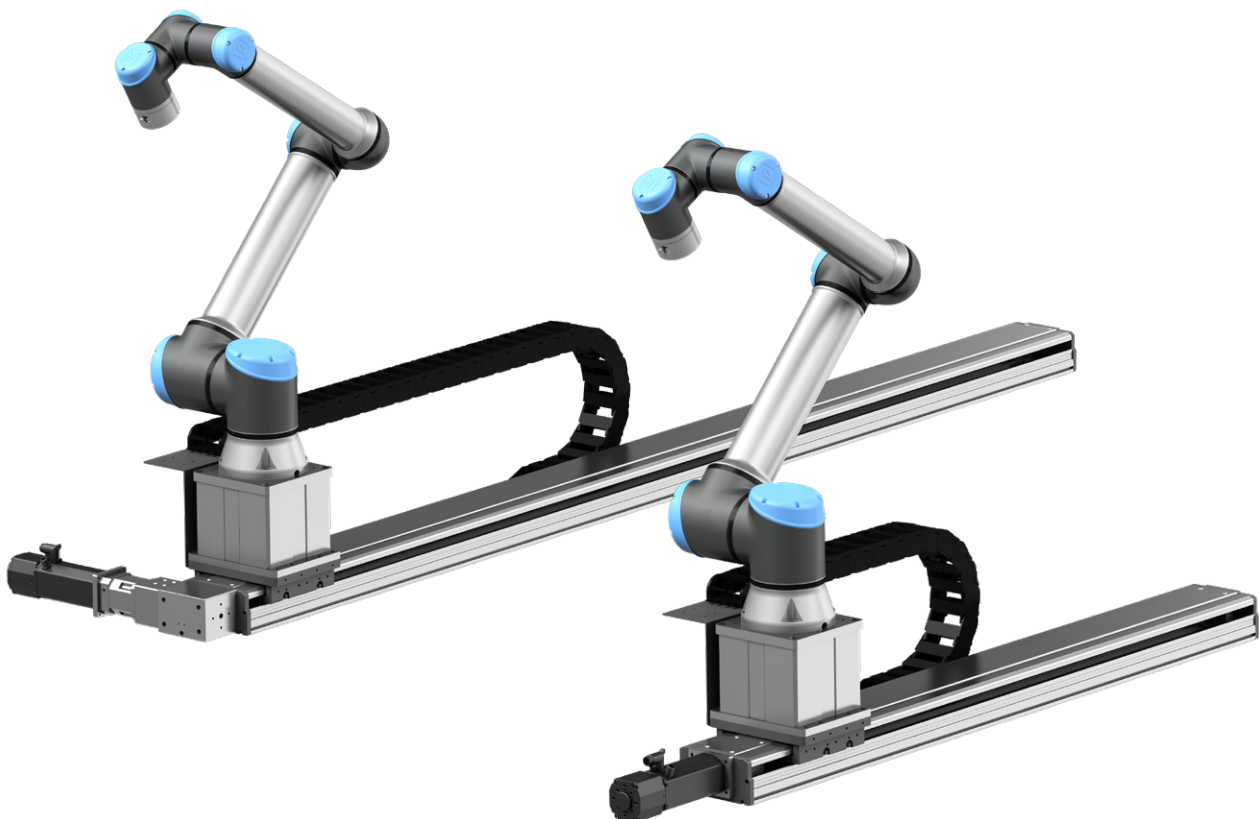


EWELLIX

A Schaeffler Company

Linear axis for collaborative robots SLIDEKIT 2.0



The heritage of innovation

Ewellix is a global innovator and manufacturer of linear motion and actuation solutions. Our state-of-the-art linear solutions are designed to increase machine performance, maximise uptime, reduce maintenance, improve safety and save energy. We engineer solutions for assembly automation, medical equipment, mobile machinery, distribution and a wide range of other industrial applications.

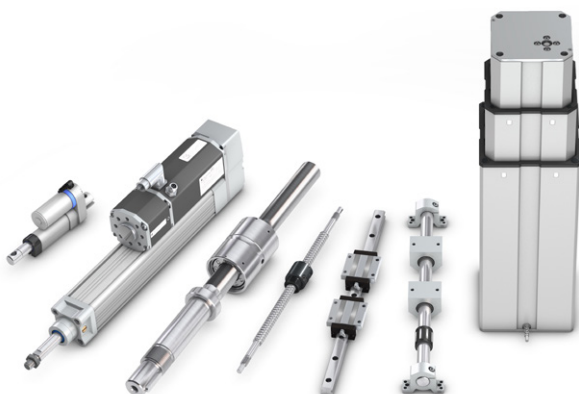
Technology leadership

We earned our reputation through decades of engineering excellence. Our journey began over 50 years ago as part of the SKF Group, a leading global technology provider. Our history provided us with the expertise to continuously develop new technologies and use them to create cutting edge products that offer our customers a competitive advantage.

In 2019, we became independent and changed our name to Ewellix. We are proud of our heritage. This gives us a unique foundation on which to build an agile business with engineering excellence and innovation as our core strengths.

Global presence and local support

With our global presence, we are uniquely positioned to deliver standard components and custom-engineered solutions, with full technical and applications support around the world. Our skilled engineers provide total life-cycle support, helping to optimise the design, operation and maintenance of equipment thus improving productivity and reliability while reducing costs. At Ewellix, we don't just provide products; we engineer integrated solutions that help customers realise their ambitions.



Schaeffler Group – We pioneer motion

Ewellix is since 2023 owned by the Schaeffler Group.

As a leading global supplier to the automotive and industrial sectors, the Schaeffler Group has been driving forward groundbreaking inventions and developments in the fields of motion and mobility for over 75 years.

With innovative technologies, products, and services for electric mobility, CO₂-efficient drives, Industry 4.0, digitalization, and renewable energies, the company is a reliable partner for making motion and mobility more efficient, intelligent, and sustainable.

Schaeffler manufactures high-precision components and systems for powertrain and chassis applications as well as rolling and plain bearing solutions for a large number of industrial applications.



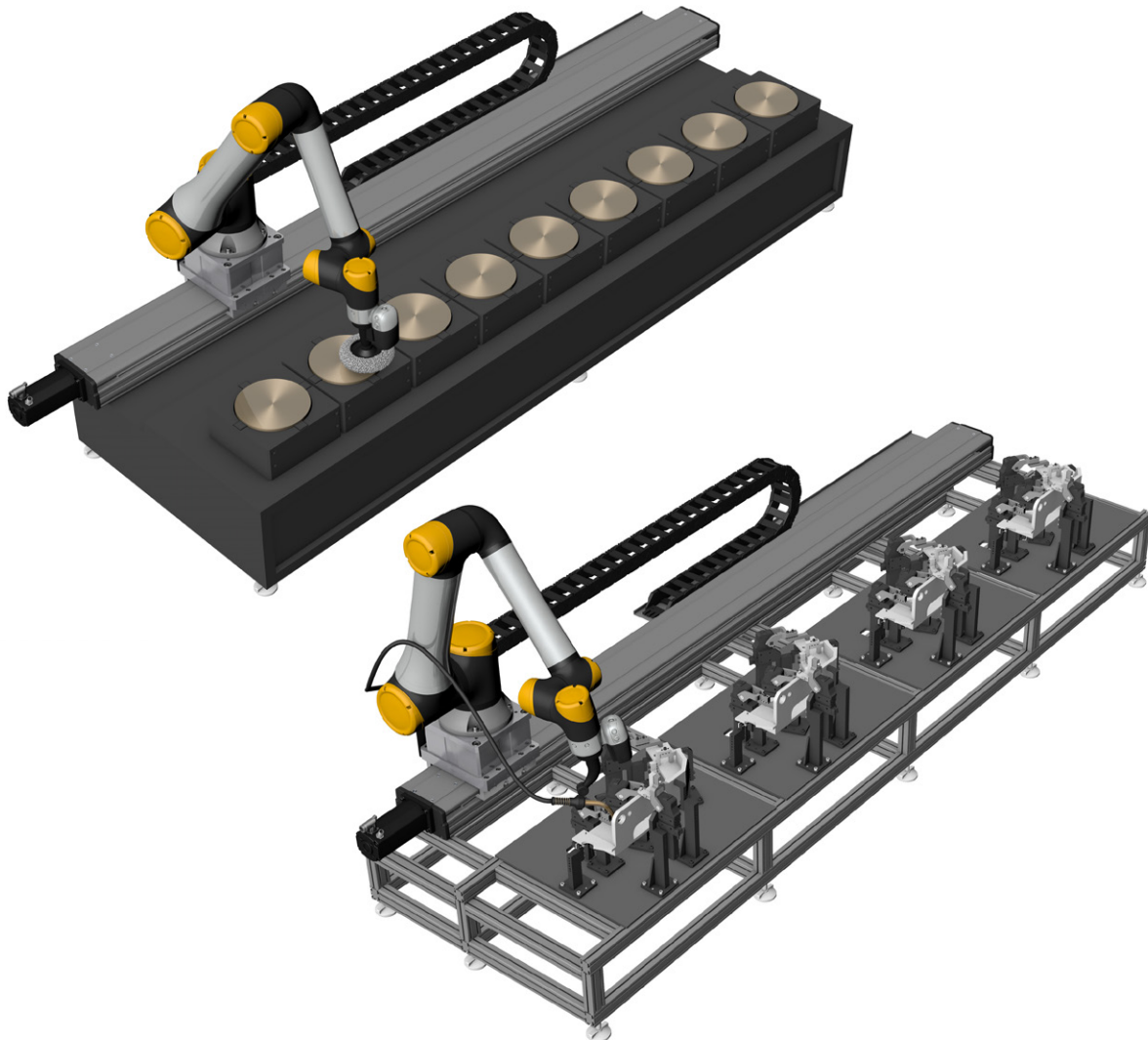
Benefits for industrial applications

Several industrial applications require to cover long distances to perform the manufacturing process operation, like finishing, welding and parts inspection.

These repetitive tasks, usually done manually, are time consuming and with low added value for the operators

By using a cobot on the Ewellix linear module, it is possible to easily automate these processes, increasing the productivity and output quality.

Linear modules from Ewellix provide fast and precise movements to effectively position the robot along a horizontal axis, extending its reach.



Linear axis for collaborative robots SLIDEKIT 2.0

Operating range extension

By adding a linear module as a dynamic base for the robot, it is possible to extend the handling operating area of the robot, increasing the productivity of a series of machines working in the same production flow.

Plug-and-play solution

The SLIDEKIT 2.0 provides quick and fast installation, by having a standardized mechanical, electrical and software

interface with Universal Robots. In few steps, the system is ready to be used and simply programmed in operation.

Cost savings and higher productivity

UR cobots combined with the SLIDEKIT 2.0 linear module provide a cost-effective solution to upgrade an existing assembly shop, moving from a manual handled to a fully automatized line.

Improved performances

The 2.0 release of the SLIDEKIT delivers several improvements compared to the former version, like higher system reactivity and stability, lower noise in operation and optimized design for limit switches and re-lubrication points



Technical data

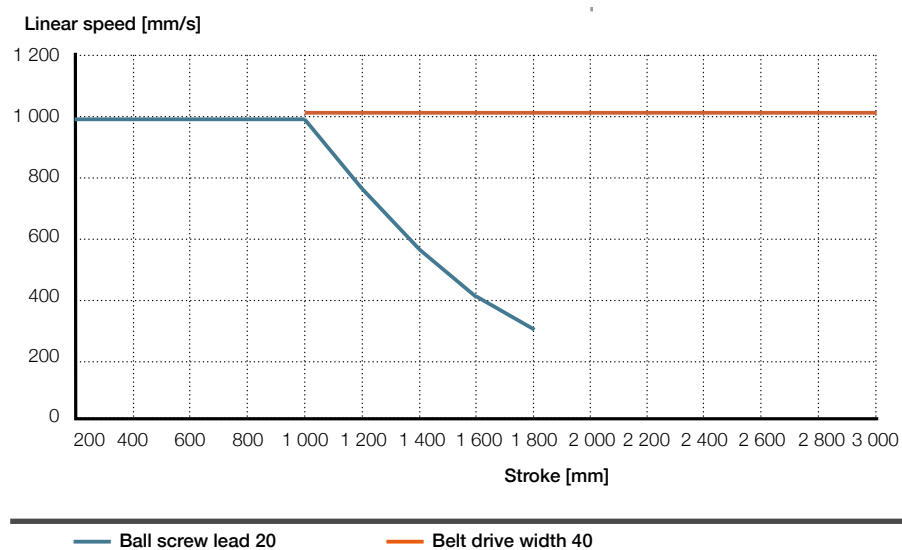
Designation	Unit	SLIDEKIT-UR-Ball screw version	SLIDEKIT-UR-Belt drive version
Linear module type	-	CLSM-150	CLSM-150
Performance Data			
Max. dynamic payload	N	10 900	10 900
Max. static load capacity	N	12 100	12 100
Max. belt tension	N	-	960
Max. belt thrust	N	-	4 500
Max. dynamic moments Mx	Nm	2 400	2 400
Max. dynamic moments Mz	Nm	1 800	1 800
Max. linear speed	mm/s	See graph page 5	See graph page 5
Duty cycle	%	100	100
Mechanical Data			
Drive type	-	Ball screw	Belt drive
Stroke range	mm	100 - 1 800	1 000 - 3 000
Repeatability	mm	± 0.01	± 0.08
Weight @ 0 mm stroke	Kg	15	17
Δ weight per 100mm stroke	Kg	1,6	1,4
Robots compatibility	-	UR3, UR5, UR10, UR16, CB-Series and e-series	UR3, UR5, UR10, UR16, CB-Series and e-series
Cable management	-	Cableveyor	Cableveyor
Electrical			
Voltage/Current	V/A	115 VAC / 4.8 A 230 VAC / 2.4 A 24 DC / 20 A	115 VAC / 4.8 A 230 VAC / 2.4 A 24 DC / 20 A
Emergency stop	-	Connection to UR safety I/O	Connection to UR safety I/O
Communication			
Control interface	-	URCaps plugin compatible with CB3.1 / Polyscope 3.6 or higher	URCaps plugin compatible with CB3.1 / Polyscope 3.6 or higher
Positioning, repeatability	mm	± 0.1	± 0.1
Accessible positions	-	any	any
Feedback	-	Position feedback via URCaps	Position feedback via URCaps
Soft start and stop	-	Implemented for smooth operation	Implemented for smooth operation
Software control	-	URcap	URcap
Environment			
Type of protection	IP	Controll box = IP64 SlideKit =N/A	Controll box = IP64 SlideKit =N/A
Ambient temperature	°C	0 to +50	0 to +50
Max. humidity	%	95	95

Technical data

Designation	Unit	SLIDEKIT-00-Ball screw version	SLIDEKIT-00-Belt drive version
Linear module type	-	CLSM-150	CLSM-150
Performance Data			
Max. dynamic payload	N	10 900	10 900
Max. static load capacity	N	12 100	12 100
Max. belt tension	N	-	960
Max. belt thrust	N	-	4 500
Max. dynamic moments Mx	Nm	2 400	2 400
Max. dynamic moments Mz	Nm	1 800	1 800
Max. linear speed	mm/s	See graph page 5	See graph page 5
Duty cycle	%	100	100
Mechanical Data			
Drive type	-	Ball screw	Belt drive
Stroke range	mm	100 - 1 800	1 000 - 3 000
Repeatability	mm	± 0.01	± 0.08
Weight @ 0 mm stroke	Kg	15	17
Δ weight per 100mm stroke	Kg	1,6	1,4
Robots compatibility	-	Any robot	Any robot
Cable management	-	Cableveyor	Cableveyor
Electrical			
Voltage/Current	V/A	115 VAC / 4.8 A 230 VAC / 2.4 A 24 DC / 20 A	115 VAC / 4.8 A 230 VAC / 2.4 A 24 DC / 20 A
Emergency stop	-	Connection to Robot safety I/O	Connection to Robot safety I/O
Communication			
Control interface	-	Digital I/O control, CAN interface for external software control ¹⁾	Digital I/O control, CAN interface for external software control ¹⁾
Positioning, repeatability	mm	± 0.1	± 0.1
Accessible positions	-	14 memory positions programmable	4 memory positions programmable
Feedback	-	Position feedback via output signal	Position feedback via output signal
Soft start and stop	-	Implemented for smooth operation	Implemented for smooth operation
Software control	-	CAN interface for external software control ¹⁾	CAN interface for external software control ¹⁾
Environment			
Type of protection	IP	Controll box = IP64 SlideKit =N/A	Controll box = IP64 SlideKit =N/A
Ambient temperature	°C	0 to +50	0 to +50
Max. humidity	%	95	95

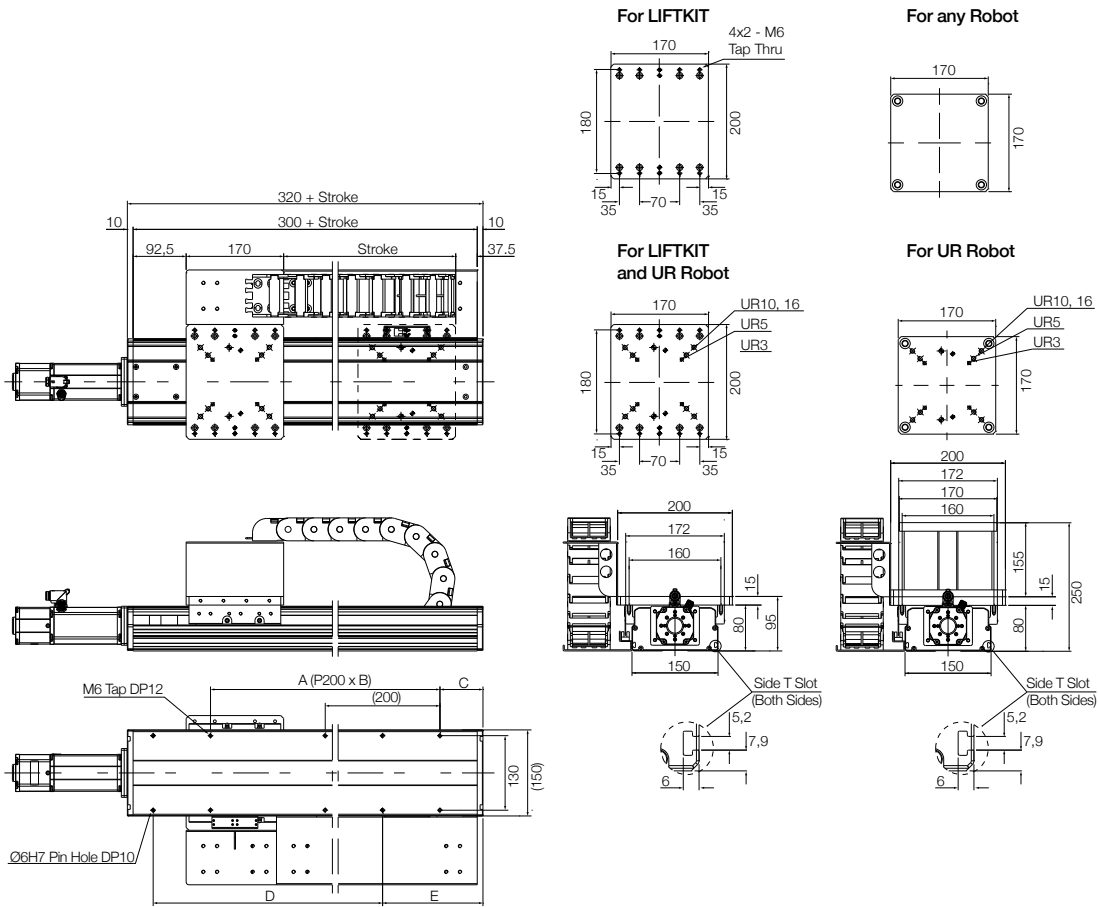
¹⁾ No software provided / The software can be downloaded from the Dunker motor website

Performance diagrams



Dimensional drawing

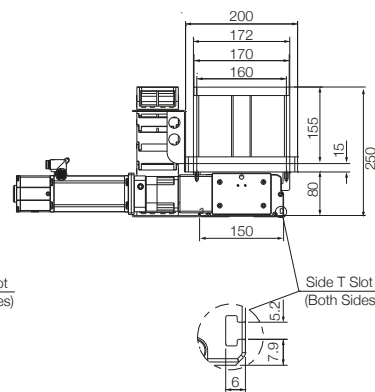
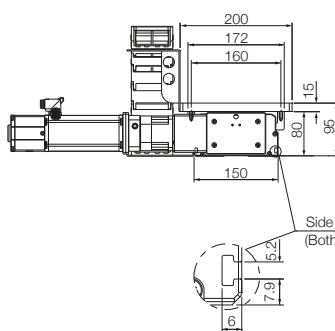
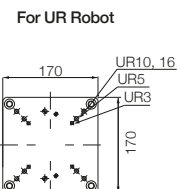
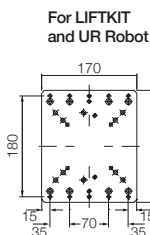
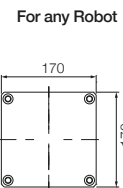
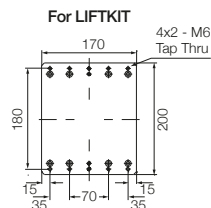
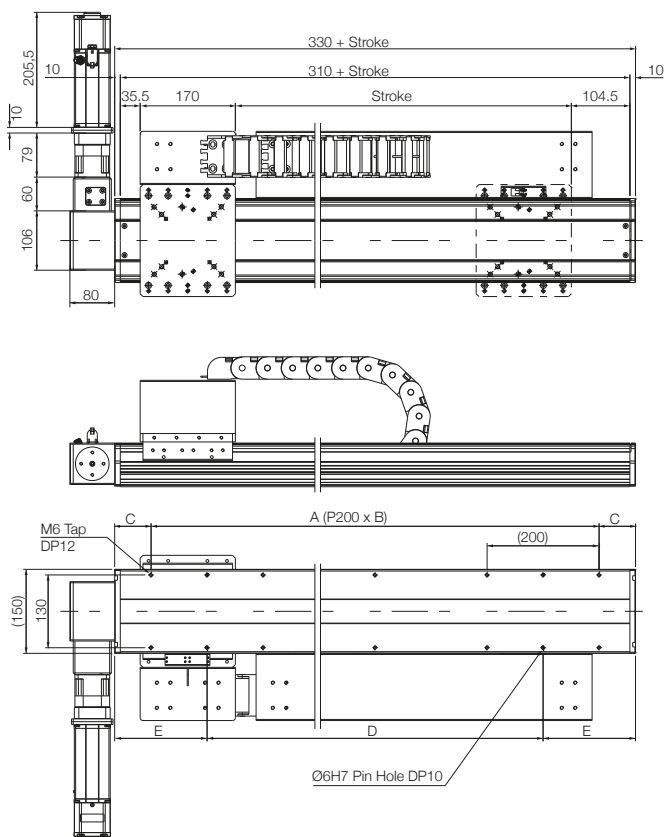
Ball Screw version



	Stroke	A	B	C	D	E
	mm					
1	100	200	1	75	200	175
2	200	400	2	25		125
3	300	400	2	75	400	175
4	400	600	3	25		125
5	500	600	3	75	600	175
6	600	800	4	25		125
7	700	800	4	75	800	175
8	800	1 000	5	25		125
9	900	1 000	5	75	1 000	175
10	1 000	1 200	6	25		125
11	1 100	1 200	6	75	1 200	175
12	1 200	1 400	7	25		125
13	1 300	1 400	7	75	1 400	175
14	1 400	1 600	8	25		125
15	1 500	1 600	8	75	1 600	175
16	1 600	1 800	9	25		125
17	1 700	1 800	9	75	1 800	175
18	1 800	2 000	10	25		125

 Standard stroke

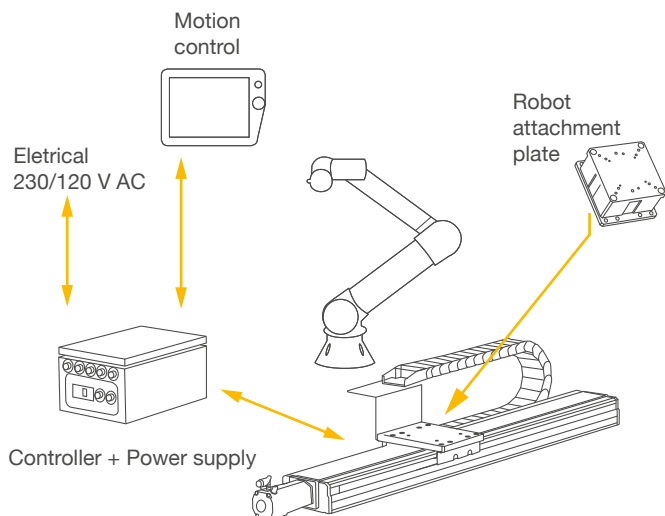
Belt version



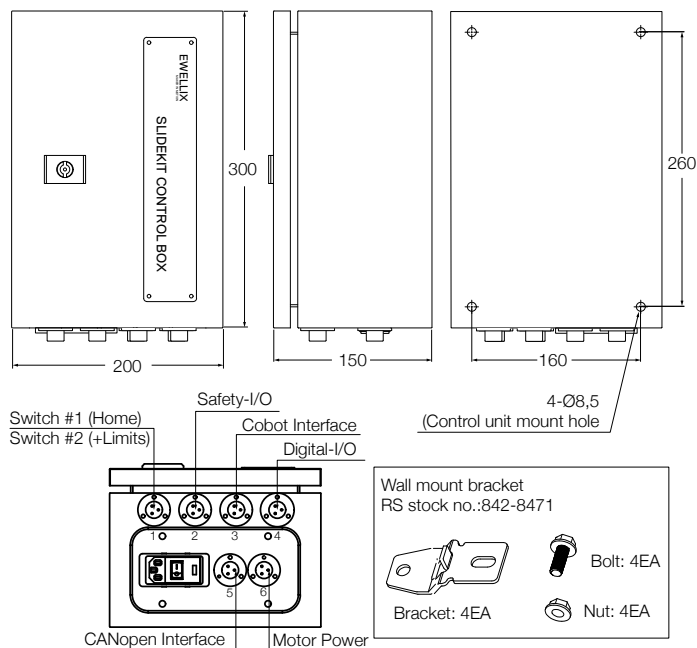
Stroke	A	B	C	D	E	
10	1200	6	65	1000	165	
11	1200	6	115	1000	215	
12	1400	7	65	1200	165	
13	1400	7	115	1200	215	
14	1600	8	65	1400	165	
15	1600	8	115	1400	215	
16	1800	9	65	1600	165	
17	1800	9	115	1600	215	
18	2000	10	65	1800	165	
19	2000	10	115	1800	215	
20	2200	11	65	2000	165	
21	2200	11	115	2000	215	
22	2400	12	65	2200	165	
23	2400	12	115	2200	215	
24	2600	13	65	2400	165	
25	2500	2600	13	115	2400	215
26	2800	14	65	2600	165	
27	2800	14	115	2600	215	
28	3000	15	65	2800	165	
29	2900	3000	15	115	2800	215
30	3000	3200	16	65	3000	165

 Standard stroke

Connection diagram



Control unit



Software functionality

The URCaps software for the SLIDEKIT 2.0 allows easy positioning access directly within the UR Polyscope environment.

Setup

In the installation tab, the user can manually move the linear axis in both directions and define multiple user specific positions, that are accessible in programming mode.

Motion programming

Within the UR motion program, the SLIDEKIT 2.0 axis is easily integrated through a URCaps command module. Simply insert this element from the structure tab at the desired position of the program. Additionally, reading and setting positions is possible through a script function.

Software updates

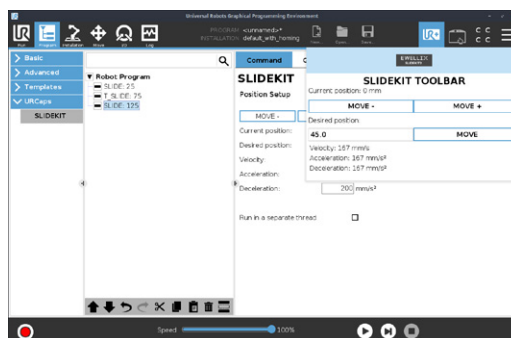
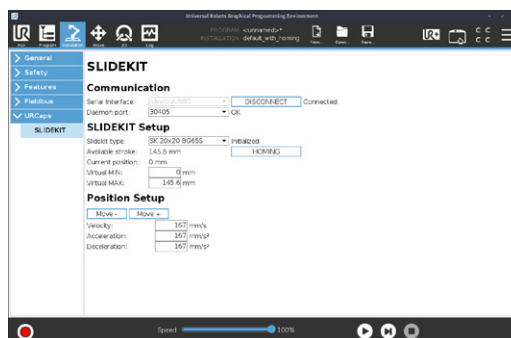
To download the latest software update please check on ewellix.com/support/library/software_updates.

Safety elements

The SLIDEKIT 2.0 has a range of safety elements built in to allow its integration into a robot application. It's equipped with 2 safety relays, certified ISO 13849-1.

NOTE:

The SLIDEKIT 2.0 is not a functional safety system compliant with EN ISO 13489-1 or IEC 62061. To integrate the SLIDEKIT 2.0 into a functional safety chain, external safety devices have to be integrated into the overall system.



SLIDEKIT 2.0 software functionality

Ordering key

SLIDEKIT - UR - E - - - - S FM - S 0 0

Robot

- 00 Any robot (no software)
- UR Universal Robot

Module options

Drive

- B Ball screw (lead 20)
- P Belt (width 40)
- E Cover Aluminium and External motor attachment

Stroke

- 100 ... 3 000
- 1 000 Preferred range Ball screw
- 1 800 Preferred range Ball screw
- 2 500 Preferred range Belt
- 3 000 Preferred range Belt

Electrical options

- 11 120 V AC / US cable
- 22 230 V AC / EU cable
- 23 230 V AC / CN cable
- 24 230 V AC / UK cable
- 25 230 V AC / CH cable

Accessories options

- S Limit switch
- Cableveyor
- F High Flex cable ¹⁾
- M Standard hole pattern

Customized options

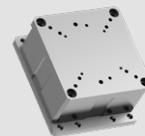
- S Option 1 - Safety relay

¹⁾The bending radius increased to comply with cobot manufacturers' requirements

SLIDEKIT 2.0 contains



**Teach pendant not included*



*Robot attachment plate
(The taps are only provided for Universal Robots cobot as standard)*



*UR software plugin
(not included in SLIDEKIT-00)*



CLSM Linear module



Control unit



CAN



D-SUB 9Pin



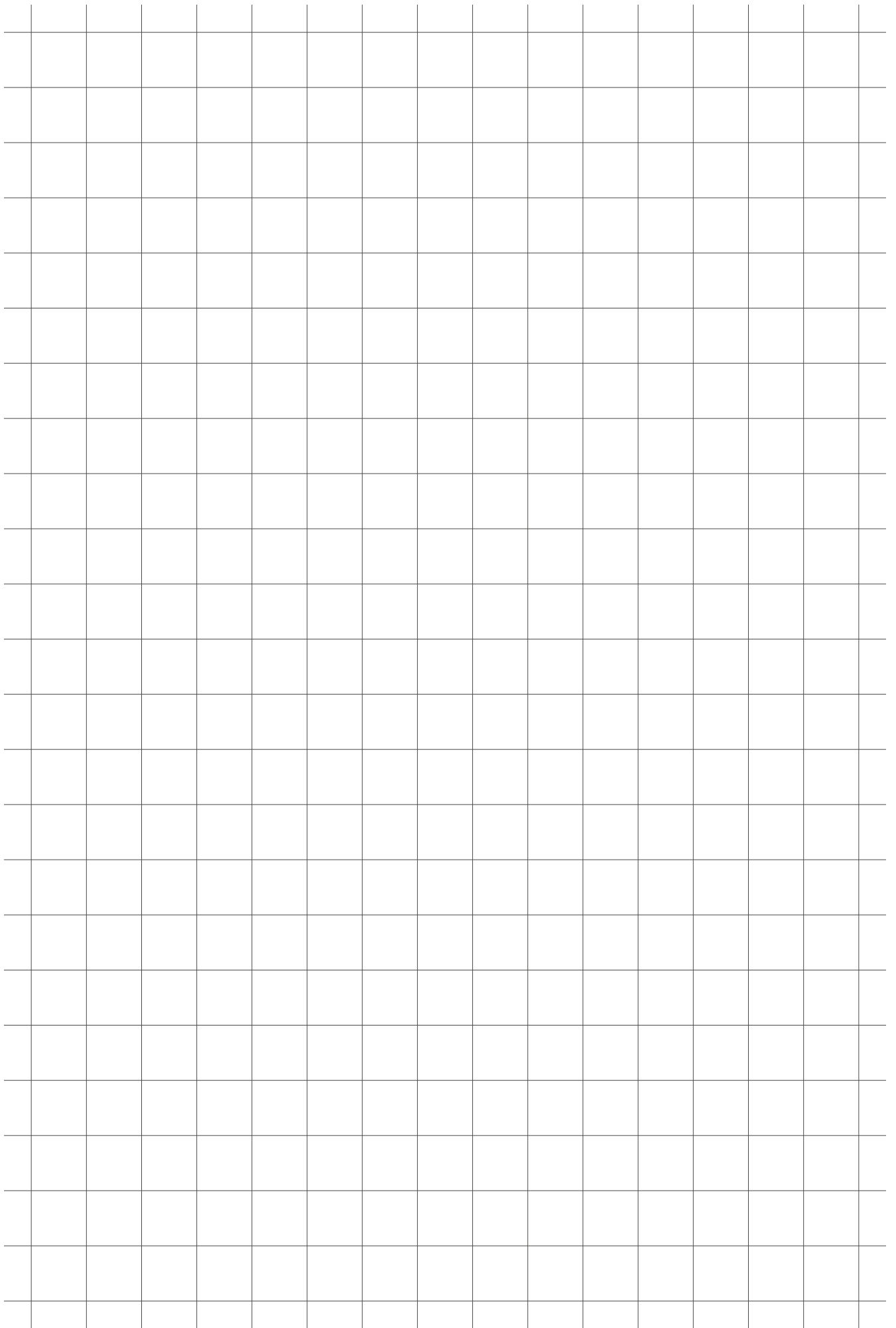
Digital IO



Motor Power



Proximity Switch





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