

AIRSKIN® for KUKA Quantec Series

AIRSKIN turns a KUKA Quantec into the **largest collaborative robot** in the world.

Combining our soft pressure sensitive safety skin with a high performance industrial robot gives you the best of both worlds

- high payload/reach with proven robustness/precision
- plus collaborative operation

opening up limitless possibilities for fenceless automation.



AIRSKIN is available for the whole line of KUKA Quantec Robots

Payload from 120–300 kg
Reach from 2700–3100 mm
Supports KR C4 and KR C5 Robot Controller

EoAT-Safety with AIRSKIN

With 10 years of experience in fenceless and collaborative applications in the industry, AIRSKIN offers fitting solutions for all End of Arm Tools (EoAT).

AIRSKIN Modules

Modular Pads fit together for one flexible solution on grippers and work objects

Customized AIRSKIN

Any 3D form possible in lot-size 1

Speed

Who said a large collaborative robot would have to be slow?

The soft highly sensitive AIRSKIN allows fenceless operation at **up to 2 m/s** in free space.

Space

With AIRSKIN a large robot does not need a large fence around it. **Save valuable floor space** to get more productivity out of your facility.

Flexibility

Without fences cluttering your floor space, **quickly reroute material flow** and/or repurpose your robots as demands on your production keep changing.

Safety

Proven AIRSKIN technology meeting highest safety standards
[ISO 13849-1 PL e/ Cat3, IEC 62061 SIL 3]

AIRSKIN® for KUKA Quantec Series

General

Reaction time	< 9 ms
Actuation force	-5 N
Lifetime	10 years / 1 000 000 activations
Mounting system	screw-on support structure with magnetic snap-on AIRSKIN pads
Visual feedback	RGB status LEDs

Operating conditions

Ambient temperature during operation	5-50 °C
Humidity level	0-85 %
IP rating	IP54
Chemical resistance	Common cleaning agents, oil, alcohol, sanitizer
UV resistance	100 %
Tolerable g-force	15 g

Robot payload with AIRSKIN

PA - Robot with activated palletizing mode (KUKA software option).

Payload in kg	Without AIRSKIN	With AIRSKIN	PA mode
KR 120 R2700-2	167	163.9	192.8
KR 120 R3100-2	210	206.9	235.8
KR 150 R2700-2	218	215.4	253.4
KR 150 R3100-2	220	217.4	255.4
KR 180 R2900-2	253	230	260
KR 210 R2700-2	275	271.8	304.9
KR 210 R3100-2	281	268.3	294.8
KR 240 R2900-2	319	350	390
KR 250 R2700-2	315	312	330
KR 300 R2700-2	370	310	400

Electrical connection

Supply voltage	24 V DC
Current consumption	typ. 420 mA, max. 1500 mA
Electrical interface	OSSD (6 Wires: 2 Safety Channels IN/OUT, 24 V, Ground)
AIRSKIN topology	6 lanes with each up to 15 AIRSKIN pads, each connected to AIRSKIN Connection Box (ACB)
Connection to robot	6 ACBs to safety PLC or X13 connector

Certificates

ISO 13849-1	PLe / Cat 3
EN/IEC 62061	SIL CL 3
UL 1740:2018	
ANSI/RIA R15.06-2012	
CAN/CSA-Z434-14 + G11	
Flammability	UL 94 V-2
EC type examination Nr.	TÜV-A-MHF/MG17-00411
TUV Rheinland certificate Nr.	CU 72192170 0001

Packaging

Weight of product	40 kg
Weight including packaging	275 kg
Packaged size	1200×800×1500 mm

Robot motion range with AIRSKIN

All models, in °

	Nominal		with AIRSKIN	
A1	-185	185	-185	185
A2	-140	-5	-125	-5
A3	-120	168	-77	161
A4	-350	350	-350*	350*
A5	-125	125	-69	115
A6	-350	350	-350*	350*

* Limitation by cable length

Details provided about the properties and usability of the products are purely for information purposes and do not constitute a guarantee of these characteristics. No liability accepted for errors or omissions. V1.7 / 15.04.2024 / en

Blue Danube Robotics GmbH, Niedermoserstrasse 14, 1220 Vienna, Austria +43 1 890 86 97 900
sales@airskin.io, www.airskin.io