G2 with CMMT-ST	2.5	1450944	NEBM-S1W15-E-2.5-Q7-LE6
	Angled plug	5.0	1450945	NEBM-S1W15-E-5-Q7-LE6
		7.0	1450946	NEBM-S1W15-E-7-Q7-LE6
		10	1450947	NEBM-S1W15-E-10-Q7-LE6
		15	610857	NEBM-S1W15-E-15-Q7-LE6
Encoder cable ¹⁾				
Elicodel cubic	For stepper motor EMMS-ST-42/57/87G2/G3 with CMMT-ST	2.5	1451587	NEBM-M12G8-E-2.5-LE8
	Straight plug	5	1451588	NEBM-M12G8-E-5-LE8
W - S		7	1451589	NEBM-M12G8-E-7-LE8
•		10	1451590	NEBM-M12G8-E-10-LE8
		15	611110	NEBM-M12G8-E-15-LE8
		20	611111	NEBM-M12G8-E-20-LE8
	For stepper motor EMMS-ST-42/57/87G2 with CMMT-ST	2.5	1451675	NEBM-M12W8-E-2.5-LE8
	Angled plug	5	1451676	NEBM-M12W8-E-5-LE8
		7	1451677	NEBM-M12W8-E-7-LE8
		10	1451678	NEBM-M12W8-E-10-LE8
		15	610858	NEBM-M12W8-E-15-LE8

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 selected 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 plugs 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 configurator HGO on the "System configuration" page.

Designation	Description		Cable length [m]	Part no.	Туре
Proximity switch (ind	luctive) for sensing the position of the slide on the X-	/Y-/Z-axis			
	Cable with open end				
	For toothed belt axis EGC-TB,	PNP, N/C contact	7.5	551391	SIES-8M-PO-24V-K-7.5-OE
	EGC-HD-TB	PNP, N/O contact	7.5	551386	SIES-8M-PS-24V-K-7.5-0E
	For spindle axis EGC-BS	NPN, N/C contact	7.5	551401	SIES-8M-NO-24V-K-7.5-0E
	For spindle axis ELGC-BS	NPN, N/O contact	7.5	551396	SIES-8M-NS-24V-K-7.5-0E
	For DC voltage				
	Included if the "Festo sensor package" is				
	selected:				
	For EGC, ELGC: 2 pieces				
Proximity switches fo	or sensing the position of the slide on the X-axis				
	• For EXCM-40, EXCH-40, EXCH-60	PNP, N/O contact	_	150491	SIES-V3B-PS-S-L
	For EXCM-40, EXCH-40, EXCH-60	PNP, N/C contact	_	174552	SIES-Q8B-PO-K-L
	Included if the "Festo sensor package" is sele	cted:	'		
000	• 1 piece				
Proximity switch (ind	luctive) for sensing the position of the slide on the Y-	axis			
	Cable with plug				
	• For EXCM-40, EXCH-40, EXCH-60	PNP, N/C contact	0.3	551392	SIES-8M-PO-24V-K-0.3-M8D
	For DC voltage	PNP, N/O contact	0.3	551387	SIES-8M-PS-24V-K-0.3-M8D
	Included if the "Festo sensor package" is				
	selected:				
	• 1 piece				

Designation	Description	Cable length [m]	Part no.	Туре
Plug socket with cable				
	Connection between multi-pin plug distributor NEDU and control cabinet	5	525618	SIM-M12-8GD-5-PU
		10	570008	SIM-M12-8GD-10-PU
Plug				
	For connection to the multi-pin plug distributor NEDU / distributor NEDY	-	562024	NECU-S-M8G3-HX
Connecting cable				
	Connection between distributor NEDY and control cabinet	2.5	541342	NEBU-M8G4-K-2.5-LE4
		5	541343	NEBU-M8G4-K-5-LE4
		7.5	610854	NEBU-M8G4-K-7.5-LE4
		10	589560	NEBU-M8G4-K-10-LE4
		15	610855	NEBU-M8G4-K-15-LE4
Multi-pin plug distributo	or			
/ 6	With the help of the multi-pin plug distributor, electrical signals such as for		574586	NEDU-L4R1-M8G3L-M12G8
	end-position sensing can be transferred collectively		574587	NEDU-L6R1-M8G3L-M12G8
	Options:			•
	- 4 individual connections			
	- 6 individual connections			
6360	With the help of the distributor, electrical signals such as for end-position	-	8005312	NEDY-L2R1-V1-M8G3-N-M8G4
	sensing can be transferred collectively			
	- 2 individual connections			

Designation Description

Motor controller/servo drive





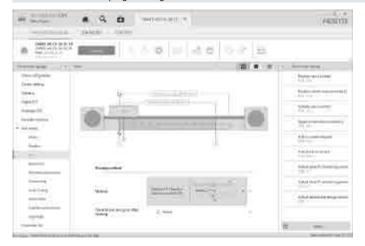
www.festo.com/catalogue/cmmt

Designation	Description		Part no.	Туре
Mounting kit				
	Mounting kit for the energy chain and a Z-axis, such as EGSL, DGSL	• EXCM-30	4070088	EAHT-E9-FB-3D-30
Adjusting kit				
	Height-adjustable mounting kit	• EXCM-30	4070088	EADC-E11-30
Sensor mounting				
	For homing in combination with third-party motors	• EXCM-30	4070088	EAPR-E11-30
Sensor mounting				
- 18	For mounting the proximity switches SIES-	• EXCM-40, EXCH-40	2536353	EAPR-E12-40
	Q8B, SIES-V3B on the X-axis	EXCH-60	2478805	EAPR-E12-60
Energy chain				
Zinergy chain	As a cable guide for the Z-axis	• EXCM-30	8059999	EADH-U-3D-30
	, and the second		8060324	EADH-U-3D-40
Connector set				
₹%	Retaining brackets for mounting the energy	• EXCM-30	8060325	EAHT-AE-3D-30
888	chain		8060326	EAHT-AE-3D-40
Adjusting tool				
	For aligning and checking the flatness of the planar surface gantry	EXCM-40, EXCH-40, EXCH-60	3197697	EADT-W-E12
₩				
Adjusting kit				
	Used to mount the handling system on the	EHMXEGC-50-TB-KF	8047565	EADC-E15-50-E7
	supporting surface • Can be used to easily compensate for any	EHMXEGC-80-TB-KF	8047566	EADC-E15-80-E7
	unevenness in the supporting surface	EHMXEGC-120-TB-KF EHMXEGC-185-TB-KF	8047567 8047568	EADC-E15-120-E7
*	anovenness in the supporting surface	EHMXELGC-185-1B-KF	8142650	EADC-E15-185-E7 EADC-E15-60-E22
		EHMXELGC-80-BS	8142651	EADC-E15-80-E22
Profile mounting		-		
/ /m	Used to mount the handling system on the	EHMXELGC-60-BS	8142652	EAHM-E15-60-E22
	supporting surface It is not height-adjustable	EHMXELGC-80-BS	8142653	EAHM-E15-80-E22
~ 999999 9				

Programming aid

Festo Automation Suite

Parameterisation and programming software for electronic devices from Festo



- Parameterisation, programming and commissioning in a clear and user-friendly interface
- Optimum support for complex processes thanks to guided wizards (e.g. for commissioning, drive configuration, etc.)
- Fast access to the required documents and additional information
- Easy integration of electric drives in the controller programming

Festo - Your Partner in Automation





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