

AIRSKIN® for KUKA Agilus Series

Fenceless KUKA Agilus with AIRSKIN combining the best of two worlds: upgrading industrial robots to high performance, fenceless collaborative robots.



AIRSKIN is available for the whole line of KUKA Agilus Robots

Payload from 6–10 kg
Reach from 900–1100 mm
Supports KR C4 compact and
KR C5 micro 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)

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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 6 R900-2	6,0	4,6	4,9
KR 10 R900-2	10,0	8,8	10,0
KR 10 R1100-2	10,0	8,8	9,6

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	ACB to safety PLC or X11 connector

Robot motion range with AIRSKIN

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

	Nominal		with AIRSKIN	
A1	-170	170	-170	170
A2	-190	45	-163	25
A3	-120	156	-93	131
A4	-185	185	-185*	185*
A5	-120	120	-117	110
PA mode			-100	100
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	7 kg
Weight including packaging	11,5 kg
Packaged size	800×600×600 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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