

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 16–22 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 PLe/ 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 16 R2010-2	16,0	14,8	14,2
KR 20 R1810-2	20,0	18,7	19,1
KR 22 R1610-2	22,0	22,3	24,0

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	-166	25
A3	-138	175	0	170
A4	-350	350	-210	210
A5	-130	130	-41	107
A6	-350	350	-350	350

Certificates

ISO 13849-1	PL _e / 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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