

## Planar surface gantries EXCH

**FESTO**



## Key features

### At a glance

#### General

- Optimal dynamic response when compared with other Cartesian gantry systems
- The drive concept ensures low moving dead weight
- Flat system design
- Flexible motor mountings
- High acceleration in both axis directions

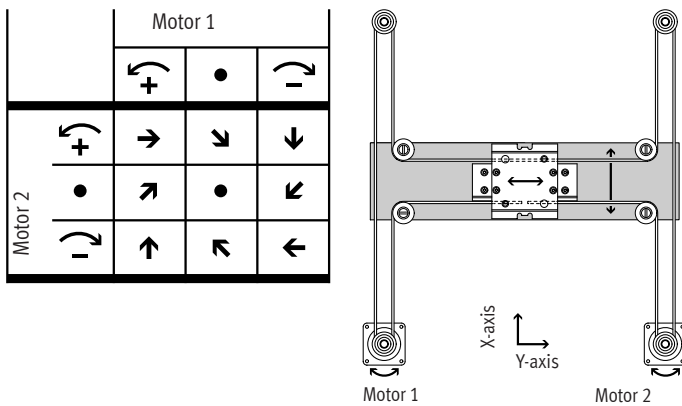
#### Application examples

- Fast repositioning of parts and modules in a large, rectangular working space, e.g.:
  - Sorting
  - Loading, unloading
  - Gluing, cutting

### Functional principle

A slide is moved in a two-dimensional space (XY-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 via guide pulleys so that the slide can move to any position in a working space when the motors are actuated accordingly.

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



**Note**  
Additional multi-axis controller required for interpolation (e.g. CPX-E-CEC-M1-...).

Type		EXCH-40	EXCH-60
Guide		Recirculating ball bearing guide	
Stroke of the			
X-axis	[mm]	200 ... 2000	500 ... 2500
Y-axis	[mm]	200 ... 1000	500 ... 1500
Z-axis	[mm]	50, 100, 150, 200	
Rated load at max. dynamic response <sup>1)</sup>	[kg]	4	6
Max. speed			
Horizontal	[m/s]	5	5
Vertical	[m/s]	4	3
Max. acceleration			
Horizontal	[m/s <sup>2</sup> ]	50	
Vertical	[m/s <sup>2</sup> ]	30	
Repetition accuracy <sup>2)</sup>	[mm]	±0.1	
Mounting position <sup>3)</sup>		Horizontal or vertical	

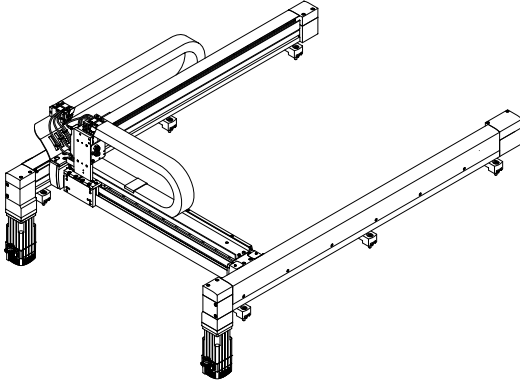
1) Rated load = tool load (attachment component (Z-axis) + e.g. gripper) + payload  
 2) The repetition accuracy relates to the centre point of the slide  
 3) Vertical mounting position only permitted with motors with brake and braking resistors

## Key features

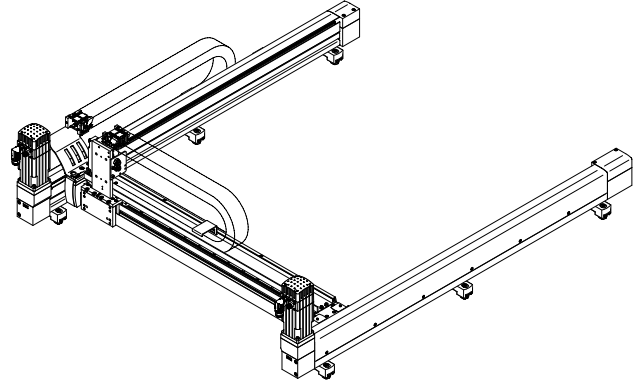
### Motor attachment variants

Sample product image,  
motors not included in the scope of delivery!

#### EXCH-...-B – Motor underneath



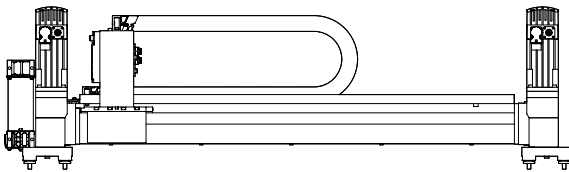
#### EXCH-...-T – Motor on top



### Mounting positions

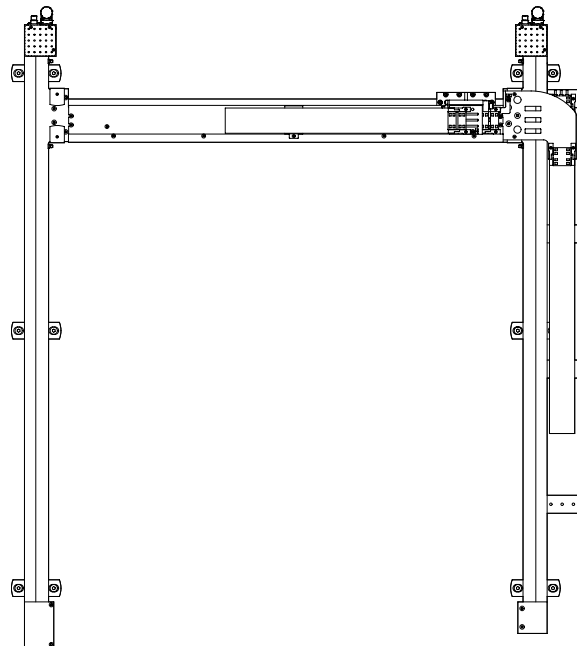
#### Horizontal

- Installation always with the energy chain overhead



#### Vertical

- Only the X-axes may be installed vertically
- Only use motors with brake
- Motors must be on top so that the energy chain can hang freely



#### Note

During commissioning, the motor brake must be released for safety purposes.

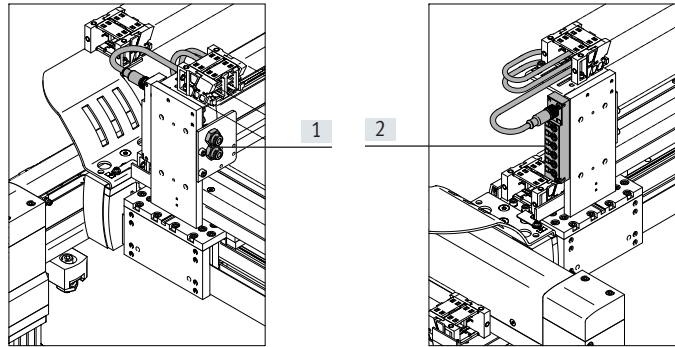
## Key features

### Selection of attachment components

Without attachment component

The following are already installed on delivery:

- [1] 2 supply ports for e.g. Z-axis
- [2] Multi-pin plug distributor (6-way) for bundling signals:
  - e.g. proximity switch



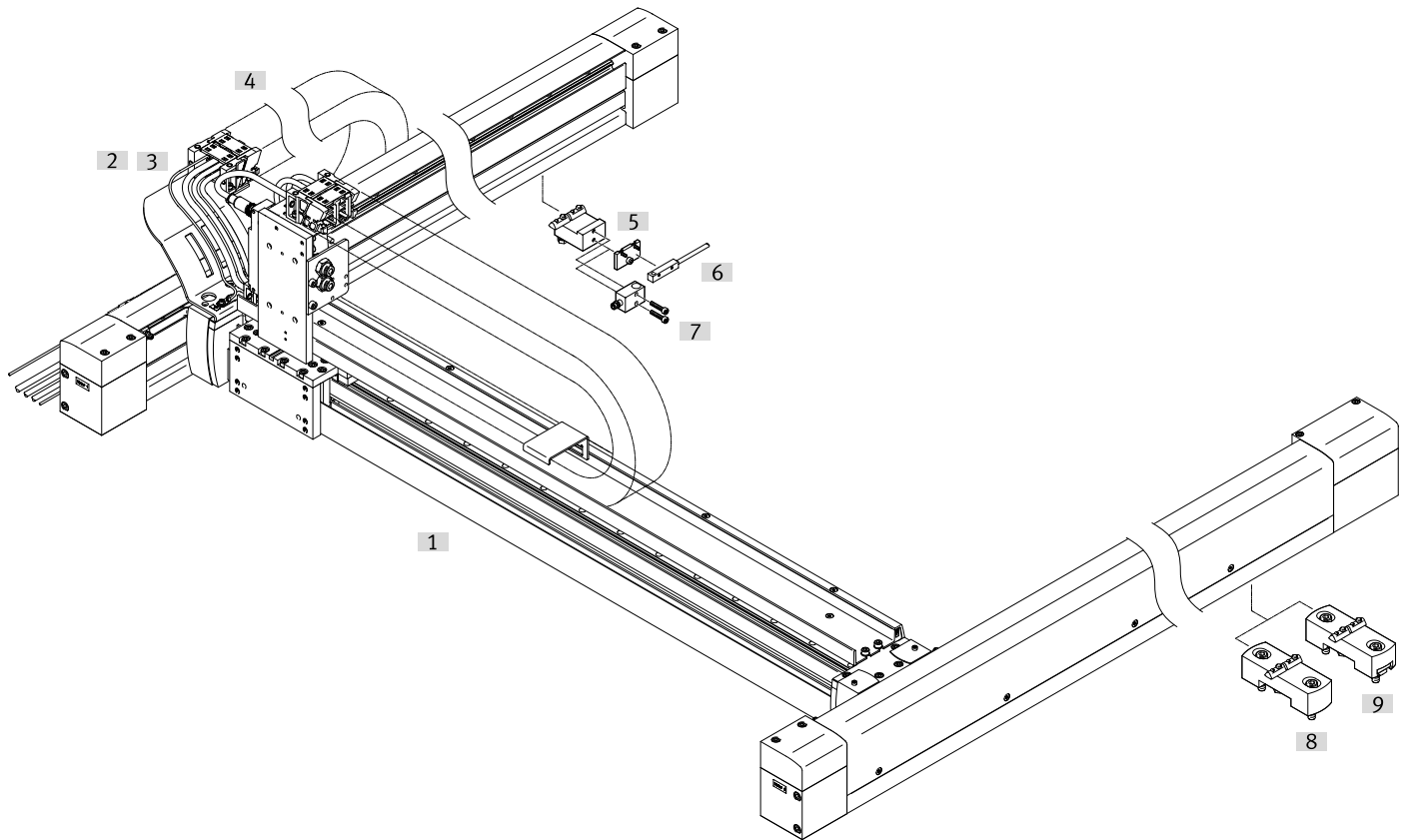
Additional information → page 15

## Type codes

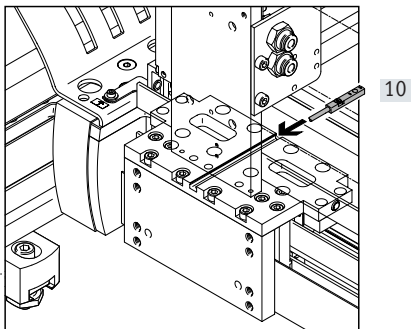
<b>001</b>	Series	
<b>EXCH</b>	Planar surface gantry	
<b>002</b>	Size	
<b>40</b>	40	
<b>60</b>	60	
<b>003</b>	Stroke of the X-axis [mm]	
<b>200</b>	200	
<b>2500</b>	2500	
<b>004</b>	Stroke of the Y-axis [mm]	
<b>200</b>	200	
<b>1500</b>	1500	
<b>005</b>	Guide	
<b>KF</b>	Recirculating ball bearing guide	
<b>006</b>	Motor type	
<b>W</b>	Without motor	

<b>007</b>	Motor attachment position	
<b>B</b>	Underneath	
<b>T</b>	Top	
<b>008</b>	Energy chain connection side	
<b>L</b>	Left	
<b>009</b>	Attachment components	
<b>T0</b>	None	
<b>010</b>	Cable length	
<b>5K</b>	5 m	
<b>10K</b>	10 m	
<b>011</b>	Mounting kit	
<b>P</b>	With mounting kit	
	With adjusting kit	

Peripherals overview



Proximity switch for sensing the position of the slide on the Y-axis

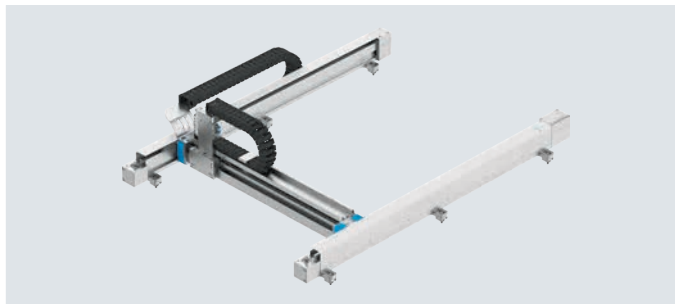


## Peripherals overview

Attachments and accessories			
Type	Description		→ Page/Internet
[1] Planar surface gantry EXCH	–		8
[2] Multi-pin plug distributor NEDU	<ul style="list-style-type: none"> <li>For connecting up to 6 inputs/outputs</li> <li>Included in the scope of delivery of the planar surface gantry</li> </ul>		nedu
[3] Plug socket with cable SIM	<ul style="list-style-type: none"> <li>Connecting cable between multi-pin plug distributor NEDU and the controller</li> <li>Included in the scope of delivery of the planar surface gantry</li> </ul>		sim
[4] Energy chain	<ul style="list-style-type: none"> <li>For EXCH-40: type IGUS E6.29.040.075.0</li> <li>For EXCH-60: type IGUS E6.35.050.075.0</li> </ul>		–
[5] Sensor mounting EAPR	<ul style="list-style-type: none"> <li>For mounting the proximity switches SIES-Q8B, SIES-V3B on the X-axis</li> <li>Not included in the scope of delivery of the planar surface gantry</li> </ul>		26
[6] Proximity switch SIES-Q8B	<ul style="list-style-type: none"> <li>For position sensing on the X-axis</li> <li>Not included in the scope of delivery of the planar surface gantry</li> </ul>		27
[7] Proximity switch SIES-V3B	<ul style="list-style-type: none"> <li>For position sensing on the X-axis</li> <li>Not included in the scope of delivery of the planar surface gantry</li> </ul>		27
[8] Mounting kit EAHM-E12	<ul style="list-style-type: none"> <li>Non-height-adjustable mounting kit for the planar surface gantry</li> </ul>		26
[9] Adjusting kit EADC-12	<ul style="list-style-type: none"> <li>Height-adjustable mounting kit for the planar surface gantry</li> <li>Included in the scope of delivery of the planar surface gantry. If no adjusting kit is selected in the modular product system, the mounting kit will automatically be delivered</li> </ul>		26
[10] Proximity switch SIES-8M	<ul style="list-style-type: none"> <li>For position sensing on the Y-axis</li> <li>Not included in the scope of delivery of the planar surface gantry</li> </ul>		27
– Plastic tubing PUN-H-6x1	<ul style="list-style-type: none"> <li>Two pieces of tubing are connected to the bulkhead fittings and routed in the energy chains on delivery</li> </ul>		pun

## Datasheet

Size  
40, 60



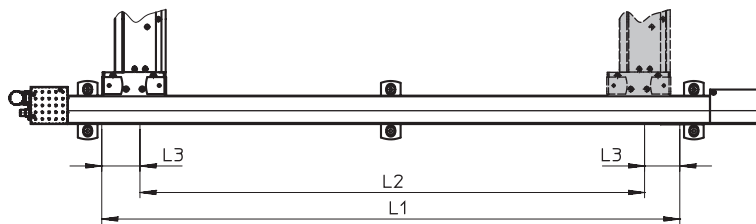
General technical data			
Size		40	60
Design	Planar surface gantry		
Guide	Recirculating ball bearing guide		
Stroke of the			
X-axis	[mm]	200 ... 2000	500 ... 2500
Y-axis	[mm]	200 ... 1000	500 ... 1500
Rated load at max. dynamic response <sup>1)</sup>	[kg]	4	6
Max. torque <sup>2)</sup>	[Nm]	→ Page 12	
Max. no-load torque <sup>2)3)</sup>	[Nm]	→ Page 12	
Max. acceleration <sup>4)</sup>			
Horizontal	[m/s <sup>2</sup> ]	50	
Vertical	[m/s <sup>2</sup> ]	30	
Max. speed <sup>4)</sup>			
Horizontal	[m/s]	5	
Vertical	[m/s]	4	3
Repetition accuracy	[mm]	±0.1	
Mounting position <sup>5)</sup>	Horizontal or vertical		
Type of mounting	Mounting kit, adjusting kit		

- 1) Rated load = tool load (attachment component (Z-axis) + e.g. gripper) + payload
- 2) These values must also be complied with when installing third-party motors
- 3) At v=0.2 m/s and 45° travel.
- 4) This data applies only under ideal conditions.  
For a precise configuration, please consult a sales engineer from Festo.  
Additional information → page 12
- 5) Vertical installation only permitted with motors with brake and braking resistors

### Factoring in software end positions

When selecting the strokes for the X- and Y-axis, the dimension L3 for the software end positions must be taken into account in addition to the working stroke L2. This dimension is freely selectable.

Adjusting pieces with L3 = 30 mm are included in the scope of delivery of the planar surface gantry.



$$\text{Stroke } L1 = \text{working stroke } L2 + 2 \times \text{software end position } L3$$

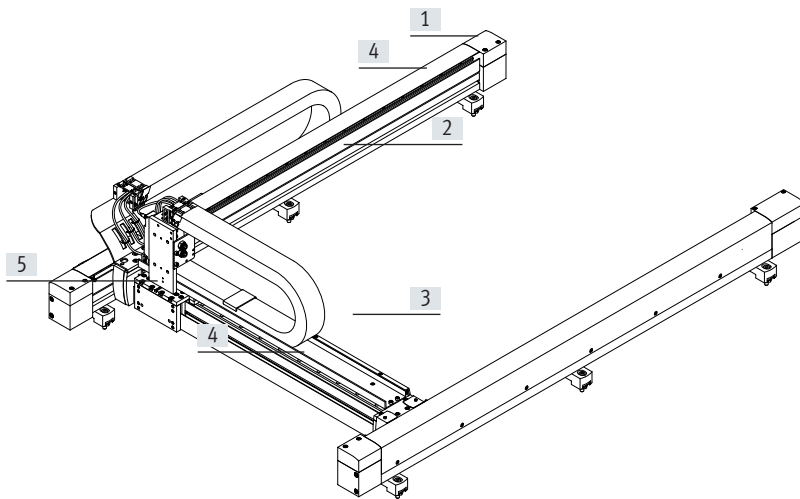


## Datasheet

Operating and environmental conditions			
Size		40	60
Degree of protection		IP40	
Ambient temperature <sup>1)</sup>	[°C]	+10 ... +50	
Storage temperature	[°C]	-10 ... +60	
Relative humidity	[%]	0 ... 90 (non-condensing)	
Noise level	[dB(A)]	74	81
Duty cycle	[%]	100	

1) Note operating range of proximity switches and motors

### Materials



Size			
[1]	Drive and end caps	Aluminium	
[2]	Profiles of the X-axis	Aluminium	
[3]	Profile of the Y-axis	Aluminium	
[4]	Covering		
	X-axis	Aluminium	
	Y-axis	Aluminium	
[5]	Slide	Aluminium	
-	Coupling	Aluminium with elastomer ring gear	Clamping hub: Aluminium Expanding mandrel hub: Stainless steel Ring gear: Elastomer
	Guide	Steel	
	Drive pinion	Steel	
	Ball bearings	Steel	
	Toothed belt	PU with steel cord	
	Note on materials	RoHS-compliant	
		Contains paint-wetting impairment substances	


## Datasheet

<b>Weight [kg]</b>		
Size	40	60
Product weight at 0 mm stroke (without rated load, motors, axial kits, mounting kits)		
X-axis and Y-axis	16.6	37.9
Y-axis (without slide)	6.0	11.5
Slide of the Y-axis	1.5	2.5
Additional weight per 100 mm stroke		
X-axis	1.69	2.21
Y-axis	0.81	0.99
Mounting kit for X-axis		
Adjusting kit <sup>1)</sup>	0.78	0.89
Mounting kit <sup>1)</sup>	0.33	0.37

1) Weight per component

<b>Toothed belt</b>		
Size	40	60
Pitch	[mm] 3	5
Elongation	[%] 0.1	0.045
Reference force for elongation	[N] 200	300
Width	[mm] 20	30
Effective diameter	[mm] 27.69	39.79
Feed constant <sup>1)</sup>	[mm/rev] 87	125

1) Feed constant at 45° travel

 **Note**

Engineering software

Handling Guide Online

[www.festo.com/handling-guide](http://www.festo.com/handling-guide)

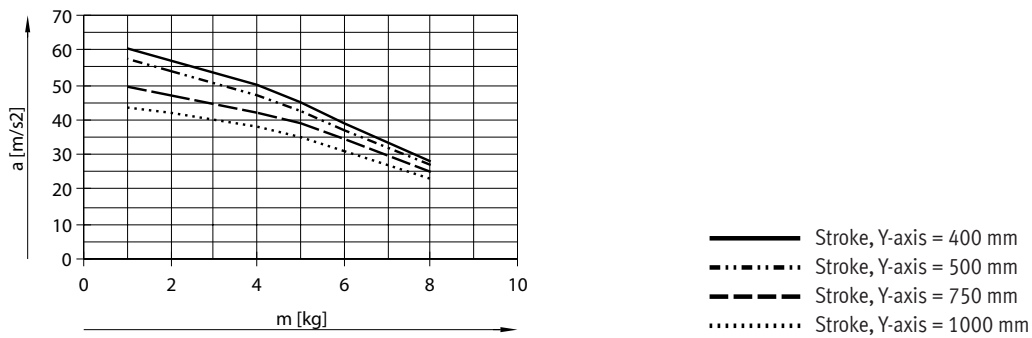
## Datasheet

### Acceleration $a$ as a function of the rated load $m$ and stroke of the Y-axis

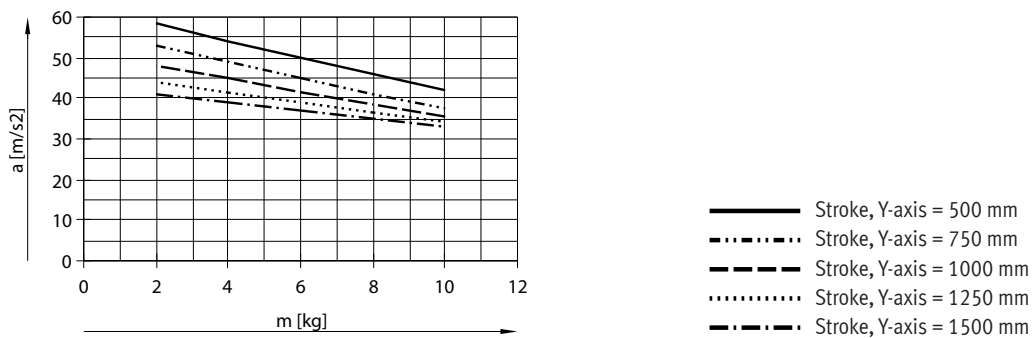
The following data applies to a horizontal mounting position. For a vertical mounting position, please get in touch with your local contact at Festo.

The centre of gravity of the slide is at the height of the slide in the Z-direction and in the centre of the slide in the X-/Y-directions.

#### EXCH-40

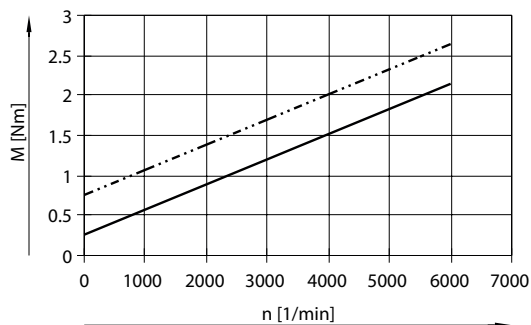


#### EXCH-60



## Datasheet

### No-load torque M as a function of rotational speed n



— EXCH-40  
 - - - EXCH-60

### Load values

The following data applies to a horizontal mounting position. For a vertical mounting position, please get in touch with your local contact at Festo.

The system is subject to the greatest load in the case of 45° travel. The following data apply in this case:

### Formula for calculating the required torque M and the required nominal rotational speed n

#### For EXCH-40:

$$M_{45^\circ} = a \times (9.79 \times m_L + 4.89 \times m_{Ay} + 10.21 \times J_m + 19.58) \times 10^{-3} + M_R$$

$$n_{45^\circ} = 60000 / \text{feed constant}(\text{mm}) \times \text{sqrt}(2)$$

#### For EXCH-60:

$$M_{45^\circ} = a \times (14.07 \times m_L + 7.03 \times m_{Ay} + 7.11 \times J_m + 49.24) \times 10^{-3} + M_R$$

$$n_{45^\circ} = 60000 / \text{feed constant}(\text{mm}) \times \text{sqrt}(2)$$

a = acceleration [m/s<sup>2</sup>]

v = speed [m/s]

m<sub>Ay</sub> = product weight of the Y-axis [kg] → page 10

m<sub>L</sub> = attachment component (Z-axis) [kg] with payload

J<sub>m</sub> = moment of inertia of the motor [kgcm<sup>2</sup>]

M<sub>R</sub> = no-load torque [Nm] → page 12

n<sub>45°</sub> = nominal rotational speed at 45° travel [rpm]

## Datasheet

### Sample calculation

Assuming:

Planar surface gantry

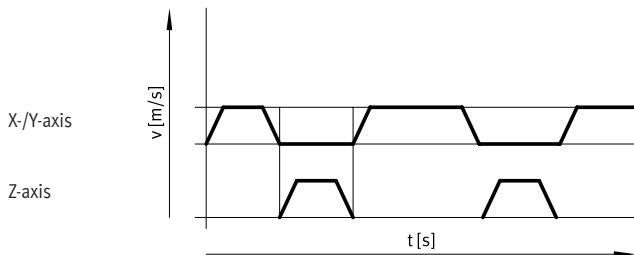
EXCH-40-1000-500-KF-W-B-L-T0-...

$$a_{\max} = 25 \text{ m/s}^2$$

$$v_{\max} = 2 \text{ m/s}$$

Payload = 0.5 kg

Attachment component on Z-axis: EGSL-BS-45-100-10P



Calculation:

1. What is the max. acceleration permitted by the mechanical system?

Moving mass  $m_L$  on the Y-axis:

Z-axis 3.40 kg

Payload 0.50 kg

= 3.90 kg

Stroke of the Y-axis:

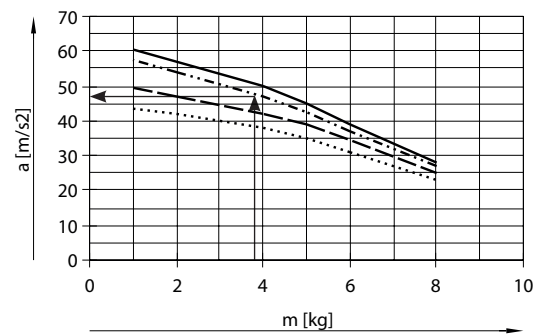
500 mm

Results:

With a moving mass  $m_L$  of 3.9 kg, the maximum permissible acceleration is

46  $\text{m/s}^2$ .

The required acceleration of 25  $\text{m/s}^2$  is thus permissible.



- Stroke, Y-axis = 400 mm
- ..... Stroke, Y-axis = 500 mm
- - - Stroke, Y-axis = 750 mm
- · - · Stroke, Y-axis = 1000 mm

### Note

The following data applies to a horizontal mounting position. For a vertical mounting position, please get in touch with your local contact at Festo.

The centre of gravity of the slide is at the height of the slide in the Z-direction and in the centre of the slide in the X-/Y-directions.

## Datasheet

### Sample calculation

2. Is the attached motor sufficient for this load?

Assuming:

$$a_{\max} = 25 \text{ m/s}^2$$

$$v_{\max} = 2 \text{ m/s}$$

$$m_{Ay} = 10.05 \text{ kg}$$

$$m_L = 3.90 \text{ kg}$$

$$J_m = 3.085 \text{ kgcm}^2$$

$$M_{45^\circ} = a \times (9.79 \times m_L + 4.89 \times m_{Ay} + 10.21 \times J_m + 19.58) \times 10^{-3} + M_R$$

$$n_{45^\circ} = 60000 / \text{feed constant}(\text{mm}) \times \text{sqrt}(2)$$

a = acceleration [m/s<sup>2</sup>]

v = speed [m/s]

$m_{Ay}$  = product weight of the Y-axis [kg] → page 10

$m_L$  = attachment component (Z-axis) [kg] with payload

$J_m$  = moment of inertia of the motor [kgcm<sup>2</sup>] → table below

$M_R$  = no-load torque [Nm] → page 12

$n_{45^\circ}$  = nominal rotational speed at 45° travel [rpm]



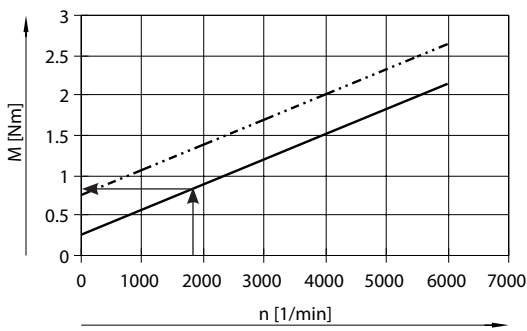
#### Note

These requirements for the dynamic response apply to 45° travel.

The dynamic values may be higher for travel only in the X- or Y-direction.

Determining  $M_{45^\circ}$

$$n_{45^\circ} = 60000 / \text{feed constant}(\text{mm}) \times \text{sqrt}(2)$$



No-load torque:

— EXCH-40

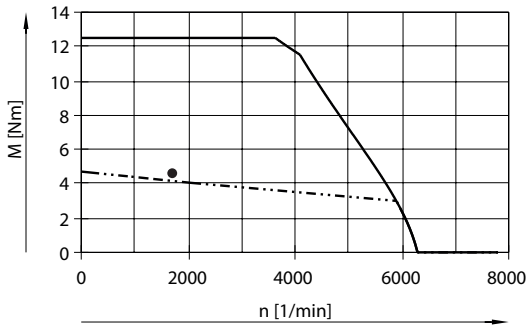
- - - EXCH-60

$$M_R = 0.9 \text{ Nm}$$

$$M_{45^\circ} = a \times (9.79 \times m_L + 4.89 \times m_{Ay} + 10.21 \times J_m + 19.58) \times 10^{-3} + M_R$$

$$M_{45^\circ} = 25 \text{ m/s}^2 \times (9.79 \times 3.9 \text{ kg} + 4.89 \times 10.05 \text{ kg} + 10.21 \times 3.085 \text{ kgcm}^2 + 19.58) \times 10^{-3} + 0.9 \text{ Nm} = 4.36 \text{ Nm}$$

Results:



— Max. torque

- - - Nominal torque

Sample motor/servo drive characteristic!

The value for the torque is above the nominal torque and below the maximum torque.

This torque is only required in the acceleration phases.

The rms value of the torque for the particular positioning cycle must remain below the nominal torque.

## Datasheet

### Selection of attachment components

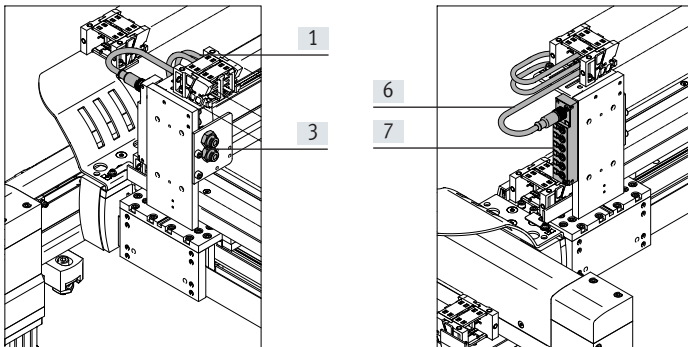
The gantry is delivered as standard in the configuration without attachment elements (EXCH-...-T0).

The engineering software "Handling Guide Online" can be used to configure the planar surface gantry with other attachment components, such as a pneumatic or electric Z-axis.

### EXCH-...-T0... (without attachment component)

The following are pre-installed:

- 2 supply ports for e.g. Z-axis
- Multi-pin plug distributor for bundling signals:
  - e.g. proximity switch



Components	Number of components
[1] Tubing	2
[3] Bulkhead fitting	2
[6] Plug socket with cable	1
[7] Multi-pin plug distributor (6-way)	1
– Earthing cable	2

## Datasheet

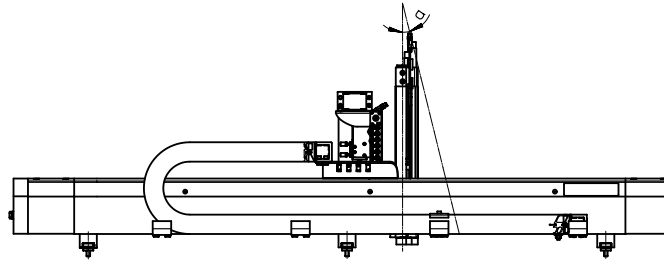
### Mounting position of attachment components

Due to manufacturing tolerances and the backlash in the guides, the angle between the mounting plane and the attachment component, e.g. Z-axis, may not be exactly 90° in certain circumstances.

Max. deviation:

EXCH-40:  $\alpha = \pm 1.1^\circ$

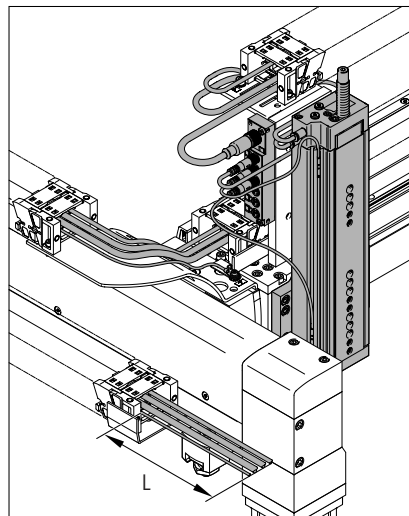
EXCH-60:  $\alpha = \pm 2.1^\circ$



### Selection of cable lengths

2 cable lengths (5 m or 10 m) can be selected using the modular product system → page 24. This specification relates to the output of the energy chain at the X-axis (dimension L) and describes the minimum length by which the cables and tubing protrude. The selected length applies to the following components:

- Tubing
- Plug sockets with cable



Sample product image



## Datasheet

### Number of profile mountings

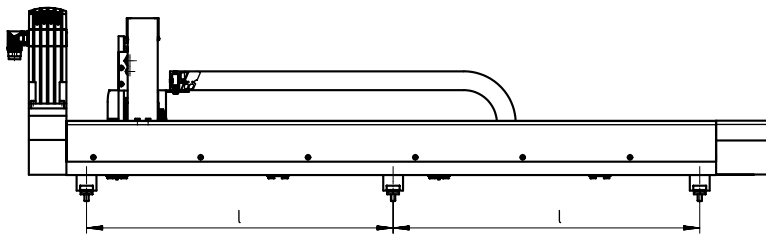
Irrespective of the mounting position, a different number of profile mountings needs to be used depending on the stroke of the X-axis.

The required number is mounted on delivery.

Stroke of the X-axis [mm]	Number of profile mountings per axis	
	EXCH-40	EXCH-60
200 ... 499	2	-
500 ... 899	2	
900 ... 1799	3	
1800 ... 2000	4	
2000 ... 2500	-	4

### Distances between the profile mountings

The profile mountings must be evenly spaced by distance  $l$ .



For EXCH-40

For EXCH-60

$$l_1 = \frac{l + 141}{n - 1}$$

$$l_1 = \frac{l + 328}{n - 1}$$

$l_1$  = distance

$l$  = stroke

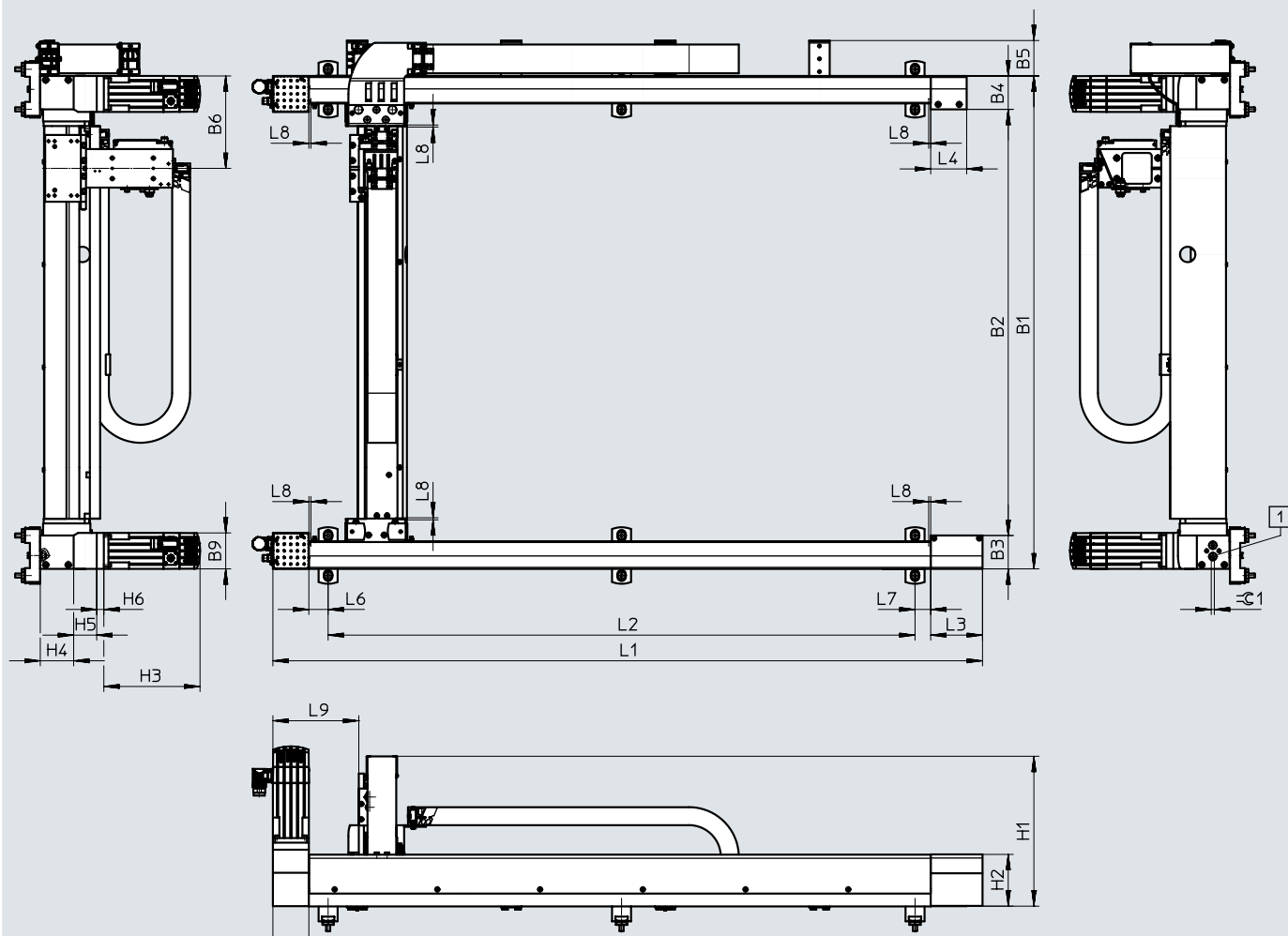
$n$  = number of profile mountings per axis

Datasheet

Dimensions

Download CAD data → [www.festo.com](http://www.festo.com)

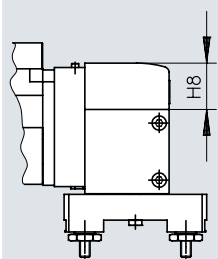
EXCH-40-...-T – Motor mounting position on top



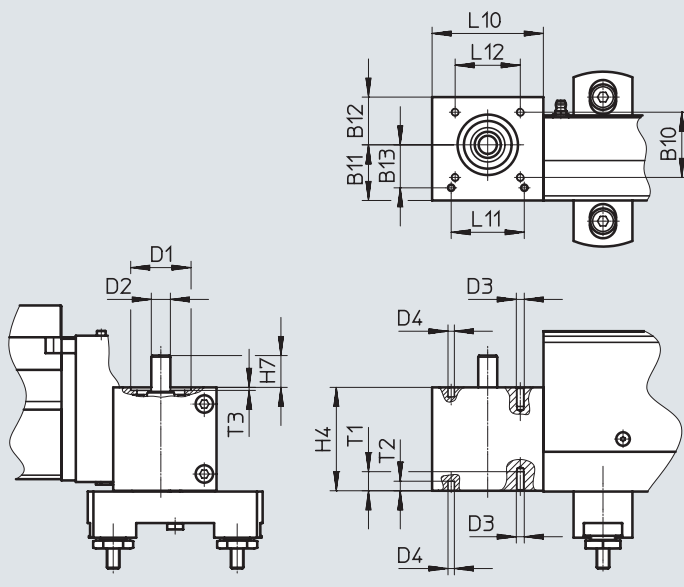
[1] Screw for toothed belt tension

L8 Safety distance per side

EXCH-40-...-B – Motor mounting position underneath



EXCH-40-... – Motor interface

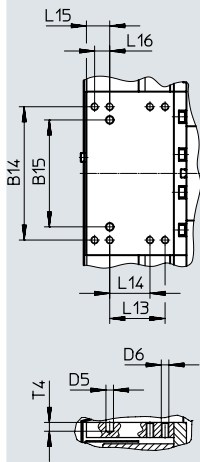


## Datasheet

## Dimensions

Download CAD data → [www.festo.com](http://www.festo.com)

EXCH-40-... – Slide



Type	B3	B4	B5	B6	B10	B11	B12	B13	B14	B15
								±0.05	±0.1	±0.03
EXCH-...	65	65	69	179.9	41	35	30	27	106	85

Type	D1	D2	D3	D4	D5	D6	H1	H2	H4	H7
	∅	∅		∅	∅					
	H7	h6		H7	H7					
EXCH-...	38	12	M5	4	6	M6	Approx. 293	100.8	65	20

Type	H8	L3	L4	L5	L6	L7	L8	L9	L10	L11
										±0.03
EXCH-...	100.3	101	70	70	37.5	30.5	4	167.2	70	46

Type	L12	L13	L14	L15	L16	T1	T2	T3	T4	≈G1
		±0.1	±0.1		±0.1					
EXCH-...	41	44	32	18.5	12	12	6	1.9	7	6

## Stroke-dependent dimensions

Stroke of the X-axis	L1	L2	Stroke of the Y-axis	B1	B2
500	882	643	400	760	630
750	1132	893	500	860	730
1000	1382	1143	750	1100	980
1500	1882	1643	1000	1360	1230
200 ... 2000	382+stroke	→ Page 17	200 ... 1000	360+stroke	230+stroke

**Note**

Depending on the stroke of the X-axis, a different number of profile mountings is required. The distance between the profile mountings must always be the same (→ page 17).

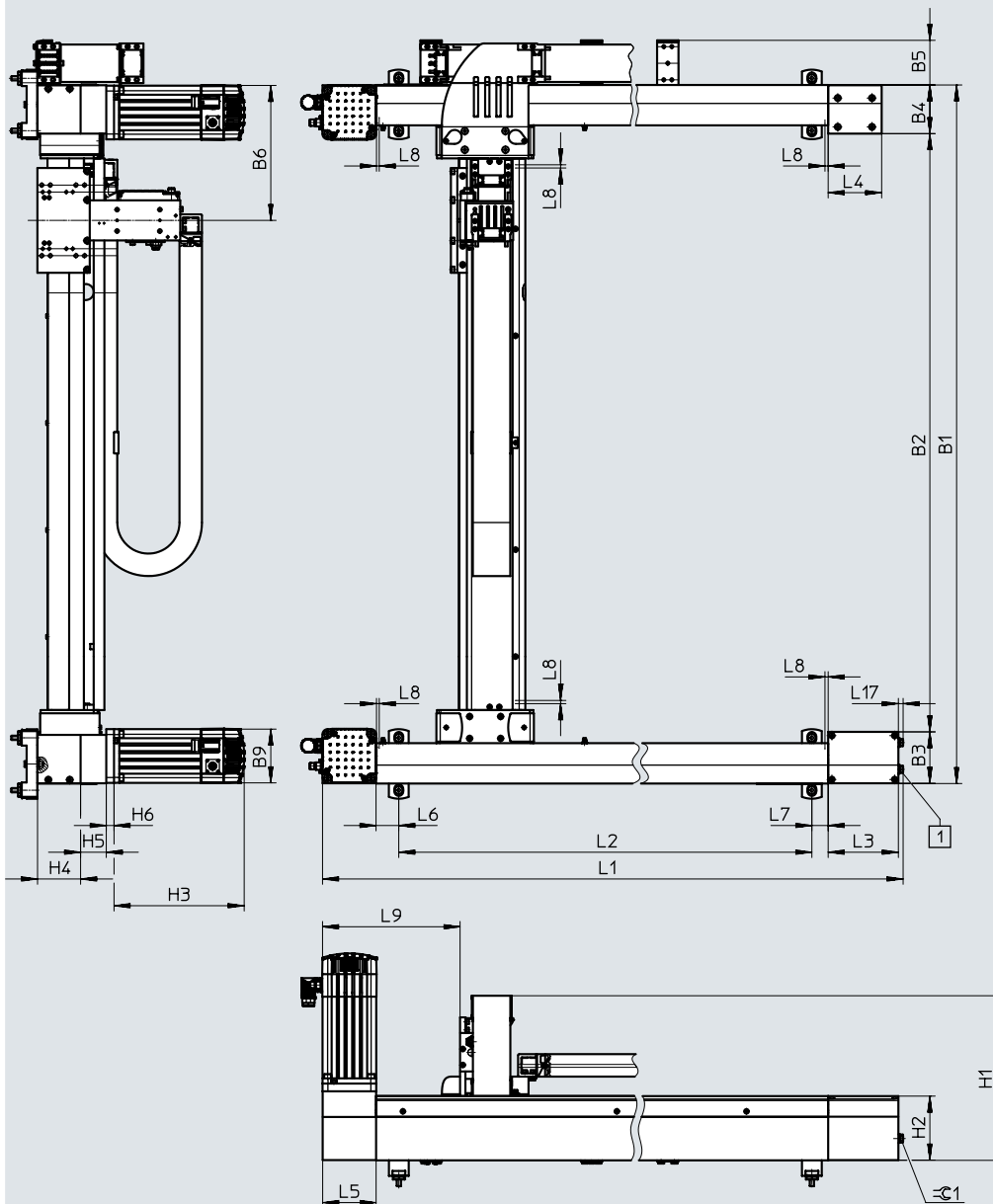
The tension of the toothed belt must be set before commissioning. The tools required to do this (e.g. frequency meter) are not included in the scope of delivery.

Datasheet

Dimensions

Download CAD data → [www.festo.com](http://www.festo.com)

EXCH-60-...-T – Motor mounting position on top



[1] Screw for toothed belt tension

L8 Safety distance per side

## Datasheet

Type	B3	B4	B5	B6	H1
EXCH-...	96.6	91	83.5	253.3	Approx. 310

Type	H2	H4	L3	L4	L5
EXCH-...	120.1	80.6	131.2	100	100

Type	L6	L7	L8	L9	L17	≅G1
EXCH-...	42.5	30.5	6	257	8.9	13

Stroke-dependent dimensions					
Stroke of the X-axis	L1	L2	Stroke of the Y-axis	B1	B2
750	1393	1079.9	500	1007	819
1000	1643	1329.9	750	1257	1069
1500	2143	1829.9	1000	1507	1319
2000	2643	2329.9	1250	1757	1569
500 ... 2500	643 + stroke	→ Page 17	1500	2007	1819
			500 ... 1500	507 + stroke	319 + stroke

**Note**

Depending on the stroke of the X-axis, a different number of profile mountings is required. The distance between the profile mountings must always be the same (→ page 17).

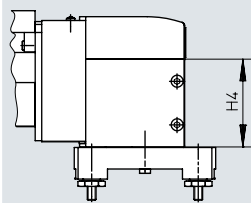
The tension of the toothed belt must be set before commissioning. The tools required to do this (e.g. frequency meter) are not included in the scope of delivery.

Datasheet

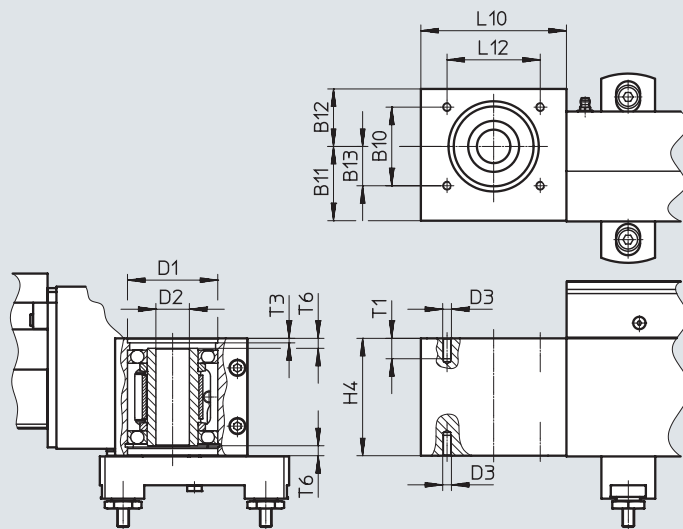
Dimensions

Download CAD data → [www.festo.com](http://www.festo.com)

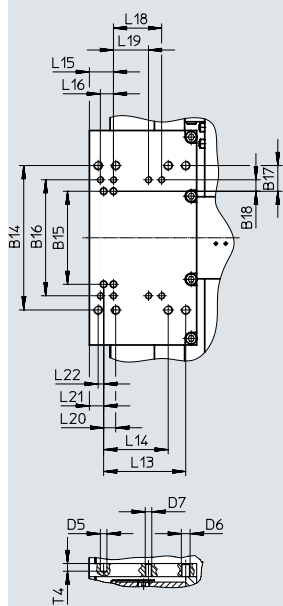
EXCH-60-...-B – Motor mounting position underneath



EXCH-60-... – Motor interface



EXCH-60-... – Slide



Type	B10	B11	B12	B13	B14	B15	B16	B17	B18	D1 ∅ H7
EXCH-...	54 ±0.1	51	39.5	27 ±0.05	132 ±0.1	85 ±0.03	106 ±0.1	23.5 ±0.1	10.5 ±0.1	62

Type	D2 ∅ H7	D3	D5 ∅ H7	D6	D7	H4	H8	L10	L12	L13	L14
EXCH-...	23	M6	6	M8	M6	80.6	119.6	100	64 ±0.1	75 ±0.1	59 ±0.1

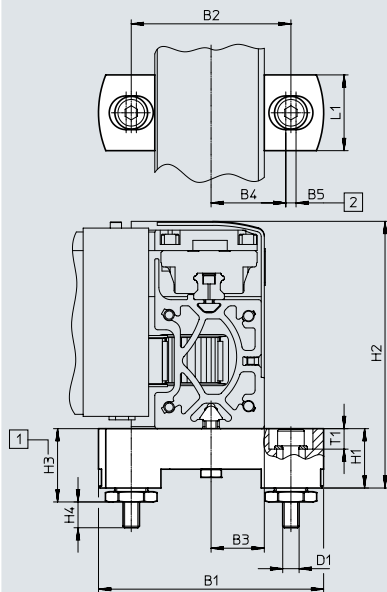
Type	L15	L16	L18	L19	L20	L21	L22	T1	T3	T4	T6
EXCH-...	22	12 ±0.1	44 ±0.1	32 ±0.1	11 ±0.1	13	5	14	3.1	7	6.9

## Datasheet

## Dimensions

Download CAD data → [www.festo.com](http://www.festo.com)

## Adjusting kit EADC



[1] Adjustable

[2] Width of elongated hole

Height differences of up to 5 mm can be compensated using the adjusting kit.

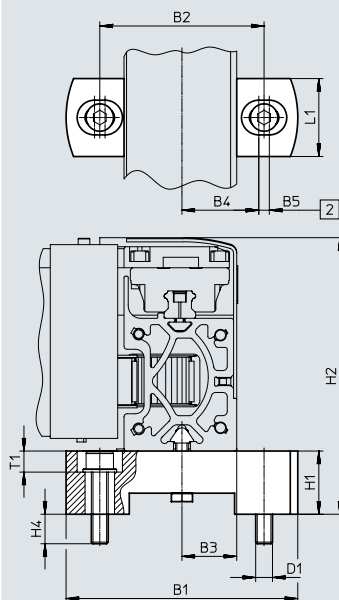
Can be ordered via:

Modular product system → page 24

or Accessories → page 26

For size	B1	B2	B3	B4 ±0.2	B5	D1	H1	H2	H3		H4 max.	L1	T1
									min.	max.			
40	110	78	26	36.5	5	M8	29	129.8	34.8	39.8	14	37	10
60	130	98	36.5	46.5	5	M8	29	149.1	34.8	39.8	14	37	10

## Mounting kit



[2] Width of elongated hole

No compensation is possible using the mounting kit.

Can be ordered via:


Modular product system → page 24

or Accessories → page 26

For size	B1	B2	B3	B4 ±0.2	B5	D1	H1 +0.2	H2	H4 max.	L1	T1
60	130	98	36.5	46.5	5	M8	30	150.1	14	37	10

## Ordering data – Modular product system


Ordering table					
Size	40	60	Conditions	Code	Enter code
Module no.	<b>1923050</b>	<b>1939785</b>			
Product type	EXCH series H			<b>EXCH</b>	EXCH
Size	40	60		-...	
Stroke of the X-axis [mm]	200 ... 2000	500 ... 2500			
Stroke of the Y-axis [mm]	200 ... 1000	500 ... 1500			
Guide	Recirculating ball bearing guide			<b>-KF</b>	-KF
Motor type	Without motor			<b>-W</b>	-W
Motor attachment position	Underneath			<b>-B</b>	
	On top			<b>-T</b>	
Energy chain connection side	To the left			<b>-L</b>	-L
Attachment components	None			<b>-TO</b>	-TO
Cable length	None			-	
	With cable length 5 m			<b>-5K</b>	
	With cable length 10 m			<b>-10K</b>	
Mounting kit	With adjusting kit				
	With mounting kit			<b>-P</b>	
Document language	German			<b>-DE</b>	
	English			<b>-EN</b>	
	Spanish			<b>-ES</b>	
	French			<b>-FR</b>	
	Italian			<b>-IT</b>	
	Russian			<b>-RU</b>	
	Chinese			<b>-ZH</b>	

 **Note**

In combination with characteristic W (without motor), the planar surface gantry EXCH is delivered without coupling housing and without coupling.



## Accessories

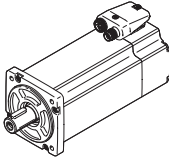
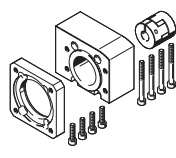
-  - Note

Depending on the combination of motor and drive, it may not be possible to reach the maximum feed force of the drive.

Third-party motors that have an overly high driving torque may damage the linear gantry. When selecting the motors, please observe the limits specified in the technical data.

## Permissible axis/motor combinations with axial kit


Datasheets → Internet: eamm-a

Motor/gear unit <sup>1)</sup>	Axial kit	
		
Type	Part no.	Type
<b>EXCH-40</b>		
With servo motor		
EMMT-AS-80-...	8164654	EAMM-A-X48-80P
<b>EXCH-60</b>		
With servo motor		
EMMT-AS-100-...	8164656	EAMM-A-X62-100A
EMMT-AS-150-...	8164657	EAMM-A-X62-150A

- Kits for third-party motors → Internet: eamm-a

1) The input torque must not exceed the max. permissible transferable torque of the axial kit.

## Ordering data

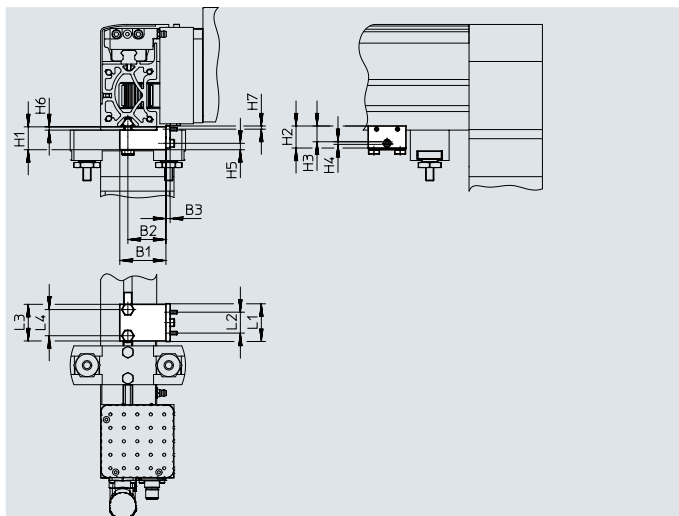
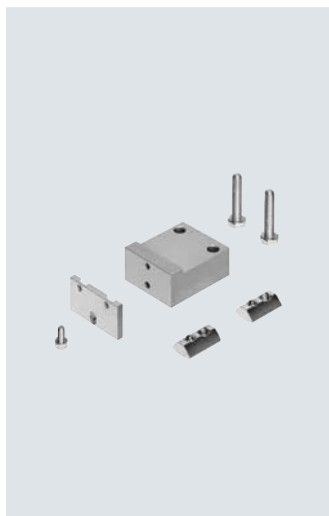
Coupling	For axial kit	Part no.	Type
	EAMM-A-X48-80P	551005	EAMC-42-50-12-19
	EAMM-A-X62-100A	558003	EAMD-56-46-19-23X27
	EAMM-A-X62-150A	558005	EAMD-56-46-24-23X27

## Accessories

### Sensor mounting EAPR

For proximity switch  
SIES-V3B and SIES-Q8B  
(for sensing the slide position on the X-axis)

Material:  
Switch lug: Steel  
Sensor bracket: Wrought aluminium alloy  
RoHS-compliant


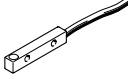
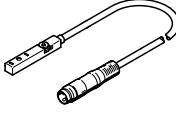
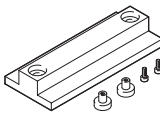


Dimensions and ordering data											
For size	B1	B2	B3	H1	H2	H3 ±0.1	H4	H5	H6 -0.1	H7 -0.2	
40	44	36.3	4	21.8	21	15	2.5	6.1	3.1	3	
60	54	46.3	4	21	21	15	2.5	5.3	2.3	3	

For size	L1	L2	L3	L4	Weight [g]	Part no.	Type
40	36	20	35	25	120	2536353	EAPR-E12-40
60	36	20	35	25	150	2478805	EAPR-E12-60

Ordering data				
	For size	Description	Part no.	Type
<b>Adjusting kit EADC</b>				
	40	For mounting and aligning the planar surface gantry. The kit is height-adjustable	8029165	EADC-E12-40
	60		8029166	EADC-E12-60
<b>Mounting kit EAHM</b>				
	40	For mounting the planar surface gantry. The kit is not height-adjustable	3489340	EAHM-E12-K-40
	60		3489318	EAHM-E12-K-60

## Accessories

Designation	Description	Cable length [m]	Part no.	Type
<b>Proximity switches for sensing the position of the slide on the X-axis</b> - To be used in combination with sensor mounting EAPR-E12				
	<ul style="list-style-type: none"> <li>For EXCH-40, EXCH-60</li> </ul>	PNP, N/O contact	–	<b>150491</b>   <b>SIES-V3B-PS-S-L</b>
	<ul style="list-style-type: none"> <li>For EXCH-40, EXCH-60</li> </ul>	PNP, N/C contact	–	<b>174552</b>   <b>SIES-Q8B-PO-K-L</b>
<b>Proximity switch (inductive) for sensing the position of the slide on the Y-axis</b>				
	<b>Cable with plug</b> <ul style="list-style-type: none"> <li>For EXCH-40, EXCH-60</li> <li>For DC voltage</li> </ul>	PNP, N/C contact	0.3	<b>551392</b>   <b>SIES-8M-PO-24V-K-0.3-M8D</b>
		PNP, N/O contact	0.3	<b>551387</b>   <b>SIES-8M-PS-24V-K-0.3-M8D</b>
<b>Ordering data</b>				
	For size	Description	Part no.	Type
<b>Adjusting tool EADT</b>				
	40, 60	For aligning and checking the flatness of the planar surface gantry	<b>3197697</b>	<b>EADT-W-E12</b>

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