

EWELLIX

MAKERS IN MOTION

Vertical axis for Universal Robots collaborative robots LIFTKIT-UR



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. Long standing 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.



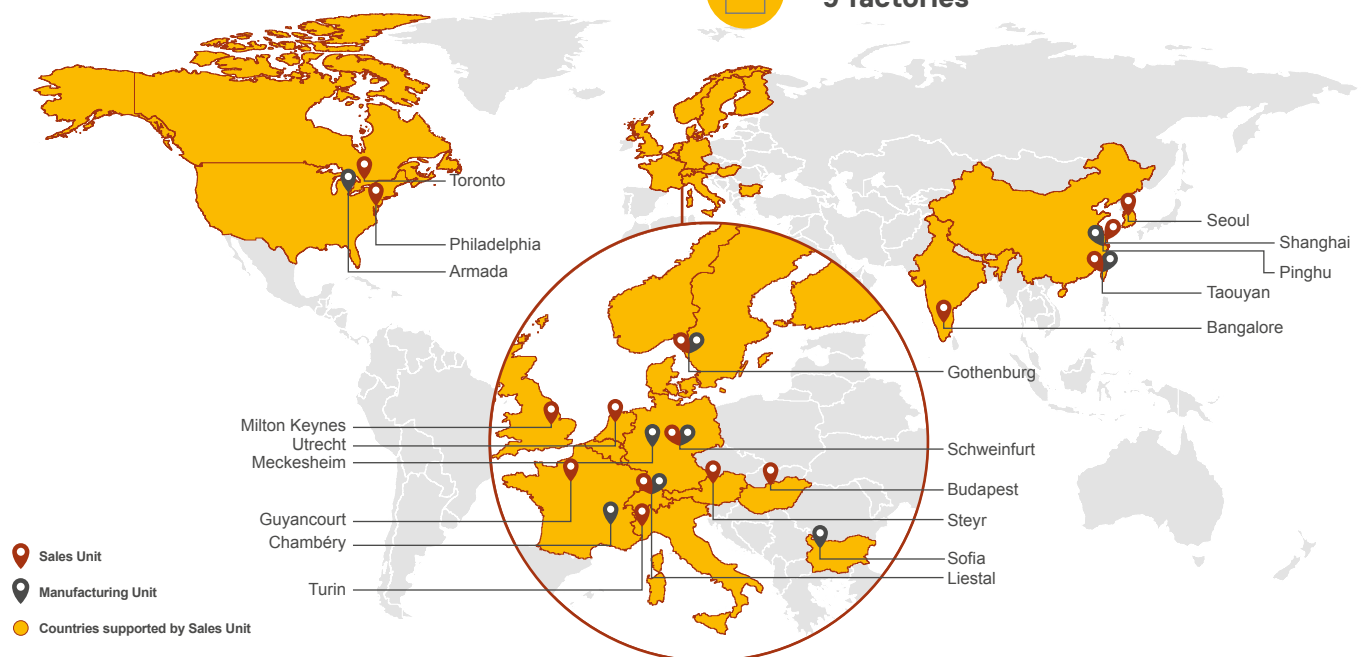
1 200 employees



16 sales units



9 factories



Benefits for handling and inspection

Ewellix provides effective solutions to complete vertical adjustment in a smart way with a wide range of “ready to mount” additional linear axis solutions. We designed them for different applications, giving to your robot an extended operation range.

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

A standard collaborative robot does not have such a large vertical working range. With the Ewellix LIFTKIT the base of the robot can be lifted or lowered to work at optimal position.

Stacking on pallets starts at floor level, but the stack can be up to 2 m high, and that’s where LIFTKIT can increase your packaging station efficiency.

And every time you need a repetitive operation, as end of line quality inspection, our LIFTKIT can guarantee precision and reliability to maximize your results.

Here below an application example in automotive assembly lines, with a custom LIFTKIT vertical axis for ceiling mounting installation.



Linear axis for collaborative robots LIFTKIT-UR

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.



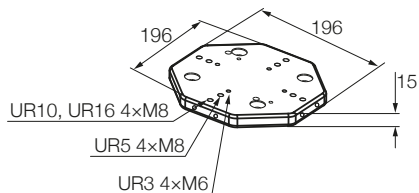
Technical data

	Unit	LIFTKIT-UR-601
Pillar type	-	TLT
Performance Data		
Max. Push load	N	1 500
Max. Pull load	N	0
Max. dynamic moments	Nm	210
Max. static moment	Nm	3 000
Max. linear speed	mm/s	80
Duty cycle	-	10% (20% at 500N)
Mechanical Data		
Screw type	-	Acme screw
Stroke range	mm	500 - 900
Retracted length (software controlled)	mm	Stroke/2 + 275
Weight @ 0 mm stroke	kg	21
Δ weight per 500 mm stroke	kg	1,7
Robots compatibility	-	UR3, UR5, UR10, UR16, e-Series
Cable management	-	Threads on pillar and interface plate to attach cable management
Electrical		
Input Voltage/Current		120 VAC / 6,5 A 230 VAC / 3,3 A 24 VDC / 10 A
I/O voltage	-	24 VDC
Emergency stop	-	Connection to UR safety I/O
Communication		
Control interface	-	URCaps plugin compatible with CB3.1 / Polyscope 3.6 or higher
Positioning, repeatability	mm	± 1
Accessible positions	-	any
Feedback	-	Position feedback via URCaps
Soft start and stop	-	Implemented for smooth operation
Software control	-	URcap
Environment		
Type of protection		IP40
Ambient temperature	°C	+10 to +40
Max. humidity	%	85
Vibration	-	Stationary industrial environment

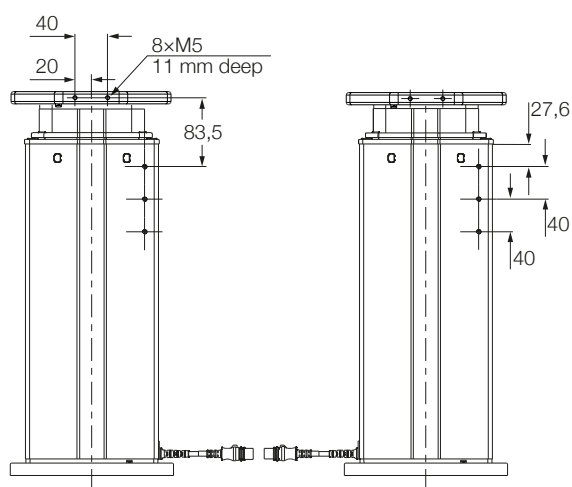
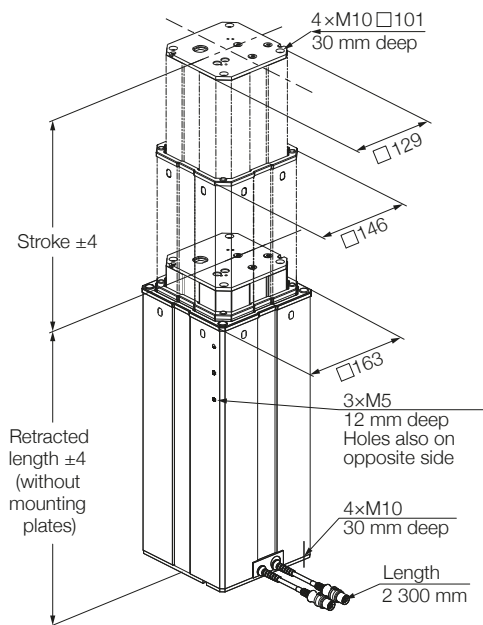
Dimensional drawing

TLT telescopic pillar

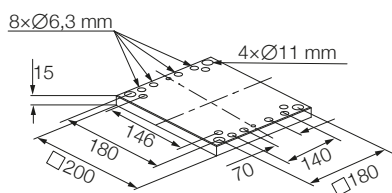
Robot attachment plate



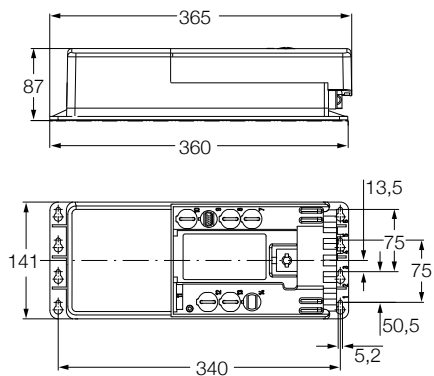
TLT Pillar



Bottom fixation plate



Controller

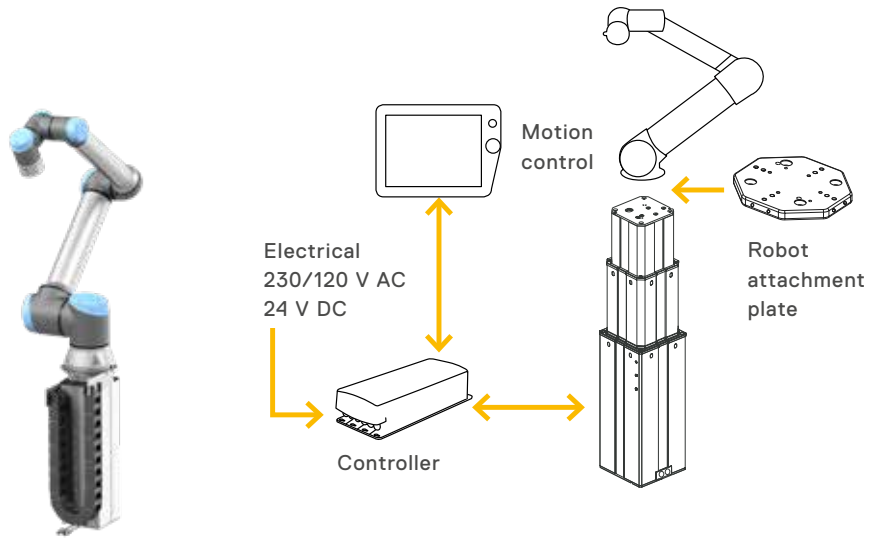


Cable management

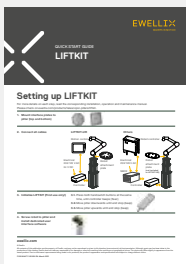
Threads for cable management attachments



Connection diagram



LIFTKIT contains



Quick Start Guide



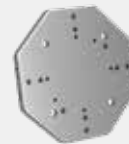
*Teach pendant not included



Controller



Telescopic pillar



Robot attachment plate



Bottom fixation plate



Handswitch



Power cable



Controller I/O cable



RS232 cable

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/media-library -> Software updates -> LIFTKIT

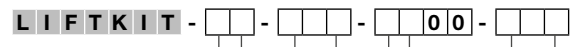
NOTE:

The LIFTKIT-UR is not a functional safety system compliant with EN ISO 13489-1 or IEC 62061. To integrate the LIFTKIT-UR into a functional safety chain, external safety devices have to be integrated into the overall system. Please move the robot arm close to the center of gravity of the pillar when moving the LIFTKIT



LIFTKIT software functionality

Ordering key



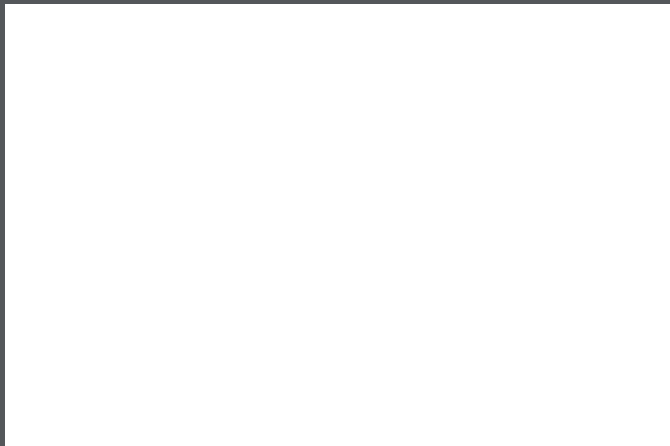
Robot
UR Universal Robots

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

* longer stroke up to 1 400 mm available on request



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