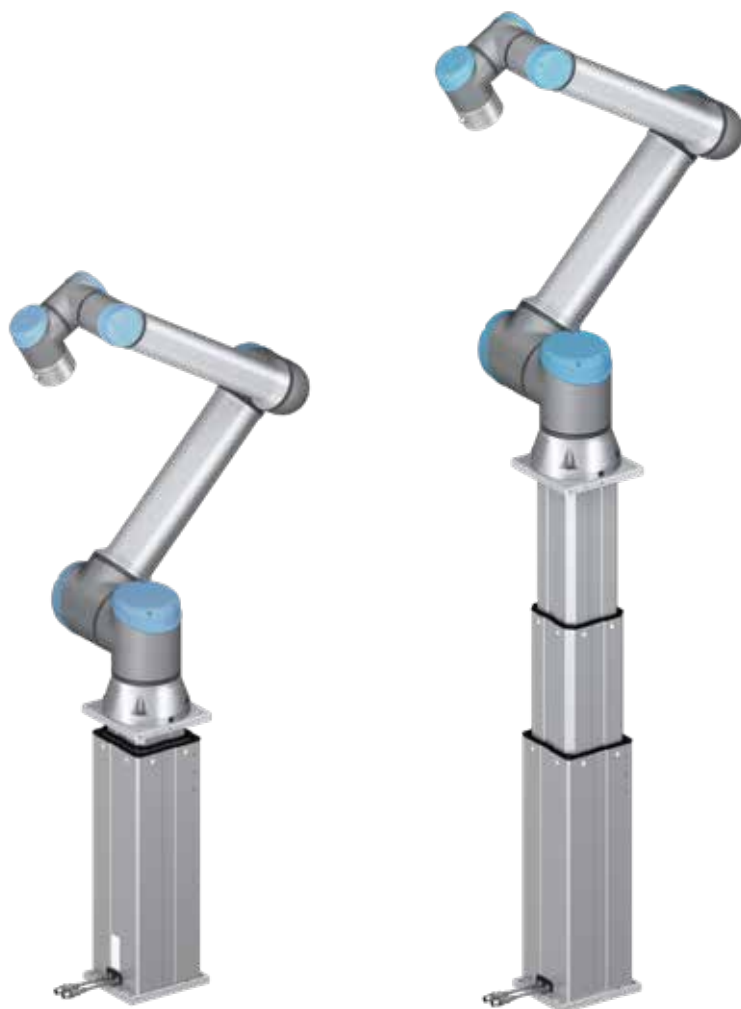


# Linear axis for collaborative robots LIFTKIT



# Heritage of innovation for technology leadership

Ewellix is a global innovator and manufacturer of linear motion and actuation solutions. Today, our state-of-the-art linear solutions are designed to increase machine performance, maximise uptime, reduce maintenance, improve safety and save energy.

## Technology leadership

Our journey began **over 50 years** ago as part of the SKF Group, and our history with SKF 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 from SKF 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. The long lasting relationships with our distributor partners allow us to support customers in a variety of different industries. At Ewellix, we don't just provide products; **we engineer integrated solutions** that help customers realise their ambitions.



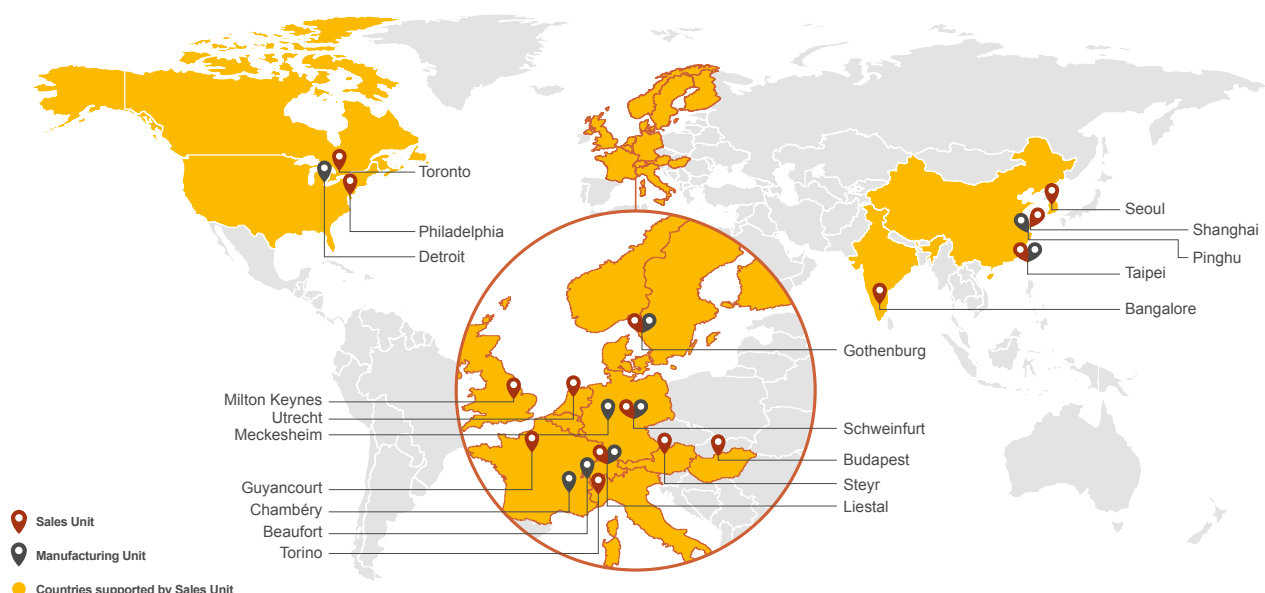
**1 400 employees**



**16 sales units**



**9 factories**



# Benefits for handling

Fully automated pick and place solutions are becoming a new standard with packaging stations.



The main challenge for packaging system manufacturers is to design multi-axis systems in a simple and cost effective way.

A typical application that benefits from an added linear axis is palletizing of boxes. Stacking on pallets can start at floor level, but the stack can be up to 2 m high. A standard collaborative robot does not have such a large vertical working range.

Ewellix provides effective solutions to complete vertical adjustment in a smart way, providing a ready to mount additional linear axis to the robot. While stacking a pallet, the base of the robot can be lifted or lowered to work at a more optimal position.

# Linear axis for collaborative robots LIFTKIT

## Operating range extension

- Vertical lifting of the cobot by up to 900 mm (1.400 mm on request) with compact retracted height
- Robust pillar design for industrial use, vibration free motion and virtually maintenance free

## Plug-and-play solution

- Hardware interface compatible with UR3, UR5, UR10 and UR16 robots
- Universal Robots+ certified product
- Software control integrated with UR controller (URCaps) for easy motion programming
- Basic control option with digital I/O for all cobot manufacturers

## Cost savings and higher productivity

Cobots combined with Ewellix LIFTKIT provide a cost-effective solution to upgrade an existing assembly shop, moving from a manual handled to a fully automatized line.



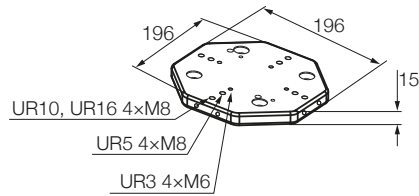
## Technical data

	Unit	LIFTKIT-UR-601	LIFTKIT-00-601
<b>Pillar type</b>	-	TLT	TLT
<b>Performance Data</b>			
Max. Push load	N	1 500	1 500
Max. Pull load	N	0	0
Max. dynamic moments		210	210
Max. linear speed	mm/s	80	80
Duty cycle	%	10% (20% at 500N)	10% (20% at 500N)
<b>Mechanical Data</b>			
Screw type	-	Acme screw	Acme screw
Stroke range	mm	500 - 900	500 - 900
Retracted length (software controlled)	mm	Stroke/2 + 275	Stroke/2 + 275
Repeatability(same direction and load)	mm	± 0.5	± 0.5
Weight @ 0 mm stroke	Kg	21	21
Δ weight per 100mm stroke	Kg	1,7	1,7
Robots compatibility	-	UR3, UR5, UR10, UR16, e-Series	Any robot
Cable management	-	Threads on pillar and interface plate to attach cable management	Threads on pillar and interface plate to attach cable management
<b>Electrical</b>			
Voltage/Current	V/A	120 AC / 6.5 A 230 AC / 3,3 A 24 DC / 10 A	120 AC / 6.5 A 230 AC / 3,3 A 24 DC / 10 A
Emergency stop	-	Connection to UR safety I/O	Connection to robot safety I/O
<b>Communication</b>			
Control interface	-	URCaps plugin compatible with CB3.1 / Polyscope 3.6 or higher	Digital I/O control, RS232 interface for external software control (no software provided)
Positioning, repeatability	mm	± 1	± 1
Accessible positions	-	any	2 memory positions programmable
Feedback	-	Position feedback via URCaps	Position feedback for memory positions via output signal
Soft start and stop	-	Implemented for smooth operation	Implemented for smooth operation
Software control	-	URcap	RS232 interface for external software control (no control software provided)
<b>Environment</b>			
Type of protection	IP	40	40
Ambient temperature	°C	+10 to +40	+10 to +40
Max. humidity	%	85	85

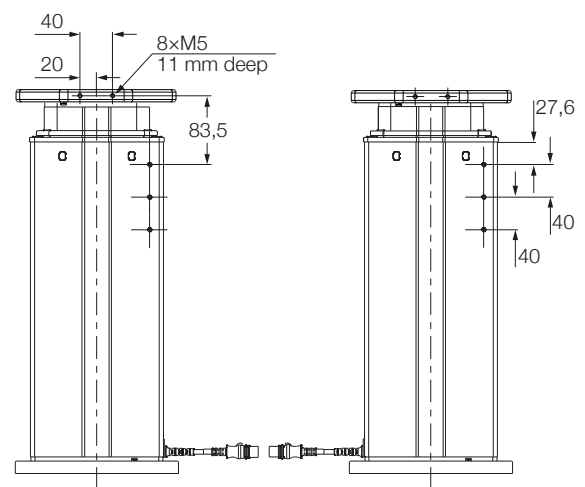
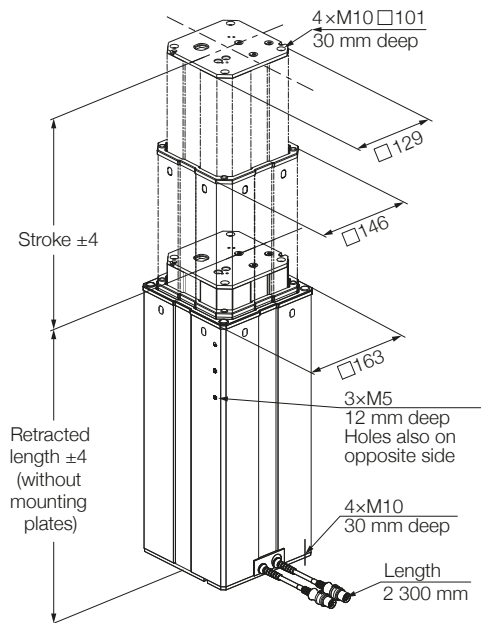
## Dimensional drawing

### TLT telescopic pillar

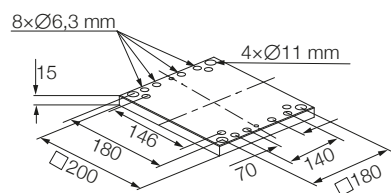
#### Robot attachment plate



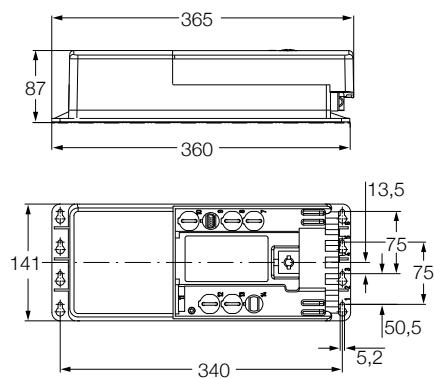
#### TLT Pillar



#### Bottom fixation plate

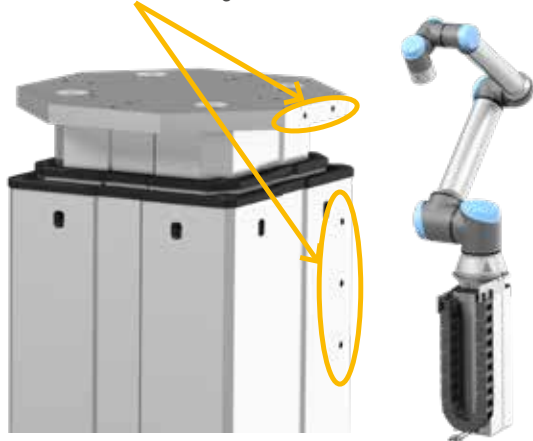


### Control unit

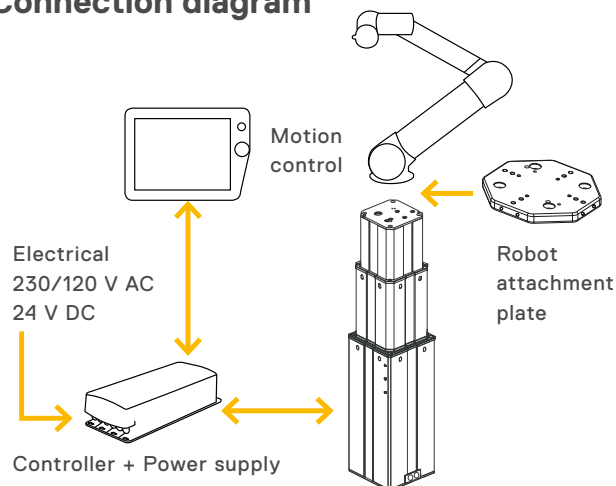


## Cable management

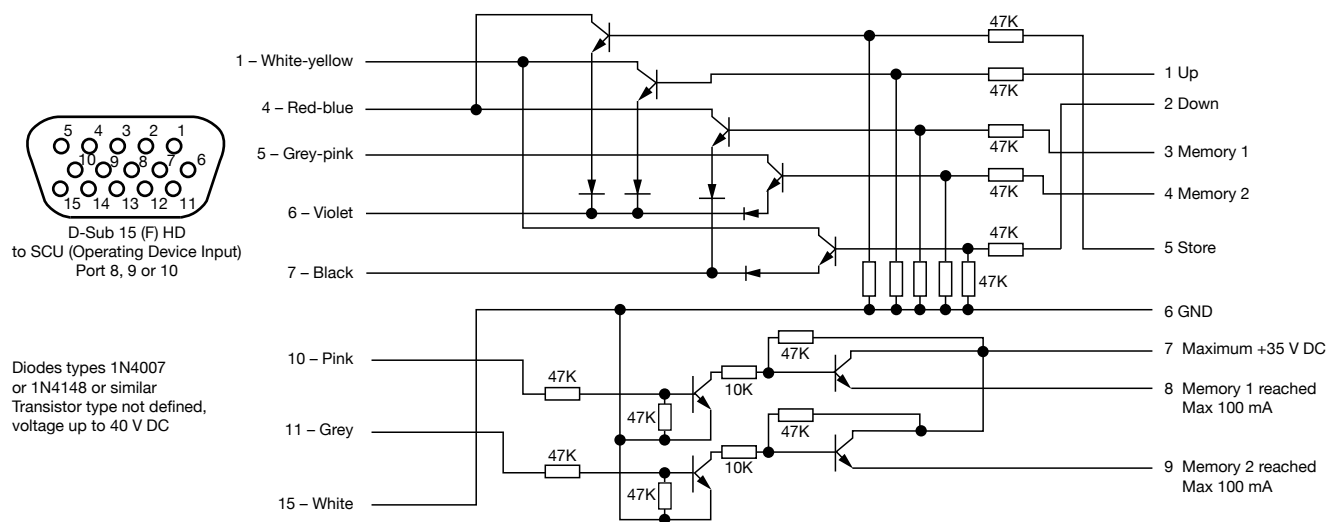
Threads for cable management attachments



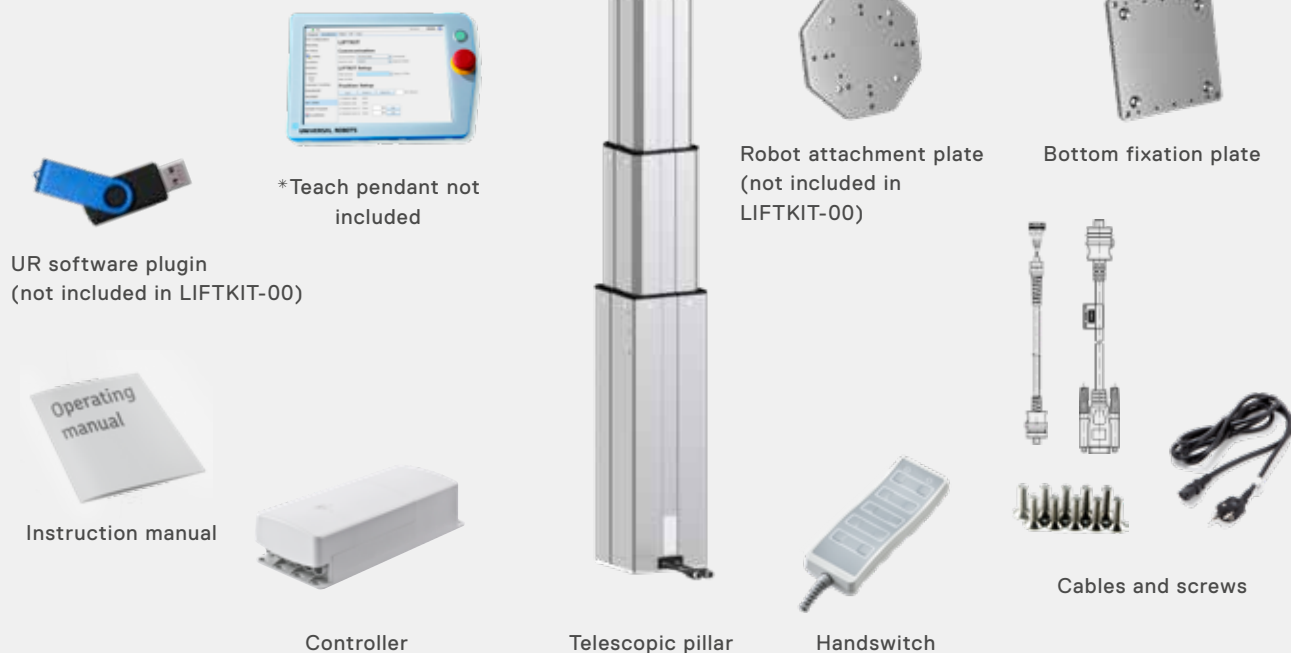
## Connection diagram



## Example of LIFTKIT-00 interface board to robot PLC (not included)



## LIFTKIT contains



## Software functionality

The URCaps software for the LIFTKIT 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 LIFTKIT 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.

### Safety elements

The LIFTKIT has a range of safety elements built in to allow its integration into a robot application.

### Software updates

To download the latest software update please check on [ewellix.com/support/library/software-updates](http://ewellix.com/support/library/software-updates).

#### NOTE:

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



LIFTKIT software functionality

## Ordering key

LIFTKIT - [ ] - [ ] - [ ] 00 - [ ]

#### Robot

00	Any robot (no software, no robot interface plate)
UR	Universal Robots

#### Stroke\*

500	mm
600	mm
700	mm
800	mm
900	mm

#### Electrical options

00	24 V DC
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

#### Pillar type

601	TLT
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\* longer stroke up to 1 400 mm available on request



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