



The robot that moves people. The 6-axis kinematic system of the KR 600 R2830 passenger performs versatile and sophisticated dynamic motions while ensuring safe operation, irrespective of whether it forms part of a stationary, robot-based simulator or a conventional amusement ride.

Entertainment robots
_KR 600 R2830 passenger



_Maximum flexibility

_Payload up to 600 kg

_Highly dynamic amusement rides possible



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KR 600 R2830 passenger KR C4 SC2 passenger passenger gondola *

* available from KUKA system partners

KR 600 R2830 passenger and KR C4 SC2 passenger

Flexibility. Dynamism. Precision.

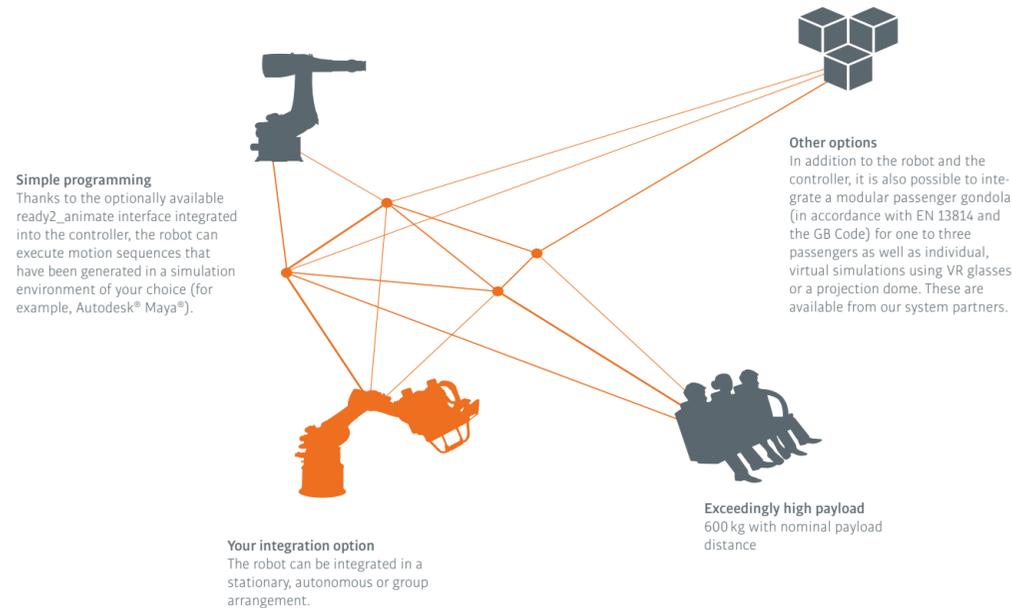
The KR 600 R2830 passenger and its KR C4 SC2 passenger controller impress with their extremely high precision that turns every simulation into a headline-grabbing attraction. No matter where it is in action – in theme parks, family entertainment centers (FECs) or large amusement parks –, the KR 600 R2830 passenger uses multi-flexible and highly dynamic motion sequences to deliver a breathtaking and thrilling amusement ride experience at the push of a button.



One robot, endless application possibilities. Thanks to its six freely programmable axes, the KR 600 R2830 passenger simulates each motion sequence with absolute precision and a highly dynamic performance. Up to three people can experience the hair-raising ride at the same time thanks to the overall payload capacity of 600 kg.

The technology integrated into each axis is outstanding: AC servomotors, built-in coordinate converters with electromechanical brakes and fixed stops in A1, A2, A3 and A5 (optional).

The ISO mounting flange enables various passenger cells to be installed. Optionally available: a dress package on the robot for the external supply of energy to customer applications.



A control system for the future
There would be no thrill of the ride without a suitable controller. The KR C4 SC2 passenger comes in the customary design. The KR C4 SC2 passenger is operated using the KUKA smartPAD touch display with a hot-pluggable connecting cable together with a holder and EtherNet IP communication.



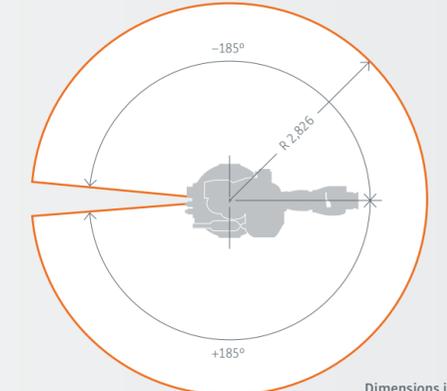
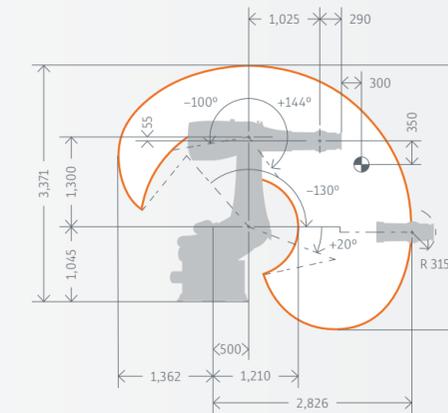
Every single system is TÜV-certified
Safety is of paramount importance at KUKA – especially when it comes to transporting people. This is evident in the fact that the KUKA passenger is licensed to carry passengers, being certified by the German technical inspectorate TÜV as conforming to EN 13814. Each and every robot system leaves our factory with TÜV-certified type and individual acceptance. In addition to mechanical stops, permanent electronic monitoring ensures maximum safety.



Absolutely safe and thrilling ride thanks to KUKA.SafeOperation.
The safety configuration of the robot can be checked by way of a password-based authorization system. It is possible to monitor up to 16 configurable cells and fixed cell areas (PLd). The velocity of the robot is also permanently monitored. Up to 16 outputs (PLd) can be checked by a signal function. The KR 600 R2830 passenger also features a safe operational stop for the individual axes and axis groups as well as an automatic brake test (PLd). Moreover, there is a Stop 0 interface for integration into a PLe control circuit.

KR 600 R2830 passenger

Technical data



Dimensions in mm

Workspace

KR 600 R2830 passenger

Volume

approx. 68 m³

KR 600 R2830 passenger

6-axis manipulator	✓
Operates with a gondola for up to 3 passengers	✓
Max. reach	2,830 mm
Rated payload	600 kg
Pose repeatability (ISO 9283)	approx. ±0.08 mm
Number of axes	6
Robot footprint	1,050 mm x 1,050 mm
Weight (excluding controller) approx.	2,650 kg
Ambient temperature (operation)	+10 °C to +55 °C
Ambient temperature (transportation)	-40 °C to 60 °C
Protection rating	IP 65

Axis data / range of motion

Axis 1 (A1)	+ / -185°
Axis 2 (A2)	+20° / -130°
Axis 3 (A3)	+144° / -100°
Axis 4 (A4)	+ / -350°
Axis 5 (A5)	+ / -120°
Axis 6 (A6)	+ / -350°

Controller

Cabinet type	KR C4 SC2 passenger
Protection rating	IP 54
Number of axes	6
Side-by-side installation	with/without cooling unit
Rated supply voltage	AC 3 x 400 V or AC 3 x 480 V
Permissible tolerance (rated supply voltage)	±10 %
Mains frequency	49 to 61 Hz
Ambient temperature (operation without cooling unit)	+5 to 45 °C (278 to 318 K)
Max. temperature change	1.1 K / min
Humidity class	3k3 according to DIN EN 60721-3-3; 1995

Other features

CSEI-compliant design
EN 13814-compliant
TÜV certification (PTU)
TÜV-certified individual acceptance for every robot

Vertical force F(v)	F(v normal)	F(v max)
	37,000 N	40,500 N
Horizontal force F(h)	F(h normal)	F(h max)
	15,900 N	23,500 N
Tilting torque M(k)	M(k normal)	M(k max)
	58,900 Nm	84,500 Nm
Torque about axis 1 M(r)	M(r normal)	M(r max)
	18,500 Nm	45,500 Nm

