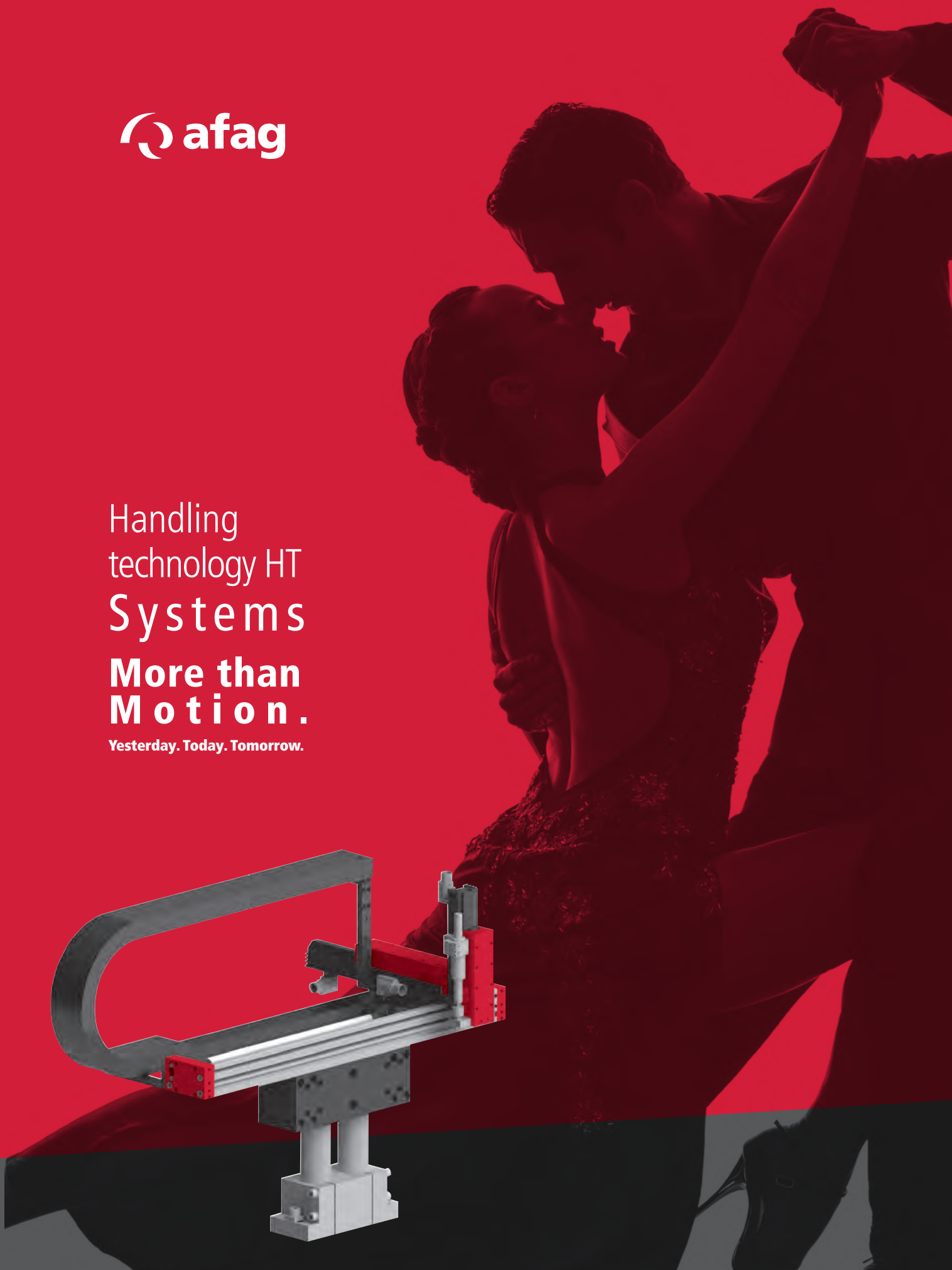
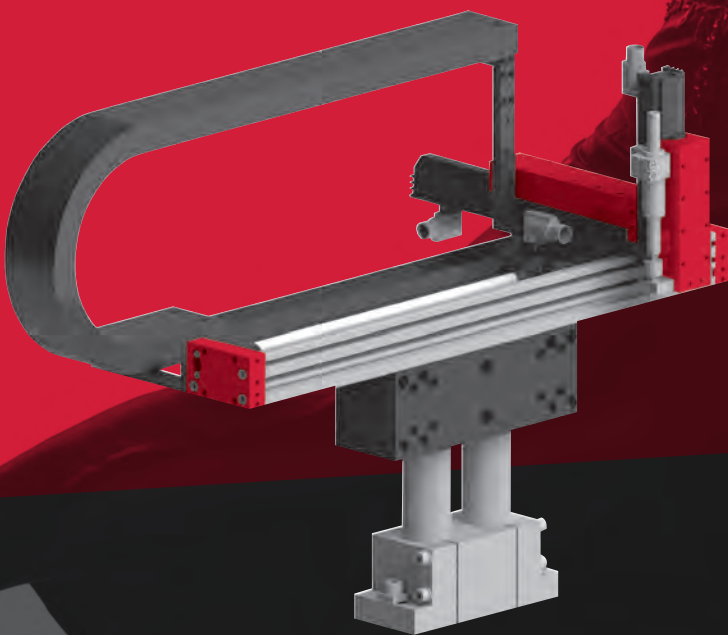




Handling
technology HT
Systems
**More than
Motion.**

Yesterday. Today. Tomorrow.



Systematic handling



Systematic handling cut costs and increase availability.



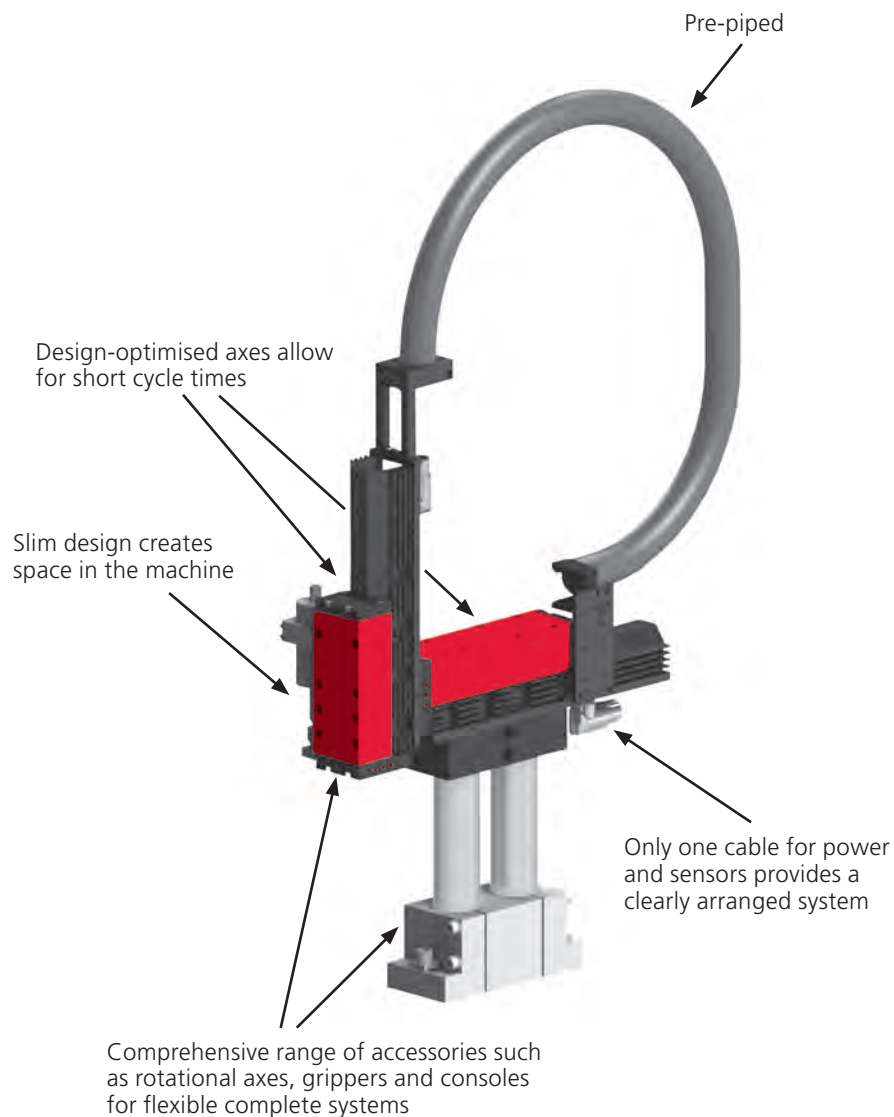
Our products are characterised by their robustness, longevity and continuously high quality.



Linear axes, rotational axes and grippers with either electric or pneumatic drives form the basis of our standardised handling systems.



Our highly dynamic linear motor axes offer short cycle times as well as a complete set-up of the systems. The single-cable technology includes the control of the drive and the position monitoring via hall sensors.



Handling configurator



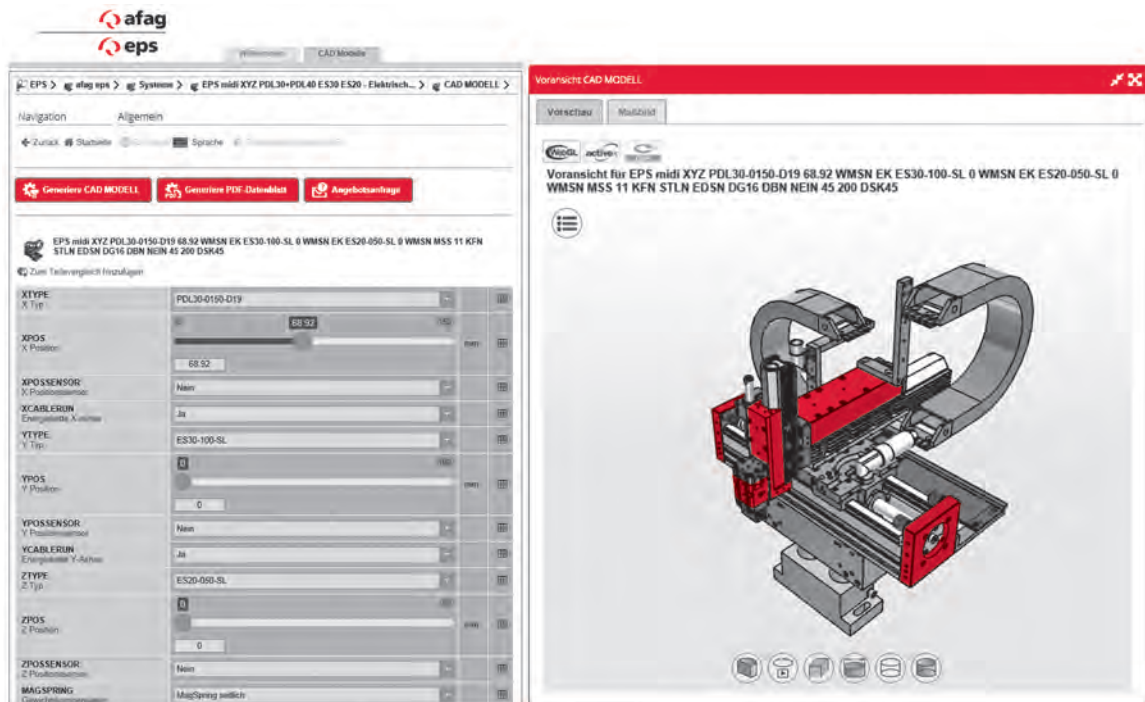
Thanks to our handling configurator, you can significantly reduce your design time. The 3D model you create can be added to your design right away.



A large selection of our standard modules is available for your application. Whether electric or pneumatic, with linear motor, spindle or belt drive, your designers configure the system and we will provide support with optimisations and a performance calculation with guaranteed cycle time.



Upon customer request, our engineers will create special designs and make them available as 3D models..



Your advantages >>>

- ▶ High availability through standardised systems
- ▶ Scalable systems reduce costs and save space
- ▶ Cycle time guarantees ensure that your project is a success
- ▶ Short project durations
- ▶ No time-consuming parametrisation of the axes
- ▶ Simple programming through control via your PLC
- ▶ No robot control required

Our systems offer >>>

- ▶ High dynamics due to optimally coordinated axes
- ▶ Freely configurable systems via the parts server, access via our website
- ▶ Solid construction allows precise positioning
- ▶ Complete set-up from the console to the gripper with system wiring
- ▶ Uniform control system from pick & place to a 4-axis system
- ▶ Parametrisation and trial run prior to delivery

Axis definition according to DIN 66217

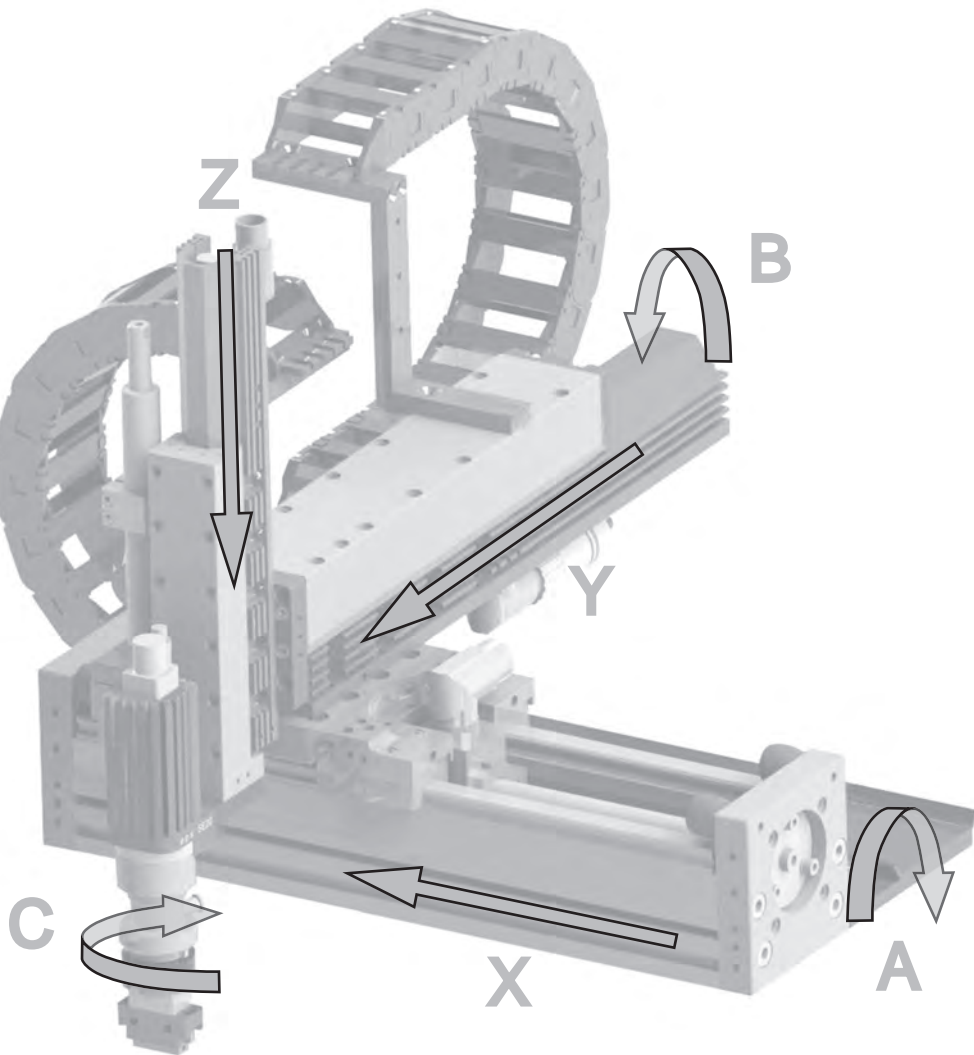







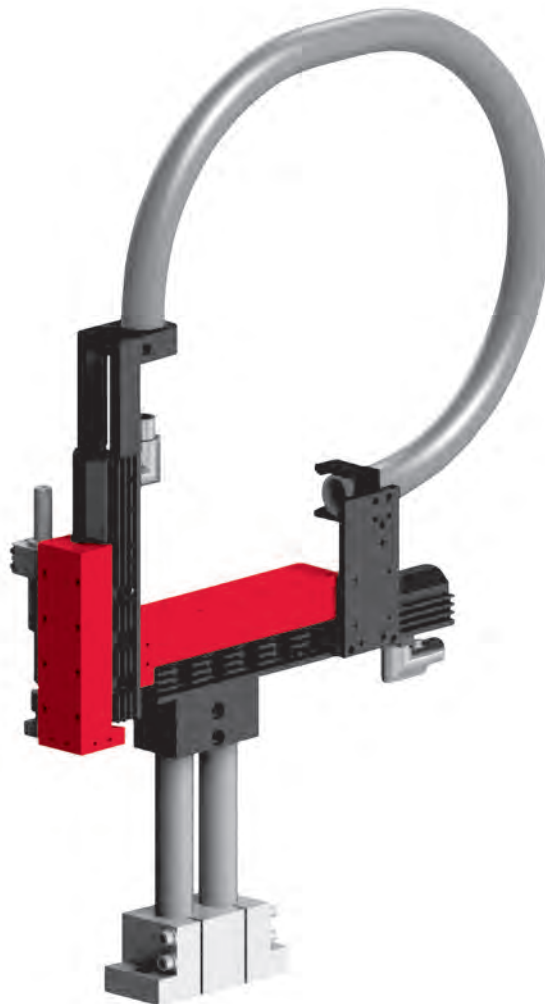


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Electrical handling systems

EPS mini YZ

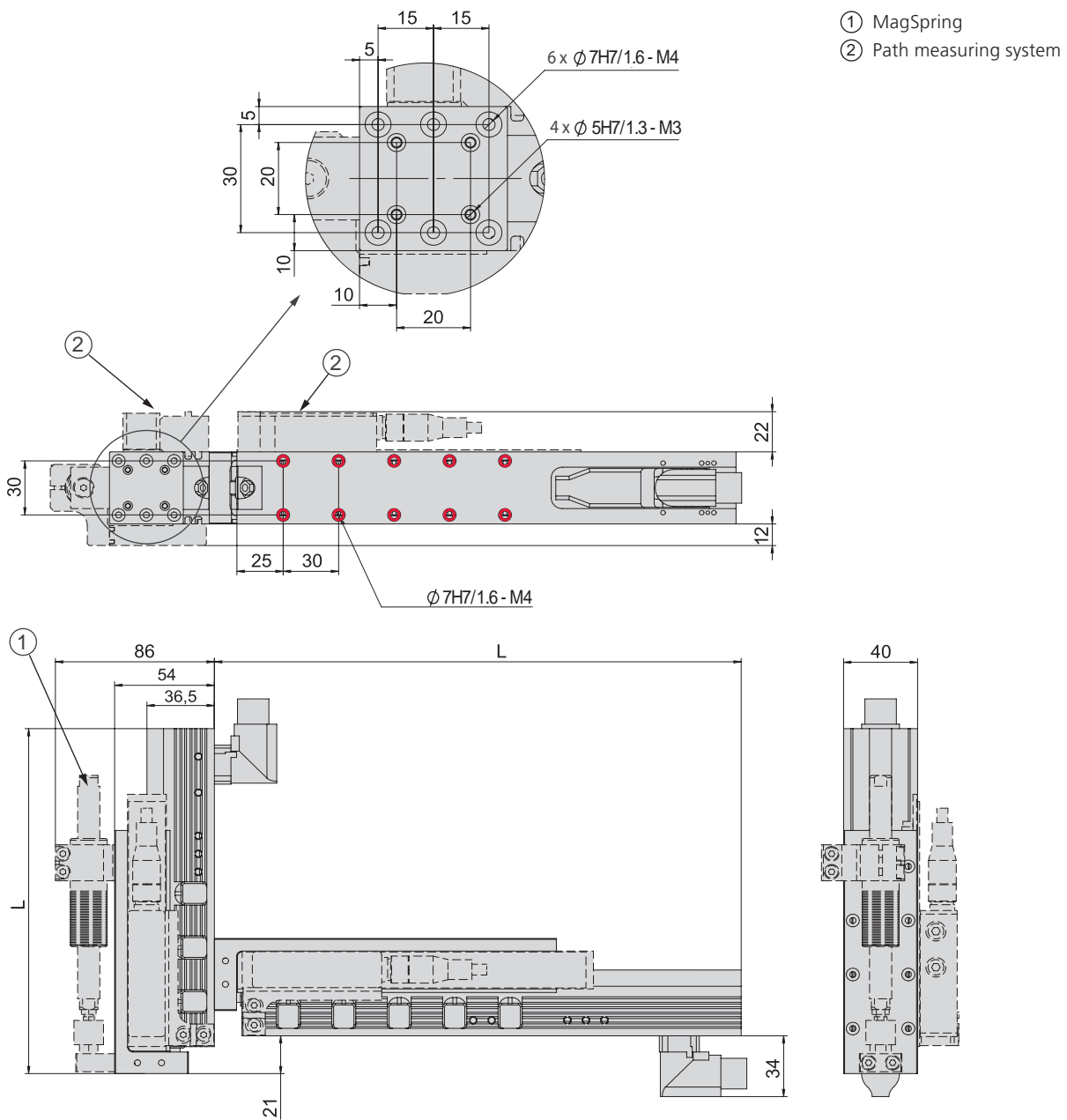


- Compact handling only 40 mm wide
- Energy and cost-efficient handling
- Flexible alternative for pneumatic handling

Dimensions

EPS mini YZ

Type	L
ES20-50-SL	191.5 mm
ES20-100-SL	285 mm
ES20-200	365 mm
ES20-300	495 mm



Bores can be screwed through

EPS mini YZ	
Order number	50444428
Drive type	electrical, linear motor
Repeat accuracy	± 0.05 mm
- with external path measuring system (1 µm)	± 0.02 mm
Temperature range	0 ... 50 °C
Control block with 5/3, 5/2 or vacuum units	up to 6 valves

Type	Y-axis	
Axis	ES20	ES20
Stroke horizontal	50 mm	100, 200, 300 mm
Maximum speed	6.8 m/s	4.8 m/s
Peak force	67 N	137 N
Permanent force	15 N	31 N

Type	Z-axis	
Axis	ES20	ES20
Stroke vertical	50 mm	100, 200, 300 mm
Maximum speed	6.8 m/s	4.8 m/s
Peak force	67 N	137 N
Permanent force	15 N	31 N

Included in the delivery *

- 2x Ø 5h6 Centring sleeves
- 4x Ø 7h6 Centring sleeves
- MagSpring or compensation spring
- Hose or drag chain
- Motor cable
- Completely wired
- Controller parametrised

Accessories

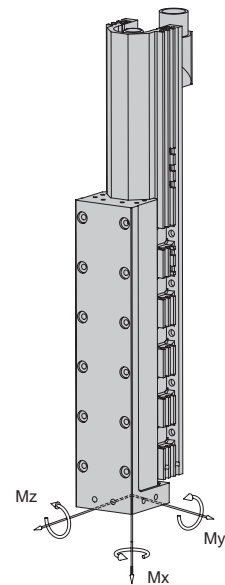
(Catalogue HT accessories)

- Console
- Valve block
- (Catalogue HT components linear)
- Path measuring system
- (Catalog HT components gripping/rotating)
- Rotary modules
- Gripper modules

* Deviations possible depending on installed peripherals

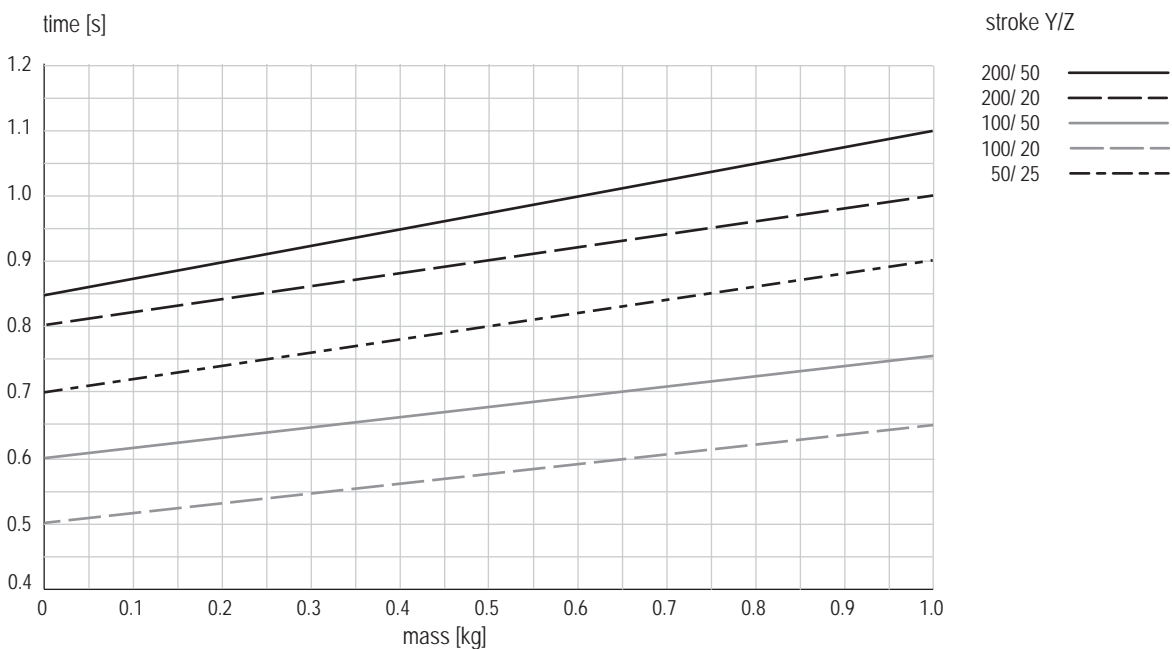
Warranty: 24 months following commissioning, but a maximum of 27 months following delivery

Type	ES20-SL	ES20
Dynamic torque Mx	5 Nm	5 Nm
Dynamic torque My	25 Nm	50 Nm
Dynamic torque Mz	25 Nm	50 Nm



Payload (centric)					
Stroke Y	50 mm	100 mm	200 mm	300 mm	
Stroke Z					
50 mm	3 kg	3 kg	2 kg	1 kg	
100 mm	3 kg	2 kg	1 kg	0.5 kg	
200 mm	2 kg	1 kg	-	-	
300 mm	1 kg	-	-	-	

Cycle times EPS mini YZ for Pick & Place



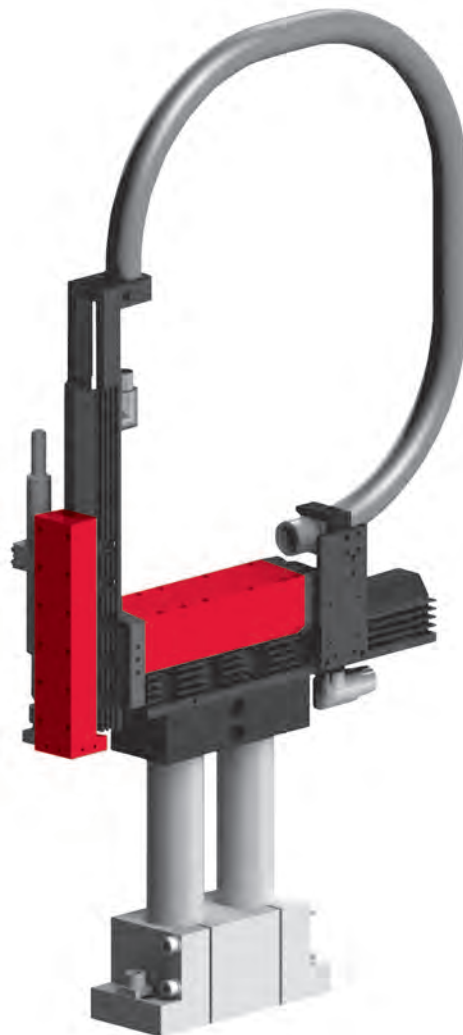
Times including 2 x 100 ms gripping time

Comment:

The values in the chart correspond to a Pick-and-Place cycle (6 subsequent movements + 2 x 100 ms gripping time). The indicated mass is centrally installed at the vertical linear unit. Standstill times of handling permit shorter movement times. In exceptions, e.g. at eccentric mass or high requirements to accuracy, the value may be exceeded.

Electrical handling systems

EPS midi YZ



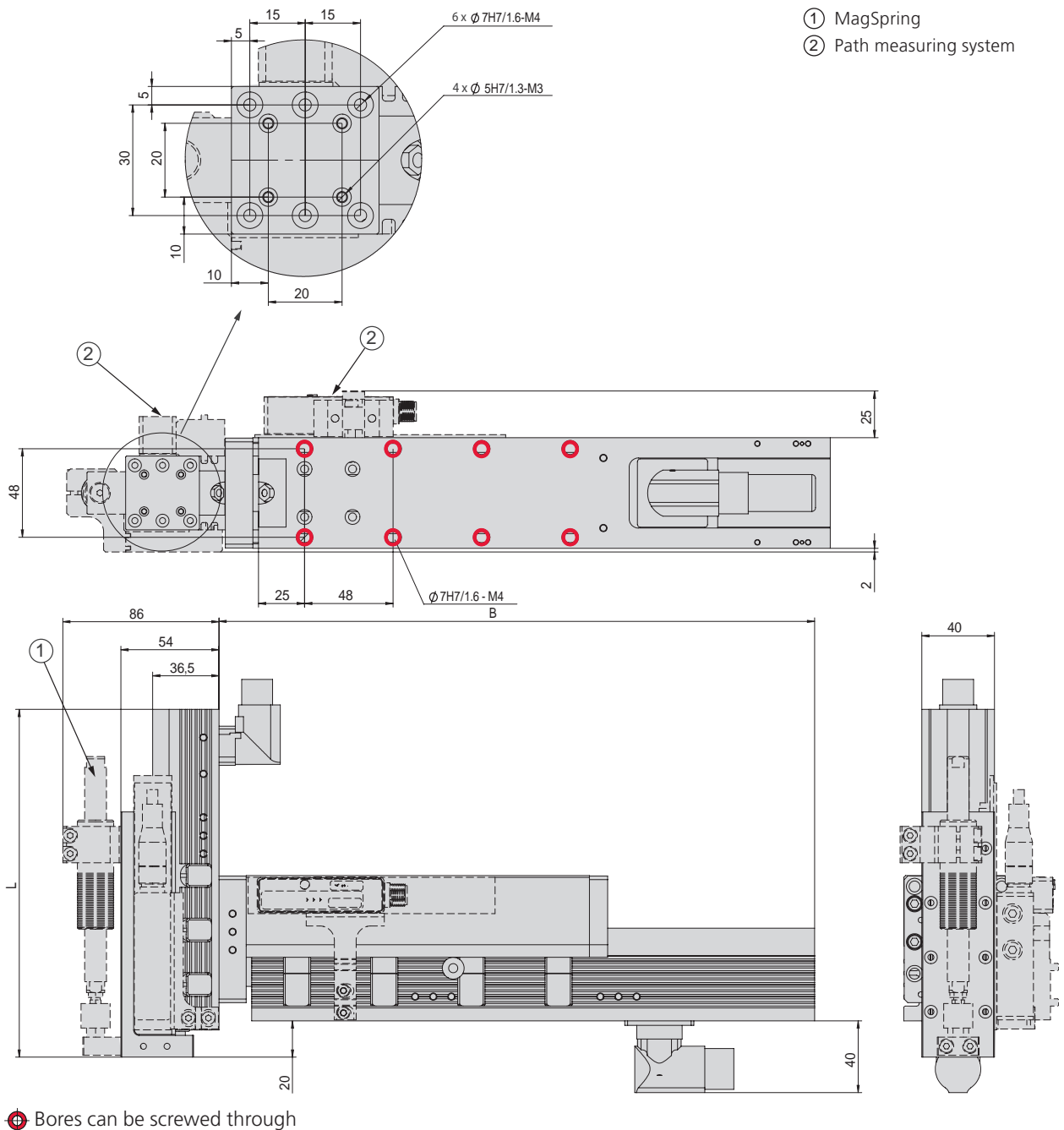
- Compact handling with boom Y to 500 mm stroke
- Stiff gantry module ES30 with 255 N peak force
- Light-weight vertical module ES20 for high dynamics

Dimensions

EPS midi YZ

Type	L
ES20-050-SL	191.5 mm
ES20-100-SL	285 mm
ES20-200	365 mm
ES20-300	495 mm

Type	B
ES30-050-SL	288 mm
ES30-100-SL	328 mm
ES30-100	328 mm
ES30-200-SL	428 mm
ES30-200	428 mm
ES30-300	528 mm
ES30-400	628 mm
ES30-500	728 mm



EPS midi YZ	
Order number	50444429
Drive type	electrical, linear motor
Repeat accuracy	± 0.05 mm
- with external path measuring system (1 µm)	± 0.02 mm
Temperature range	0 ... 50 °C
Control block with 5/3, 5/2 or vacuum units	up to 6 valves

Type	Y-axis
Axis	ES30
Stroke horizontal	50, 100, 200, 300, 400, 500 mm
Maximum speed	3.2 m/s
Peak force	255 N
Permanent force	51 N

Type	Z-axis
Axis	ES20 ES20
Stroke vertical	50 mm 100, 200, 300 mm
Maximum speed	6.8 m/s 4.8 m/s
Peak force	67 N 137 N
Permanent force	15 N 31 N

Included in the delivery *

- 2x Ø 5h6 Centring Sleeves
- 2x Ø 7h6 Centring Sleeves
- 2x Ø 9h7 Centring Sleeves
- MagSpring or compensation spring
- Hose or drag chain
- Motor cable
- Completely wired
- Controller parametrised

Accessories

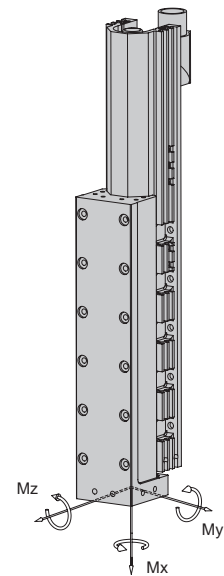
- (Catalogue HT accessories)
- Console
 - Valve block
- (Catalogue HT components linear)
- Path measuring system
- (Catalogue HT components gripping/rotating)
- Rotary module
 - Gripper module

* Deviations possible depending on installed peripherals

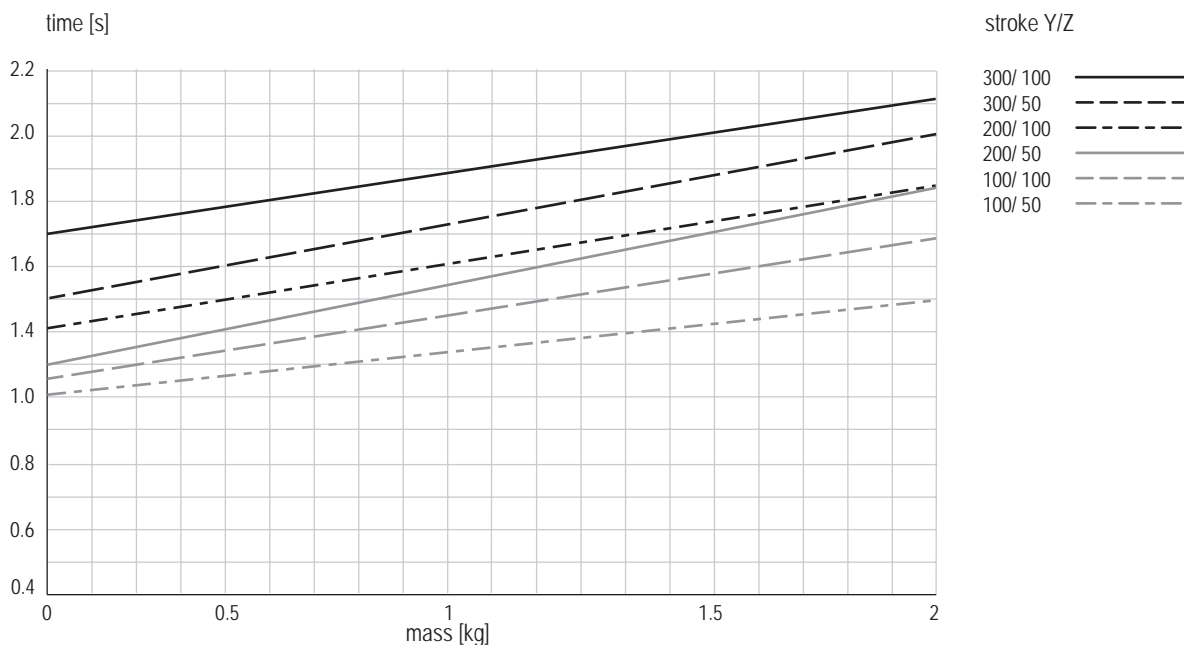
Warranty: 24 months following commissioning, but a maximum of 27 months following delivery

Type	ES20-SL	ES20
Dynamic torque Mx	5 Nm	5 Nm
Dynamic torque My	25 Nm	50 Nm
Dynamic torque Mz	25 Nm	50 Nm

Payload (centric)							
Stroke Y	50 mm	100 mm	200 mm	300 mm	400 mm	500 mm	
Stroke Z							
50 mm	3 kg	5 kg	5 kg	4 kg	3 kg	2 kg	
100 mm	5 kg	5 kg	4 kg	3 kg	2 kg	1 kg	
200 mm	5 kg	4 kg	3 kg	2 kg	1 kg	0.5 kg	
300 mm	4 kg	3 kg	2 kg	1 kg	0.5 kg	0.5 kg	



Cycle times EPS midi YZ for Pick & Place



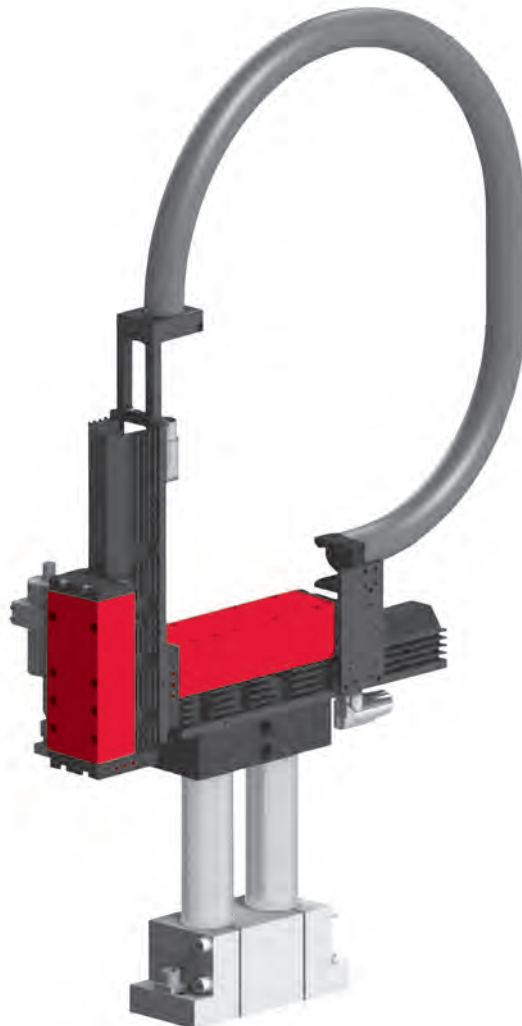
Times including 2 x 100 ms gripping time

Comment:

The values in the chart correspond to a Pick-and-Place cycle (6 subsequent movements + 2 x 100 ms gripping time). The indicated mass is centrally installed at the vertical linear unit. Standstill times of handling permit shorter movement times. In exceptions, e.g. at eccentric mass or high requirements to accuracy, the value may be exceeded.

Electrical handling systems

EPS maxi YZ

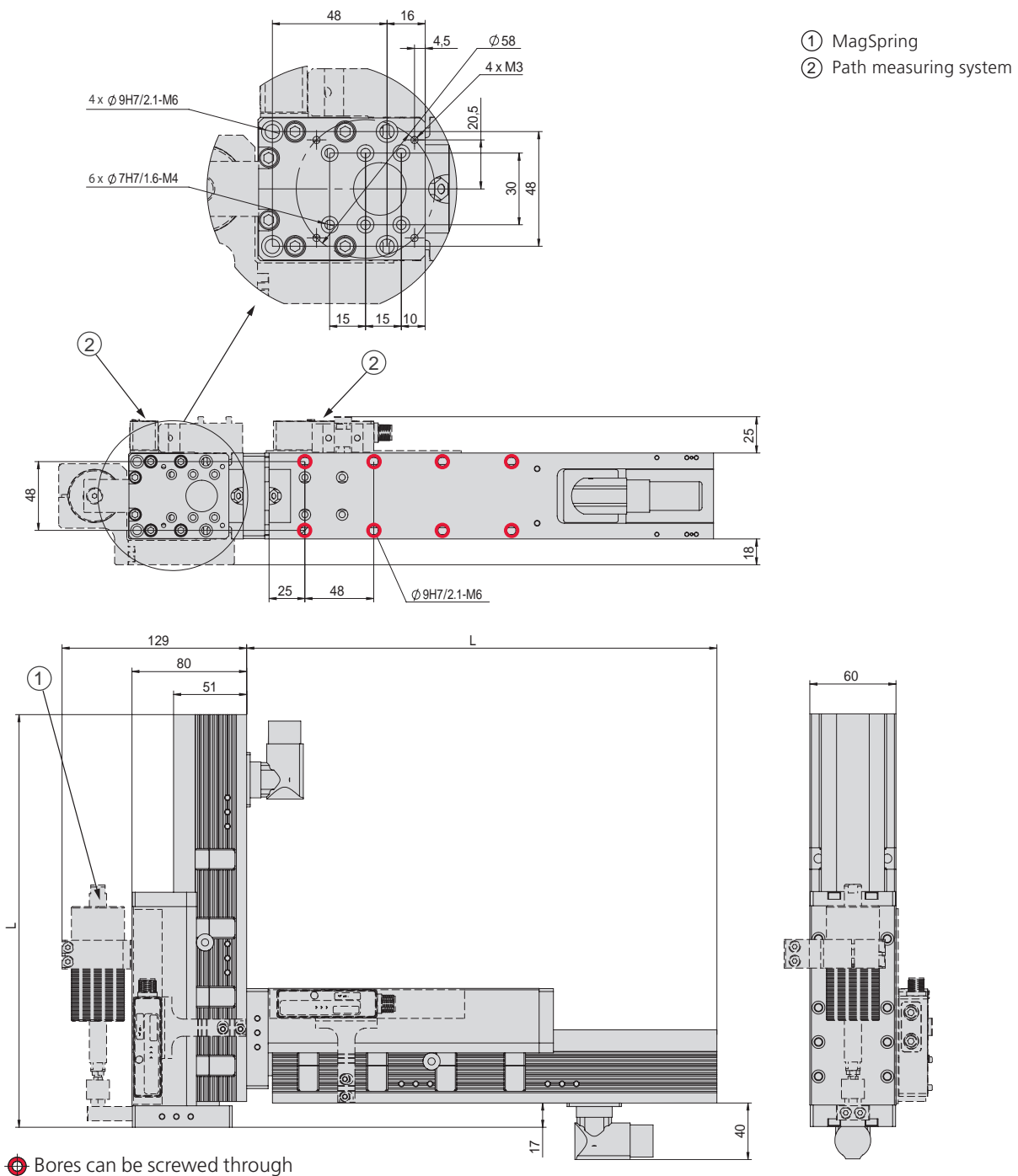


- Powerful, robust boom system
- Dynamic even at higher loads
- Vertical module with joining forces up to 255 N

Dimensions

EPS maxi YZ

Type	L
ES30-050-SL	288 mm
ES30-100-SL	328 mm
ES30-100	328 mm
ES30-200-SL	428 mm
ES30-200	428 mm
ES30-300	528 mm
ES30-400	628 mm
ES30-500	728 mm



EPS maxi YZ	
Order number	50444430
Drive type	electrical, linear motor
Repeat accuracy	± 0.05 mm
- with external path measuring system (1 µm)	± 0.02 mm
Temperature range	0 ... 50 °C
Control block with 5/3, 5/2 or vacuum units	up to 6 valves

Type	Y-axis
Axis	ES30
Stroke horizontal	50, 100, 200, 300, 400, 500 mm
Maximum speed	3.2 m/s
Peak force	255 N
Permanent force	51 N

Type	Z-axis
Axis	ES30
Stroke vertical	50, 100, 200, 300, 400, 500 mm
Maximum speed	3.2 m/s
Peak force	255 N
Permanent force	51 N

Included in the delivery *

- 2x Ø 7h6 Centring sleeves
- 4x Ø 9h7 Centring sleeves
- MagSpring
- Hose or drag chain
- Motor cable
- Completely wired
- Controller parametrised

Accessories

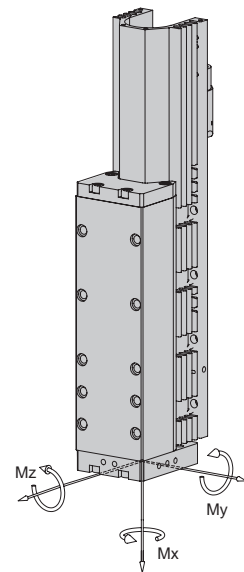
(Catalogue HT accessories)

- Console
- Valve block
- (Catalogue HT components linear)
- Path measuring system
- (Catalogue HT components gripping/rotating)
- Rotary modules
- Grpper modules

* Deviations possible depending on installed peripherals

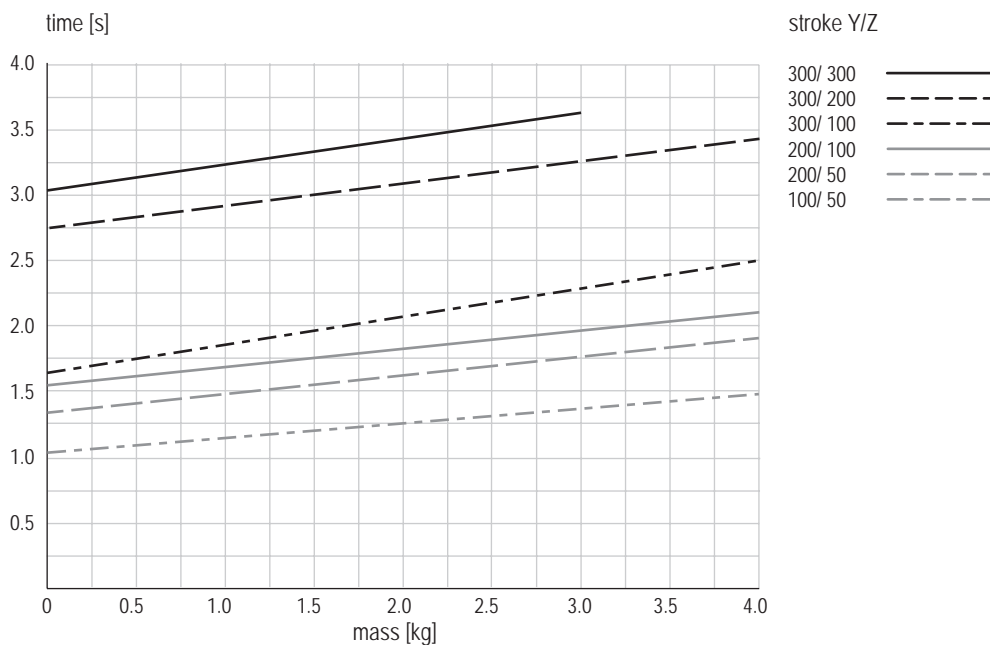
Warranty: 24 months following commissioning, but a maximum of 27 months following delivery

Type	ES30-SL	ES30
Dynamic torque Mx	30 Nm	30 Nm
Dynamic torque My	40 Nm	80 Nm
Dynamic torque Mz	40 Nm	80 Nm



Payload (centric)							
Stroke Y	50 mm	100 mm	200 mm	300 mm	400 mm	500 mm	
Stroke Z							
50 mm	8 kg	7 kg	6 kg	5 kg	4 kg	3 kg	
100 mm	7 kg	6 kg	5 kg	4 kg	3 kg	2 kg	
200 mm	6 kg	5 kg	4 kg	3 kg	2 kg	1 kg	
300 mm	5 kg	4 kg	3 kg	2 kg	1 kg	0.5 kg	
400 mm	4 kg	3 kg	2 kg	1 kg	0.5 kg	-	
500 mm	3 kg	2 kg	1 kg	0.5 kg	-	-	

Cycle times EPS maxi YZ for Pick & Place



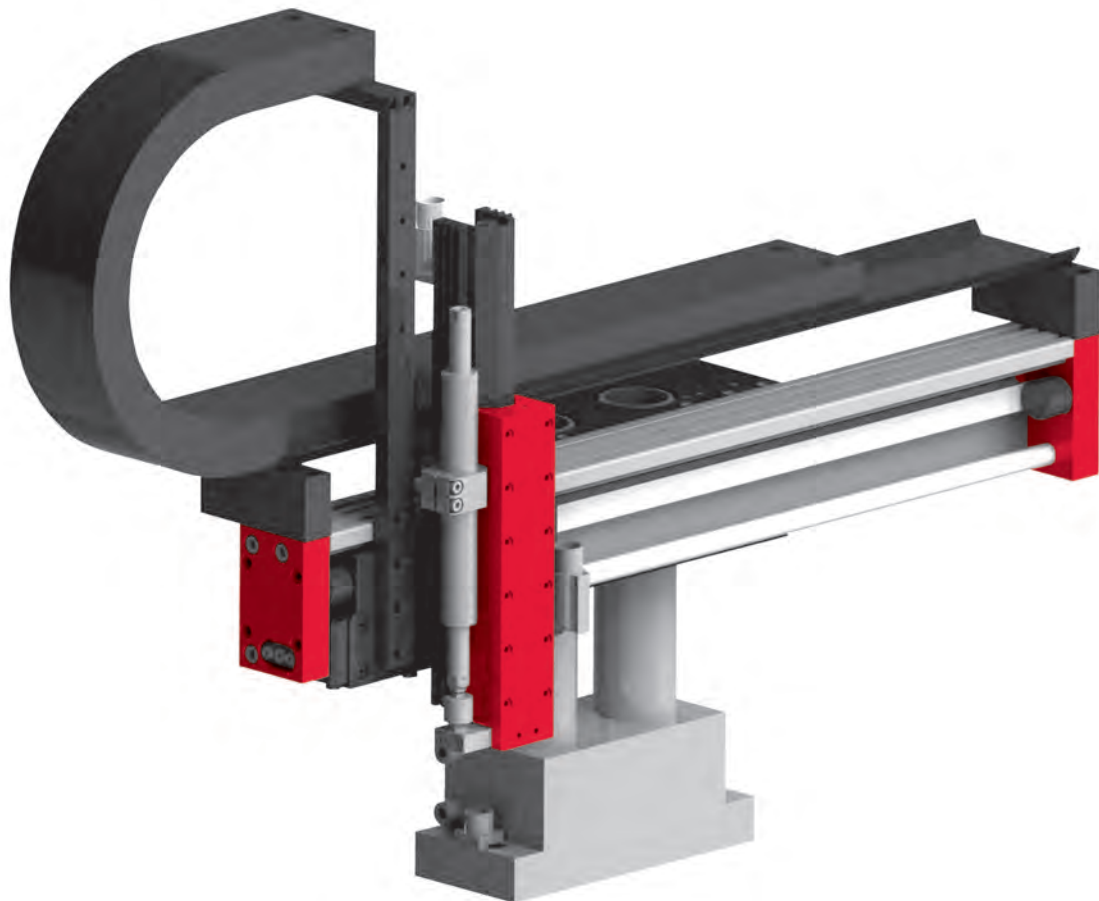
Times including 2 x 100 ms gripping time

Comment:

The values in the chart correspond to a Pick & Place cycle (6 subsequent movements + 2 x 100 ms gripping time). The indicated mass is centrally installed at the vertical linear unit. Standstill times of handling permit shorter movement times. In exceptions, e.g. at eccentric mass or high requirements to accuracy, the value may be exceeded.

Electrical handling systems

EPS mini XZ



- Compact handling for longer strokes
- Strong alternative to simple toothed belt axes
- Long service life from low-wear setup

Dimensions

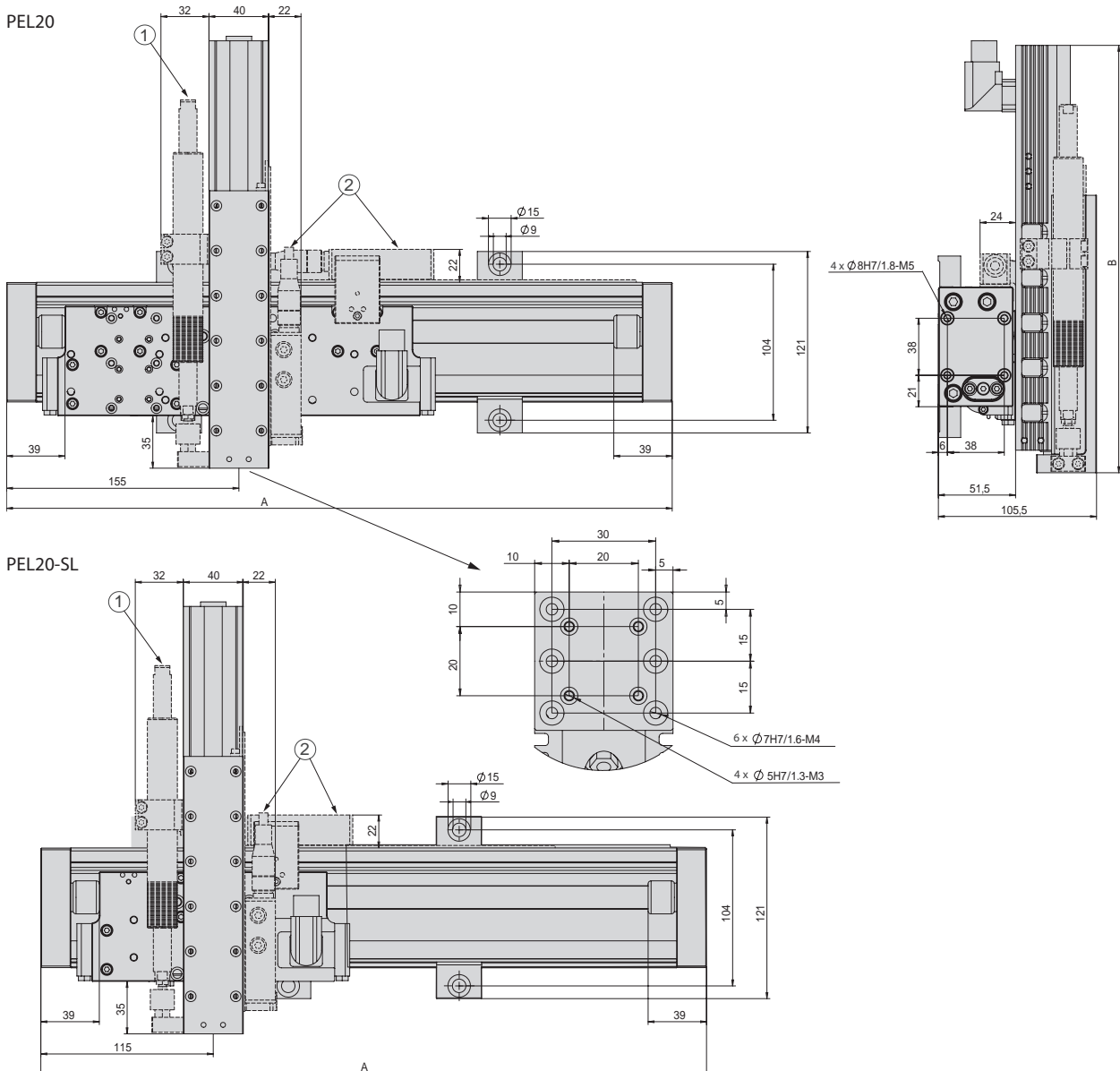
EPS mini XZ

Type	A
PEL20-060	374 mm
PEL20-130	444 mm
PEL20-190	504 mm
PEL20-290	604 mm
PEL20-470	784 mm
PEL20-560	874 mm

Type	A
PEL20-080-SL	314 mm
PEL20-140-SL	374 mm
PEL20-210-SL	444 mm
PEL20-270-SL	504 mm
PEL20-370-SL	604 mm
PEL20-550-SL	784 mm
PEL20-640-SL	874 mm

Type	B
ES20-50-SL	191.5 mm
ES20-100-SL	285 mm
ES20-200	365 mm
ES20-300	495 mm

- ① MagSpring
- ② Path measuring system



EPS mini XZ		
Order number	50444431	
Drive type	electrical, linear motor	
Repeat accuracy	± 0.05 mm	
- with external path measuring system (1 µm)	± 0.02 mm	
Temperature range	0 ... 50 °C	
Control block with 5/3, 5/2 or vacuum units	up to 6 valves	

Type	X-axis	
Axis	PEL20-SL	PEL20
Stroke horizontal	80, 140, 210, 270, 370, 550, 640 mm	60, 130, 190, 290, 470, 560 mm
Maximum speed	6.8 m/s	4.8 m/s
Peak force	67 N	137 N
Permanent force	15 N	31 N

Type	Z-axis	
Axis	ES20	ES20
Stroke vertical	50 mm	100, 200, 300 mm
Maximum speed	6.8 m/s	4.8 m/s
Peak force	67 N	137 N
Permanent force	15 N	31 N

Included in the delivery *

- 2x Ø 5h6 Centring sleeves
- 2x Ø 7h6 Centring sleeves
- 2x Ø 9h7 Centring sleeves
- MagSpring or compensation spring
- Hose or drag chain
- Motor cable
- Completely wired
- Controller parametrised

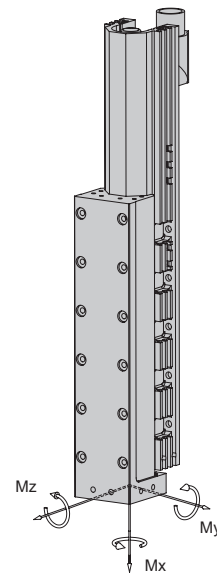
Accessories

- (Catalogue HT accessories)
- Console
 - Valve block
- (Catalogue HT components linear)
- Path measuring system
- (Catalogue HT components gripping/rotating)
- Rotary module
 - Gripper module

* Deviations possible depending on installed peripherals

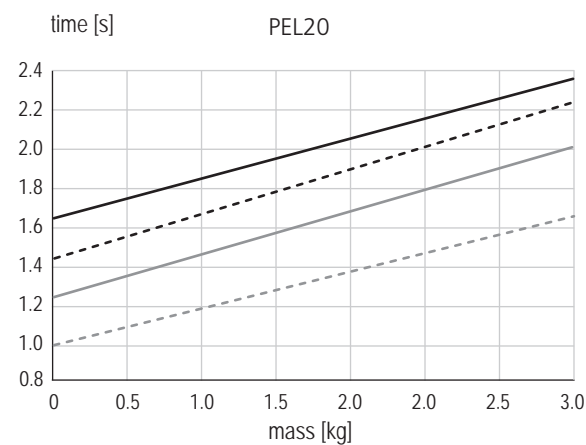
Warranty: 24 months following commissioning, but a maximum of 27 months following delivery

Type	ES20-SL	ES20
Dynamic torque Mx	5 Nm	5 Nm
Dynamic torque My	25 Nm	50 Nm
Dynamic torque Mz	25 Nm	50 Nm



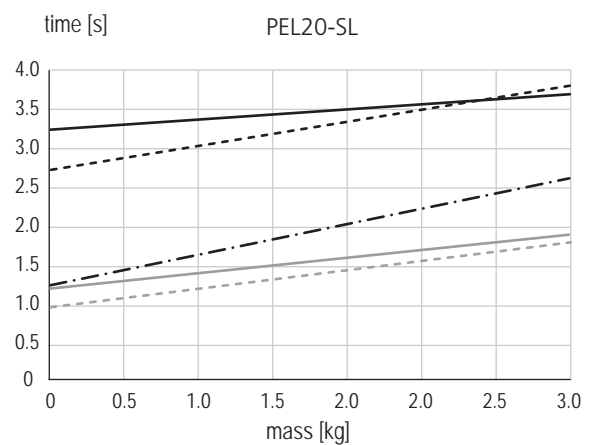
Payload (centric)	
Stroke X	up to 640 mm
Stroke Z	
50 mm	3 kg
100 mm	2 kg
200 mm	1 kg

Cycle times EPS mini XZ for Pick & Place



stroke X/Z

- 500/ 100 ———
- 500/ 50 - - - - -
- 300/ 50 ———
- 100/ 50 - - - - -



stroke X/Z

- 600/ 100 ———
- 600/ 50 - - - - -
- 300/ 500 - · - · - ·
- 100/ 100 ———
- 100/ 50 - - - - -

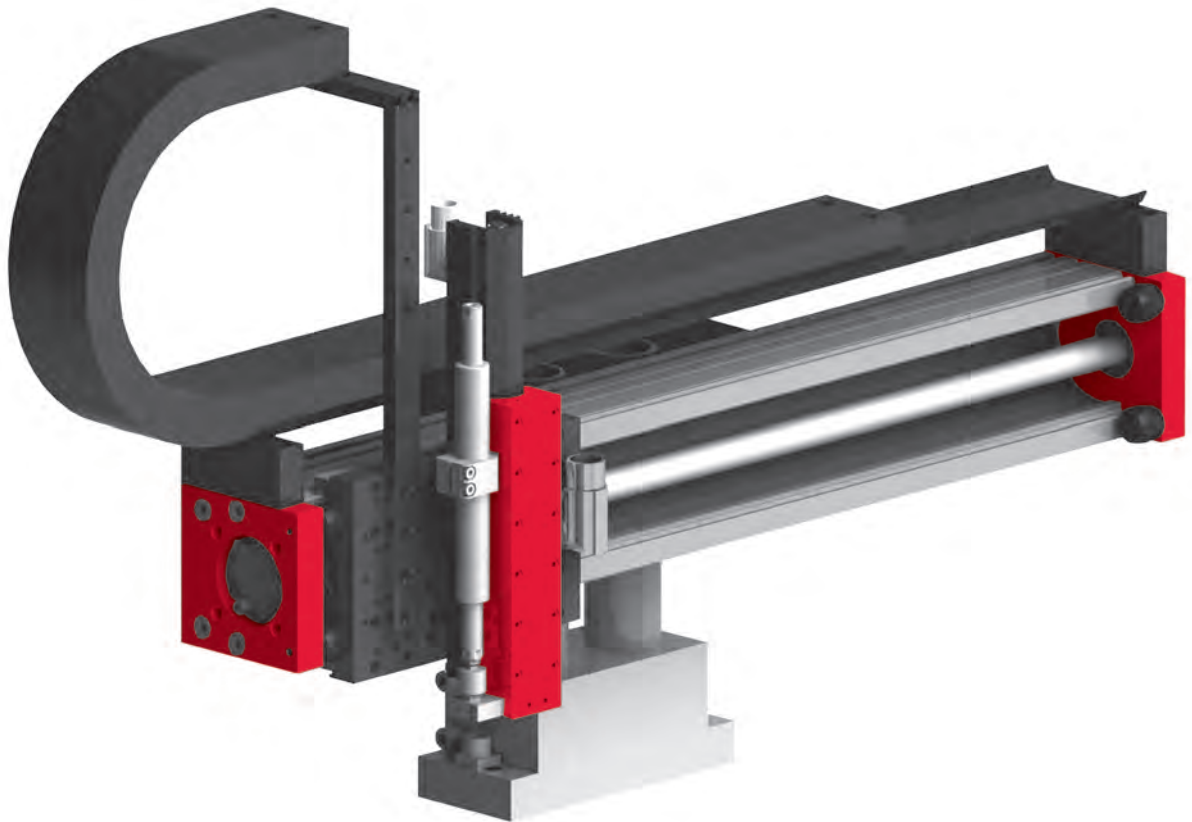
Times including 2 x 100 ms gripping time

Comment:

The values in the chart correspond to a Pick & Place cycle (6 subsequent movements + 2 x 100 ms gripping time). The indicated mass is centrally installed at the vertical linear unit. Standstill times of handling permit shorter movement times. In exceptions, e.g. at eccentric mass or high requirements to accuracy, the value may be exceeded..

Electrical handling systems

EPS midi XZ



- Torsion-stiff X-axis with double guide
- Very high dynamics from motors with 255 N, 550 N and 1000 N peak force
- Light-weight vertical module up to 300 mm stroke

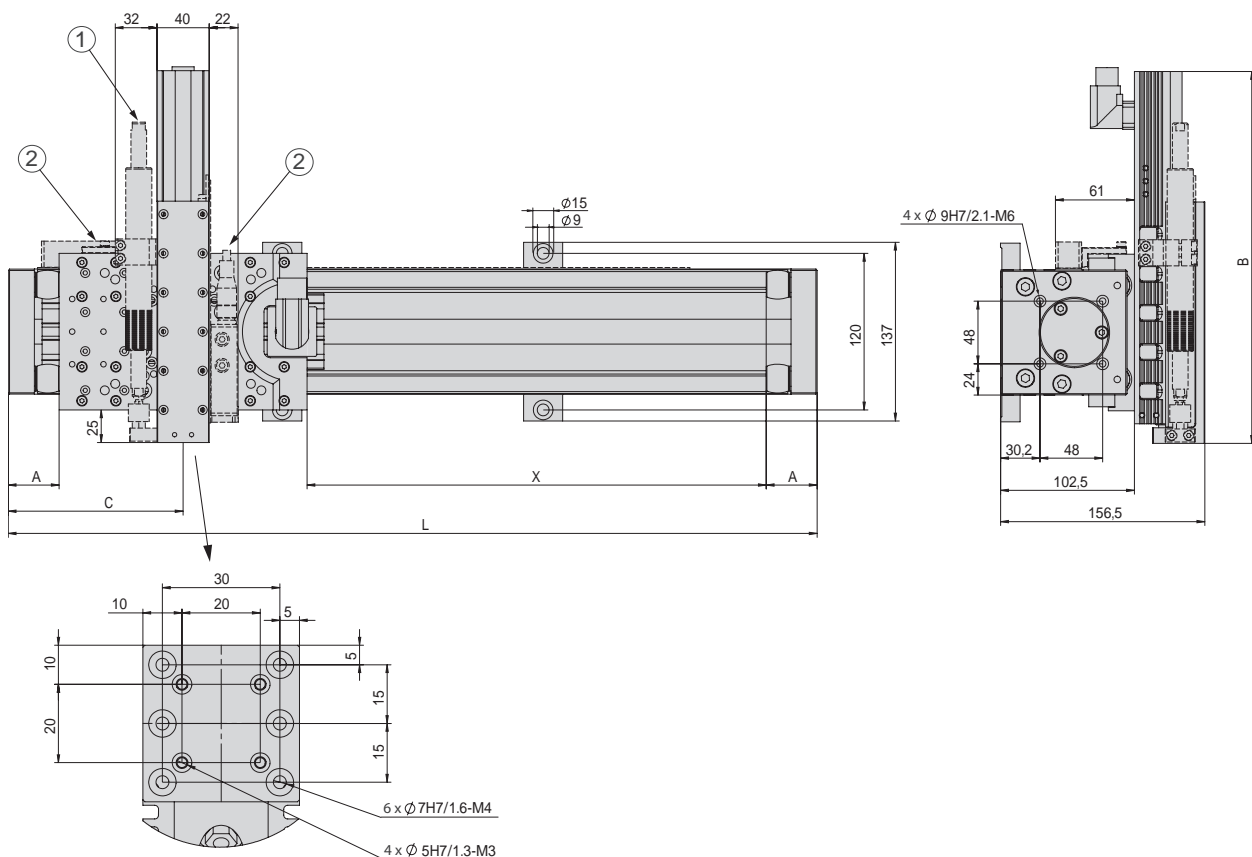
Dimensions

EPS midi XZ

Type	A	C	L
PDL30-X-D19	40 mm	134 mm	X + 270 mm
PDL30-X-D20	50 mm	144 mm	X + 290 mm
PDL40-X-D27	49 mm	169 mm	X + 340 mm
PDL40-X-D28	64 mm	182 mm	X + 370 mm
PDL40-X-HP-D27	49 mm	229 mm	X + 460 mm
PDL40-X-HP-D28	64 mm	242 mm	X + 490 mm

Type	B
ES20-50-SL	191.5 mm
ES20-100-SL	285 mm
ES20-200	365 mm
ES20-300	495 mm

- ① MagSpring
- ② Path measuring system
- X Stroke of the X-axis



EPS midi XZ			
Order number	50444432		
Drive type	electrical, linear motor		
Repeat accuracy	± 0.05 mm		
- with external path measuring system (1 µm)	± 0.02 mm		
Temperature range	0 ... 50 °C		
Control block with 5/3, 5/2 or vacuum units	up to 6 valves		

Type	X-axis		
Axis	PDL30	PDL40	PDL40-HP
Stroke horizontal	90, 130, 150, 230, 250, 330, 350, 430, 450, 530, 550, 630, 650, 730, 930, 1130, 1330 mm	170, 160, 170, 230, 280, 320, 370, 440, 460, 530, 580, 670, 880, 1060, 1270, 1480, 1660 mm	110, 160, 200, 250, 320, 340, 410, 460, 550, 760, 940, 1150, 1360, 1540 mm
Maximum speed	3.2 m/s	3 m/s	2 m/s
Peak force	255 N	550 N	1024 N
Permanent force	51 N	145 N	203 N

Type	Z-axis	
Axis	ES20	ES20
Stroke vertical	50 mm	100, 200, 300 mm
Maximum speed	6.8 m/s	4.8 m/s
Peak force	67 N	137 N
Permanent force	15 N	31 N

Included in the delivery *

- 2x Ø 5h6 Centring sleeves
- 2x Ø 7h6 Centring sleeves
- 2x Ø 9h7 Centring sleeves
- MagSpring or compensation spring
- Hose or drag chain
- Motor cable
- Completely wired
- Controller parametrised

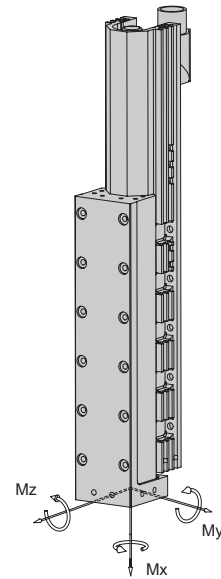
Accessories

- (Catalogue HT accessories)
- Console
 - Valve block
 - Path measuring system (Catalogue HT components linear)
 - Rotary module (Catalog HT components gripping/rotating)
 - Rotary module
 - Gipper module

* Deviations possible depending on installed peripherals

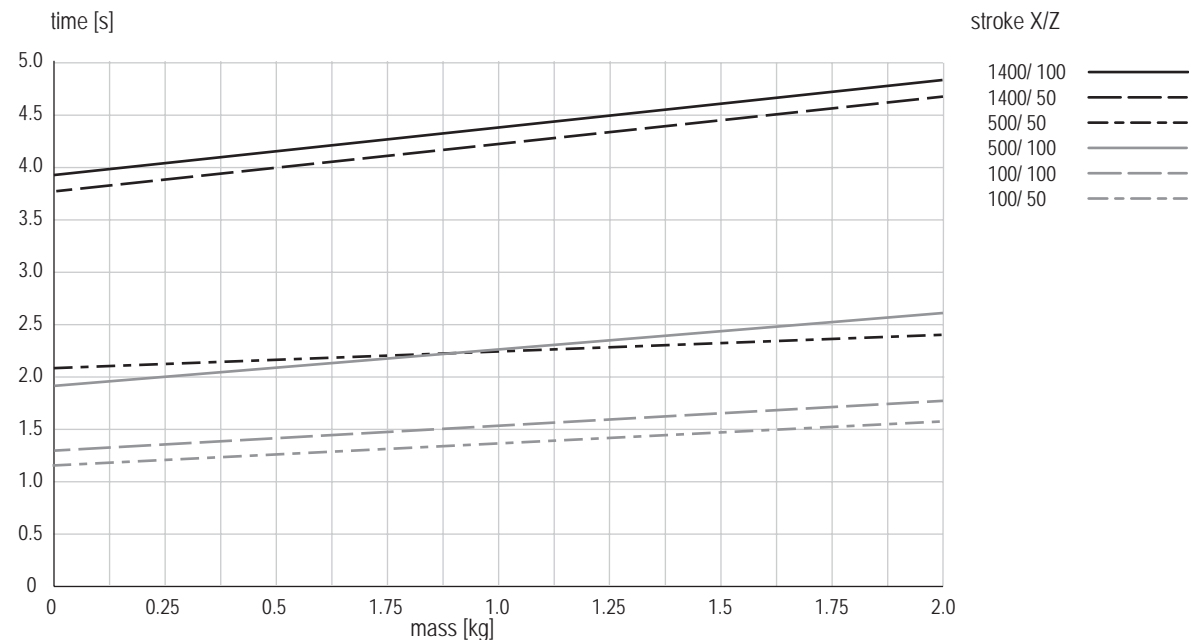
Warranty: 24 months following commissioning, but a maximum of 27 months following delivery

Type	ES20-SL	ES20
Dynamic torque Mx	5 Nm	5 Nm
Dynamic torque My	25 Nm	50 Nm
Dynamic torque Mz	25 Nm	50 Nm



Payload (centric)	
Stroke X	up to 1660 mm
Stroke Z	
50 mm	3 kg
100 mm	2.5 kg
200 mm	2 kg
300 mm	1.5 kg

Cycle times EPS midi XZ for Pick & Place



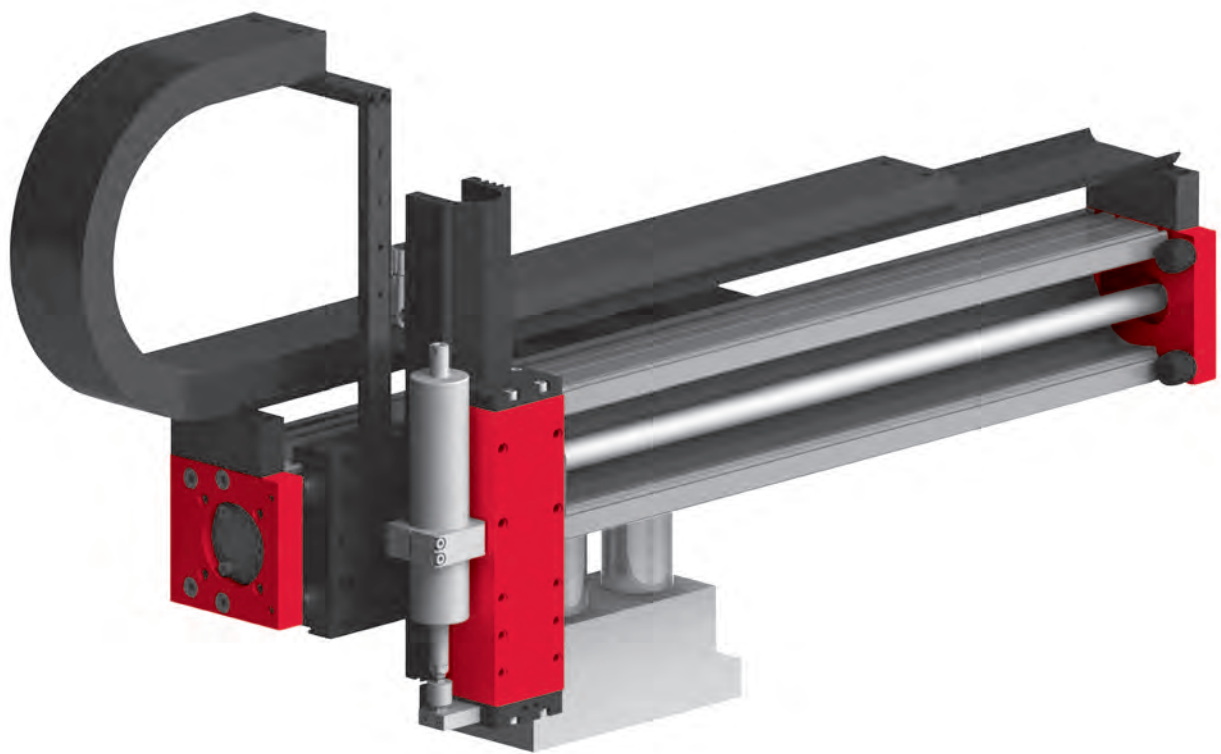
times including 2 x 100 ms gripping time

Comment:

The values in the chart correspond to a Pick & Place cycle (6 subsequent movements + 2 x 100 ms gripping time). The indicated mass is centrally installed at the vertical linear unit. Standstill times of handling permit shorter movement times. In exceptions, e.g. at eccentric mass or high requirements to accuracy, the value may be exceeded..

Electrical handling systems

EPS maxi XZ



- Torsion-stiff X-axis with double guide and high dynamics
- Powerful Z-axis, also for higher loads and for joining tasks
- Stiff setup, boom up to 500 mm stroke

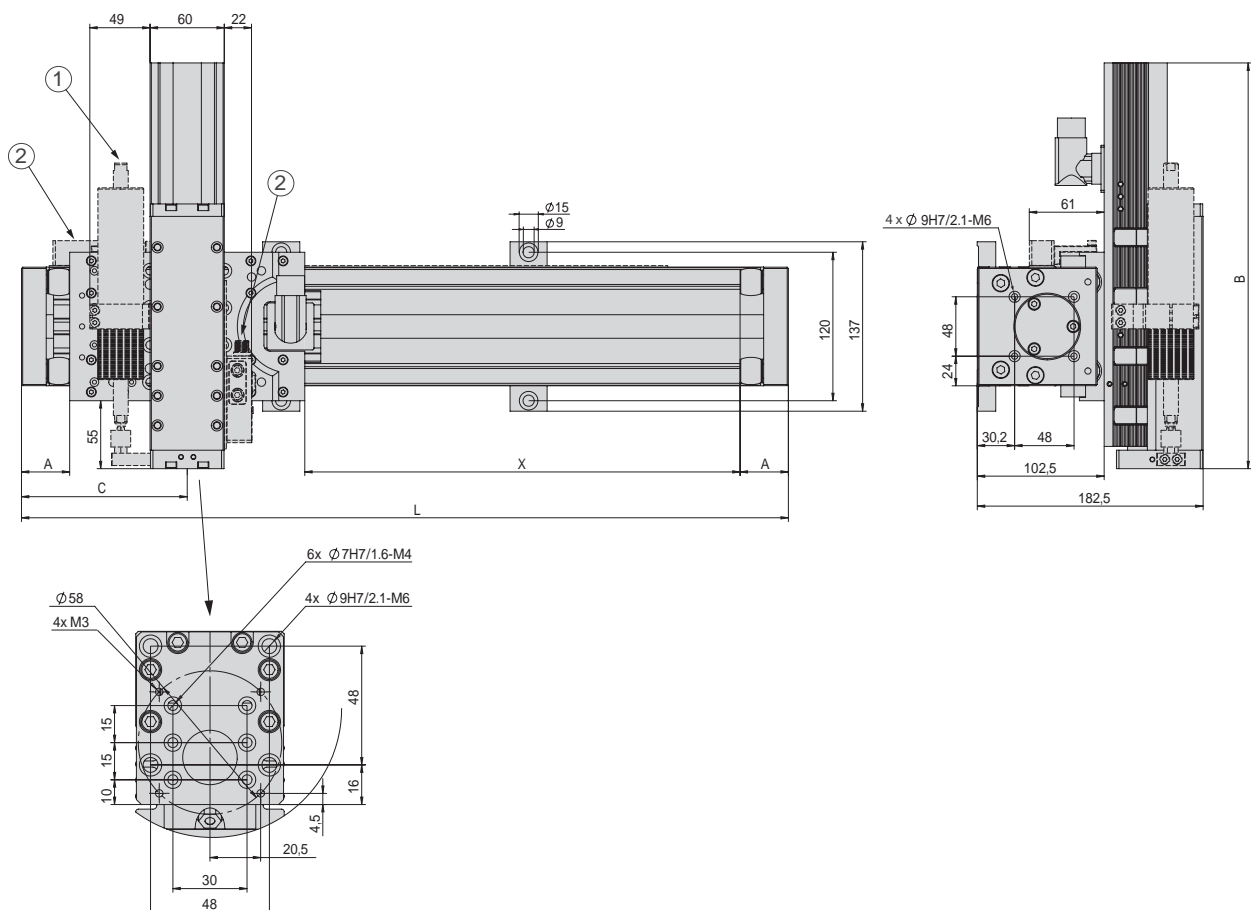
Dimensions

EPS maxi XZ

Type	A	C	L
PDL30-X-D19	40 mm	134 mm	X + 270 mm
PDL30-X-D20	50 mm	144 mm	X + 290 mm
PDL40-X-D27	49 mm	169 mm	X + 340 mm
PDL40-X-D28	64 mm	182 mm	X + 370 mm
PDL40-X-HP-D27	49 mm	229 mm	X + 460 mm
PDL40-X-HP-D28	64 mm	242 mm	X + 490 mm

Type	B
ES30-50-SL	288 mm
ES30-100-SL	328 mm
ES30-100	328 mm
ES30-200-SL	428 mm
ES30-200	428 mm
ES30-300	528 mm
ES30-400	628 mm
ES30-500	728 mm

- ① MagSpring
- ② Path measuring system
- X Stroke of the X-axis



EPS maxi XZ			
Order number	50444433		
Drive type	electrical, linear motor		
Repeat accuracy	± 0.05 mm		
- with external path measuring system (1 µm)	± 0.02 mm		
Temperature range	0 ... 50 °C		
Control block with 5/3, 5/2 or vacuum units	up to 6 valves		
Type	X-axis		
Axis	PDL30	PDL40	PDL40-HP
Stroke horizontal	90, 130, 150, 230, 250, 330, 350, 430, 450, 530, 550, 630, 650, 730, 930, 1130, 1330 mm	170, 160, 170, 230, 280, 320, 370, 440, 460, 530, 580, 670, 880, 1060, 1270, 1480, 1660 mm	110, 160, 200, 250, 320, 340, 410, 460, 550, 760, 940, 1150, 1360, 1540 mm
Maximum speed	3.2 m/s	3 m/s	2 m/s
Peak force	255 N	550 N	1024 N
Permanent force	51 N	145 N	203 N
Type	Z-axis		
Axis	ES30		
Stroke vertical	50, 100, 200, 300, 400, 500 mm		
Maximum speed	3.2 m/s		
Peak force	255 N		
Permanent force	51 N		

Included in the delivery *

- 2x Ø 7h6 Centring sleeves
- 4x Ø 9h7 Centring sleeves
- MagSpring
- Hose or drag chain
- Motor cable
- Completely wired
- Controller parametrised

Accessories

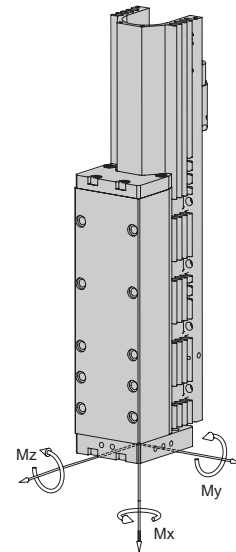
- (Catalogue HT accessories)
- Console
 - Valve block
 - (Catalogue HT components linear)
 - Path measuring system
 - (Catalogue HT components gripping/rotating)
 - Rotary modules
 - Gripper modules

* Deviations possible depending on installed peripherals

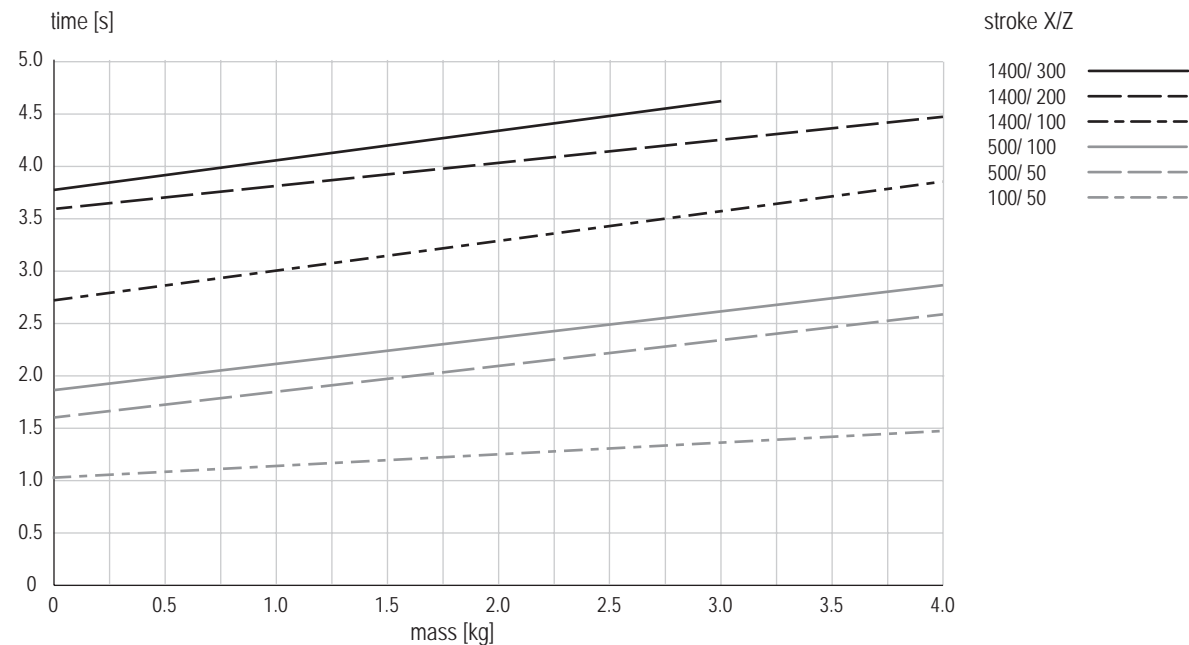
Warranty: 24 months following commissioning, but a maximum of 27 months following delivery

Type	ES30-SL	ES30
Dynamic torque Mx	30 Nm	30 Nm
Dynamic torque My	40 Nm	80 Nm
Dynamic torque Mz	40 Nm	80 Nm

Payload (centric)	
Stroke X	up to 1660 mm
Stroke Z	
50 mm	8 kg
100 mm	7 kg
200 mm	6 kg
300 mm	5 kg
400 mm	4 kg
500 mm	3 kg



Cycle times EPS maxi XZ for Pick & Place



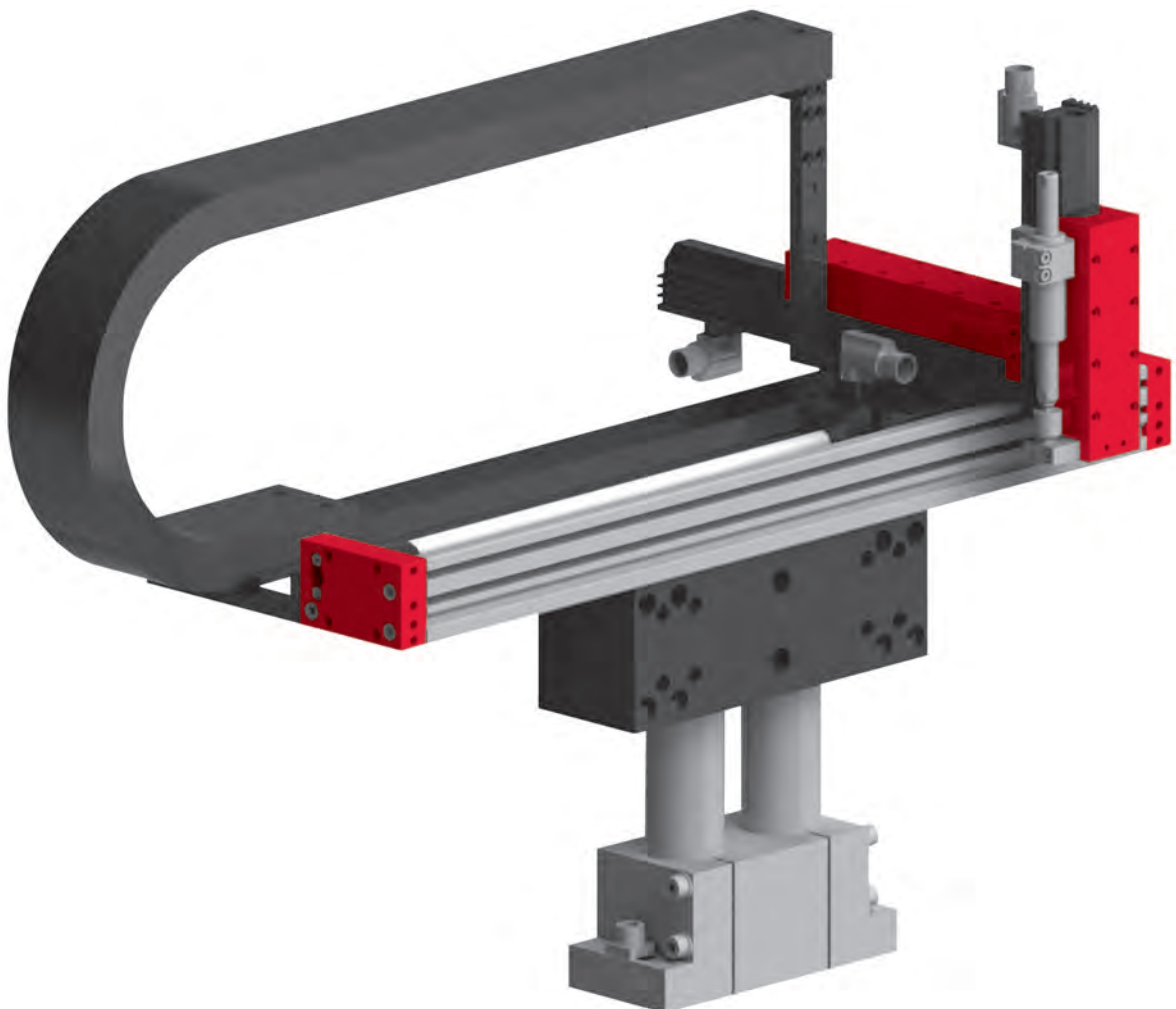
Times including 2 x 100 ms gripping time

Comment:

The values in the chart correspond to a Pick & Place cycle (6 subsequent movements + 2 x 100 ms gripping time). The indicated mass is centrally installed at the vertical linear unit. Standstill times of handling permit shorter movement times. In exceptions, e.g. at eccentric mass or high requirements to accuracy, the value may be exceeded.

Electrical handling systems

EPS mini XYZ



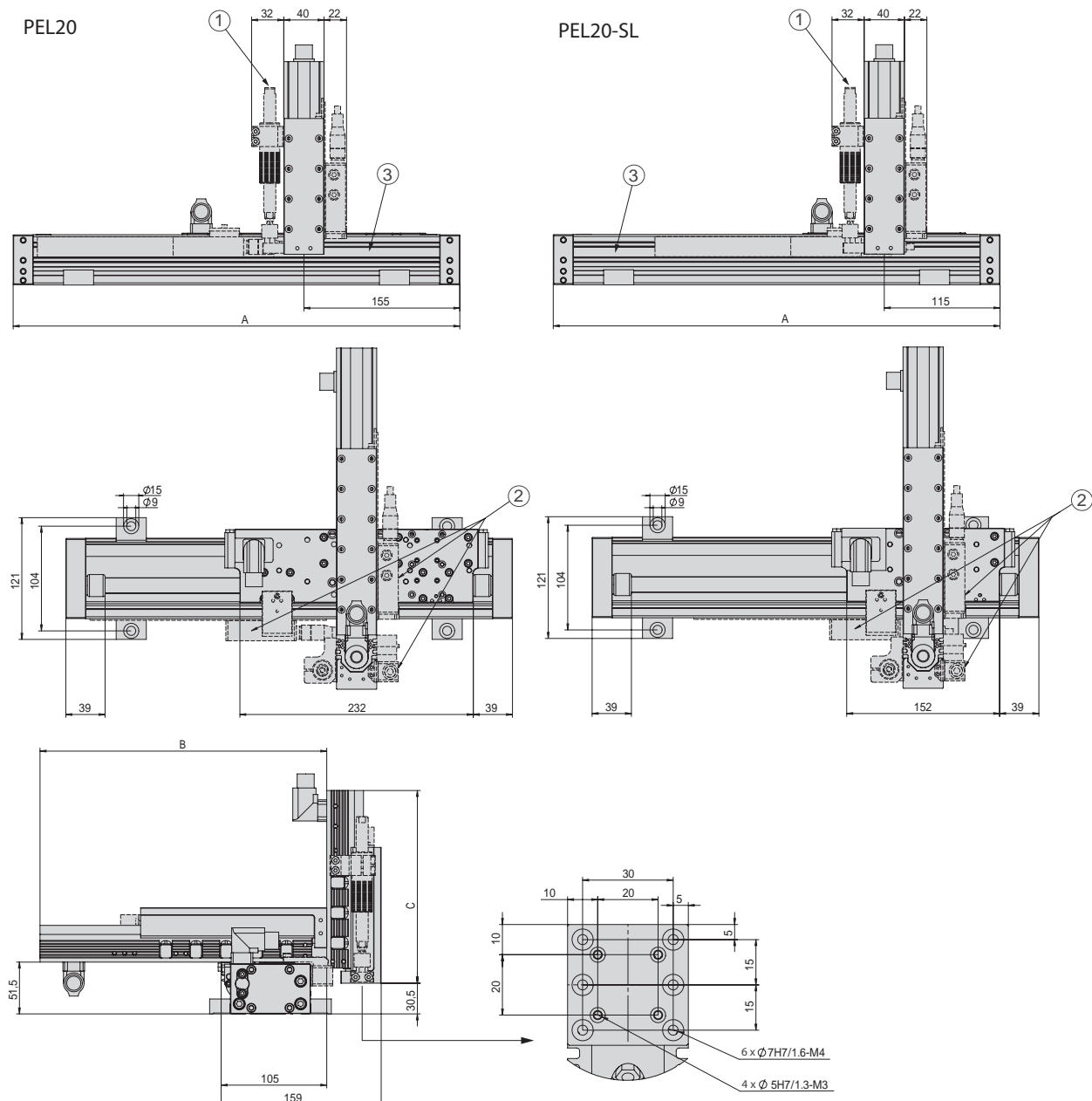
- Simple alternative for small robots
- Can be controlled directly by the PLC
- Scalable size in X, Y, Z, C

Type	A
PEL20-060	374 mm
PEL20-130	444 mm
PEL20-190	504 mm
PEL20-290	604 mm
PEL20-470	784 mm
PEL20-560	874 mm

Type	A
PEL20-080-SL	314 mm
PEL20-140-SL	374 mm
PEL20-210-SL	444 mm
PEL20-270-SL	504 mm
PEL20-370-SL	604 mm
PEL20-550-SL	784 mm
PEL20-640-SL	874 mm

Type	B, C
ES20-50-SL	191.5 mm
ES20-100-SL	285 mm
ES20-200	365 mm
ES20-300	495 mm

- ① MagSpring
- ② Path measuring system
- ③ Auxiliary surface (not suitable for assembly)



EPS mini XYZ		
Order number	50444434	
Drive type	electrical, linear motor	
Repeat accuracy	± 0.05 mm	
- with external path measuring system (1 µm)	± 0.02 mm	
Temperature range	0 ... 50 °C	
Control block with 5/3, 5/2 or vacuum units	up to 6 valves	

Type	X-axis	
Axis	PEL20-SL	PEL20
Stroke horizontal	80, 140, 210, 270, 370, 550, 640 mm	60, 130, 190, 290, 470, 560 mm
Maximum speed	6.8 m/s	4.8 m/s
Peak force	67 N	137 N
Permanent force	15 N	31 N

Type	Y-axis	
Axis	ES20	ES20
Stroke horizontal	50 mm	100, 200, 300 mm
Maximum speed	6.8 m/s	4.8 m/s
Peak force	67 N	137 N
Permanent force	15 N	31 N

Type	Z-axis	
Axis	ES20	ES20
Stroke vertical	50 mm	100, 200, 300 mm
Maximum speed	6.8 m/s	4.8 m/s
Peak force	67 N	137 N
Permanent force	15 N	31 N

Included in the delivery *

- 2x Ø 5h6 Centring sleeves
- 2x Ø 7h6 Centring sleeves
- 2x Ø 9h7 Centring sleeves
- MagSpring or compensation spring
- Hose or drag chain
- Motor cable
- Completely wired
- Controller parametrised

* Deviations possible depending on installed peripherals

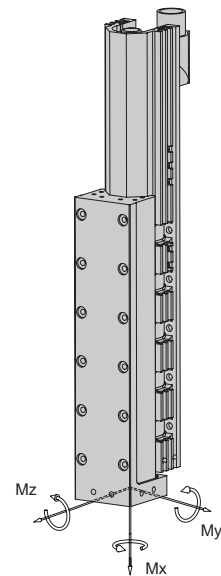
Accessories

(Catalogue HT accessories)

- Console
- Valve block
- (Catalogue HT components linear)
- Path measuring system
- (Catalog HT components gripping/rotating)
- Rotary module
- Gripper module

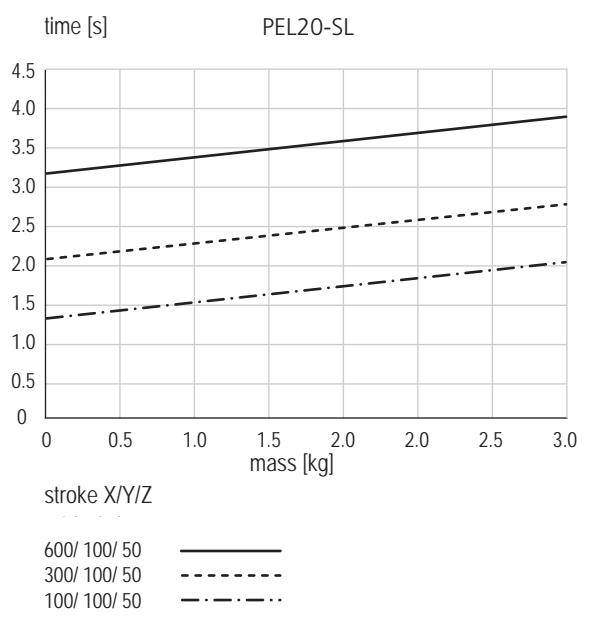
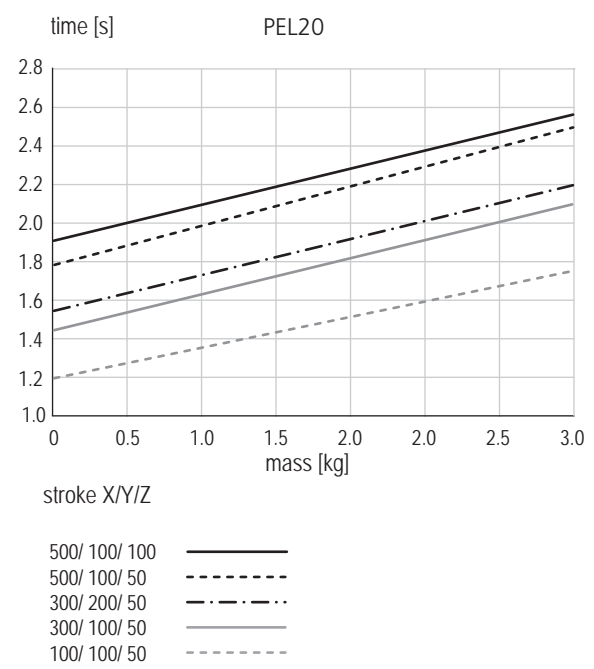
Warranty: 24 months following commissioning, but a maximum of 27 months following delivery

Type	ES20-SL	ES20
Dynamic torque Mx	5 Nm	5 Nm
Dynamic torque My	25 Nm	50 Nm
Dynamic torque Mz	25 Nm	50 Nm



Payload (centric)				
Stroke Y	50 mm	100 mm	200 mm	
Stroke Z				
50 mm	3 kg	2 kg	1 kg	
100 mm	2 kg	1 kg	0.5 kg	
200 mm	1 kg	0.5 kg	-	

Cycle times EPS mini XYZ for Pick & Place



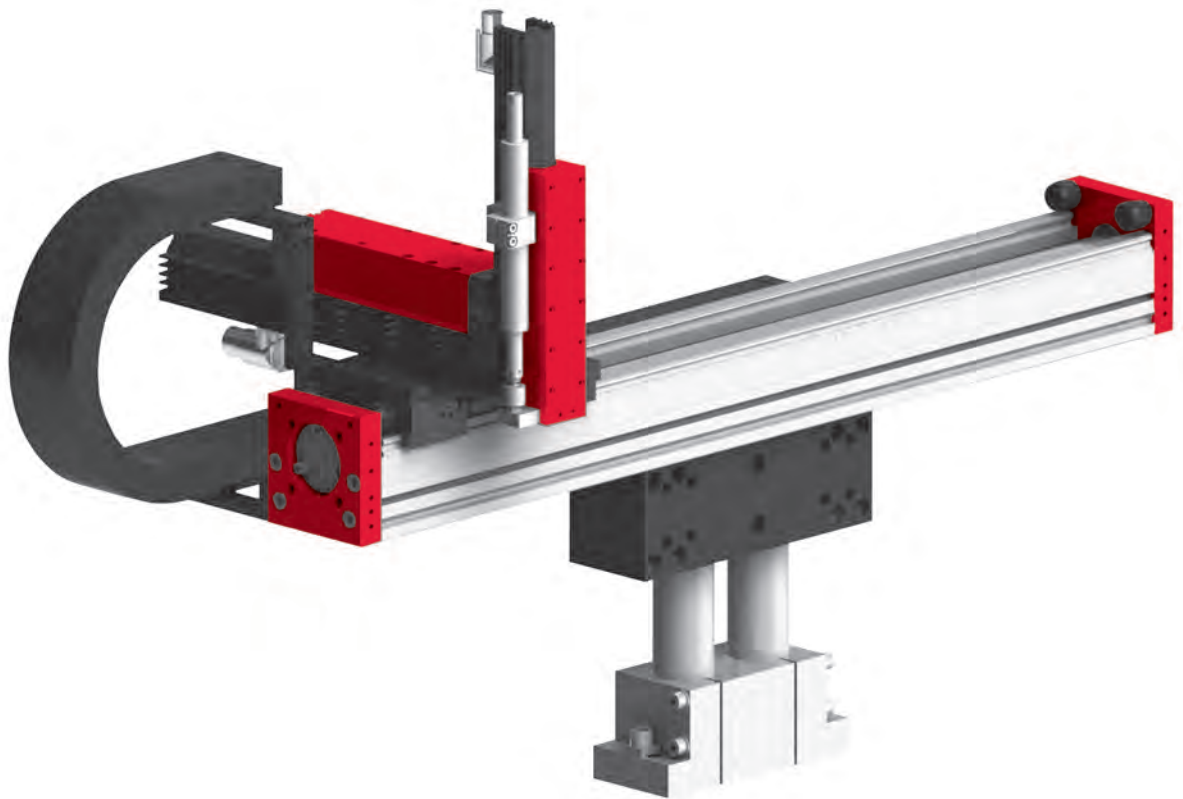
Times including 2 x 100 ms gripping time

Comment:

The values in the chart correspond to a Pick & Place cycle (6 subsequent movements + 2 x 100 ms gripping time). The indicated mass is centrally installed at the vertical linear unit. Standstill times of handling permit shorter movement times. In exceptions, e.g. at eccentric mass or high requirements to accuracy, the value may be exceeded.

Electrical handling systems

EPS midi XYZ



- Very dynamic alignment of the axis combination
- High Y/Z stiffness from double guide in the X-axis
- Booms up to 500 mm due to light-weight Z-axis

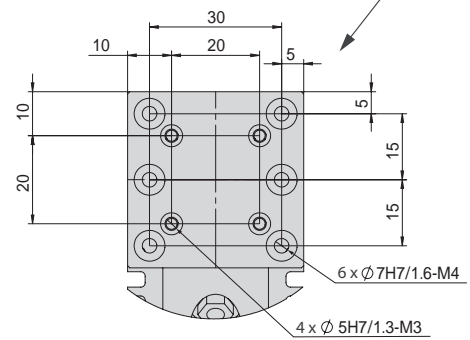
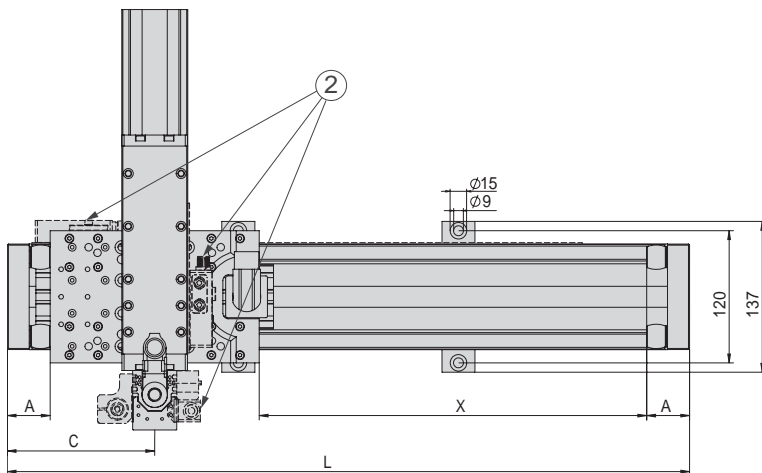
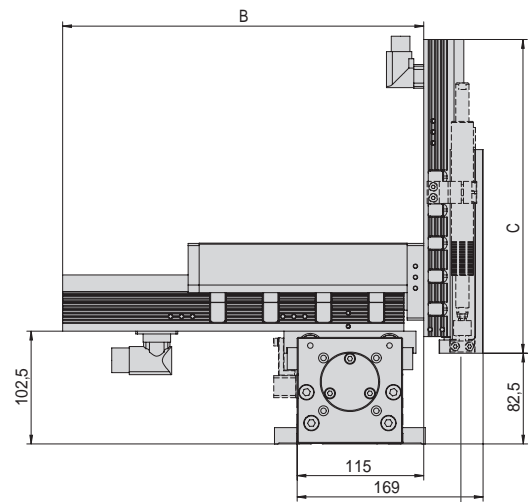
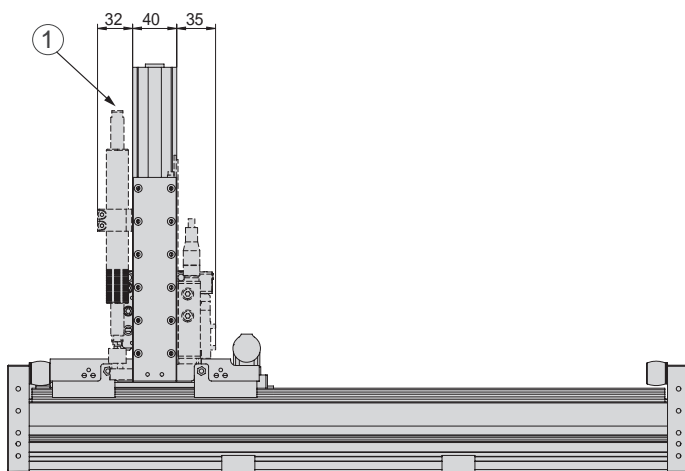
Dimensions

EPS midi XYZ

Type	A	C	L
PDL30-X-D19	40 mm	134 mm	X + 270 mm
PDL30-X-D20	50 mm	144 mm	X + 290 mm
PDL40-X-D27	49 mm	169 mm	X + 340 mm
PDL40-X-D28	64 mm	182 mm	X + 370 mm
PDL40-X-HP-D27	49 mm	229 mm	X + 460 mm
PDL40-X-HP-D28	64 mm	242 mm	X + 490 mm

Type	B	C
ES30-50-SL	288 mm	
ES30-100-SL	328 mm	
ES30-100	328 mm	
ES30-200-SL	428 mm	
ES30-200	428 mm	
ES30-300	528 mm	
ES30-400	628 mm	
ES30-500	728 mm	
ES20-50-SL		191.5 mm
ES20-100-SL		285 mm
ES20-200		365 mm
ES20-300		495 mm

- ① MagSpring
- ② Path measurement system
- X Stroke of the X-axis



EPS midi XYZ			
Order number	50444435		
Drive type	electrical, linear motor		
Repeat accuracy	± 0.05 mm		
- with external path measurement (1 µm)	± 0.02 mm		
Temperature range	0 ... 50 °C		
Control block with 5/3, 5/2 or vacuum units	up to 6 valves		
Type	X-axis		
Axis	PDL30	PDL40	PDL40-HP
Stroke horizontal	90, 130, 150, 230, 250, 330, 350, 430, 450, 530, 550, 630, 650, 730, 930, 1130, 1330 mm	70, 160, 170, 230, 280, 320, 370, 440, 460, 530, 580, 670, 880, 1060, 1270, 1480, 1660 mm	110, 160, 200, 250, 320, 340, 410, 460, 550, 760, 940, 1150, 1360, 540 mm
Maximum speed	3.2 m/s	3 m/s	2 m/s
Peak force	255 N	550 N	1024 N
Permanent force	51 N	145 N	203 N
Type	Y-axis		
Axis	ES30		
Stroke horizontal	50, 100, 200, 300, 400, 500 mm		
Maximum speed	3.2 m/s		
Peak force	255 N		
Permanent force	51 N		
Type	Z-axis		
Axis	ES20	ES20	
Stroke vertical	50 mm	100, 200, 300 mm	
Maximum speed	6.8 m/s	4.8 m/s	
Peak force	67 N	137 N	
Permanent force	15 N	31 N	

Included in the delivery *

- 2x Ø 5h6 Centring sleeves
- 2x Ø 7h6 Centring sleeves
- 2x Ø 9h7 Centring sleeves
- MagSpring or compensation spring
- Hose or drag chain
- Motor cable
- Completely wired
- Controller parametrised

Accessories

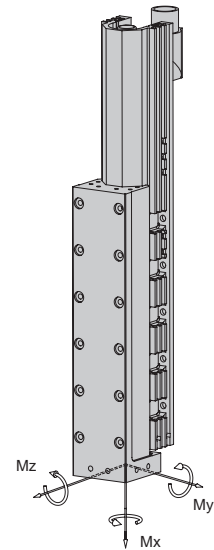
- (Catalogue HT accessories)
- Console
 - Valve block
 - (Catalogue HT components linear)
 - Path measuring system
 - (Catalogue HT components gripping/rotating)
 - Rotary module
 - Gripper module

* Deviations possible depending on installed peripherals

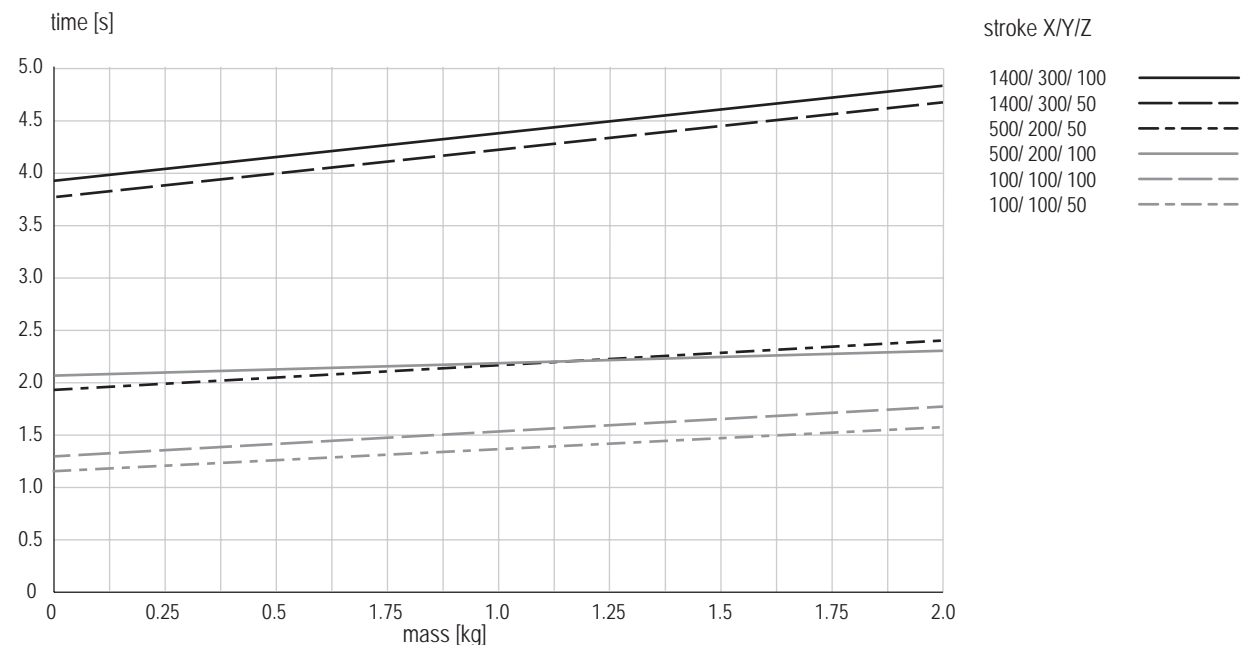
Warranty: 24 months following commissioning, but a maximum of 27 months following delivery

Type	ES20-SL	ES20
Dynamic torque Mx	5 Nm	5 Nm
Dynamic torque My	25 Nm	50 Nm
Dynamic torque Mz	25 Nm	50 Nm

Payload (centric)							
Stroke Y	50 mm	100 mm	200 mm	300 mm	400 mm	500 mm	
Stroke Z							
50 mm	4 kg	3 kg	2 kg	1 kg	0.5 kg	0.5 kg	
100 mm	3 kg	2 kg	1 kg	0.5 kg	-	-	
200 mm	2 kg	1 kg	0.5 kg	-	-	-	
300 mm	1 kg	0.5 kg	-	-	-	-	



Cycle times EPS midi XYZ for Pick & Place



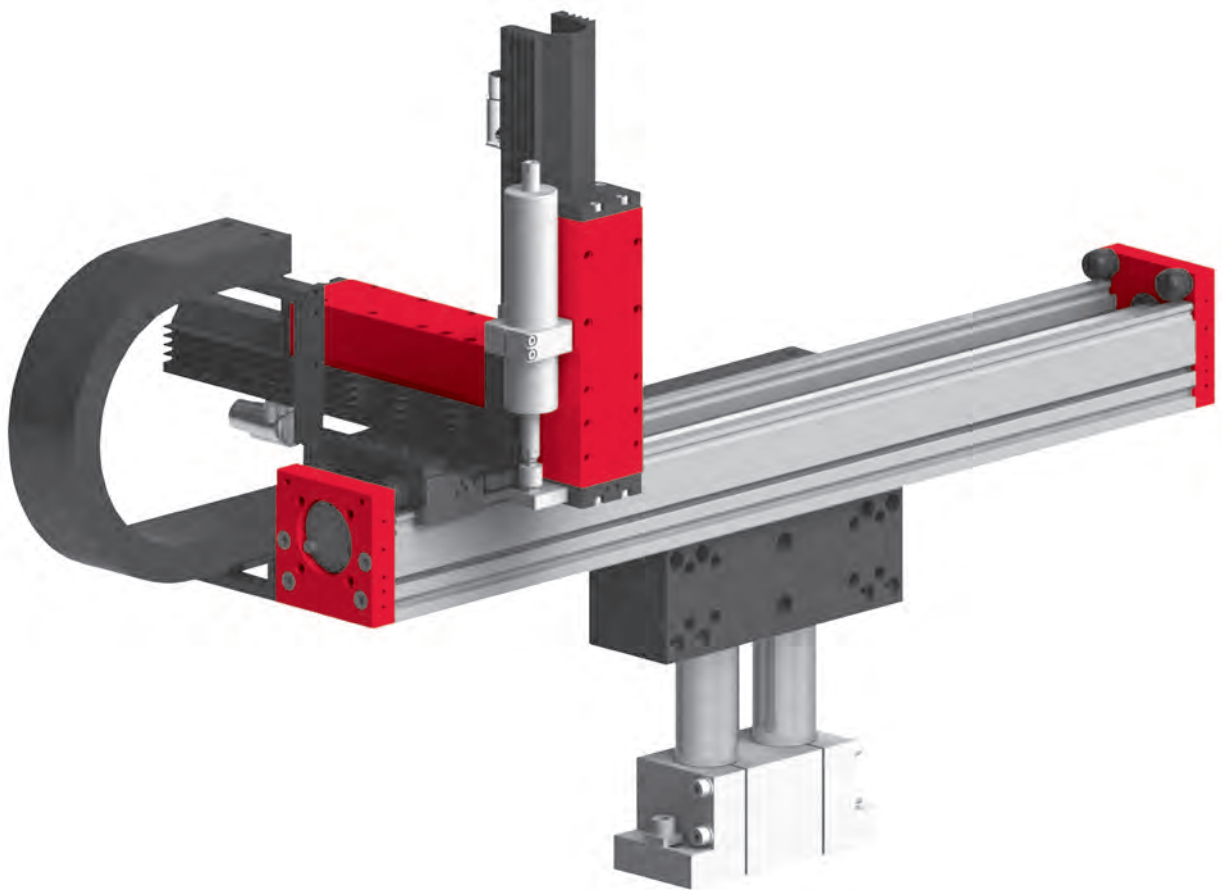
Times including 2 x 100 ms gripping time

Comment:

The values in the chart correspond to a Pick & Place cycle (6 subsequent movements + 2 x 100 ms gripping time). The indicated mass is centrally installed at the vertical linear unit. Standstill times of handling permit shorter movement times. In exceptions, e.g. at eccentric mass or high requirements to accuracy, the value may be exceeded.

Electrical handling systems

EPS maxi XYZ



- Powerful, robust setup
- Suitable for joining tasks due to stiff modules
- Large selection of lifting combinations

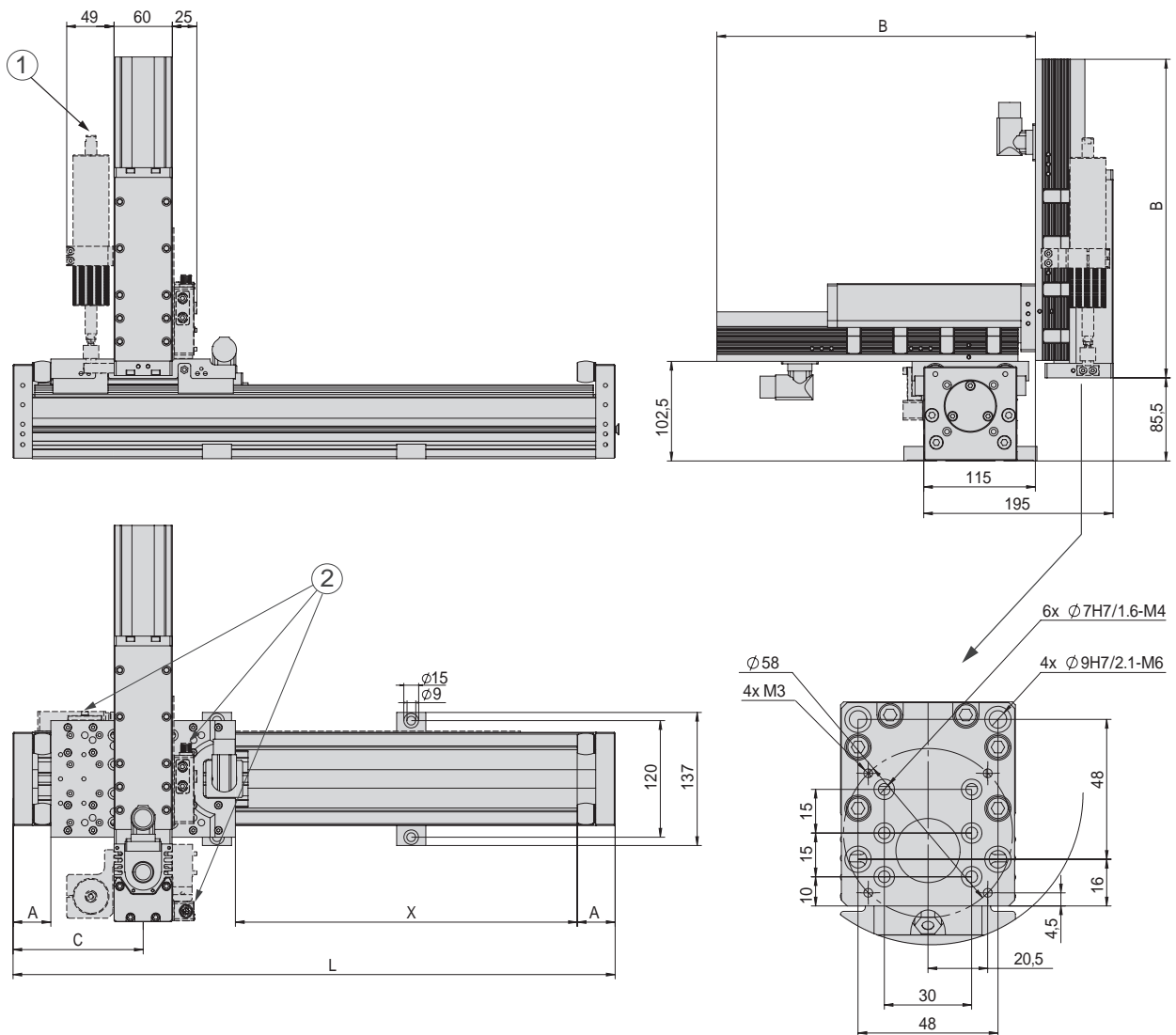
Dimensions

EPS maxi XYZ

Type	A	C	L
PDL30-X-D19	40 mm	134 mm	X + 270 mm
PDL30-X-D20	50 mm	144 mm	X + 290 mm
PDL40-X-D27	49 mm	169 mm	X + 340 mm
PDL40-X-D28	64 mm	182 mm	X + 370 mm
PDL40-X-HP-D27	49 mm	229 mm	X + 460 mm
PDL40-X-HP-D28	64 mm	242 mm	X + 490 mm

Type	B
ES30-50-SL	288 mm
ES30-100-SL	328 mm
ES30-100	328 mm
ES30-200-SL	428 mm
ES30-200	428 mm
ES30-300	528 mm
ES30-400	628 mm
ES30-500	728 mm

- ① MagSpring
- ② Path measuring system
- X Stroke of the X-axis



EPS maxi XYZ			
Order number	50444436		
Drive type	electrical, linear motor		
Repeat accuracy	± 0.05 mm		
- with external path measuring system (1 µm)	± 0.02 mm		
Temperature range	0 ... 50 °C		
Control block with 5/3, 5/2 or vacuum units	up to 6 valves		

Type	X-axis		
Axis	PDL30	PDL40	PDL40-HP
Stroke horizontal	90, 130, 150, 230, 250, 330, 350, 430, 450, 530, 550, 630, 650, 730, 930, 1130, 1330 mm	70, 160, 170, 230, 280, 320, 370, 440, 460, 530, 580, 670, 880, 1060, 1270, 1480, 1660 mm	110, 160, 200, 250, 320, 340, 410, 460, 550, 760, 940, 1150, 1360, 1540 mm
Maximum speed	3.2 m/s	3 m/s	2 m/s
Peak force	255 N	550 N	1024 N
Permanent force	51 N	145 N	203 N

Type	Y-axis
Axis	ES30
Stroke horizontal	50, 100, 200, 300, 400, 500 mm
Maximum speed	3.2 m/s
Peak force	255 N
Permanent force	51 N

Type	Z-axis
Axis	ES30
Stroke vertical	50, 100, 200, 300, 400, 500 mm
Maximum speed	3.2 m/s
Peak force	255 N
Permanent force	51 N

Included in the delivery *

- 2x Ø 7h6 Centring sleeves
- 4x Ø 9h7 Centring sleeves
- MagSpring
- Hose or drag chain
- Motor cable
- Completely wired
- Controller parametrised

Accessories

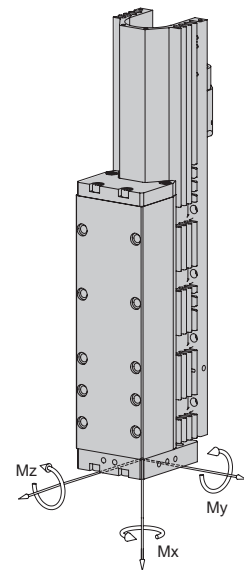
- (Catalogue HT accessories)
- Console
 - Valve block
 - (Catalogue HT components linear)
 - Path measuring system
 - (Catalogue HT components gripping/rotating)
 - Rotary modules
 - Gripper modules

* Deviations possible depending on installed peripherals

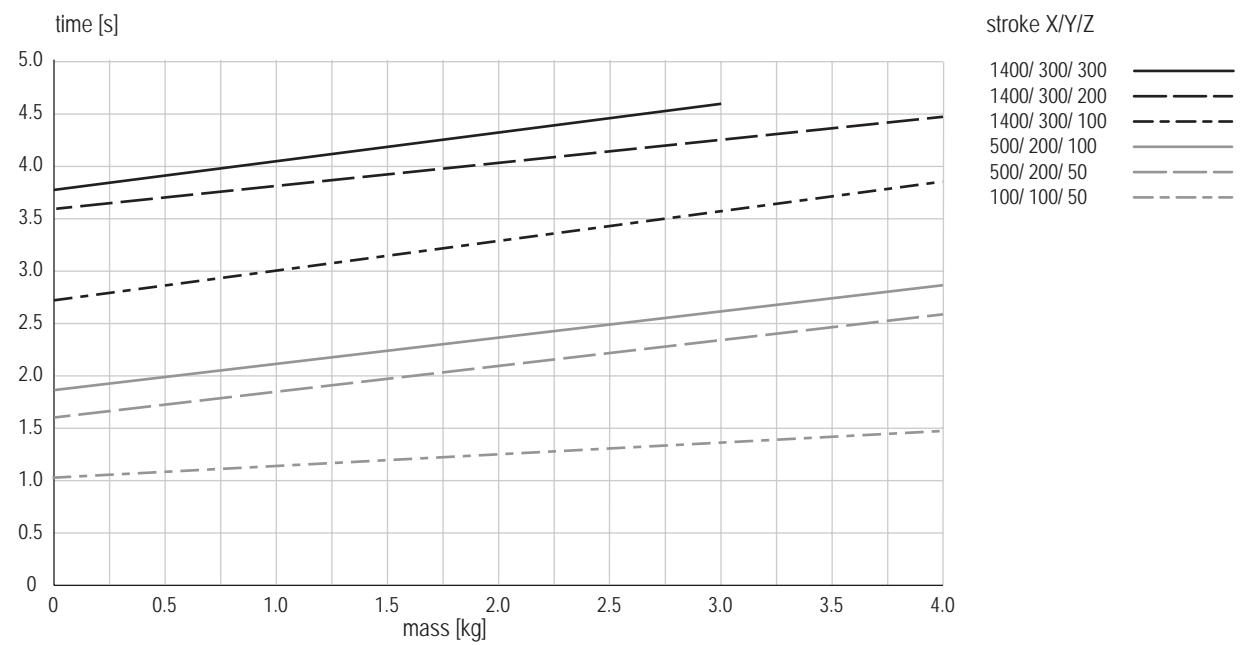
Warranty: 24 months following commissioning, but a maximum of 27 months following delivery

Type	ES30-SL	ES30
Dynamic torque Mx	30 Nm	30 Nm
Dynamic torque My	40 Nm	80 Nm
Dynamic torque Mz	40 Nm	80 Nm

Payload (centric)						
Stroke horizontal (Y)	50 mm	100 mm	200 mm	300 mm	400 mm	500 mm
Stroke vertical (Z)	50 mm	100 mm	200 mm	300 mm	400 mm	500 mm
50 mm	5 kg	4 kg	3 kg	2 kg	1 kg	0.5 kg
100 mm	4 kg	3 kg	2 kg	1 kg	0.5 kg	-
200 mm	3 kg	2 kg	1 kg	0.5 kg	-	-
300 mm	2 kg	1 kg	0.5 kg	-	-	-
400 mm	1 kg	0.5 kg	-	-	-	-
500 mm	0.5 kg	-	-	-	-	-



Cycle times EPS maxi XYZ for Pick & Place

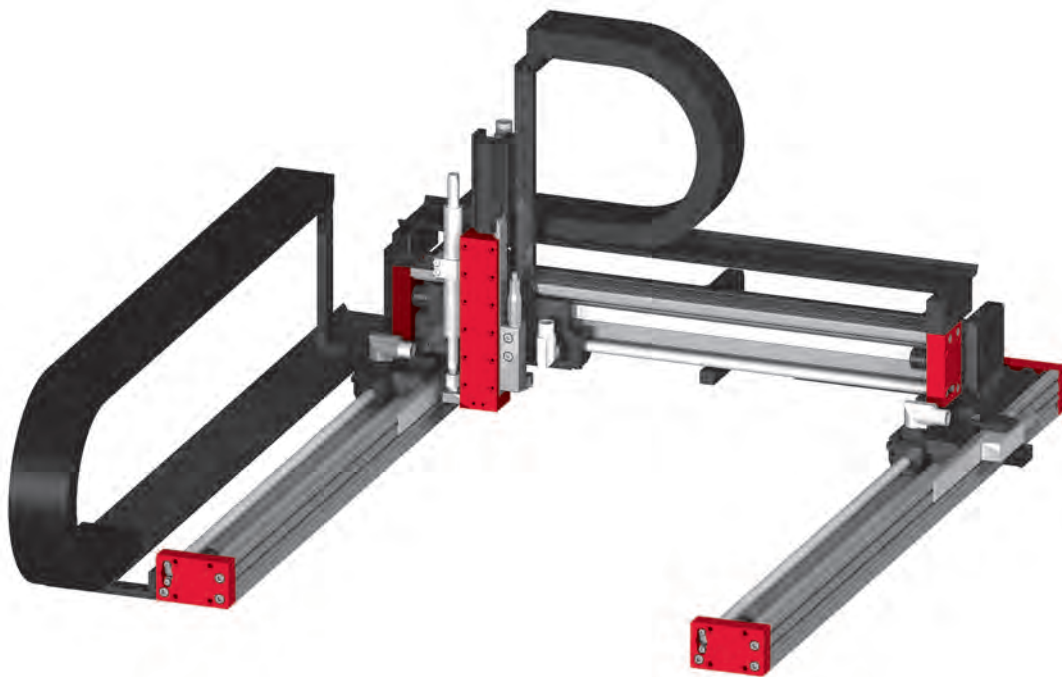


Times including 2 x 100 ms gripping time

Comment:
 The values in the chart correspond to a Pick & Place cycle (6 subsequent movements + 2 x 100 ms gripping time).
 The indicated mass is centrally installed at the vertical linear unit. Standstill times of handling permit shorter movement times.
 In exceptions, e.g. at eccentric mass or high requirements to accuracy, the value may be exceeded.

Electrical handling systems

EPS mini gantry XXYZ

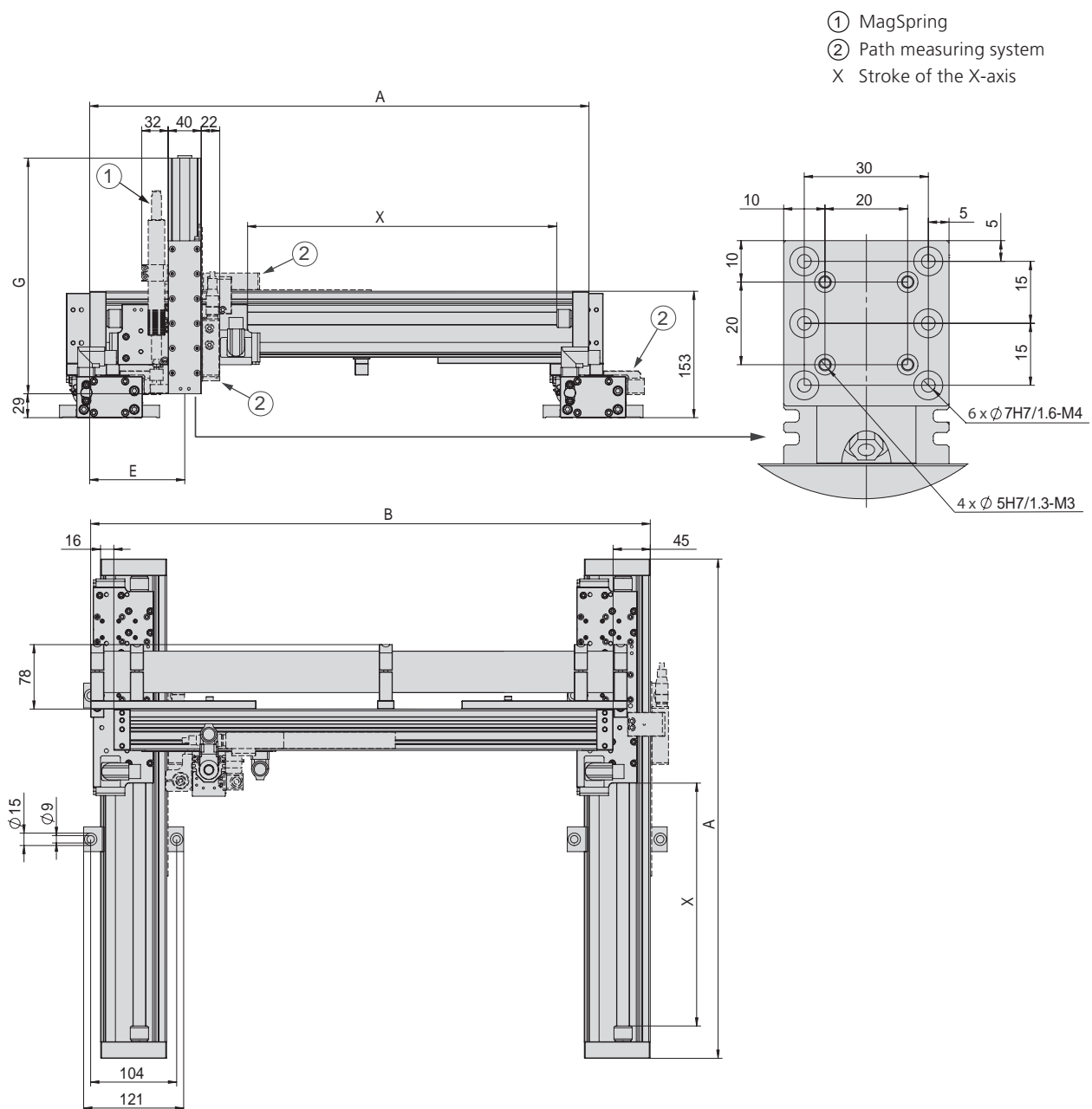


- Lightweight axes for short cycle times
- For precise palletizing tasks with low part weight
- Z-stroke up to 300 mm

Dimensions

EPS mini gantry XXYZ

Type	A	B	E	G
PEL20-X-SL	X + 234 mm	A + 61 mm	114 mm	
PEL20-X	X + 314 mm	A + 61 mm	155 mm	
ES20-50-SL				192 mm
ES20-100-SL				285 mm
ES20-200				365 mm
ES20-300				495 mm



EPS mini gantry XXYZ	
Order number	50444425
Drive type	electrical, linear motor
Repeat accuracy	± 0.05 mm
- with external path measuring system (1 µm)	± 0.02 mm
Temperature range	0 ... 50 °C
Control block with 5/3, 5/2 or vacuum units	up to 6 valves

Type	X-axis	
Axis	PEL20	
Stroke horizontal	60, 130, 190, 290, 470, 560 mm	
Maximum speed	4.8 m/s	
Peak force	137 N	
Permanent force	31 N	

Type	Y-axis	
Axis	PEL20-SL	PEL20
Stroke horizontal	80, 140, 210, 270, 550, 640 mm	60, 130, 190, 290, 470, 560 mm
Maximum speed	6.8 m/s	4.8 m/s
Peak force	67 N	137 N
Permanent force	15 N	31 N

Type	Z-axis	
Axis	ES20	ES20
Stroke vertical	50 mm	100, 200, 300 mm
Maximum speed	6.8 m/s	4.8 m/s
Peak force	67 N	137 N
Permanent force	15 N	31 N

Included in the delivery *

- 2x Ø 5h6 Centring sleeves
- 2x Ø 7h6 Centring sleeves
- MagSpring or compensation spring
- Hose or drag chain
- Motor cable
- Completely wired
- Controller parametrised
- Gantry bracing
- Attachment blocs

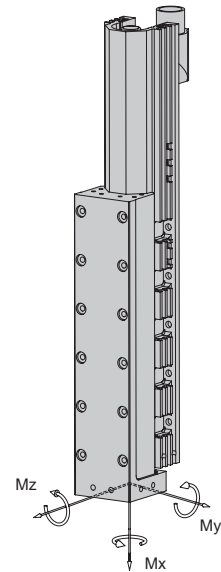
Accessories

- (Catalogue HT accessories)
- Valve block
- (Catalogue HT components linear)
- Path measuring system
- (Catalog HT components gripping/rotating)
- Rotary module
 - Gripper module

* Deviations possible depending on installed peripherals

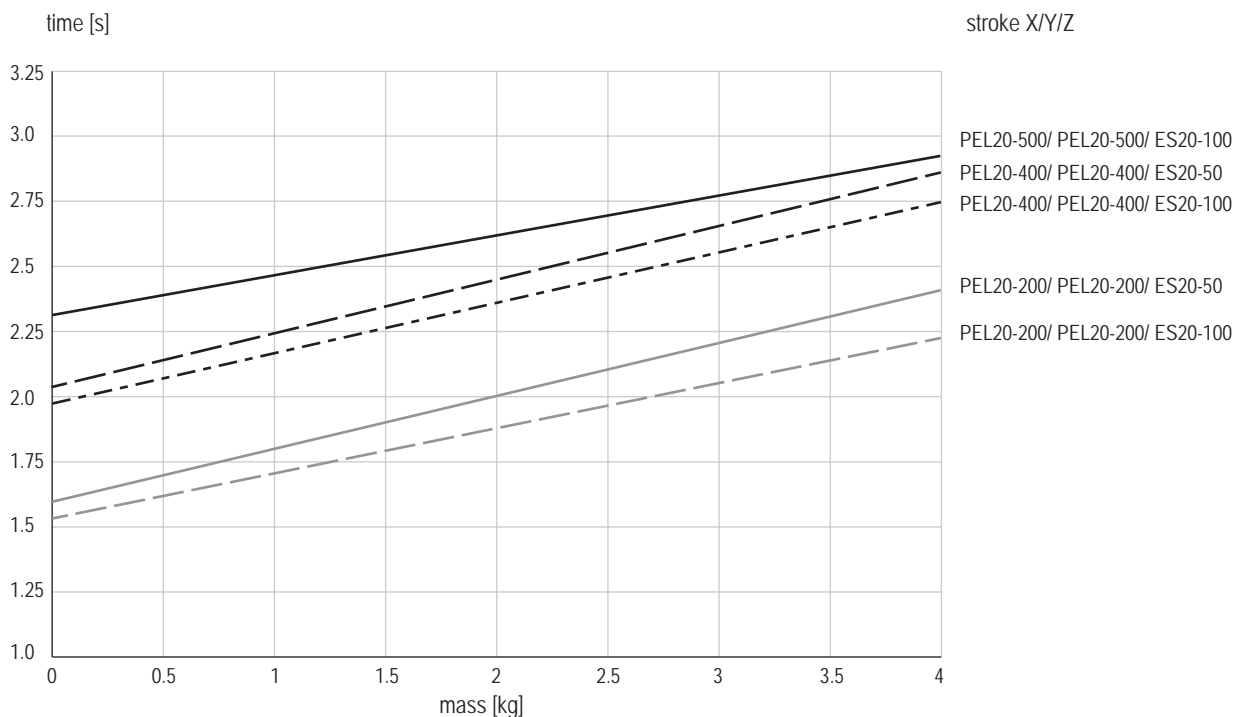
Warranty: 24 months following commissioning, but a maximum of 27 months following delivery

Type	ES20-SL	ES20
Dynamic torque Mx	5 Nm	5 Nm
Dynamic torque My	25 Nm	50 Nm
Dynamic torque Mz	25 Nm	50 Nm



Payload (centric)			
Stroke Y	60 - 270 mm	290 - 370 mm	470 - 640 mm
Stroke Z			
50 mm	4 kg	4 kg	3 kg
100 mm	4 kg	3 kg	2 kg
200 mm	3 kg	2 kg	1 kg

Cycle times EPS mini gantry XXYZ for Pick & Place



Times including 2 x 100 ms gripping time

Comment:

The values in the chart correspond to a Pick-and-Place cycle (6 subsequent movements + 2 x 100 ms gripping time). The indicated mass is centrally installed at the vertical linear unit. Standstill times of handling permit shorter movement times. In exceptions, e.g. at eccentric mass or high requirements to accuracy, the value may be exceeded.

Electrical handling systems

EPS midi gantry XXYZ



- High positioning accuracy through two controlled axes in the X-direction
- High stiffness from double guide in the Y-axis
- X- and Y-stroke up to 1660 mm

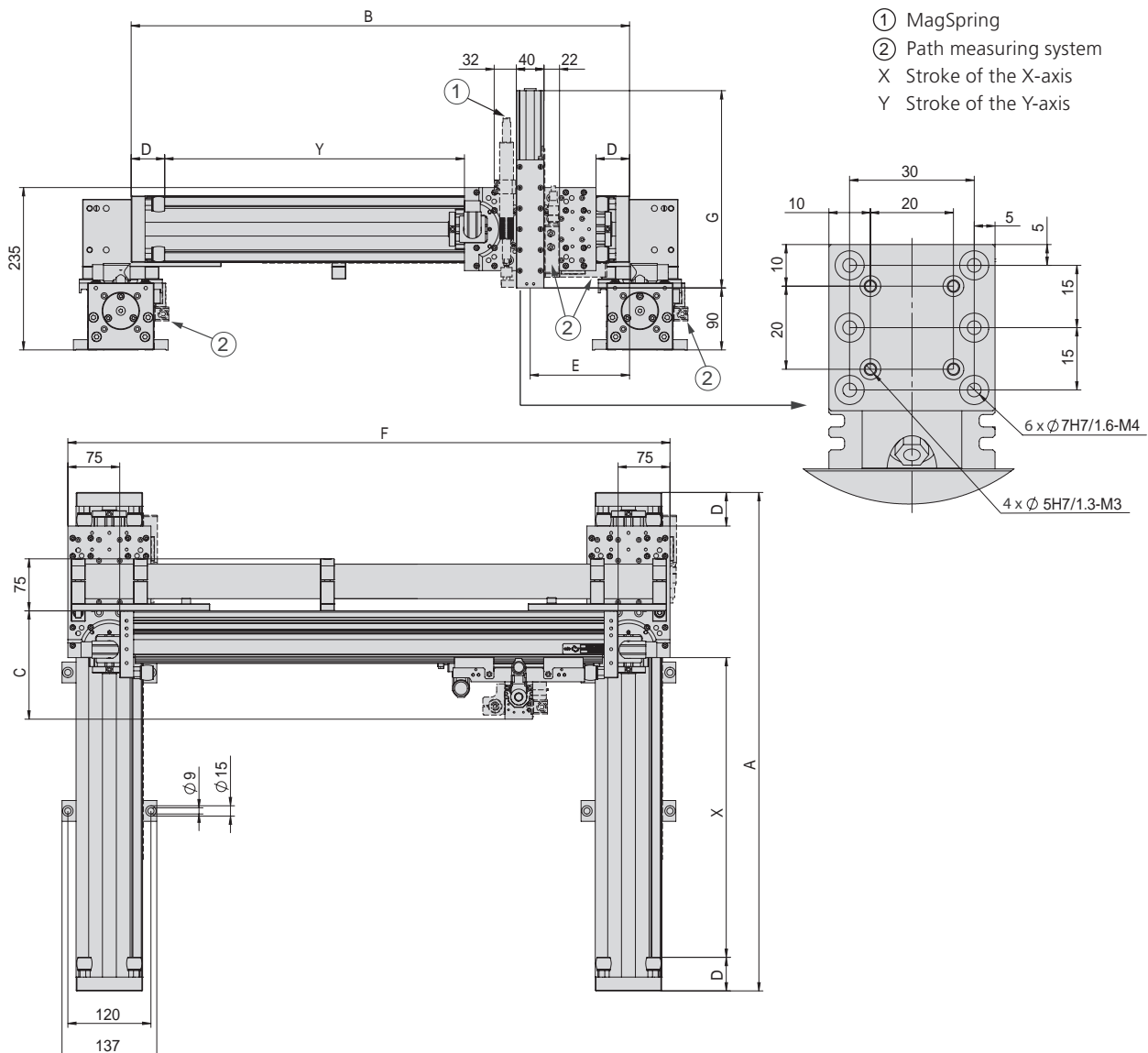
Dimensions

EPS midi gantry XXYZ

Type	B	C	D	E	F
PDL30-Y-D19	Y + 270 mm	134 mm	40 mm	134 mm	B + 150 mm
PDL30-Y-D20	Y + 290 mm	144 mm	50 mm	144 mm	B + 150 mm
PDL40-Y-D27	Y + 340 mm	143 mm	49 mm	169 mm	B + 150 mm
PDL40-Y-D28	Y + 370 mm	158 mm	64 mm	182 mm	B + 150 mm
PDL40-Y-HP-D27	Y + 460 mm	202 mm	49 mm	230 mm	B + 150 mm
PDL40-Y-HP-D28	Y + 490 mm	215 mm	64 mm	242 mm	B + 150 mm

Type	A	D
PEL30-X-D19-L/R	40 mm	X + 270 mm
PEL30-X-D20-L/R	50 mm	X + 290 mm
PEL40-X-D27-L/R	49 mm	X + 340 mm
PEL40-X-D28-L/R	64 mm	X + 370 mm
PEL40-X-HP-D27-L/R	49 mm	X + 460 mm
PEL40-X-HP-D28-L/R	64 mm	X + 490 mm

Type	G
ES20-50-SL	192 mm
ES20-100-SL	285 mm
ES20-200	365 mm
ES20-300	490 mm



EPS midi gantry XXYZ			
Order number	50444426		
Drive type	electrical, linear motor		
Repeat accuracy	± 0.05 mm		
- with external path measuring system (1 µm)	± 0.02 mm		
Temperature range	0 ... 50 °C		
Control block with 5/3, 5/2 or vacuum units	up to 6 valves		

Type	X-axis		
Axis	PEL30	PEL40	PEL40-HP
Stroke horizontal	90, 130, 150, 230, 250, 330, 350, 430, 450, 530, 550, 630, 650, 730, 930, 1130, 1330 mm	70, 160, 170, 230, 280, 320, 370, 440, 460, 530, 580, 670, 880, 1060, 1270, 1480, 1660 mm	110, 160, 200, 250, 320, 340, 410, 460, 550, 760, 940, 1150, 1360, 1540 mm
Maximum speed	3.2 m/s	3 m/s	2 m/s
Peak force	255 N	550 N	1024 N
Permanent force	51 N	145 N	203 N

Type	Y-axis		
Axis	PDL30	PDL40	PDL40-HP
Stroke horizontal	90, 130, 150, 230, 250, 330, 350, 430, 450, 530, 550, 630, 650, 730, 930, 1130, 1330 mm	70, 160, 170, 230, 280, 320, 370, 440, 460, 530, 580, 670, 880, 1060, 1270, 1480, 1660 mm	110, 160, 200, 250, 320, 340, 410, 460, 550, 760, 940, 1150, 1360, 1540 mm
Maximum speed	3.2 m/s	3 m/s	2 m/s
Peak force	255 N	550 N	1024 N
Permanent force	51 N	145 N	203 N

Type	Z-axis	
Axis	ES20	ES20
Stroke vertical	50 mm	100, 200, 300 mm
Maximum speed	6.8 m/s	4.8 m/s
Peak force	67 N	137 N
Permanent force	15 N	31 N

Included in the delivery *

- 2x Ø 5h6 Centring sleeves
- 2x Ø 7h6 Centring sleeves
- MagSpring or compensation spring
- Hose or drag chain
- Motor cable
- Completely wired
- Controller parametrised
- Gantry bracing
- Attachment blocs

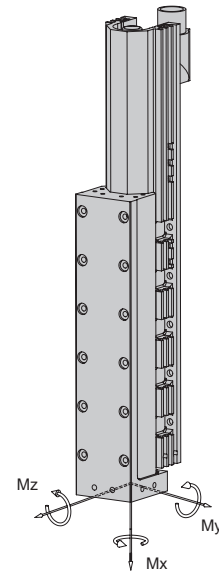
Accessories

- (Catalogue HT accessories)
- Valve block
- (Catalogue HT components linear)
- Path measuring system
- (Catalog HT components gripping/rotating)
- Rotary module
 - Gripper module

* Deviations possible depending on installed peripherals

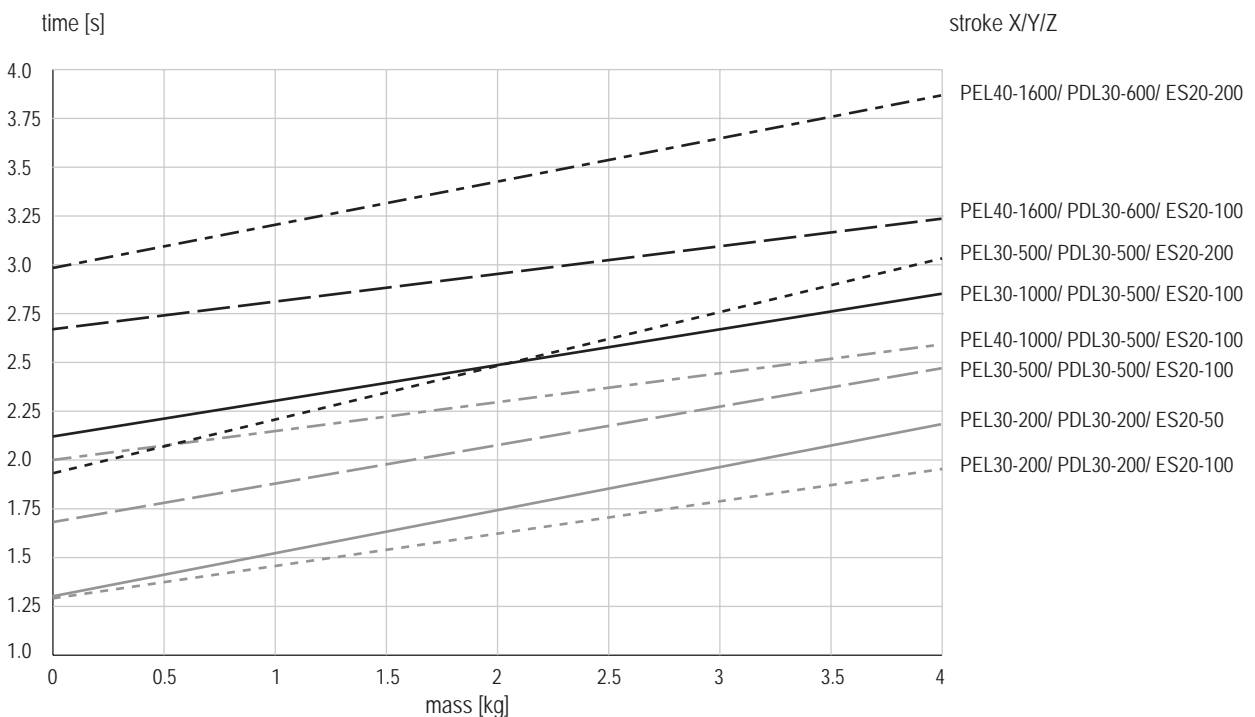
Warranty: 24 months following commissioning, but a maximum of 27 months following delivery

Type	ES20-SL	ES20
Dynamic torque Mx	5 Nm	5 Nm
Dynamic torque My	25 Nm	50 Nm
Dynamic torque Mz	25 Nm	50 Nm



Payload (centric)	
Stroke Y	up to 1660 mm
Stroke Z	
50 mm	4 kg
100 mm	4 kg
200 mm	3 kg
300 mm	2 kg

Cycle times EPS midi gantry XXYZ for Pick & Place



Times including 2 x 100 ms gripping time

Comment:

The values in the chart correspond to a Pick-and-Place cycle (6 subsequent movements + 2 x 100 ms gripping time). The indicated mass is centrally installed at the vertical linear unit. Standstill times of handling permit shorter movement times. In exceptions, e.g. at eccentric mass or high requirements to accuracy, the value may be exceeded.

Electrical handling systems

EPS maxi gantry XXYZ



- Stiffest structure for maximum accuracy
- Suitable for high masses
- Z-axis up to 500 mm stroke

EPS maxi gantry XXYZ			
Order number	50444426		
Drive type	electrical, linear motor		
Repeat accuracy	± 0.05 mm		
- with external path measuring system (1 µm)	± 0.02 mm		
Temperature range	0 ... 50 °C		
Control block with 5/3, 5/2 or vacuum units	up to 6 valves		

Type	X-axis		
Axis	PEL30	PEL40	PEL40-HP
Stroke horizontal	90, 130, 150, 230, 250, 330, 350, 430, 450, 530, 550, 630, 650, 730, 930, 1130, 1330 mm	70, 160, 170, 230, 280, 320, 370, 440, 460, 530, 580, 670, 880, 1060, 1270, 1480, 1660 mm	110, 160, 200, 250, 320, 340, 410, 460, 550, 760, 940, 1150, 1360, 1540 mm
Maximum speed	3.2 m/s	3 m/s	2 m/s
Peak force	255 N	550 N	1024 N
Permanent force	51 N	145 N	203 N

Type	Y-axis		
Axis	PDL30	PDL40	PDL40-HP
Stroke horizontal	90, 130, 150, 230, 250, 330, 350, 430, 450, 530, 550, 630, 650, 730, 930, 1130, 1330 mm	70, 160, 170, 230, 280, 320, 370, 440, 460, 530, 580, 670, 880, 1060, 1270, 1480, 1660 mm	110, 160, 200, 250, 320, 340, 410, 460, 550, 760, 940, 1150, 1360, 1540 mm
Maximum speed	3.2 m/s	3 m/s	2 m/s
Peak force	255 N	550 N	1024 N
Permanent force	51 N	145 N	203 N

Type	Z-axis
Axis	ES30
Stroke vertical	50, 100, 200, 300, 400, 500 mm
Maximum speed	3.2 m/s
Peak force	255 N
Permanent force	51 N

Included in the delivery *

- 2x Ø 7h6 Centring sleeves
- 2x Ø 9h7 Centring sleeves
- MagSpring
- Hose or drag chain
- Motor cable
- Completely wired
- Controller parametrised
- Gantry bracing
- Attachment blocs

Accessories

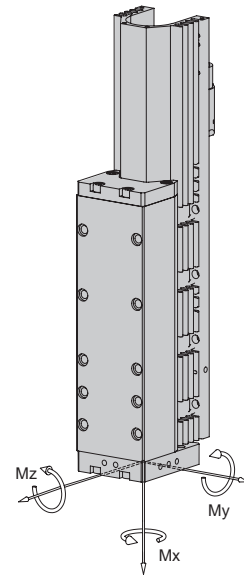
- (Catalogue HT accessories)
- Valve block
 - Clamping element
- (Catalogue HT components linear)
- Path measuring system
- (Catalog HT components gripping/rotating)
- Rotary module
 - Gripper module

* Deviations possible depending on installed peripherals

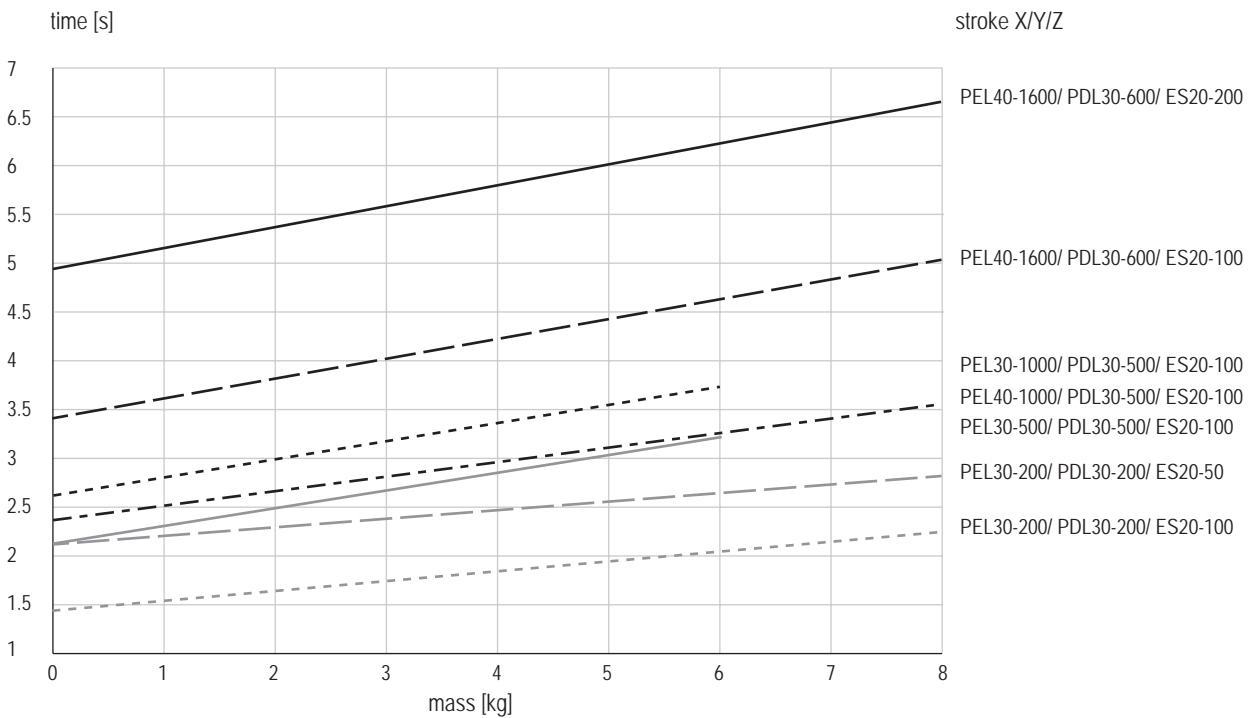
Warranty: 24 months following commissioning, but a maximum of 27 months following delivery

Type	ES30-SL	ES30
Dynamic torque Mx	30 Nm	30 Nm
Dynamic torque My	40 Nm	80 Nm
Dynamic torque Mz	40 Nm	80 Nm

Payload (centric)	
Stroke Y	up to 1660 mm
Stroke Z	
50 mm	8 kg
100 mm	7 kg
200 mm	5 kg
300 mm	4 kg
400 mm	3 kg
500 mm	2 kg



Cycle times EPS maxi gantry XXYZ for Pick & Place



Times including 2 x 100 ms gripping time

Comment:

The values in the chart correspond to a Pick-and-Place cycle (6 subsequent movements + 2 x 100 ms gripping time). The indicated mass is centrally installed at the vertical linear unit. Standstill times of handling permit shorter movement times. In exceptions, e.g. at eccentric mass or high requirements to accuracy, the value may be exceeded.

Electrical handling systems

EPS mini gantry s



- Lateral boom up to 640 mm stroke
- Ideal for palletizing tasks with low mass
- Optimal accessibility

EPS mini gantry s			
Order number	50444422		
Drive type	electrical, linear motor		
Repeat accuracy	± 0.05 mm		
- with external path measuring system (1 µm)	± 0.02 mm		
Temperature range	0 ... 50 °C		
Control block with 5/3, 5/2 or vacuum units	up to 6 valves		

Type	X-axis		
Axis	PDL30	PDL40	PDL40-HP
Stroke horizontal	90, 130, 150, 230, 250, 330, 350, 430, 450, 530, 550, 630, 650, 730, 930, 1130, 1330 mm	70, 160, 170, 230, 280, 320, 370, 440, 460, 530, 580, 670, 880, 1060, 1270, 1480, 1660 mm	160, 200, 250, 320, 340, 410, 460, 550, 760, 940, 1150, 1360, 1540 mm
Maximum speed	3.2 m/s	3 m/s	2 m/s
Peak force	255 N	550 N	1024 N
Permanent force	51 N	145 N	203 N

Type	Y-axis	
Axis	PEL20-SL	PEL20
Stroke horizontal	80, 140, 210, 270, 370, 550, 640 mm	60, 130, 190, 290, 470, 560 mm
Maximum speed	6.8 m/s	4.8 m/s
Peak force	67 N	137 N
Permanent force	15 N	31 N

Type	Z-axis	
Axis	ES20	ES20
Stroke vertical	50 mm	100, 200, 300 mm
Maximum speed	6.8 m/s	4.8 m/s
Peak force	67 N	137 N
Permanent force	15 N	31 N

Included in the delivery *

- 2x Ø 5h6 Centring sleeves
- 2x Ø 7h6 Centring sleeves
- MagSpring or compensation spring
- Hose or drag chain
- Motor cable
- Completely wired
- Controller parametrised
- Gantry bracing
- Attachment blocs

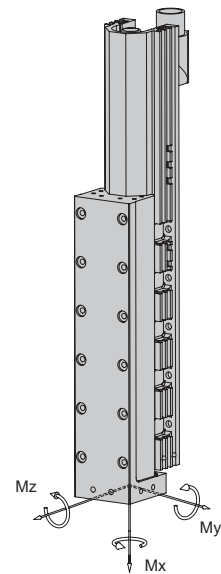
Accessories

- (Catalogue HT accessories)
- Valve block
 - Clamping element
- (Catalogue HT components linear)
- Path measuring system
- (Catalog HT components gripping/rotating)
- Rotary module
 - Gripper module

* Deviations possible depending on installed peripherals

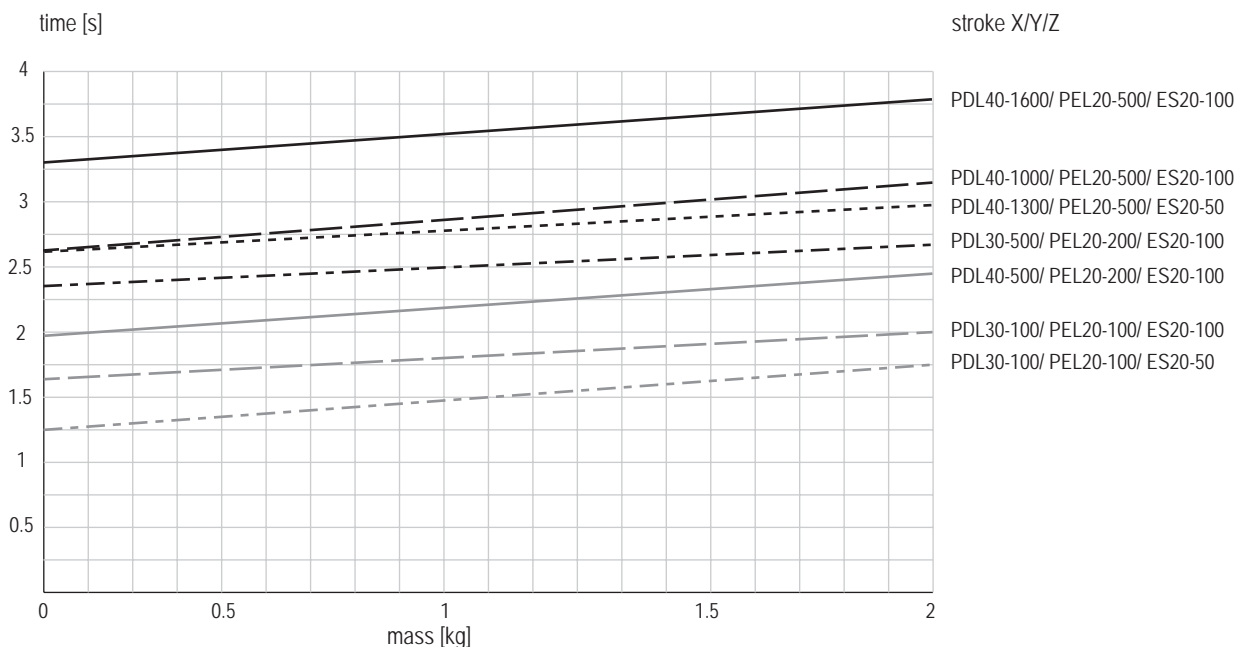
Warranty: 24 months following commissioning, but a maximum of 27 months following delivery

Type	ES20-SL	ES20
Dynamic torque Mx	5 Nm	5 Nm
Dynamic torque My	25 Nm	50 Nm
Dynamic torque Mz	25 Nm	50 Nm



Payload (centric)			
Stroke Y	60 - 270 mm	290 - 370 mm	470 - 640 mm
Stroke Z			
50 mm	4 kg	3 kg	2 kg
100 mm	3 kg	2 kg	1 kg
200 mm	2 kg	1 kg	-
300 mm	1 kg	-	-

Cycle times EPS mini gantry s for Pick & Place



Times including 2 x 100 ms gripping time

Comment:

The values in the chart correspond to a Pick-and-Place cycle (6 subsequent movements + 2 x 100 ms gripping time). The indicated mass is centrally installed at the vertical linear unit. Standstill times of handling permit shorter movement times. In exceptions, e.g. at eccentric mass or high requirements to accuracy, the value may be exceeded.

Electrical handling systems

EPS midi gantry s

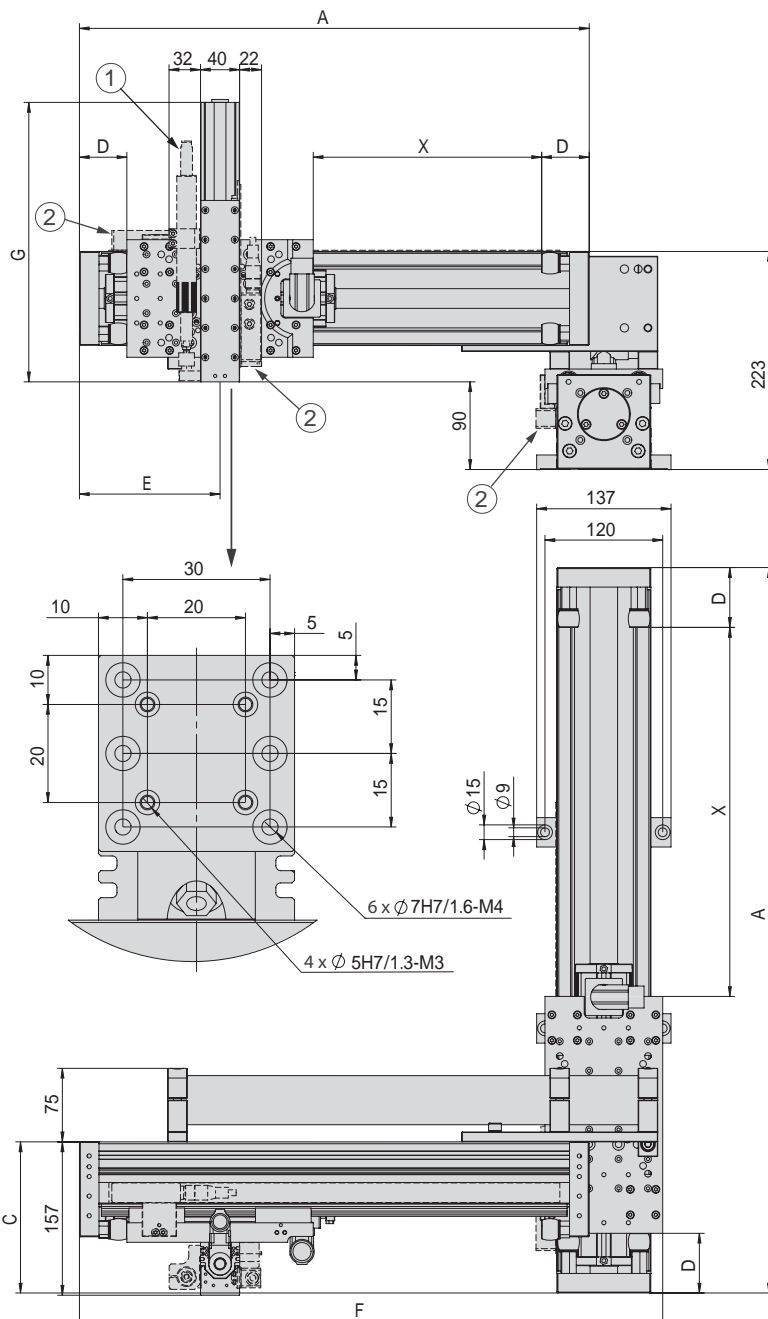


- Lateral boom up to 630 mm stroke
- Stiff Y-axis due to double guide
- Portal axes with high force

Dimensions

EPS midi gantry s

Type	A	C	D	E	F	G
PDL30-X-D19	X + 270 mm	134 mm	40 mm	134 mm	A + 75 mm	
PDL30-X-D20	X + 290 mm	144 mm	50 mm	144 mm	A + 75 mm	
PDL40-X-D27	X + 340 mm	143 mm	49 mm	169 mm	A + 75 mm	
PDL40-X-D28	X + 370 mm	158 mm	64 mm	182 mm	A + 75 mm	
PDL40-X-HP-D27	X + 460 mm	202 mm	49 mm	230 mm	A + 75 mm	
PDL40-X-HP-D28	X + 490 mm	215 mm	64 mm	242 mm	A + 75 mm	
ES20-50-SL						192 mm
ES20-100-SL						285 mm
ES20-200						365 mm
ES20-300						495 mm



- ① MagSpring
- ② Path measuring system
- X Stroke of the X-, Y-axis

EPS midi gantry s	
Order number	50444423
Drive type	electrical, linear motor
Repeat accuracy	± 0.05 mm
- with external path measuring system (1 µm)	± 0.02 mm
Temperature range	0 ... 50 °C
Control block with 5/3, 5/2 or vacuum units	up to 6 valves

Type	X-axis	
Axis	PDL40	PDL40-HP
Stroke horizontal	70, 160, 170, 230, 280, 320, 370, 440, 460, 530, 580, 670, 880, 1060, 1270, 1480, 1660 mm	160, 200, 250, 320, 340, 410, 460, 550, 760, 940, 1150, 1360, 1540 mm
Maximum speed	3 m/s	2 m/s
Peak force	550 N	1024 N
Permanent force	145 N	203 N

Type	Y-axis		
Axis	PDL30	PDL40	PDL40-HP
Stroke horizontal	90, 130, 150, 230, 250, 330, 350, 430, 450, 530, 550, 630 mm	70, 160, 170, 230, 280, 320, 370, 440, 460, 530, 580 mm	160, 200, 250, 320, 340, 410, 460, 550 mm
Maximum speed	3.2 m/s	3 m/s	2 m/s
Peak force	255 N	550 N	1024 N
Permanent force	51 N	145 N	203 N

Type	Z-axis	
Axis	ES20	ES20
Stroke vertical	50 mm	100, 200, 300 mm
Maximum speed	6.8 m/s	4.8 m/s
Peak force	67 N	137 N
Permanent force	15 N	31 N

Included in the delivery *

- 2x Ø 5h6 Centring sleeves
- 2x Ø 7h6 Centring sleeves
- MagSpring or compensation spring
- Hose or drag chain
- Motor cable
- Completely wired
- Controller parametrised
- Gantry bracing
- Attachment blocs

* Deviations possible depending on installed peripherals

Accessories

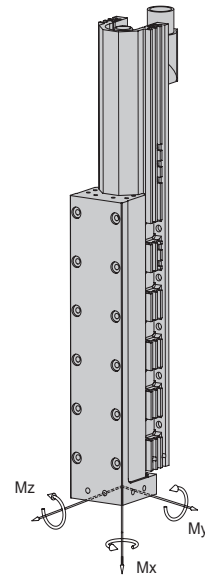
(Catalogue HT accessories)

- Valve block
- Clamping element
(Catalogue HT components linear)
- Path measuring system
(Catalog HT components gripping/rotating)
- Rotary module
- Gripper module

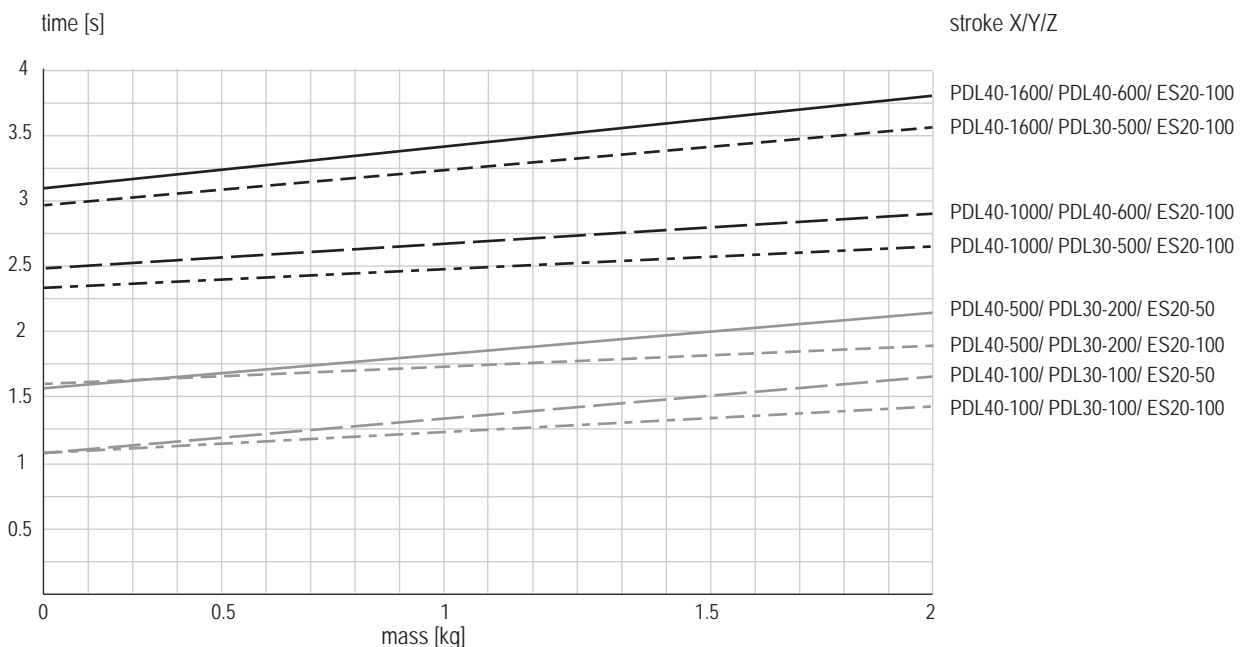
Warranty: 24 months following commissioning, but a maximum of 27 months following delivery

Type	ES20-SL	ES20
Dynamic torque Mx	5 Nm	5 Nm
Dynamic torque My	25 Nm	50 Nm
Dynamic torque Mz	25 Nm	50 Nm

Payload (centric)			
Stroke Y	60 - 230 mm	250 - 430 mm	450 - 630 mm
Stroke Z			
50 mm	4 kg	3 kg	1.5 kg
100 mm	3 kg	2 kg	1 kg
200 mm	2 kg	1 kg	0.5 kg
300 mm	1 kg	0.5 kg	-



Cycle times EPS midi gantry s for Pick & Place



Times including 2 x 100 ms gripping time

Comment:

The values in the chart correspond to a Pick-and-Place cycle (6 subsequent movements + 2 x 100 ms gripping time). The indicated mass is centrally installed at the vertical linear unit. Standstill times of handling permit shorter movement times. In exceptions, e.g. at eccentric mass or high requirements to accuracy, the value may be exceeded.

Electrical handling systems

EPS maxi gantry s



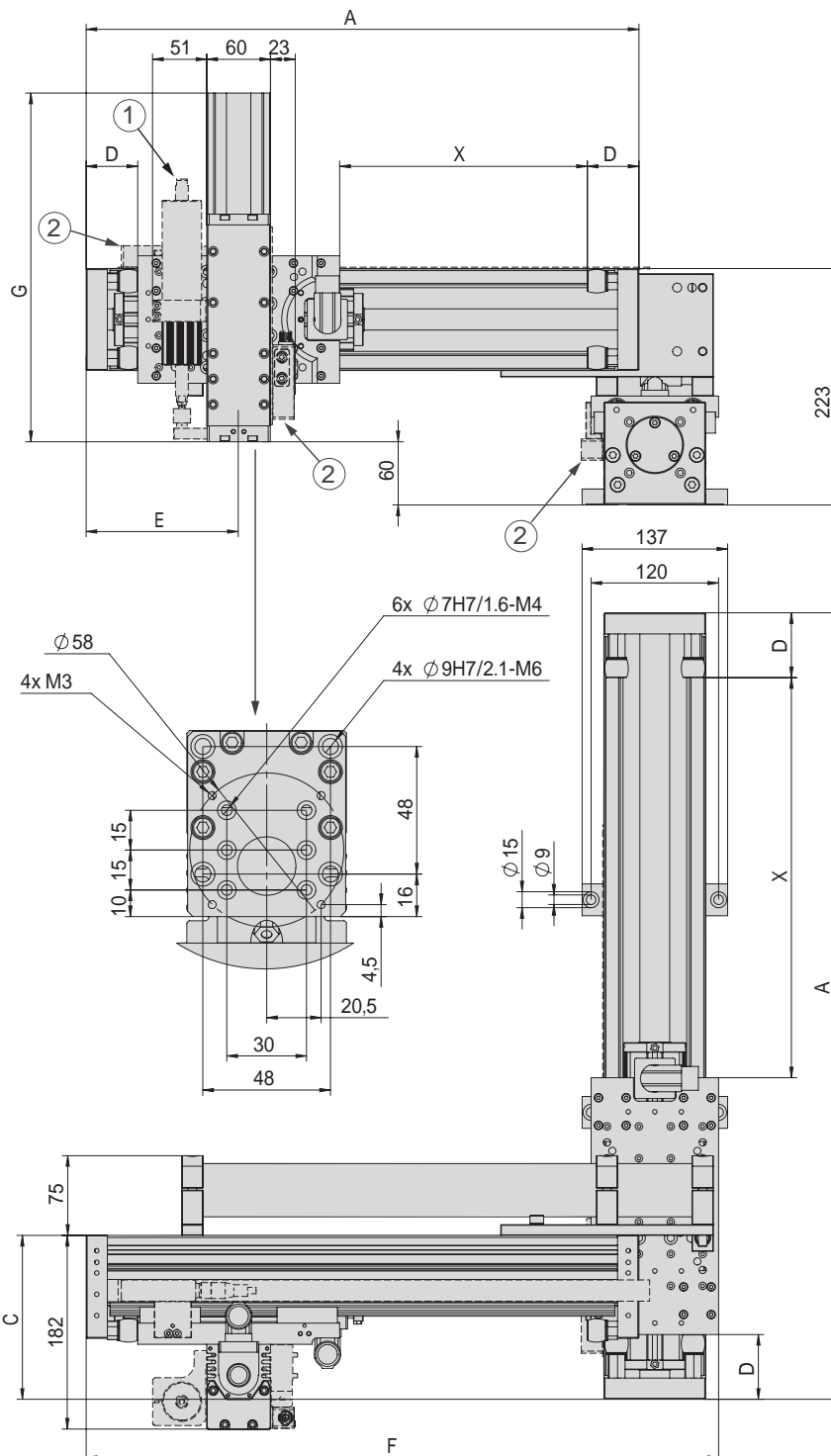
- Stiff structure with low space requirement
- Ideal for palletizing tasks with high mass
- Z-axis up to 300 mm stroke

Dimensions

EPS maxi gantry s

Type	A	C	D	E	F
PDL30-X-D19	X + 270 mm	134 mm	40 mm	134 mm	A + 75 mm
PDL30-X-D20	X + 290 mm	144 mm	50 mm	144 mm	A + 75 mm
PDL40-X-D27	X + 340 mm	143 mm	49 mm	169 mm	A + 75 mm
PDL40-X-D28	X + 370 mm	158 mm	64 mm	182 mm	A + 75 mm
PDL40-X-HP-D27	X + 460 mm	202 mm	49 mm	230 mm	A + 75 mm
PDL40-X-HP-D28	X + 490 mm	215 mm	64 mm	242 mm	A + 75 mm

Type	G
ES30-50-SL	288 mm
ES30-100-SL	328 mm
ES30-100	328 mm
ES20-200-SL	428 mm
ES30-200	428 mm
ES30-300	528 mm



EPS maxi gantry s	
Order number	50444424
Drive type	electrical, linear motor
Repeat accuracy	± 0.05 mm
- with external path measuring system (1 µm)	± 0.02 mm
Temperature range	0 ... 50 °C
Control block with 5/3, 5/2 or vacuum units	up to 6 valves

Type	X-axis	
Axis	PDL40	PDL40-HP
Stroke horizontal	70, 160, 170, 230, 280, 320, 370, 440, 460, 530, 580, 670, 880, 1060, 1270, 1480, 1660 mm	160, 200, 250, 320, 340, 410, 460, 550, 760, 940, 1150, 1360, 1540 mm
Maximum speed	3 m/s	2 m/s
Peak force	550 N	1024 N
Permanent force	145 N	203 N

Type	Y-axis		
Axis	PDL30	PDL40	PDL40-HP
Stroke horizontal	90, 130, 150, 230, 250, 330, 350, 430, 450, 530, 550, 630 mm	70, 160, 170, 230, 280, 320, 370, 440, 460, 530, 580 mm	160, 200, 250, 320, 340, 410, 460, 550 mm
Maximum speed	3.2 m/s	3 m/s	2 m/s
Peak force	255 N	550 N	1024 N
Permanent force	51 N	145 N	203 N

Type	Z-axis
Axis	ES30
Stroke vertical	50, 100, 200, 300 mm
Maximum speed	3.2 m/s
Peak force	255 N
Permanent force	51 N

Included in the delivery *

- 2x Ø 7h6 Centring sleeves
- 2x Ø 9h7 Centring sleeves
- MagSpring
- Hose or drag chain
- Motor cable
- Completely wired
- Controller parametrised
- Gantry bracing
- Attachment blocs

* Deviations possible depending on installed peripherals

Accessories

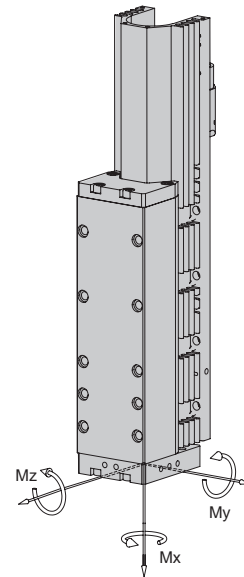
(Catalogue HT accessories)

- Valve block
- Clamping element
- (Catalogue HT components linear)
- Path measuring system
- (Catalog HT components gripping/rotating)
- Rotary module
- Gripper module

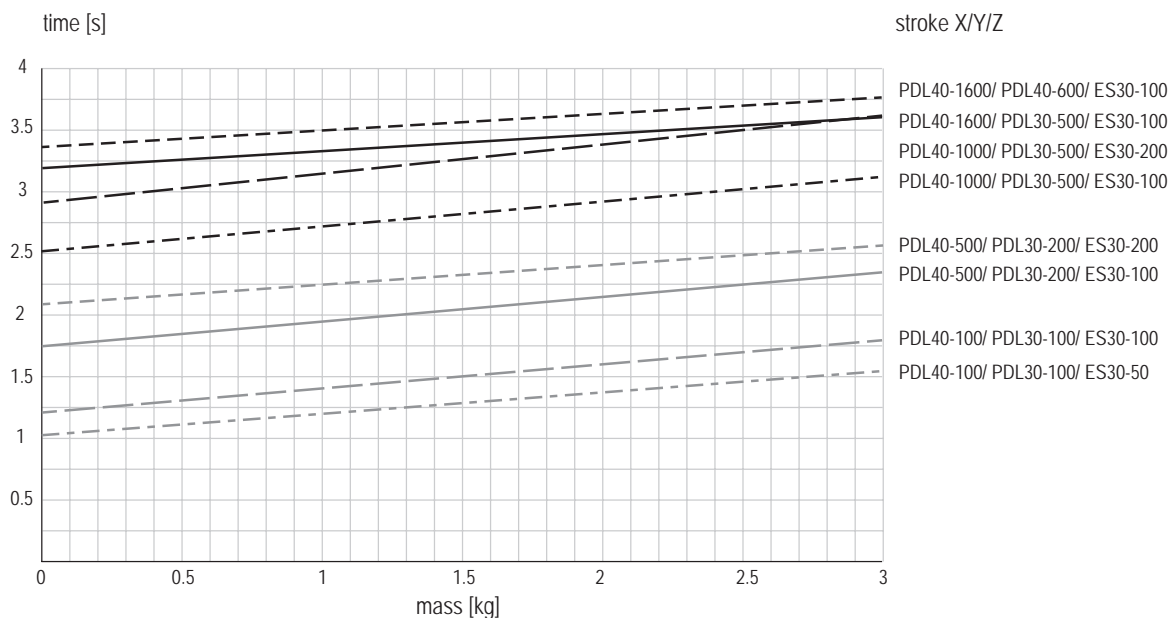
Warranty: 24 months following commissioning, but a maximum of 27 months following delivery

Type	ES30-SL	ES30
Dynamic torque Mx	30 Nm	30 Nm
Dynamic torque My	40 Nm	80 Nm
Dynamic torque Mz	40 Nm	80 Nm

Payload (centric)				
Stroke Z	Stroke Y	70 - 230 mm	250 - 430 mm	450 - 630 mm
50 mm		5 kg	4 kg	3 kg
100 mm		4 kg	3 kg	2 kg
200 mm		3 kg	2 kg	1 kg
300 mm		2 kg	1 kg	-



Cycle times EPS maxi gantry s for Pick & Place



Times including 2 x 100 ms gripping time

Comment:

The values in the chart correspond to a Pick-and-Place cycle (6 subsequent movements + 2 x 100 ms gripping time). The indicated mass is centrally installed at the vertical linear unit. Standstill times of handling permit shorter movement times. In exceptions, e.g. at eccentric mass or high requirements to accuracy, the value may be exceeded.

Electrical handling systems

EPS mini gantry h



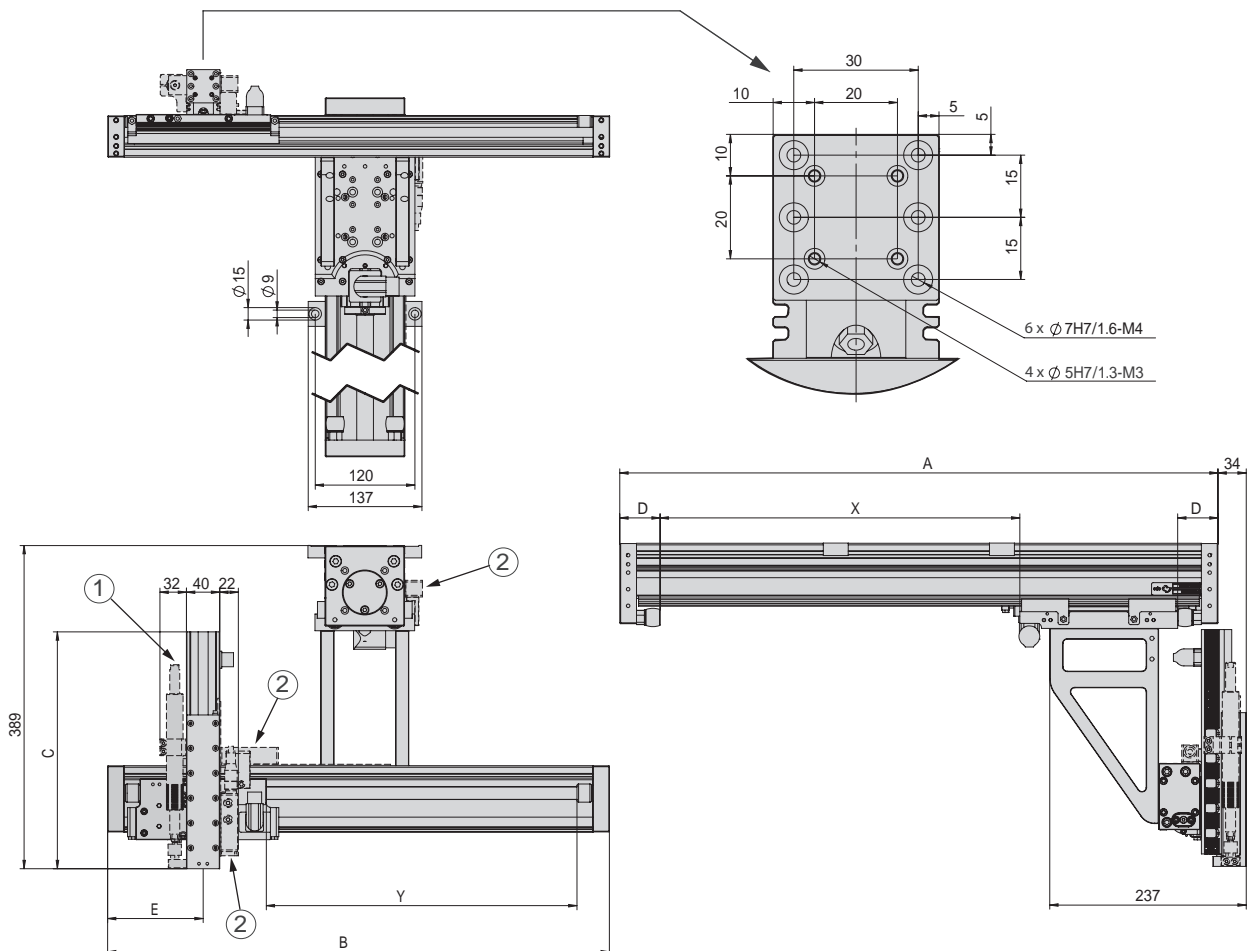
- For assembly above the working area
- Working space is freely accessible
- Y-stroke up to 640 mm

Dimensions

EPS mini gantry h

Type	A	B	C	D	E
PDL30-X-D19	X + 270 mm			40 mm	
PDL30-X-D20	X + 290 mm			50 mm	
PDL40-X-D27	X + 340 mm			49 mm	
PDL40-X-D28	X + 370 mm			64 mm	
PDL40-X-HP-D27	X + 460 mm			49 mm	
PDL40-X-HP-D28	X + 490 mm			64 mm	
PEL20-Y-SL		Y + 234 mm			114 mm
PEL20-Yw		Y + 314 mm			155 mm
ES20-50-SL			192 mm		
ES20-100-SL			285 mm		

- ① MagSpring
- ② Path measuring system
- X Stroke of the X-axis
- Y Stroke of the Y-axis



EPS mini gantry h		
Order number	50444419	
Drive type	electrical, linear motor	
Repeat accuracy	± 0.05 mm	
- with external path measuring system (1 µm)	± 0.02 mm	
Temperature range	0 ... 50 °C	
Control block with 5/3, 5/2 or vacuum units	up to 6 valves	

Type	X-axis	
Axis	PDL30	PDL40
Stroke horizontal	90, 130, 150, 230, 250, 330, 350, 430, 450, 530, 550, 630, 650, 730, 930, 1130, 1330 mm	70, 160, 170, 230, 280, 320, 370, 440, 460, 530, 580, 670, 880, 1060, 1270, 1480, 1660 mm
Maximum speed	3.2 m/s	3 m/s
Peak force	255 N	550 N
Permanent force	51 N	145 N

Type	Y-axis	
Axis	PEL20-SL	PEL20
Stroke horizontal	80, 140, 210, 270, 370, 550, 640 mm	60, 130, 190, 290, 470, 560 mm
Maximum speed	6.8 m/s	4.8 m/s
Peak force	67 N	137 N
Permanent force	15 N	31 N

Type	Z-axis	
Axis	ES20	ES20
Stroke vertical	50 mm	100 mm
Maximum speed	6.8 m/s	4.8 m/s
Peak force	67 N	137 N
Permanent force	15 N	31 N

Included in the delivery *

- 2x Ø 5h6 Centring sleeves
- 2x Ø 7h6 Centring sleeves
- MagSpring or compensation spring
- Hose or drag chain
- Motor cable
- Completely wired
- Controller parametrised
- Gantry bracing
- Attachment blocs

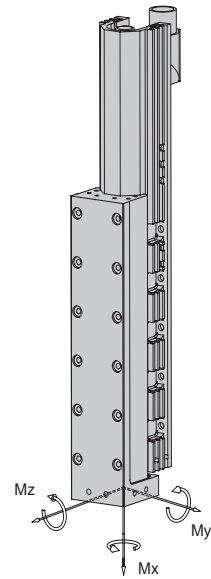
Accessories

- (Catalogue HT accessories)
- Valve block
 - Clamping element
- (Catalogue HT components linear)
- Path measuring system
- (Catalog HT components gripping/rotating)
- Rotary module
 - Gripper module

* Deviations possible depending on installed peripherals

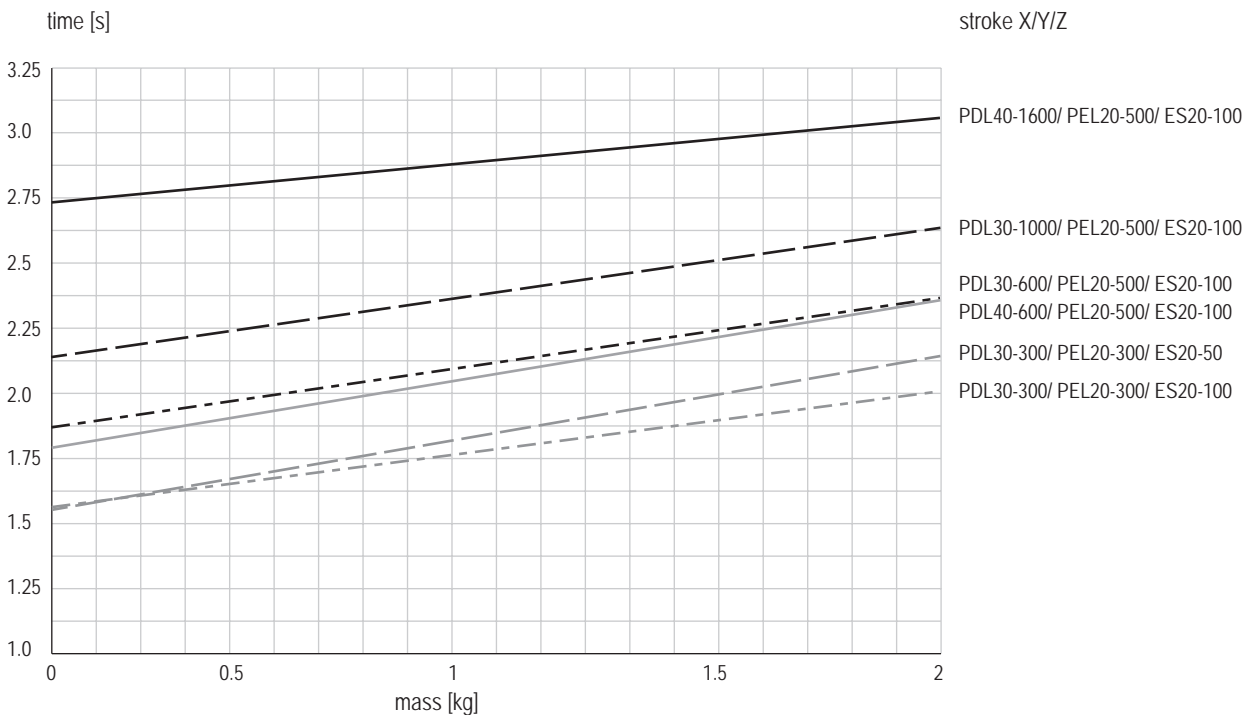
Warranty: 24 months following commissioning, but a maximum of 27 months following delivery

Type	ES20-SL	ES20
Dynamic torque Mx	5 Nm	5 Nm
Dynamic torque My	25 Nm	50 Nm
Dynamic torque Mz	25 Nm	50 Nm



Payload (centric)		
Stroke Y	60 - 370 mm	470 - 640 mm
Stroke Z		
50 mm	4 kg	3 kg
100 mm	3 kg	2 kg

Cycle times EPS mini gantry h for Pick & Place



Times including 2 x 100 ms gripping time

Comment:

The values in the chart correspond to a Pick-and-Place cycle (6 subsequent movements + 2 x 100 ms gripping time). The indicated mass is centrally installed at the vertical linear unit. Standstill times of handling permit shorter movement times. In exceptions, e.g. at eccentric mass or high requirements to accuracy, the value may be exceeded.

Electrical handling systems

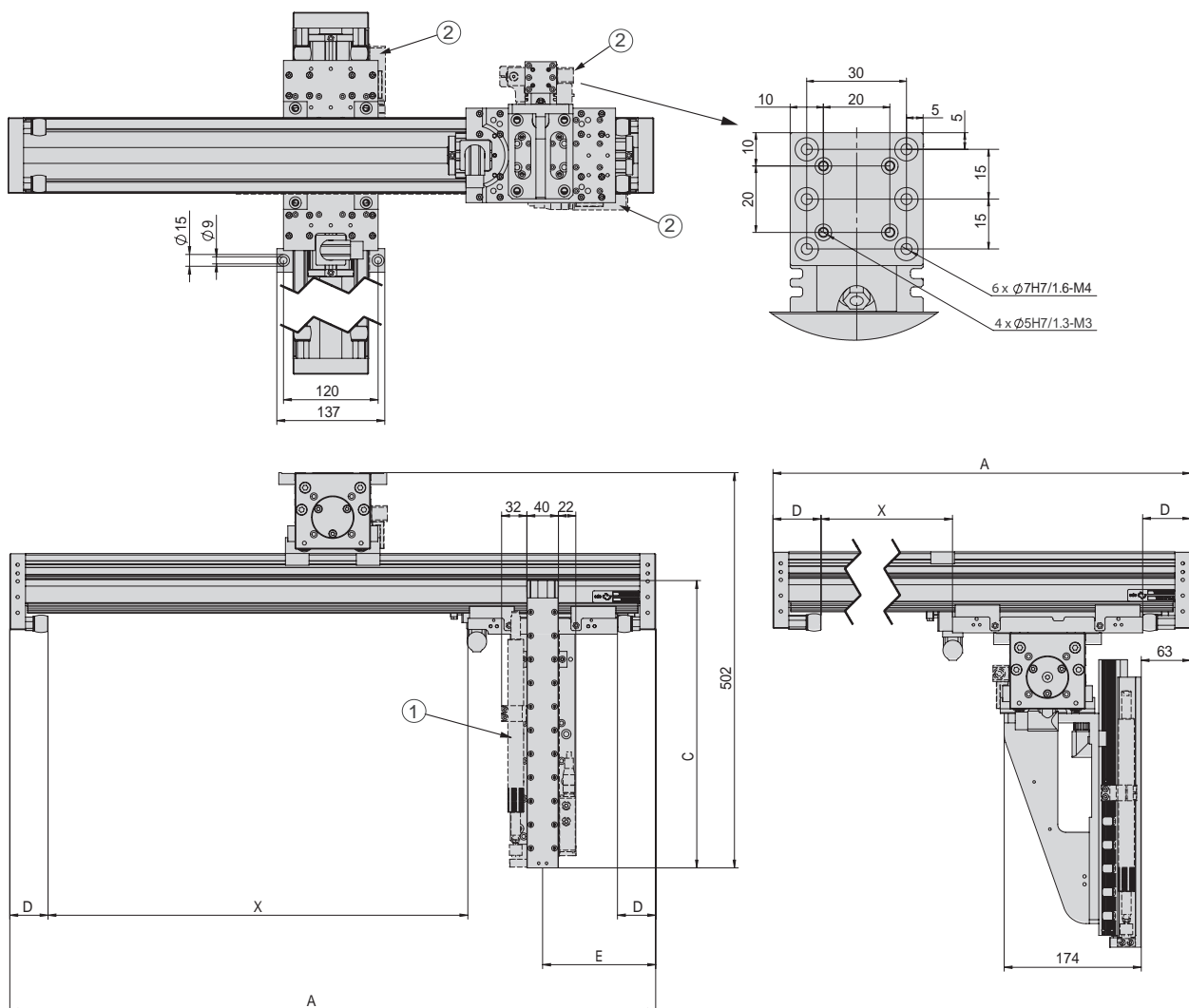
EPS midi gantry h



- Lateral boom up to 1130 mm stroke
- Stiffest connection between X- and Y-axis
- Double guide in X- and Y-axis

Type	A	C	D	E
PDL40-X-D27	X + 340 mm		49 mm	169 mm
PDL40-X-D28	X + 370 mm		64 mm	182 mm
PDL40-X-HP-D27	X + 460 mm		49 mm	230 mm
PDL40-X-HP-D28	X + 490 mm		64 mm	242 mm
PDL30-X-D19	X + 270 mm		40 mm	134 mm
PDL30-X-D20	X + 290 mm		50 mm	144 mm
ES20-50		192 mm		
ES20-100		285 mm		
ES20-200		365 mm		
ES20-300		495 mm		

- ① MagSpring
- ② Path measuring system
- X Stroke of the X-, Y-axis



EPS midi gantry h				
Order number	50444420			
Drive type	electrical, linear motor			
Repeat accuracy	± 0.05 mm			
- with external path measuring system (1 µm)	± 0.02 mm			
Temperature range	0 ... 50 °C			
Control block with 5/3, 5/2 or vacuum units	up to 6 valves			

Type	X-axis			
Axis	PDL40	PDL40-HP		
Stroke horizontal	70, 160, 170, 230, 280, 320, 370, 440, 460, 530, 580, 670, 880, 1060, 1270, 1480, 1660 mm	160, 200, 250, 320, 340, 410, 460, 550, 760, 940, 1150, 1360, 1540 mm		
Maximum speed	3 m/s	2 m/s		
Peak force	550 N	1024 N		
Permanent force	145 N	203 N		

Type	Y-axis			
Axis	PDL30	PDL40	PDL40-HP	
Stroke horizontal	90, 130, 150, 230, 250, 330, 350, 430, 450, 530, 550, 630, 650, 730, 930, 1130 mm	70, 160, 170, 230, 280, 320, 370, 440, 460, 530, 580, 670, 880, 1060 mm	160, 200, 250, 320, 340, 410, 460, 550, 760, 940 mm	
Maximum speed	3.2 m/s	3 m/s	2 m/s	
Peak force	255 N	550 N	1024 N	
Permanent force	51 N	145 N	203 N	

Type	Z-axis			
Axis	ES20	ES20	ES20	ES20
Stroke vertical	50 mm	100 mm	200 mm	300 mm
Maximum speed	6.8 m/s	4.8 m/s	4.8 m/s	4.8 m/s
Peak force	67 N	137 N	137 N	137 N
Permanent force	15 N	31 N	31 N	31 N

Included in the delivery *

- 2x Ø 5h6 Centring sleeves
- 2x Ø 7h6 Centring sleeves
- MagSpring or compensation spring
- Hose or drag chain
- Motor cable
- Completely wired
- Controller parametrised
- Gantry bracing
- Attachment blocs

* Deviations possible depending on installed peripherals

Accessories

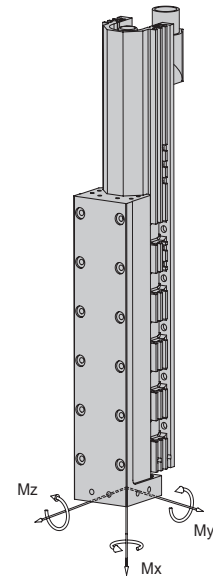
(Catalogue HT accessories)

- Valve block
- Clamping element
(Catalogue HT components linear)
- Path measuring system
(Catalog HT components gripping/rotating)
- Rotary module
- Gripper module

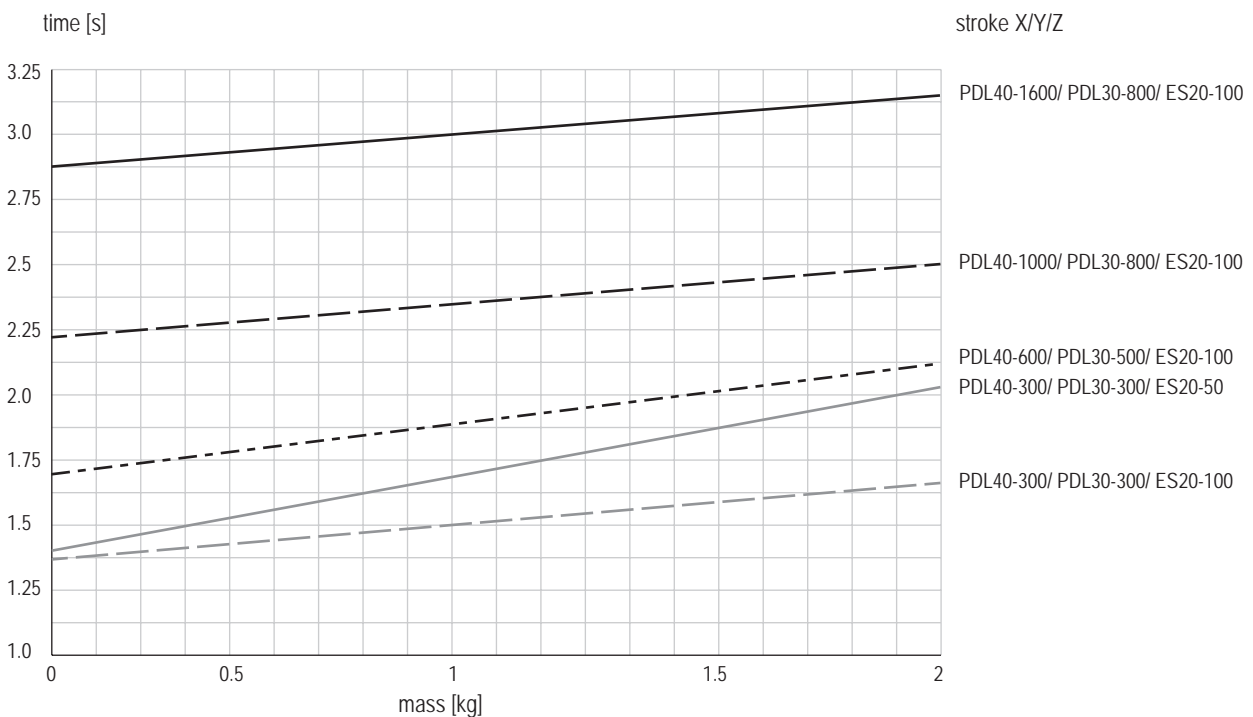
Warranty: 24 months following commissioning, but a maximum of 27 months following delivery

Tye	ES20-SL	ES20
Dynamic torque Mx	5 Nm	5 Nm
Dynamic torque My	25 Nm	50 Nm
Dynamic torque Mz	25 Nm	50 Nm

Payload (centric)		
Stroke Z	Stroke Y	
		90 - 630 mm 670 - 1130 mm
50 mm		4 kg 3 kg
100 mm		3 kg 2 kg
200 mm		1 kg 0.5 kg
300 mm		0.5 kg -



Cycle times EPS midi gantry h for Pick & Place



Times including 2 x 100 ms gripping time

Comment:

The values in the chart correspond to a Pick-and-Place cycle (6 subsequent movements + 2 x 100 ms gripping time). The indicated mass is centrally installed at the vertical linear unit. Standstill times of handling permit shorter movement times. In exceptions, e.g. at eccentric mass or high requirements to accuracy, the value may be exceeded.

Electrical handling systems

EPS maxi gantry h



- Stiffest structure for a handling above the working area
- Suitable for high masses
- Z-axis up to 300 mm stroke

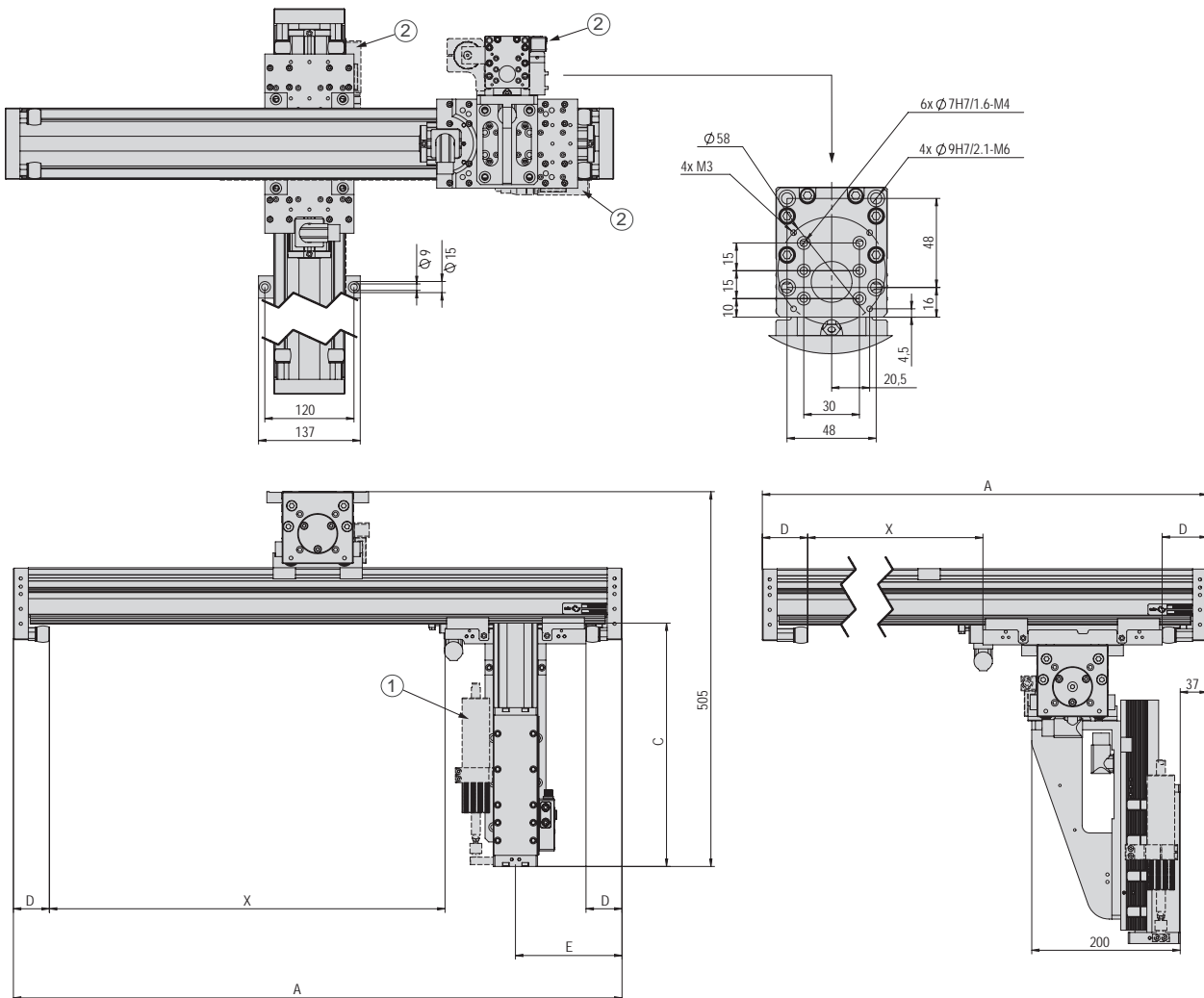
Dimensions

EPS maxi gantry h

Type	A	D	E
PDL40-X-D27	X + 340 mm	49 mm	169 mm
PDL40-X-D28	X + 370 mm	64 mm	182 mm
PDL40-X-HP-D27	X + 460 mm	49 mm	230 mm
PDL40-X-HP-D28	X + 490 mm	64 mm	242 mm
PDL30-X-D19	X + 270 mm	40 mm	134 mm
PDL30-X-D20	X + 290 mm	50 mm	144 mm

Type	C
ES30-50-SL	288 mm
ES30-100-SL	328 mm
ES30-100	328 mm
ES30-200-SL	428 mm
ES30-200	428 mm
ES30-300	528 mm

- ① MagSpring
- ② Path measuring system
- X Stroke of the X-, Y-axis



EPS maxi gantry h			
Order number	50444421		
Drive type	electrical, linear motor		
Repeat accuracy	± 0.05 mm		
- with external path measuring system (1 µm)	± 0.02 mm		
Temperature range	0 ... 50 °C		
Control block with 5/3, 5/2 or vacuum units	up to 6 valves		

Type	X-axis		
Axis	PDL40	PDL40-HP	
Stroke horizontal	70, 160, 170, 230, 280, 320, 370, 440, 460, 530, 580, 670, 880, 1060, 1270, 1480, 1660 mm	160, 200, 250, 320, 340, 410, 460, 550, 760, 940, 1150, 1360, 1540 mm	
Maximum speed	3 m/s	2 m/s	
Peak force	550 N	1024 N	
Permanent force	145 N	203 N	

Type	Y-axis		
Axis	PDL30	PDL40	PDL40-HP
Stroke horizontal	90, 130, 150, 230, 250, 330, 350, 430, 450, 530, 550, 630, 650, 730, 930, 1130 mm	70, 160, 170, 230, 280, 320, 370, 440, 460, 530, 580, 670, 880, 1060 mm	160, 200, 250, 320, 340, 410, 460, 550, 760, 940 mm
Maximum speed	3.2 m/s	3 m/s	2 m/s
Peak force	255 N	550 N	1024 N
Permanent force	51 N	145 N	203 N

Type	Z-axis
Axis	ES30
Stroke vertical	50, 100, 200, 300 mm
Maximum speed	3.2 m/s
Peak force	255 N
Permanent force	51 N

Included in the delivery *

- 2x Ø 7h6 Centring sleeves
- 2x Ø 9h7 Centring sleeves
- MagSpring
- Hose or drag chain
- Motor cable
- Completely wired
- Controller parametrised
- Gantry bracing
- Attachment blocs

* Deviations possible depending on installed peripherals

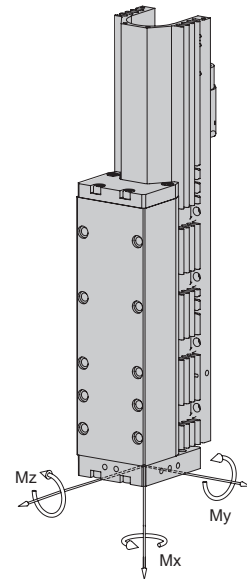
Accessories

(Catalogue HT accessories)

- Valve block
- Clamping element
(Catalogue HT components linear)
- Path measuring system
(Catalog HT components gripping/rotating)
- Rotary module
- Gripper module

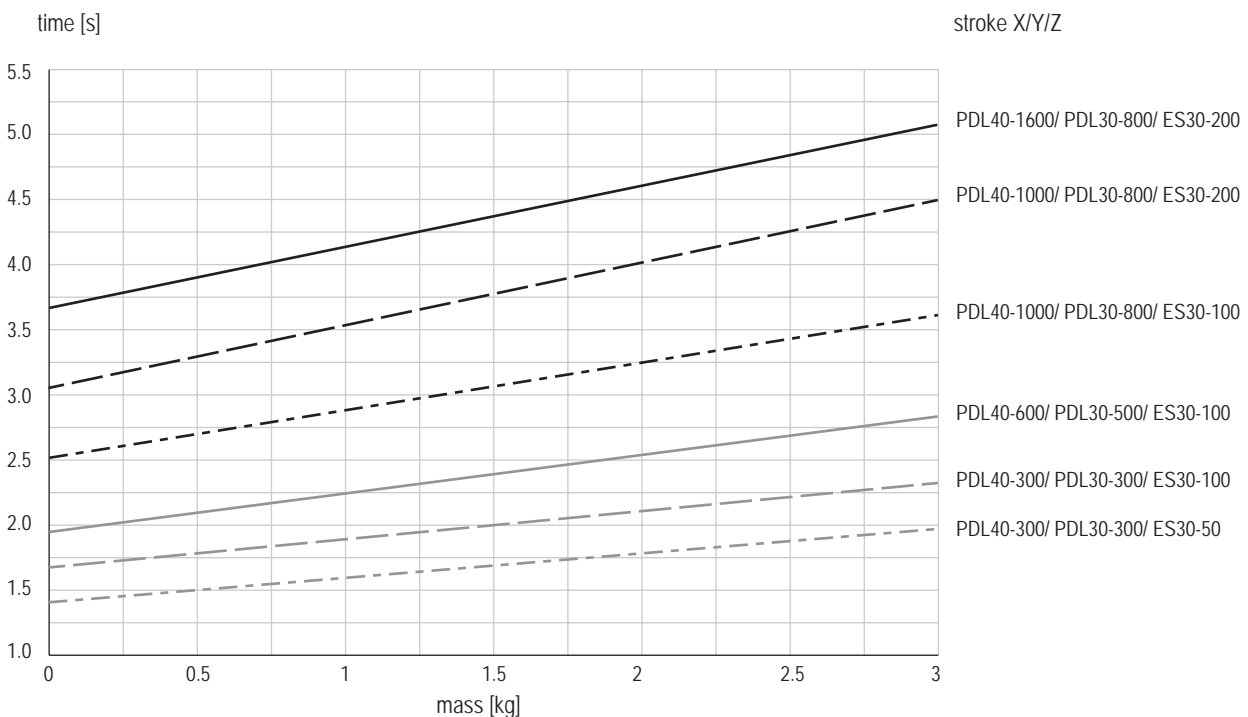
Warranty: 24 months following commissioning, but a maximum of 27 months following delivery

Type	ES30-SL	ES30
Dynamic torque Mx	30 Nm	30 Nm
Dynamic torque My	40 Nm	80 Nm
Dynamic torque Mz	40 Nm	80 Nm



Payload (centric)		
Stroke Z	Stroke Y	
	90 - 630 mm	670 - 1130 mm
50 mm	5 kg	3 kg
100 mm	4 kg	2 kg
200 mm	3 kg	1 kg
300 mm	0.5 kg	-

Cycle times EPS maxi gantry h for Pick & Place



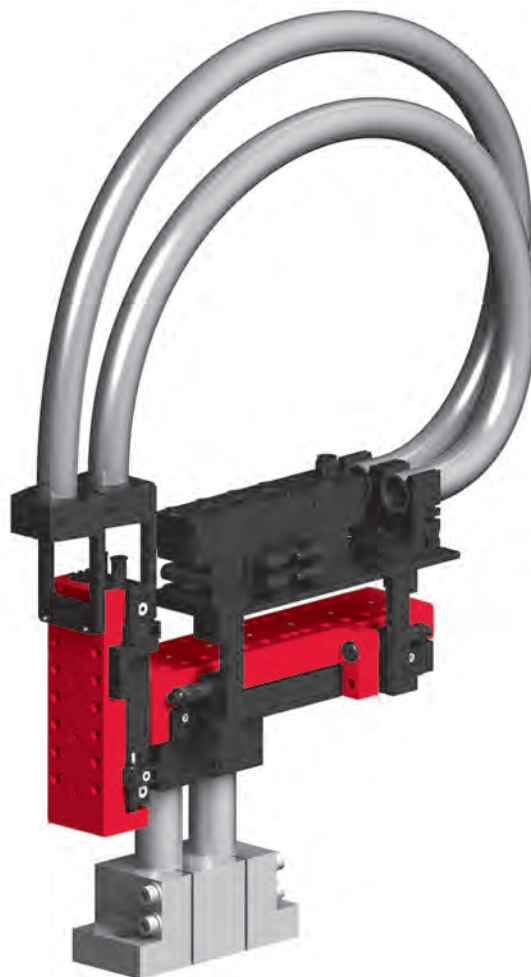
Times including 2 x 100 ms gripping time

Comment:

The values in the chart correspond to a Pick-and-Place cycle (6 subsequent movements + 2 x 100 ms gripping time). The indicated mass is centrally installed at the vertical linear unit. Standstill times of handling permit shorter movement times. In exceptions, e.g. at eccentric mass or high requirements to accuracy, the value may be exceeded.

Pneumatically handling systems

EPS nano YZ



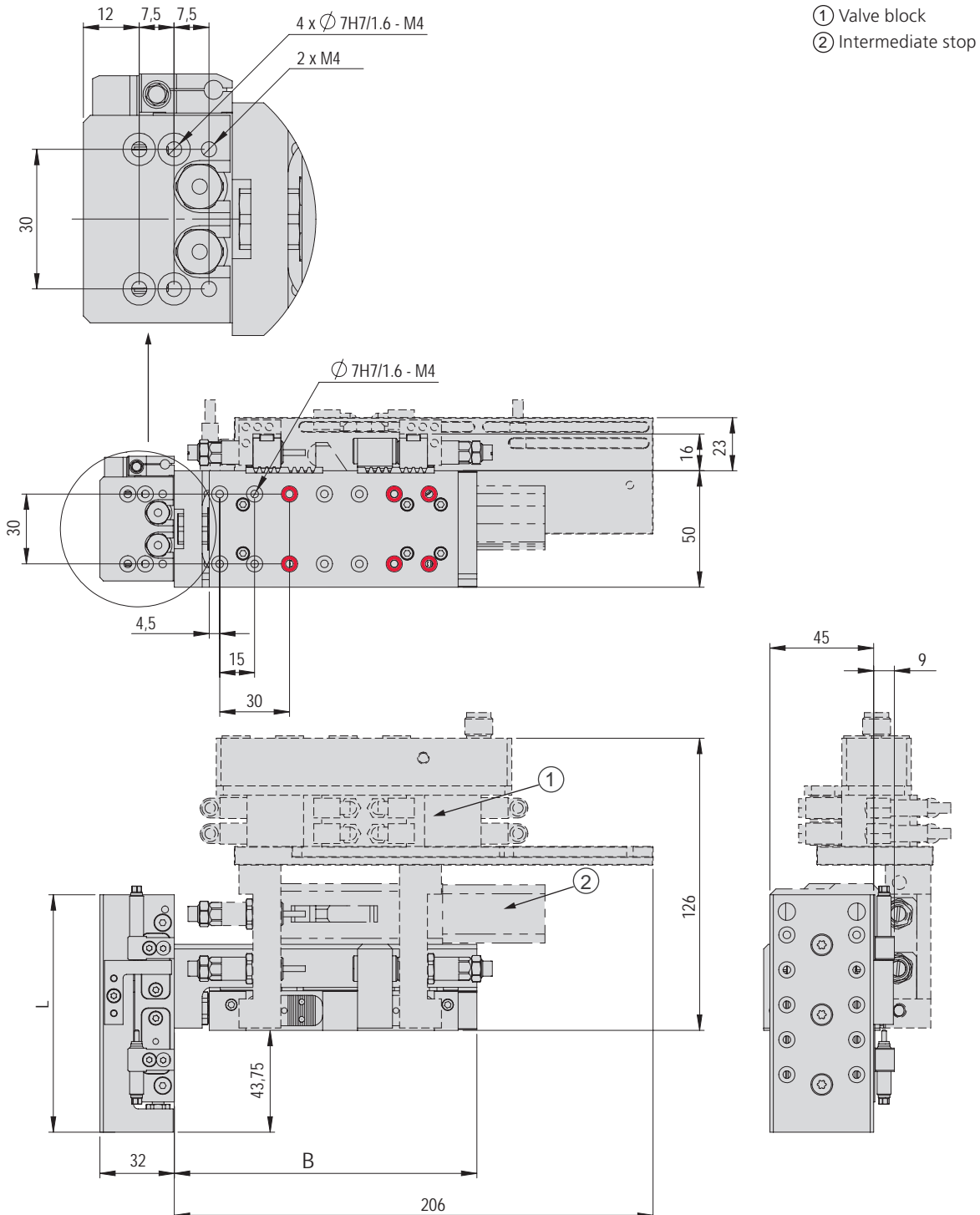
- Compact, fully pre-cabled and pre-piped ready for operation
- Intermediate stop available for Y and Z
- Ideal for small payloads

Dimensions

EPS nano YZ

Type	B
CS 16/30	130 mm
CS 16/60	177 mm
CS 16/90	209 mm
CS 16/120	252 mm

Type	L
CS 12/30-SD/ED	102 mm
CS 12/60-SD/ED	132 mm
CS 12/90-SD/ED	162 mm



- ① Valve block
- ② Intermediate stop

⊕ Bores can be screwed through. For additional and differently aligned bores that can be screwed through, see catalogue HT components linear.

EPS nano YZ	
Order number	50456538
Drive type	pneumatical
Repeat accuracy	± 0.02 mm
Temperature range	0 ... 50 °C
Control block with 5/3, 5/2 or vacuum units	up to 6 valves

Type	Y-axis
Axis	CS 16
Stroke horizontal	30, 60, 90, 120 mm
Air connection P	M5
Maximum speed	1 m/s
Retract piston force	103 N
Extend piston force	120 N

Type	Z-axis
Axis	CS 12
Stroke vertical	30, 60, 90 mm
Air connection P	M5
Maximum speed	1 m/s
Retract piston force	71 N
Extend piston force	94 N

Included in the delivery *

- 4x Ø 7h6 Centring sleeves
- 4x Special screws M4x20/8
- 4x Shock absorbers
- Hose
- Complete piping/wiring

Accessories

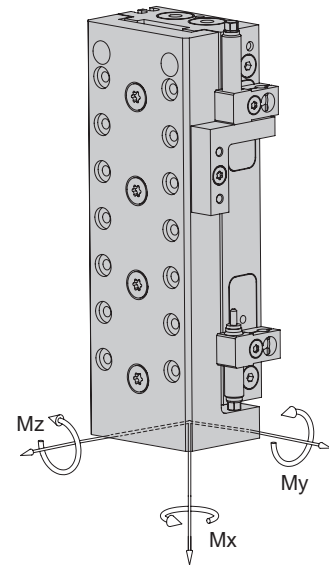
(Catalogue HT accessories)

- Console
- Valve block
- Initiators
- (Catalogue HT components linear)
- Intermediate stop ZA-CS
- (Catalog HT components gripping/rotating)
- Rotary modules
- Gripper modules

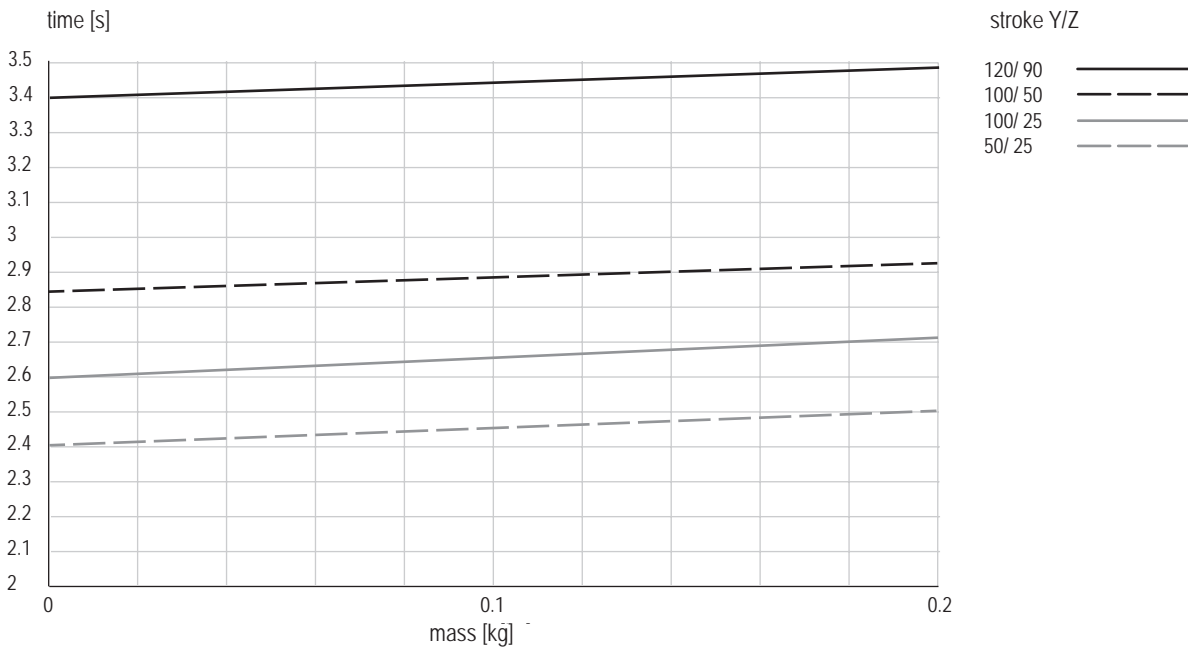
* Deviations possible depending on installed peripherals

Warranty: 24 months following commissioning, but a maximum of 27 months following delivery

Type	CS 12/30	CS 12/60	CS 12/90
Static torque Mx	13 Nm	13 Nm	13 Nm
Static torque My	8 Nm	8 Nm	8 Nm
Static torque Mz	8 Nm	8 Nm	8 Nm



Cycle times EPS nano YZ for Pick & Place



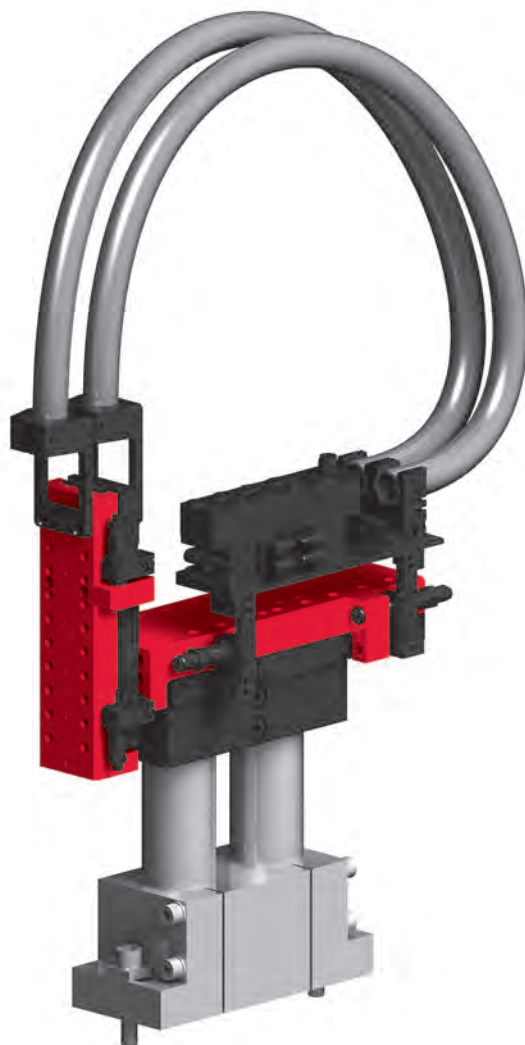
Times including 2 x 100 ms gripping time

Comment:

The values in the chart correspond to a Pick-and-Place cycle (6 subsequent movements + 2 x 100 ms gripping time). The indicated mass is centrally installed at the vertical linear unit. Standstill times of handling permit shorter movement times. In exceptions, e.g. at eccentric mass or high requirements to accuracy, the value may be exceeded.

Pneumatically handling systems

EPS mini YZ



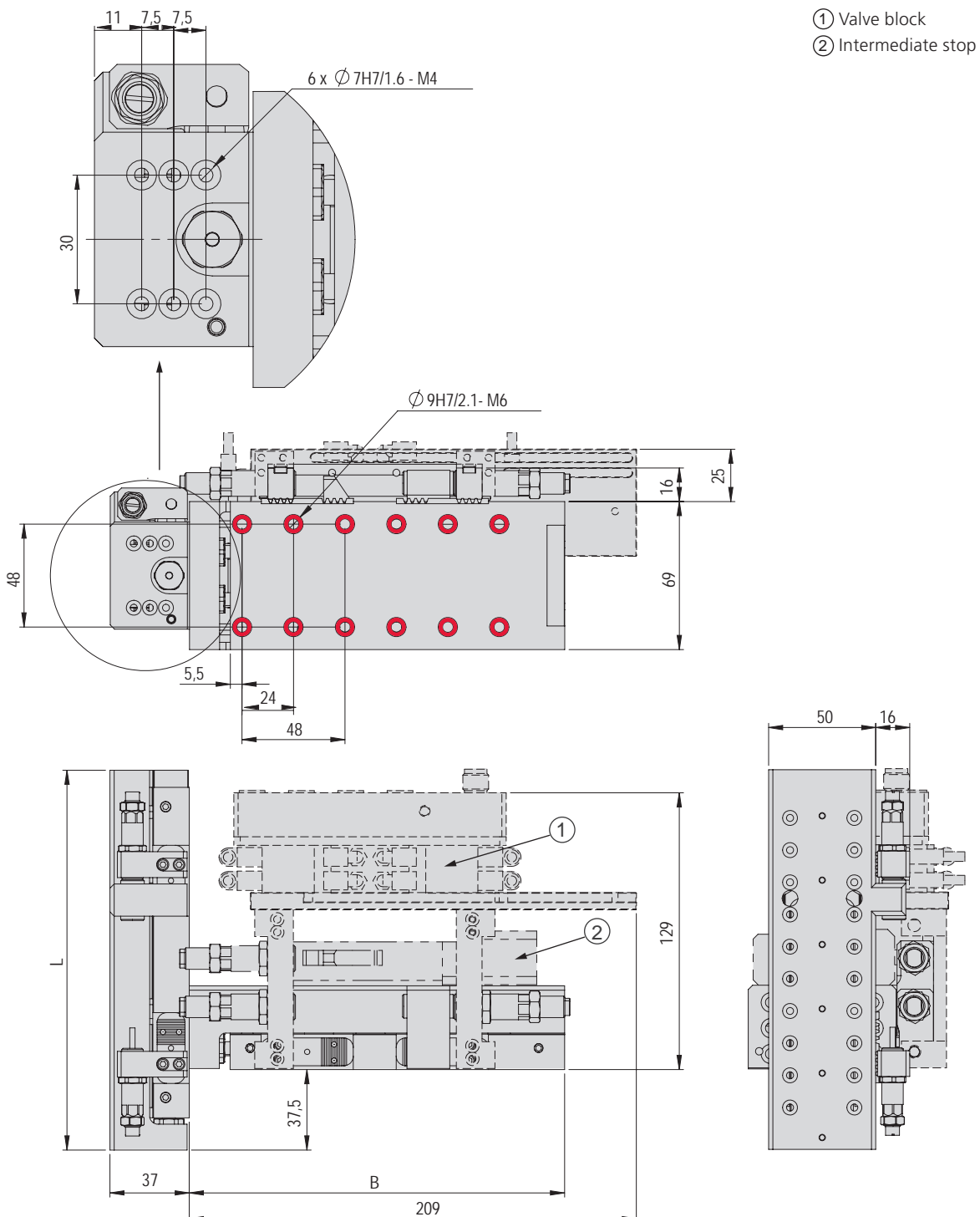
- Compact, fully pre-cabled and pre-piped ready for operation
- Intermediate stop available for Y and Z
- Y-stroke up to 150 mm

Dimensions

EPS mini YZ

Type	B
CS 20/50	175 mm
CS 20/100	235 mm
CS 20/150	295 mm

Type	L
CS 16/30	130 mm
CS 16/60	177 mm
CS 16/90	209 mm
CS 16/120	252 mm



Bores can be screwed through. For additional bores that can be screwed through, see catalogue HT components linear.

EPS mini YZ	
Order number	50456539
Drive type	pneumatical
Repeat accuracy	± 0.02 mm
Temperature range	0 ... 50 °C
Control block with 5/3, 5/2 or vacuum units	up to 6 valves

Type	Y-axis
Axis	CS 20
Stroke horizontal	50, 100, 150 mm
Air connection P	M5
Maximum speed	1 m/s
Retract piston force	207 N
Extend piston force	241 N

Type	Z-axis
Axis	CS 16
Stroke vertical	30, 60, 90, 120 mm
Air connection P	M5
Maximum speed	1 m/s
Retract piston force	103 N
Extend piston force	120 N

Included in the delivery *

- 2x Ø 7h6 Centring sleeves
- 2x Ø 9h7 Centring sleeves
- 4x Special screws M6x25/9
- 4x Shock absorbers
- Hose
- Complete piping/wiring

Accessories

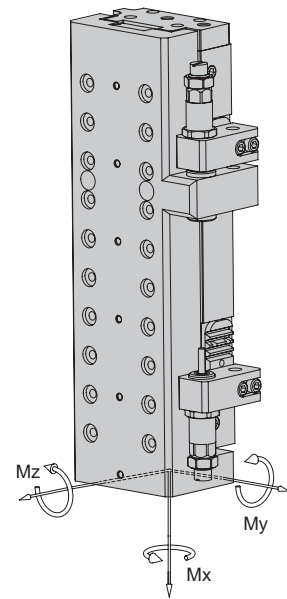
(Catalogue HT accessories)

- Console
- Valve block
- Initiators
- (Catalogue HT components linear)
- Intermediate stop ZA-CS
- (Catalog HT components gripping/rotating)
- Rotary modules
- Gripper modules

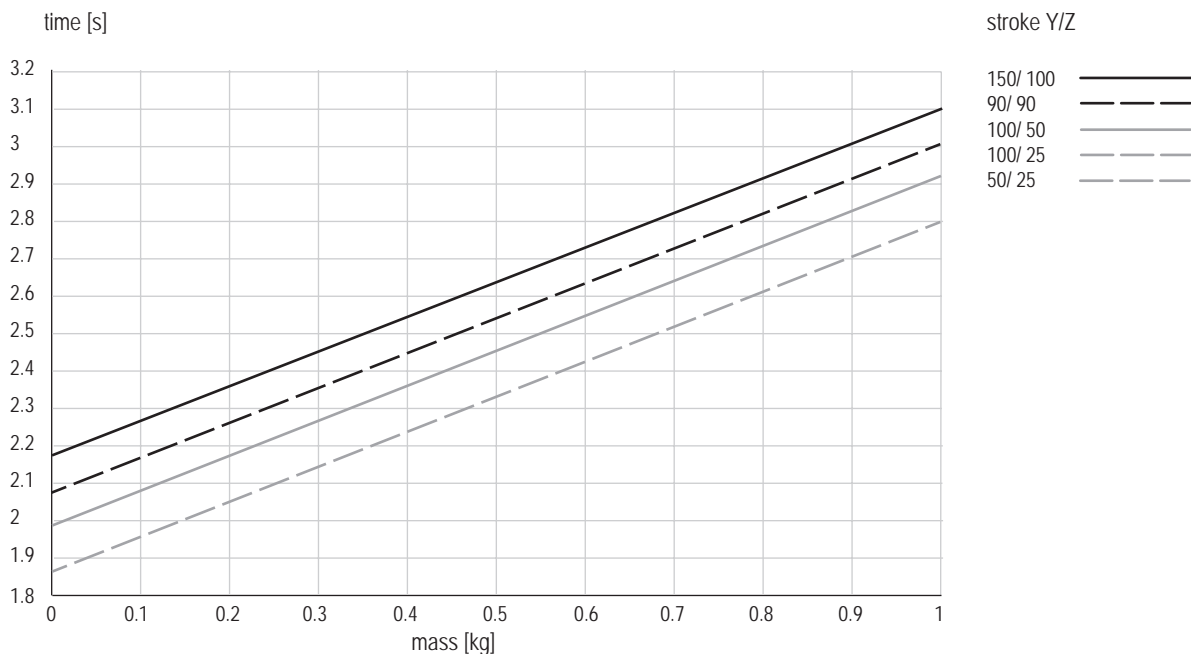
* Deviations possible depending on installed peripherals

Warranty: 24 months following commissioning, but a maximum of 27 months following delivery

Type	CS 16/30	CS 16/60	CS 16/90	CS 16/120
Static torque Mx	10 Nm	14 Nm	14 Nm	14 Nm
Static torque My	18 Nm	32 Nm	33 Nm	39 Nm
Static torque Mz	25 Nm	44 Nm	46 Nm	56 Nm



Cycle times EPS mini YZ for Pick & Place



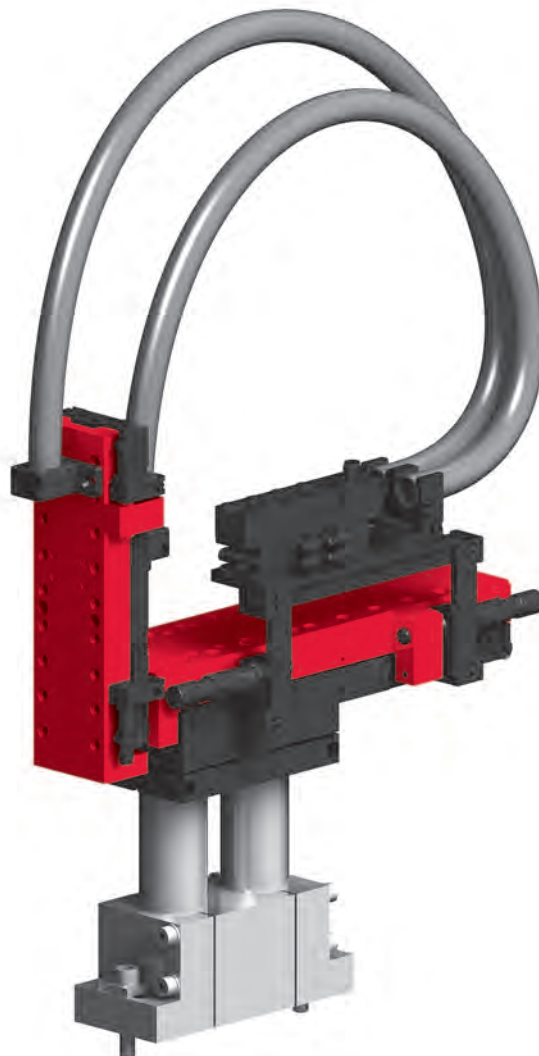
Times including 2 x 100 ms gripping time

Comment:

The values in the chart correspond to a Pick-and-Place cycle (6 subsequent movements + 2 x 100 ms gripping time). The indicated mass is centrally installed at the vertical linear unit. Standstill times of handling permit shorter movement times. In exceptions, e.g. at eccentric mass or high requirements to accuracy, the value may be exceeded.

Pneumatically handling systems

EPS midi YZ



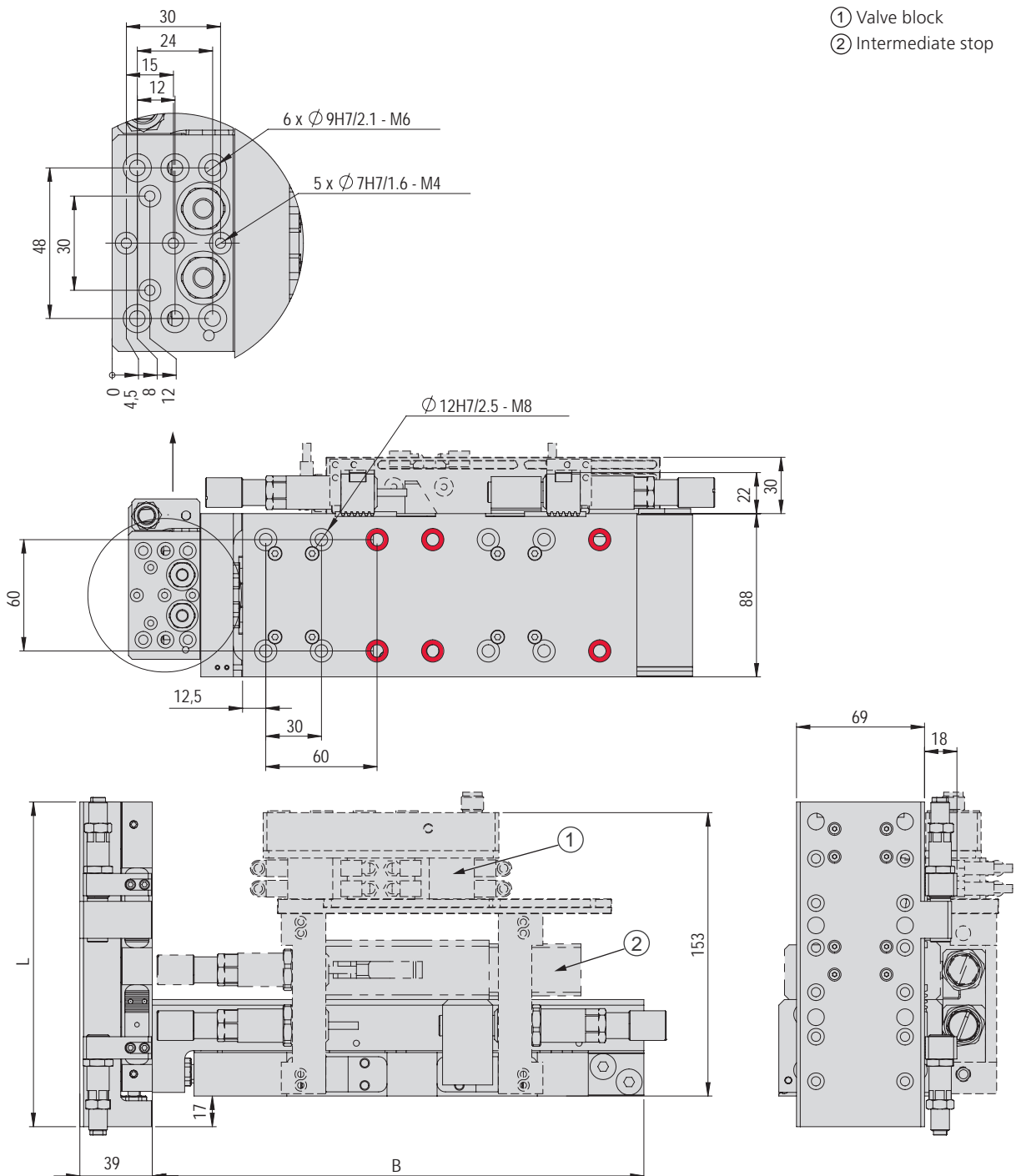
- Compact, fully pre-cabled and pre-piped ready for operation
- Intermediate stop available for Y and Z
- Y-stroke up to 240 mm


Dimensions

EPS midi YZ

Type	B
CS 25/60	265 mm
CS 25/120	325 mm
CS 25/180	415 mm
CS 25/240	475 mm

Type	L
CS 20/50	175 mm
CS 20/100	235 mm
CS 20/150	295 mm



 Bores can be screwed through. For additional and differently aligned bores that can be screwed through, see catalogue HT components linear.

EPS midi YZ	
Order number	50456540
Drive type	pneumatical
Repeat accuracy	± 0.02mm
Temperature range	0 ... 50 °C
Control block with 5/3, 5/2 or vacuum units	up to 6 valves

Type	Y-axis
Axis	CS 25
Stroke horizontal	60, 120, 180, 240 mm
Air connection P	G 1/8"
Maximum speed	1 m/s
Retract piston force	245 N
Extend piston force	305 N

Type	Z-axis
Axis	CS 20
Stroke vertical	50, 100, 150 mm
Air connection P	M5
Maximum speed	1 m/s
Retract piston force	207 N
Extend piston force	241 N

Included in the delivery *

- 2x Ø 7h6 Centring sleeves
- 2x Ø 9h7 Centring sleeves
- 2x Ø 12h6 Centring sleeves
- 4x Special screws M8x35/15
- 4x Shock absorbers
- Hose
- Complete piping/wiring

Accessories

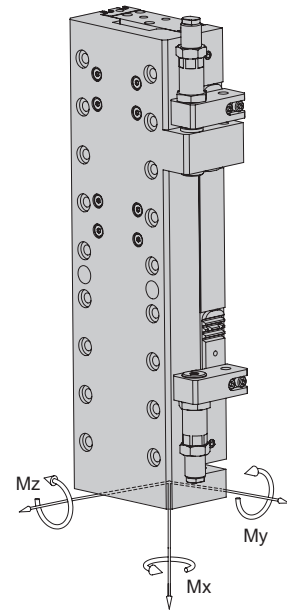
(Catalogue HT accessories)

- Console
- Valve block
- Initiators
- (Catalogue HT components linear)
- Intermediate stop ZA-CS
- (Catalog HT components gripping/rotating)
- Rotary modules
- Gripper modules

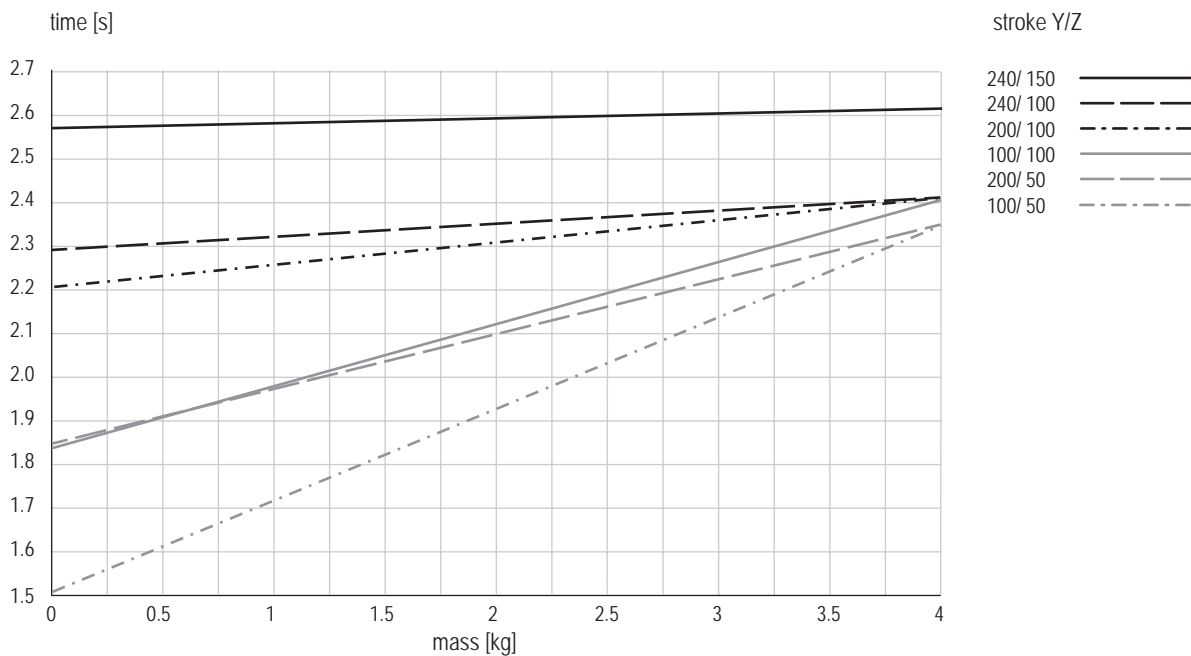
* Deviations possible depending on installed peripherals

Warranty: 24 months following commissioning, but a maximum of 27 months following delivery

Type	CS 20/50	CS 20/100	CS 20/150
Static torque Mx	57 Nm	57 Nm	57 Nm
Static torque My	50 Nm	57 Nm	63 Nm
Static torque Mz	50 Nm	57 Nm	63 Nm



Cycle times EPS midi YZ for Pick & Place



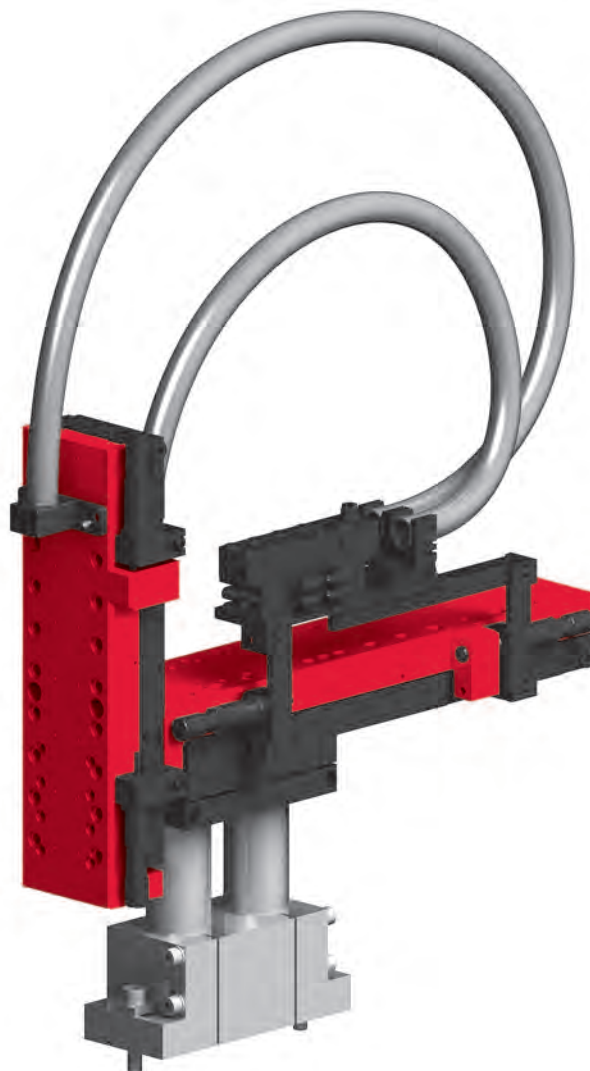
Times including 2 x 100 ms gripping time

Comment:

The values in the chart correspond to a Pick-and-Place cycle (6 subsequent movements + 2 x 100 ms gripping time). The indicated mass is centrally installed at the vertical linear unit. Standstill times of handling permit shorter movement times. In exceptions, e.g. at eccentric mass or high requirements to accuracy, the value may be exceeded.

Pneumatically handling systems

EPS maxi YZ

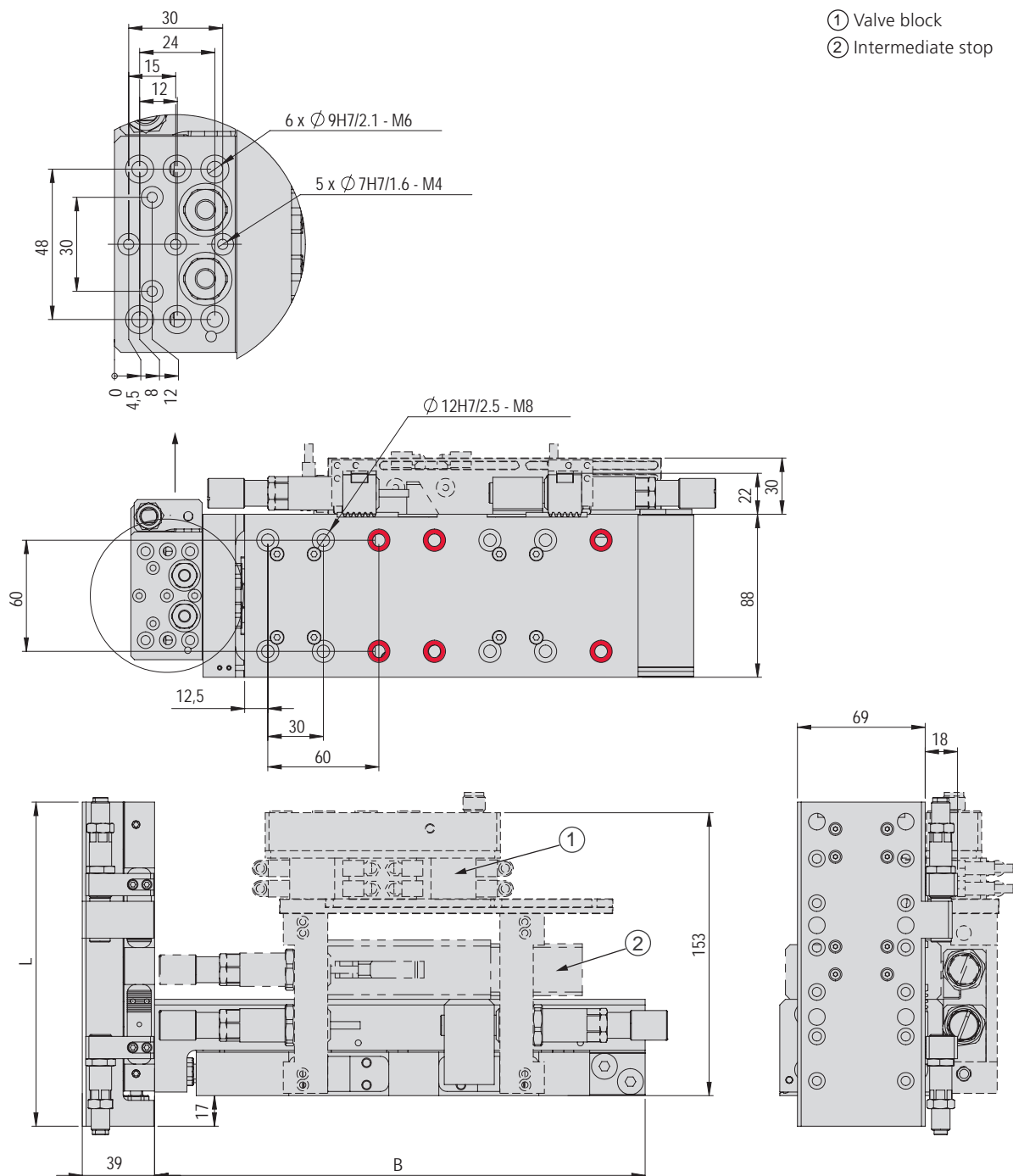



- Compact, fully pre-cabled and pre-piped ready for operation
- Intermediate stop available for Y and Z
- Horizontal and vertical forces up to 305 N

Dimensions

EPS maxi YZ

Type	L
CS 25/60	265 mm
CS 25/120	325 mm
CS 25/180	415 mm
CS 25/240	475 mm



 Bores can be screwed through. For additional and differently aligned bores that can be screwed through, see catalogue HT components linear

EPS maxi YZ	
Order number	50456541
Drive type	pneumatical
Repeat accuracy	± 0.02mm
Temperature range	0 ... 50 °C
Control block with 5/3, 5/2 or vacuum units	up to 6 valves

Type	Y-axis
Axis	CS 25
Stroke horizontal	60, 120, 180, 240 mm
Air connection P	G 1/8"
Maximum speed	1 m/s
Retract piston force	245 N
Extend piston force	305 N

Type	Z-axis
Axis	CS 25
Stroke vertical	60, 120, 180, 240 mm
Air connection P	G 1/8"
Maximum speed	1 m/s
Retract piston force	245 N
Extend piston force	305 N

Included in the delivery *

- 2x Ø 9h7 Centring sleeves
- 4x Ø 12h6 Centring sleeves
- 4x Special screws M8x35/15
- 4x Shock absorbers
- Hose
- Complete piping/wiring

Accessories

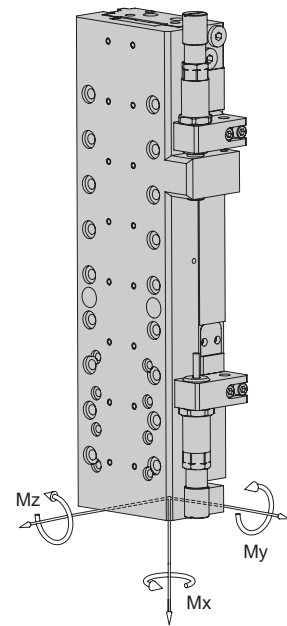
(Catalogue HT Accessories)

- Console
- Valve block
- Initiators
- Intermediate stop ZA-CS
(Catalogue HT Components Linear)
- Rotary modules
(Catalog HT Components Gripping/Rotating)
- Gripper modules

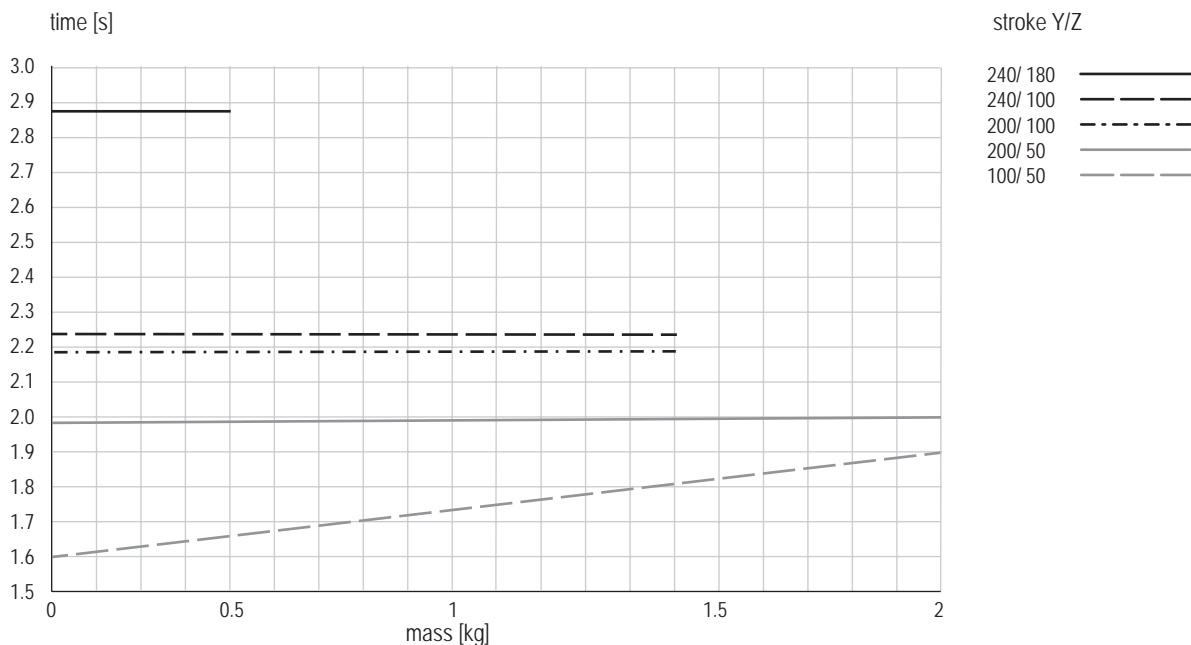
* Variations possible, depending on mounted peripheral equipment

Warranty: 24 months following commissioning, but a maximum of 27 months following delivery

Type	CS 25/60	CS 20/180
	CS 25/120	CS 20/240
Static torque Mx	84 Nm	84 Nm
Static torque My	133 Nm	140 Nm
Static torque Mz	112 Nm	120 Nm



Cycle times EPS maxi YZ for Pick & Place



Times including 2 x 100 ms gripping time

Comment:

The values in the chart correspond to a Pick-and-Place cycle (6 subsequent movements + 2 × 100 ms gripping time). The indicated mass is centrally installed at the vertical linear unit. Standstill times of handling permit shorter movement times. In exceptions, e.g. at eccentric mass or high requirements to accuracy, the value may be exceeded.



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