

# AIRSKIN® for KUKA Cybertech Series

Combining the best of two worlds: Upgrading industrial robots to high performance, fenceless collaborative robots.



## AIRSKIN is available for the whole line of KUKA Cybertech Robots

Payload from 8–22 kg  
Reach from 1610–2010 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 Cybertech 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	PA mode
KR 8 R2010-2	8	7,1	7,7
KR 12 R1810-2	12	11	12
KR 16 R2010-2	16	14,9	16,1
KR 16 R1610-2	16	17,4	19,2
KR 20 R1810-2	20	19,8	21,6
KR 22 R1610-2	22	25	27,7

## 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	1 lane with up to 15 AIRSKIN pads, each connected to AIRSKIN Connection Box (ACB)
Connection to robot	4 ACBs to safety PLC or X13 connector

## Robot motion range with AIRSKIN

PA (palletizing) mode includes a Palletizing Safetyflange.  
All models, in °

	Nominal		with AIRSKIN	
A1	-185	185	-185	185
A2	-185	65	-163	27
A3	-138	175	0	174
A4	-350	350	-350*	350*
A5	-130	130	-44	107
A6	-350	350	-350*	350*

\* Limitation by cable length

## 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	R1610-2: 18.3 kg R1810-2: 19.6 kg R2010-2: 20.2 kg Safetyflange 20: 3,1 kg
Weight including packaging	ca. 50 kg
Packaged size	1200×800×600 mm

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.  
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