

KUKA



Industrial robotics_small robots



The new masters of speed

KUKA small robots for 3 kg to 10 kg payloads

With the KR AGILUS series, KUKA presents a comprehensive family of small robots. The performance of the KR AGILUS robots is unrivaled in their payload categories; furthermore, the robots feature six axes, high speed, short cycle times and an integrated energy supply system. They can perform even unusual tasks in any installation position.

The KUKA small robots are available in different variants – suitable for standard ambient conditions or special requirements, such as cleanrooms. All KR AGILUS models are operated with the service-proven KR C4 compact or KR C4 smallsize-2 – the universal control technology for all KUKA robot models.

KUKA ready2_educate
is a training cell for hands-on
education in robotics.



A delicate touch is called for:
with great sensitivity,
the KR 3 AGILUS fastens micro
screws even with a diameter
of just 0.8 mm!



Assembly process
in the electronics industry



To find out more about
the KUKA small robot
family, scan this QR code
with your smartphone.

Making light work of it:
the KR 3 AGILUS performs
handling tasks with
the utmost reliability.



The KR AGILUS series

The future of small robots

Product overview

Robot	KR 3 AGILUS	KR 3 R540			
	KR AGILUS-2 series	KR 6 R700-2	KR 6 R900-2	KR 10 R900-2	KR 10 R1100-2
	KR AGILUS-1 series *	KR 6 R700	KR 6 R900	KR 10 R900	KR 10 R1100
Controller	KR C4 compact		KR C4 smallsize-2		
Teach pendant	KUKA smartPAD				

_Wide range of ambient conditions

_Extreme precision

_Low maintenance

_Convincing in any position

_High speed

_Optimal work envelope

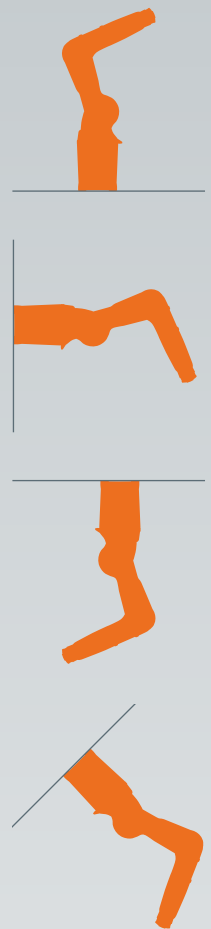


* Only available in special versions
(find out more on pages 16 – 17)

Reach / Payload

1,100 mm			E
1,000 mm			
900 mm		C	D
800 mm			
700 mm		B	
600 mm			
500 mm	A		
	3 kg	6 kg	10 kg

A KR 3 R 540
B KR 6 R700-2
C KR 6 R900-2
D KR 10 R900-2
E KR 10 R1100-2



Convincing in any position: KR AGILUS series in flexible installation positions

High speed. In handling tasks, especially pick-and-place tasks, KUKA small robots demonstrate one of their greatest strengths: extreme speed. This produces impressive results with minimal cycle times.

Extreme precision. Where high repeatability and accuracy are required, KUKA small robots are in their element. They enable manufacturing quality at the highest level. Thanks to their robust design, they work with continuous precision throughout the work envelope.

Convincing in any position. The standard robots of the KR AGILUS series are ideally suited for installation on the floor, ceiling, wall or at an angle and allow optimal utilization in any mounting position.

Low maintenance. The KUKA small robots require no change of lubricant (lifetime lubrication). This makes them ideally suited to continuous, uninterrupted productivity.

Optimal work envelope. With reaches of up to 1,100 mm and the ability to reach points near to the robot base as well as in the overhead area, the KR AGILUS offers an optimal work envelope. Additional equipment can be attached at various mounting points on the arm, wrist, link arm and rotating column (e.g. valves and I / O modules). This enables cost-effective, space-saving cell concepts.

Wide range of ambient conditions. Depending on the area of application, the KR AGILUS is available in a number of different variants: explosion-proof, splash-proof, cleanroom or hygienic machine.

KR 3 AGILUS

KR 3 R540

Reliable and precise. For maximum ROI. Thanks to its intelligent design, the KR 3 AGILUS is cost-effective, requires minimal maintenance and is highly reliable. Proven KUKA quality, dependable technology and robust components provide the highest availability and optimal output – and, as a result, maximum ROI and low total cost of ownership.

Needs minimal space. Offers optimal productivity per square meter. The KR 3 AGILUS enables automation in confined spaces. This makes it ideal for use in 600 x 600 mm automation cells. An internally routed energy supply system, protected interfaces on the arm and minimal disruptive contours allow for flexible motions even where space is at a premium.

Meets targets faster. Increases your output. Wherever minimum cycle times and maximum output in production are needed, the KR 3 AGILUS is ideally suited for the task. Optimally coordinated components and high performance potential enable minimized cycle times and maximum value creation.

If you want flexibility, you need many talents. The KR 3 AGILUS is optimized for the production of the smallest components and products. For example, for applications such as the assembly of small parts, pick-and-place, screw fastening, soldering, adhesive bonding, packaging, testing and inspection and much more. Variable mounting positions and easy integration allow the robot to offer maximum flexibility for short product cycles in manufacturing.



KR 3 AGILUS

KR 3 R540

Max. reach	541 mm
Rated payload	3 kg
Pose repeatability	±0.02 mm
Number of axes	6
Mounting position	Floor, ceiling, wall, angle
Variant	–
Robot footprint	179 mm x 179 mm
Weight (excluding controller), approx.	26 kg

Axis data /

Range of motion

Axis 1 (A1)	+ / –170°
Axis 2 (A2)	+50° / –170°
Axis 3 (A3)	+155° / –110°
Axis 4 (A4)	+ / –175°
Axis 5 (A5)	+ / –120°
Axis 6 (A6)	+ / –350°

Operating conditions

Ambient temperature	+5 °C to +45 °C
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Protection rating

Protection rating of robot	IP 40
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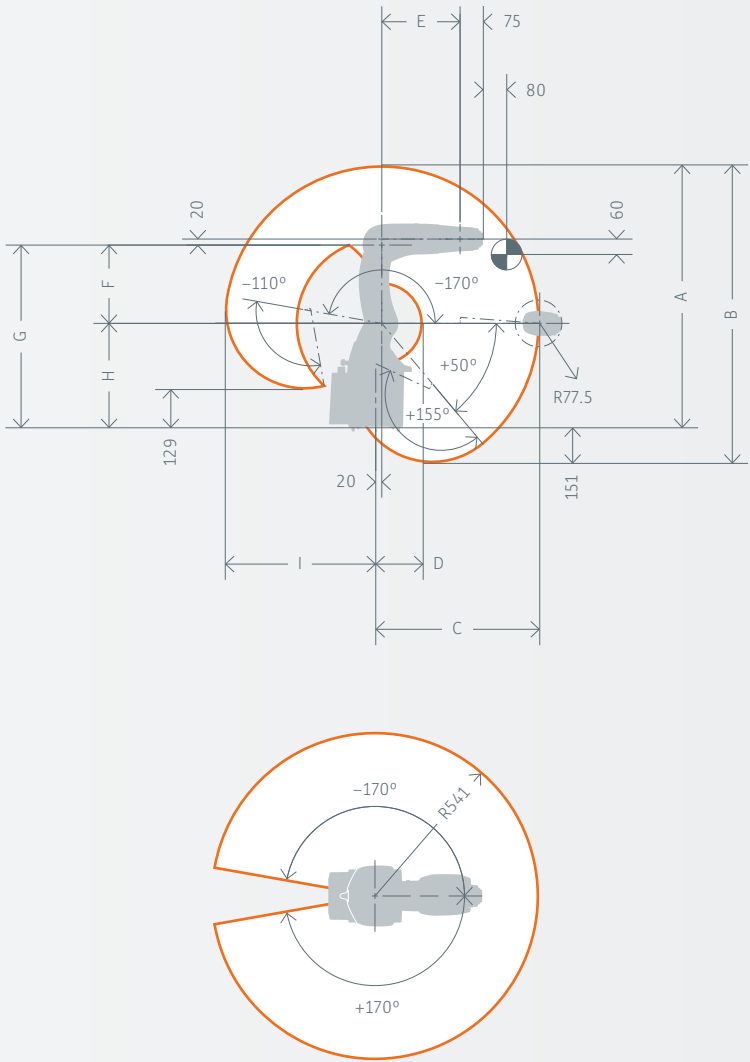
Controller	KR C4 compact
Teach pendant	KUKA smartPAD

The KR 3 AGILUS interface plate

- 1 Motor connection
- 2 Data connection
- 3 Air connection
- 4 Micro EMD
- 5 I / O signal connection
- 6 I / O signal connection
- 7 Air connections

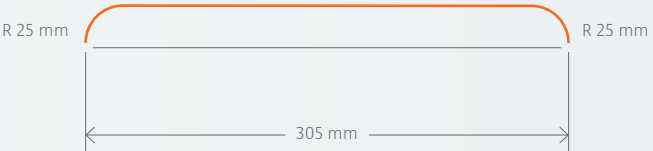


Work envelope ¹	Dimensions A	Dimensions B	Dimensions C	Dimensions D	Dimensions E	Dimensions F	Dimensions G	Dimensions H	Dimensions I
KR 3 R540	866 mm	981 mm	541 mm	152 mm	260 mm	260 mm	605 mm	345 mm	497 mm



Cycle time

KR 3 AGILUS (25 / 305 / 25; 1 kg payload)	167 cycles / min
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¹ Relative to intersection of axes 4 / 5

KR AGILUS-2

KR 6 R700-2

Minimum cycle times. The KR AGILUS-2 has six axes and is consistently rated for particularly high working speeds. At the same time, it offers extreme precision.

Space-saving integration. Low space requirements and the installation in any position make the KR AGILUS-2 extremely adaptable.

Integrated energy supply system. Thanks to the integrated energy supply system, the KR AGILUS-2 impresses with reduced disruptive contours and the reliable supply of energy to tools.

Two protection ratings. The KR AGILUS-2 conforms to protection rating IP 65 and, with pressurization, even meets the requirements of the higher protection rating IP 67.

KR C4 architecture and functionalities. KUKA small robots are every bit as versatile as their larger relatives. They are operated via the KR C4 compact and KR C4 smallsize-2 controllers, with the same range of functions as the service-proven KR C4 controller.

KUKA.SafeOperation. KUKA small robots set standards in safety. Only they offer the KUKA.SafeOperation functionality, which radically simplifies the effective cooperation of humans and machines.



KR AGILUS-2		KR 6 R700-2
Max. reach		726 mm
Rated payload		6 kg
Pose repeatability		±0.01 mm
Number of axes		6
Mounting position		Floor, ceiling, wall, angle
Variant		–
Robot footprint		208 mm x 208 mm
Weight (excluding controller), approx.		53 kg

Axis data / Range of motion

Axis 1 (A1)	+ / –170°
Axis 2 (A2)	+45° / –190°
Axis 3 (A3)	+156° / –120°
Axis 4 (A4)	+ / –185°
Axis 5 (A5)	+ / –120°
Axis 6 (A6)	+ / –350°

Operating conditions

Ambient temperature	0 °C to +45 °C
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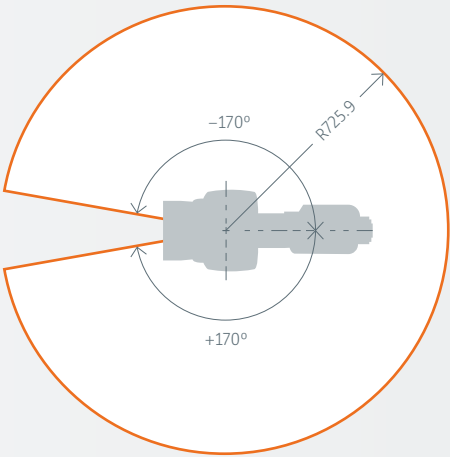
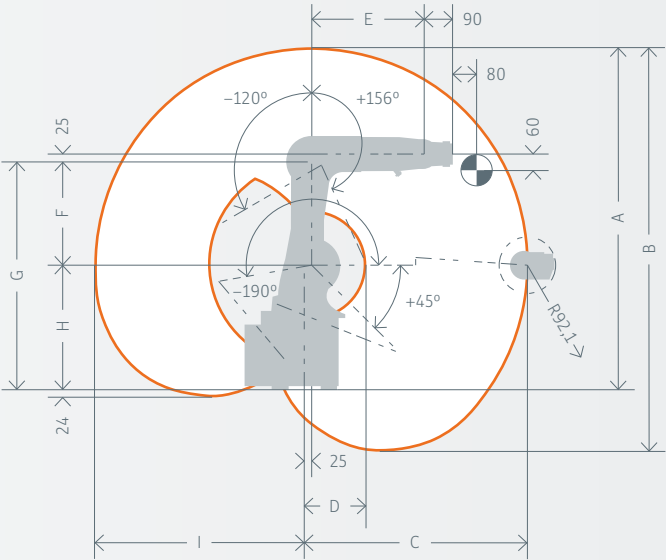
Protection rating

Protection rating of robot	IP 65 / IP 67
Protection rating of in-line wrist	IP 65 / IP 67

Controller	KR C4 compact, KR C4 smallsize-2
Teach pendant	KUKA smartPAD

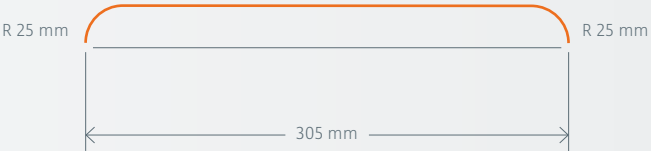


Work envelope ¹	Dimensions A	Dimensions B	Dimensions C	Dimensions D	Dimensions E	Dimensions F	Dimensions G	Dimensions H	Dimensions I
KR 6 R700-2	1,100.9 mm	1,303.6 mm	725.9 mm	196.7 mm	365 mm	335 mm	735 mm	400 mm	675.9 mm



Cycle time

KR 6 R700-2 (25 / 305 / 25; 1 kg payload)	138 cycles / min
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¹ Relative to intersection of axes 4 / 5

KR AGILUS-2

KR 6 R900-2

Minimum cycle times. The KR AGILUS-2 has six axes and is consistently rated for particularly high working speeds. At the same time, it offers extreme precision.

Space-saving integration. Low space requirements and the installation in any position make the KR AGILUS-2 extremely adaptable.

Integrated energy supply system. Thanks to the integrated energy supply system, the KR AGILUS-2 impresses with reduced disruptive contours and the reliable supply of energy to tools.

Two protection ratings. The KR AGILUS-2 conforms to protection rating IP 65 and, with pressurization, even meets the requirements of the higher protection rating IP 67.

KR C4 architecture and functionalities. KUKA small robots are every bit as versatile as their larger relatives. They are operated via the KR C4 compact and KR C4 smallsize-2 controllers, with the same range of functions as the service-proven KR C4 controller.

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KR AGILUS-2		KR 6 R900-2
Max. reach		900 mm
Rated payload		6 kg
Pose repeatability		±0.01 mm
Number of axes		6
Mounting position		Floor, ceiling, wall, angle
Variant		–
Robot footprint		208 mm x 208 mm
Weight (excluding controller), approx.		54 kg

Axis data / Range of motion

Axis 1 (A1)	+ / –170°
Axis 2 (A2)	+45° / –190°
Axis 3 (A3)	+156° / –120°
Axis 4 (A4)	+ / –185°
Axis 5 (A5)	+ / –120°
Axis 6 (A6)	+ / –350°

Operating conditions

Ambient temperature	0 °C to +45 °C
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Protection rating

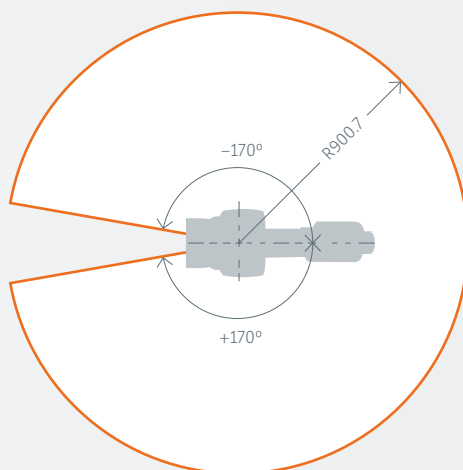
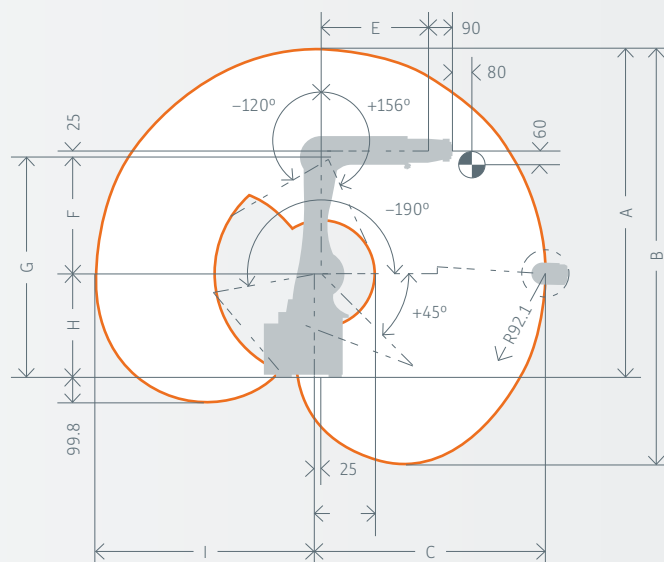
Protection rating of robot	IP 65 / IP 67
Protection rating of in-line wrist	IP 65 / IP 67

Controller	KR C4 compact, KR C4 smallsize-2
Teach pendant	KUKA smartPAD



Work envelope¹

	Dimensions A	Dimensions B	Dimensions C	Dimensions D	Dimensions E	Dimensions F	Dimensions G	Dimensions H	Dimensions I
KR 6 R900-2	1,275.7 mm	1,618.2 mm	725.9 mm	235.1 mm	420 mm	455 mm	855 mm	400 mm	850.7 mm



Cycle time

KR 6 R900-2 (25 / 305 / 25; 1 kg payload)	150 cycles / min
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¹ Relative to intersection of axes 4 / 5

KR AGILUS-2

KR 10 R900-2

Minimum cycle times. The KR AGILUS-2 has six axes and is consistently rated for particularly high working speeds. At the same time, it offers extreme precision.

Space-saving integration. Low space requirements and the installation in any position make the KR AGILUS-2 extremely adaptable.

Integrated energy supply system. Thanks to the integrated energy supply system, the KR AGILUS-2 impresses with reduced disruptive contours and the reliable supply of energy to tools.

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KR AGILUS-2

KR 10 R900-2

Max. reach	900 mm
Rated payload	10 kg
Pose repeatability	±0.01 mm
Number of axes	6
Mounting position	Floor, ceiling, wall, angle
Variant	–
Robot footprint	208 mm x 208 mm
Weight (excluding controller), approx.	54 kg

Axis data /

Range of motion

Axis 1 (A1)	+ / –170°
Axis 2 (A2)	+45° / –190°
Axis 3 (A3)	+156° / –120°
Axis 4 (A4)	+ / –185°
Axis 5 (A5)	+ / –120°
Axis 6 (A6)	+ / –350°

Operating conditions

Ambient temperature	0 °C to +45 °C
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Protection rating

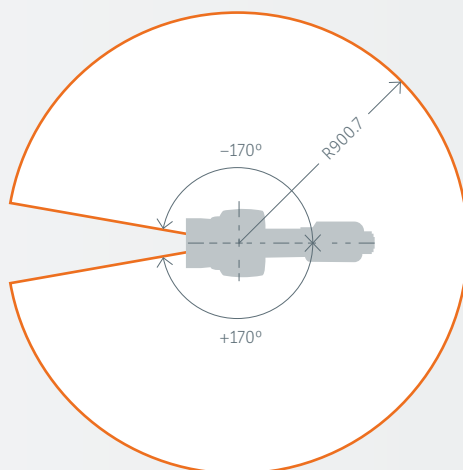
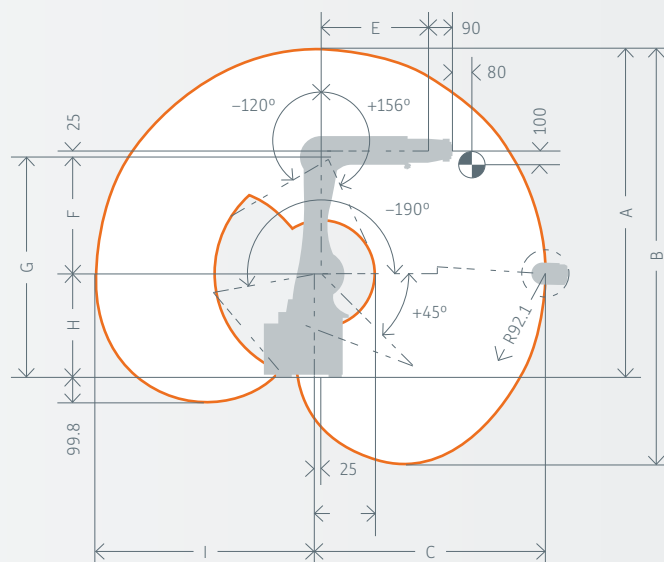
Protection rating of robot	IP 65 / IP 67
Protection rating of in-line wrist	IP 65 / IP 67

Controller	KR C4 compact, KR C4 smallsize-2
Teach pendant	KUKA smartPAD



Work envelope¹

	Dimensions A	Dimensions B	Dimensions C	Dimensions D	Dimensions E	Dimensions F	Dimensions G	Dimensions H	Dimensions I
KR 10 R900-2	1,275.7 mm	1,618.2 mm	900.7 mm	235.1 mm	420 mm	455 mm	855 mm	400 mm	850.7 mm



Cycle time

KR 10 R900-2 (25 / 305 / 25; 1 kg payload)	141 cycles / min
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¹ Relative to intersection of axes 4 / 5

KR AGILUS-2

KR 10 R1100-2

Minimum cycle times. The KR AGILUS-2 has six axes and is consistently rated for particularly high working speeds. At the same time, it offers extreme precision.

Space-saving integration. Low space requirements and the installation in any position make the KR AGILUS-2 extremely adaptable.

Integrated energy supply system. Thanks to the integrated energy supply system, the KR AGILUS-2 impresses with reduced disruptive contours and the reliable supply of energy to tools.

Two protection ratings. The KR AGILUS-2 conforms to protection rating IP 65 and, with pressurization, even meets the requirements of the higher protection rating IP 67.

KR C4 architecture and functionalities. KUKA small robots are every bit as versatile as their larger relatives. They are operated via the KR C4 compact and KR C4 smallsize-2 controllers, with the same range of functions as the service-proven KR C4 controller.

KUKA.SafeOperation. KUKA small robots set standards in safety. Only they offer the KUKA.SafeOperation functionality, which radically simplifies the effective cooperation of humans and machines.



KR AGILUS-2

KR 10 R1100-2

Max. reach	1,100 mm
Rated payload	10 kg
Pose repeatability	±0.01 mm
Number of axes	6
Mounting position	Floor, ceiling, wall, angle
Variant	–
Robot footprint	208 mm x 208 mm
Weight (excluding controller), approx.	55 kg

Axis data / Range of motion

Axis 1 (A1)	+ / –170°
Axis 2 (A2)	+45° / –190°
Axis 3 (A3)	+156° / –120°
Axis 4 (A4)	+ / –185°
Axis 5 (A5)	+ / –120°
Axis 6 (A6)	+ / –350°

Operating conditions

Ambient temperature	0 °C to +45 °C
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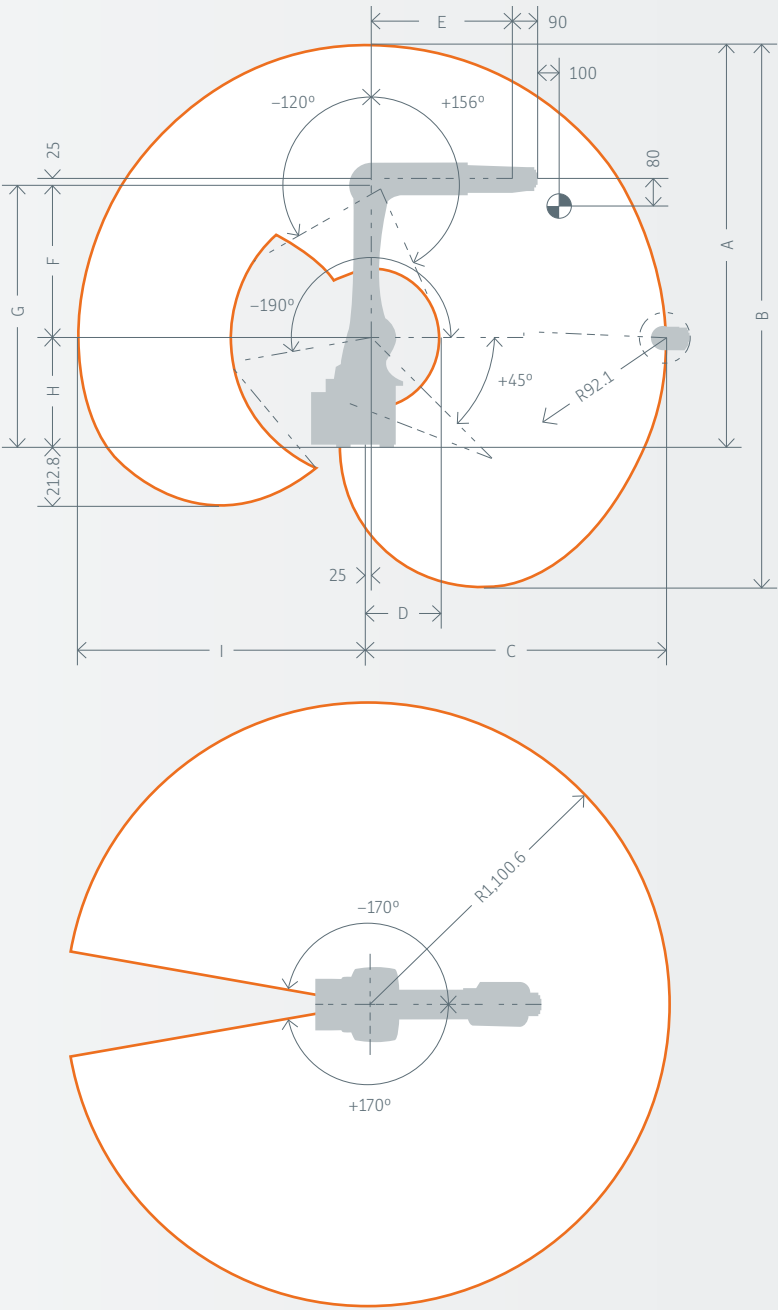
Protection rating

Protection rating of robot	IP 65 / IP 67
Protection rating of in-line wrist	IP 65 / IP 67

Controller	KR C4 compact, KR C4 smallsize-2
Teach pendant	KUKA smartPAD

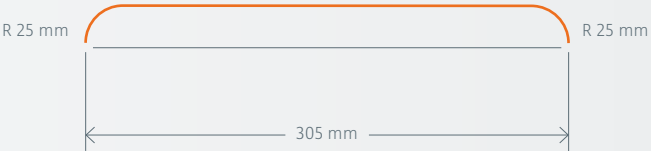


Work envelope ¹	Dimensions A	Dimensions B	Dimensions C	Dimensions D	Dimensions E	Dimensions F	Dimensions G	Dimensions H	Dimensions I
KR 10 R1100-2	1,475.6 mm	1,987.2 mm	1,100.6 mm	277.8 mm	515 mm	560 mm	960 mm	400 mm	1,050.6 mm



Cycle time

KR 10 R1100-2 (25 / 305 / 25; 1 kg payload)	140 cycles / min
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¹ Relative to intersection of axes 4 / 5

KR AGILUS-1

The right variant for every task

Special ambient conditions. This robot can be optimally integrated into a wide range of operating conditions. The KR AGILUS-1 is available in the following variants: splash-proof, as a cleanroom variant, in a hygienic design or for potentially explosive environments as well.



KR 6 R700



KR 6 R900

KR AGILUS-1

Max. reach	706.7 mm	901 mm
Rated payload	6 kg	6 kg
Pose repeatability	±0.03 mm	±0.03 mm
Number of axes	6	6
Mounting position	Floor, ceiling, wall	Floor, ceiling, wall
Variant	CR HM WP	CR HM EX WP
Robot footprint	209 mm x 207 mm	209 mm x 207 mm
Weight (excluding controller), approx.	50 kg	52 kg

Axis data /

Range of motion

Axis 1 (A1)	+ / -170°	+ / -170°
Axis 2 (A2)	+45° / -190°	+45° / -190°
Axis 3 (A3)	+156° / -120°	+156° / -120°
Axis 4 (A4)	+ / -185°	+ / -185°
Axis 5 (A5)	+ / -120°	+ / -120°
Axis 6 (A6)	+ / -350°	+ / -350°

Operating conditions

Ambient temperature, robot	+5 °C to +45 °C	+5 °C to +45 °C
Ambient temperature, hygienic design	0° to +45°C	0° to +45°C

Protection rating

Protection rating of robot	up to IP 67	up to IP 67
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Air cleanliness class

Robot in cleanroom variant	ISO 2	ISO 2
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Controller	KR C4 compact, KR C4 smallsize-2	KR C4 compact, KR C4 smallsize-2
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KR 10 R900



KR 10 R1100

901.5 mm	1,101 mm
10 kg	10 kg
±0.03 mm	±0.03 mm
6	6
Floor, ceiling, wall	Floor, ceiling, wall
CR HM WP	CR HM WP
209 mm x 207 mm	209 mm x 207 mm
52 kg	54 kg

+ / -170°	+ / -170°
+45° / -190°	+45° / -190°
+156° / -120°	+156° / -120°
+ / -185°	+ / -185°
+ / -120°	+ / -120°
+ / -350°	+ / -350°

+5 °C to +45 °C	+5 °C to +45 °C
0° to +45°C	0° to +45°C

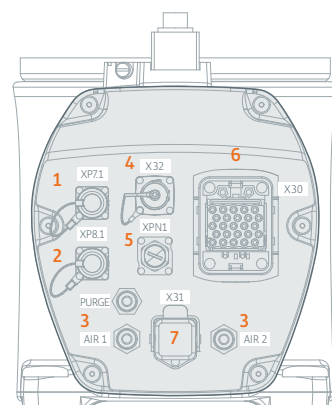
up to IP 67	up to IP 67
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ISO 2	ISO 2
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KR C4 compact, KR C4 smallsize-2	KR C4 compact, KR C4 smallsize-2
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The KR AGILUS-1 interface plate

- 1 Resolver input for axis 7
- 2 Resolver input for axis 8
- 3 Pneumatic connections (Air 1, Air 2, cleaning air)
- 4 Micro EMD
- 5 Bus connection (100 Mbit)
- 6 Motor connection
- 7 Data connection



- CR** Suitable for cleanrooms
- HM** Hygienic machine
- EX** Suitable for use in potentially explosive environments
- WP** Splash-proof

An unbeatable team

KUKA system components



Faster as a team

Extremely fast, streamlined and robust. The KR AGILUS small robots. Solve automation tasks more flexibly. Minimize cycle times. Open up totally new areas of application. The extensive KUKA small robot family is 100 % KUKA: reliable quality and durability, combined with maximum functional diversity and flexibility. Moreover, the combination of extremely fast small robots and the KUKA.SafeOperation function makes for a major competitive advantage.



Safer as a team

The small robot control system of the future. With its compact dimensions and the powerful technology of the service-proven KR C4, the KR C4 compact and KR C4 smallsize-2 offer maximum performance in minimum space. The revolutionary concept provides a firm foundation for the automation of tomorrow. That's because only KUKA offers integrated safety functions as standard, together with open interfaces which enable really simple integration into the overall system. This significantly reduces the costs in automation for integration, maintenance and servicing. At the same time, the long-term efficiency and flexibility of the systems are increased. Benefit from the openness you need to meet tomorrow's requirements.

99.995 % availability

Robust and low on maintenance,
this unbeatable team works
non-stop on your success.



Simpler as a team

The simplest way of operating robots. Touch display. Graphics support. Flexible interaction. With its large touch display, the KUKA smartPAD allows operation of both the robots and entire systems, all visually represented on the screen. The display adapts to show the user only those operator control elements that are needed at any given moment. Attention is always focused on what is important, allowing users to work more intuitively, quickly, easily and efficiently.



More versatile as a team

An optimally prepared, efficient software solution for every task. KUKA function and technology packages breathe life into the KUKA robots. They enable them to carry out particular industry-specific functions within an automation solution. Gluing, moving, machining, measuring, handling or working together with humans or other synchronized robots: KUKA function and technology packages make automation easy.

KR C4 compact

The small robot control system of the future

More powerful, safer, more flexible, and more intelligent. The KR C4 compact offers the high performance and reliability of the KR C4 technology in a compact design. Its flexible configuration and expansion capability make it a real all-rounder. The number of hardware components, cables and connectors has been significantly reduced and replaced by software-based solutions. The robust, high-quality controller is designed for low maintenance; the temperature-controlled fan technology only switches on briefly when needed, and is barely audible.

—Space-saving

—Robust

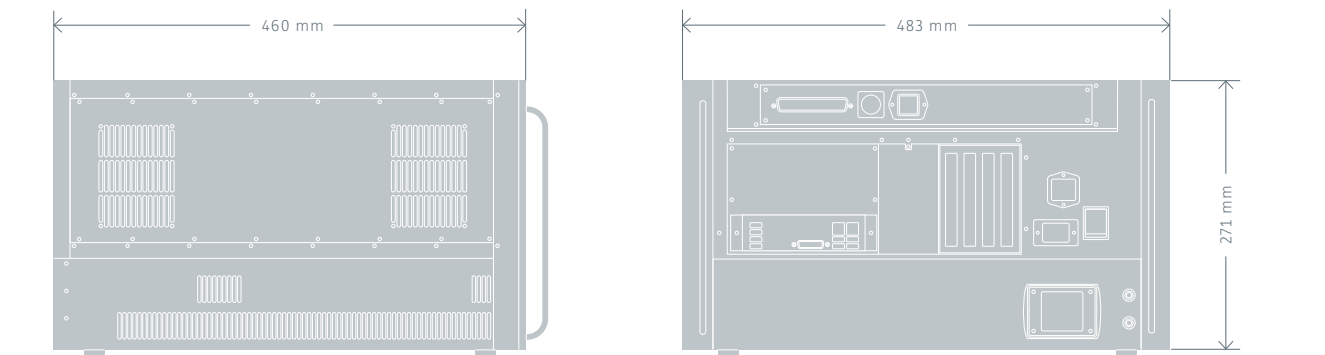
—Universal application



—Communication talent

—Energy-efficient

—All-rounder



Space-saving. The compact dimensions of the housing enable space-saving installation in 19" enclosures or in small protective housings. Despite its compact size, the KR C4 compact offers the entire range of functions of the KR C4 controller.

All-rounder. Safety, Robot, Logic and MotionControl – the KR C4 combines everything in a single controller. And allows effortless control of the entire system.

Universal application. The open architecture of the KR C4 compact can control not only KUKA robots but also external axes – for maximum flexibility, scalability, performance and openness, in minimum space.

Communication talent. In addition to its own robot language KRL, the KR C4 also understands the language of the CNC machining world (G-code) and the language of PLCs, enabling it to communicate directly with your Siemens® or Rockwell® controller, for example.

Robust. The consistent choice of durable components and the well-designed cabinet ensure long-term, reliable operation, even under extreme conditions.

Energy-efficient. The energy management system allows the energy consumption of the controller to be reduced by up to 95% in standby mode. The improved cooling concept, combined with a temperature-controlled fan, further reduces the power dissipation of the controller, while making operation considerably quieter.

KR C4 compact controller

Processor	Multi-core technology
Hard drive	SSD
Interface	USB, EtherNet, DVI-I
Field buses	PROFINET, EtherNet / IP, PROFIBUS, DeviceNet, EtherCAT
Max. number of axes	6+2 (with additional axis box)
Protection rating	IP 20
Dimensions (H x W x D)	271 mm x 483 mm x 460 mm
Weight	33 kg

Power supply connection

Rated supply voltage	200 V to 230 V AC, single-phase, two-phase With grounded neutral (as symmetrical as possible) between the phases used
Permissible tolerance of rated voltage	-10 to +10%
Mains frequency	50 Hz ± 1 Hz or 60 Hz ± 1 Hz
Mains-side fusing	2 x 16 A slow-blowing (1x phase; 1x neutral conductor, optional) or 2 x 16 A slow-blowing (2x phase; 1x neutral conductor, optional)

Operating conditions

Ambient temperature	+5°C to +45°C
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KUKA smartPAD – next generation

The operation of robots reinvented

Touch display. Graphics support. Flexible interaction. The more diverse the robots' abilities become, the greater the importance of intuitive user interfaces for their operation. The KUKA smartPAD was designed to master even complex tasks easily. It can be deployed universally for all payload categories and is easy to handle thanks to its large touch display and ergonomic design. Intelligent, interactive dialogs provide the user with those operator control elements that are currently required. This makes work faster, more efficient and smarter all-round.

—State-of-the-art hardware

—Ergonomic 6D mouse

—Brilliant, capacitive touch display



—Integrated protectors

—Comfortable, relaxed handling

—For left- and right-handed operation



Simple, intuitive operator control via touch display



Ergonomic 6D mouse



Two easily accessible USB ports

Integrated protectors offer the greatest possible protection in the event of falling. The scratch-resistant display and the IP 54 protection rating enable operation in harsh industrial environments.

Comfortable, relaxed handling. The new KUKA smartPAD features impressively pleasant handling. Straps and handgrips that can be used with both hands greatly simplify operator control. An optional shoulder strap enables work without tiring the operator – particularly during time-intensive projects.

State-of-the-art hardware. Thanks to the latest hardware, the KUKA smartPAD impresses with strong performance. Two easily accessible USB ports enable direct saving and loading of application programs and connection of other supported USB devices.

Simple robot jogging with the ergonomic 6D mouse. It offers intuitive jogging and reorientation of the robot in three or six degrees of freedom.

Efficient operation with brilliant, capacitive touch display. Inputs are made quickly and easily via the 8.4" screen.

Elements for ergonomic left- and right-handed operation and a service flap for simple cable exchange round off the user-friendly design of the KUKA smartPAD.

KUKA smartPAD teach pendant

Display	scratch-resistant industrial touch display
Display size	8.4"
Dimensions (H x W x D)	292 mm x 247 mm x 63 mm
Weight	1,100 g



red dot award 2018
winner

KUKA function and technology packages

for the KR C4

KUKA function and technology packages help you to solve specific automation tasks efficiently with minimum programming. KUKA's portfolio of software solutions cover nearly all common areas of application. Using these packages our KUKA system partners implement tailored solutions to meet every customer requirement.

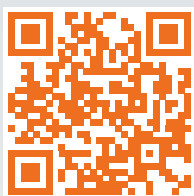
KUKA function and technology packages

KUKA.WorkVisual	Engineering environment for all KUKA robots for system configuration, programming, data backup, diagnosis, and more.
KUKA.Load	Supports the evaluation of the load on a KUKA robot or the selection of a suitable robot for a given load.
KUKA.UserTech	Fast programming of motion and program sequences using freely definable buttons, input masks and parameter lists.
KUKA.ExpertTech	Faster, simpler programming even for non-experts in KRL code via menu-guided command selection.
KUKA.HMI Zenon	Creation of customized, application-specific user interfaces for visualization and operator control without programming knowledge. Display and operation using the touch display and keys of the KUKA smartPAD.
KUKA.RemoteView	Allows remote access to the robot via a secure Internet connection, thereby offering the possibility of remote diagnosis or start-up support.
KUKA.VirtualRemotePendant	Allows the use of EtherNet communication to run the user interface of the KUKA smartPAD on an external PC and to operate the robot.
KUKA.RobotSensorInterface	Supports simple and flexible interfacing with sensors in the KR C4. It is also possible to integrate a number of channels with hard real-time requirements.
KUKA.VisionTech	Onboard vision system including image processing, camera and sensors. Extensive configuration options enable the flexible use of the robot in an unstructured environment.
KUKA.ConveyorTech	Organizes the cooperation of robots and conveyors. Allows efficient, dynamic handling of parts, even for complex applications.
KUKA.ForceTorqueControl	Takes account of process forces and torques exerted on the workpiece during machining, and controls and adjusts these as specified in the program sequence. In applications such as grinding, polishing, bending or even assembly, this technology package is an indispensable help.
KUKA.SafeOperation	Flexible programming of safe cooperation between humans and machines. Definition of safe workspaces, velocities, envelopes around robot tools, and cooperation with the operator.
KUKA.SafeRangeMonitoring	Beginners' tool for limiting and monitoring the safety and work areas of the robot. The monitoring and limitation of statically defined axis ranges creates an adequate degree of work safety for many applications.



KUKA function and technology packages

KUKA.Gripper & SpotTech	Programming of grippers and weld guns via easy-to-use inline forms for many industrial applications.
KUKA.ArcTech	For rapid start-up and simple programming of arc welding applications. The complete portfolio of option packages, in combination with sensors and sequence control, enables arc welding at the highest level.
KUKA.LaserTech	A modular, time-saving and easy-to-operate programming support package for laser cutting and laser welding. Both applications can be executed using the same robot – giving maximum flexibility as the workpiece needs to be clamped only once.
KUKA.ServoGun	Enables the operation of electric motor-driven spot weld guns with the KUKA robot controller. Various additional software options allow e.g. the elimination of mechanical gun compensation and other functions.
KUKA.GlueTech	Enables user-friendly programming of dispensing applications such as bonding, seam sealing or application of support seams using inline forms on the KUKA robot controller.
KUKA.RoboTeam	Coordinates and enables the high-precision interaction of a team of robots for handling a shared load or for working together on a moving workpiece.
KUKA.EtherNet KRL	Makes it possible to exchange data with external computers via the EtherNet interface. The robot can function here both as a client and as a server.
KUKA.OPC-Server	Basic technology for standardized data exchange between robots and external controllers for non-real-time information streams. Ideal for interfacing with external visualization and MES systems.
KUKA.PLC Multiprog	Programming environment for an extremely fast Soft PLC conforming to the IEC 61131 standard. Expands the functionality of the KR C4 and offers virtually unlimited openness in the programming of automation cells and applications.
KUKA.PLC ProConOS	Runtime system of the KUKA.PLC Multiprog Soft PLC. PLC programs created with KUKA.Multiprog are run directly on the KR C4, with full access to the entire I / O system of the robot. Reading and processing of variables such as axis positions and velocity via function blocks.
KUKA.PLC mxA	Allows direct commanding and positioning of the robot by external controllers (Siemens®, Rockwell®, etc.). The user thus requires no knowledge of robot programming in the KUKA-specific robot language KRL.
KUKA.CNC	Complete software-based CNC implementation for execution of machine tool code (G-code) directly on the robot controller. This turns the robot, with its accuracy and stiffness, into a machining center for path-supported processes.
KUKA.Sim	The simulation programs of KUKA.Sim allow robotic cells to be planned with true-to-life accuracy.



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