

# AIRSKIN® for KUKA Quantec Series

AIRSKIN turns a KUKA Quantec into the largest collaborative robot to date. 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 as demands on your production keep changing.

### Safety

Proven AIRSKIN technology meeting highest safety standards  
(ISO 13849-1 PL<sub>e</sub>/ 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 (palletizing) mode includes a Palletizing Safetyflange  
Calculated values according to KUKA Load, assuming  
a distance of 80 mm between tool COG and TCP.

Payload in kg	Nominal	Normal mode
KR 120 R2700-2	120	117
KR 120 R3100-2	120	116
KR 150 R2700-2	150	147
KR 150 R3100-2	150	146
KR 180 R2900-2	180	176
KR 210 R2700-2	210	207
KR 210 R3100-2	210	206
KR 240 R2900-2	240	236
KR 250 R2700-2	250	247
KR 300 R2700-2	300	297

## 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 up to 15 AIRSKIN pads, each connected to AIRSKIN Connection Box (ACB)
Connection to robot	6 ACBs to safety PLC or X13 connector

## Robot motion range with AIRSKIN

All models, in °

	Nominal		with AIRSKIN	
A1	-185	185	-185	185
A2	-140	-5	-120	-5
A3	-120	168	-75	164
A4	-350	350	-350	350
A5	-125	125	-60	114
A6	-350	350	-350	350

## 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

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