

# **AGILE ROBOTS**





Lightweight robotics meets

multisensory technology



7 degrees of freedom

**7** joints

7 kg payload



# **Say hello** to Diana 7

Diana 7 is a cutting-edge lightweight robot, featuring seven degrees of freedom and integrated torque sensors in all seven axes, ensuring exceptional dexterity and sensitivity. With a repeatability of  $\pm 0.05$  mm, a 7 kg payload capacity, 923 mm reach, and precise force control of 0.5 N, Diana 7 is designed to handle complex and delicate industrial applications with exceptional precision.

With its IP50 rating and advanced motion control,
Diana 7 delivers reliable performance even in
the most demanding, confined environments.
As a result, the robot offers exceptional versatility
across various industries - from assembling delicate
electronics in the consumer electronics sector
to handling medium-duty tasks in automotive.

This versatility also extends into research: Diana 7 is used extensively across a range of applications, from pharmaceutical settings to advanced AI and robotics research in both academia and industry. Thanks to the software interface FCI (Franka Control Interface), researchers can directly access the robot's control algorithms, free from abstract software layers or filters.

### Safe

Highly sensitive torque control, virtual boundaries, and a safety-driven design ensure secure operation.

#### Skillful

Maximum dexterity, precision, force control, and a high payload enable diverse industrial tasks.

#### Intuitive

A user-friendly graphical interface and advanced handguiding capabilities facilitate fast and intuitive programming.

## **Specifications**

#### Diana 7

Payload 7 kg **Protection rating** IP50 Workspace radius 923 mm **Degrees of freedom** Repeatability ±0.05 mm **Robot weight** 28 kg **Base diameter** ø 190 mm **End tool connector** ISO 9409 **Programming type** C++, Python, Lua

TCP maximum speed 2.4 m/s Operating temperature 0 to 50  $^{\circ}$ C

**Operating humidity** 90 % RH (non-condensable)

**Safety** EN ISO 12100:2010

EN 60204-1:2018

EN ISO 13849-1:2023 PL d/Cat.3

EN ISO 10218-1:2011

Joints	Range of motion	Max. speed
1	-179° to 179°	180°/s
2	-90° to 90°	180°/s
3	-179° to 179°	210 °/s
4	0° to 175°	210 °/s
5	-179° to 179°	270°/s
6	-179° to 179°	270°/s
7	-179° to 179°	270°/s

#### **Control box**

Cable length (body - box)5.0 mPower cable length3.0 m

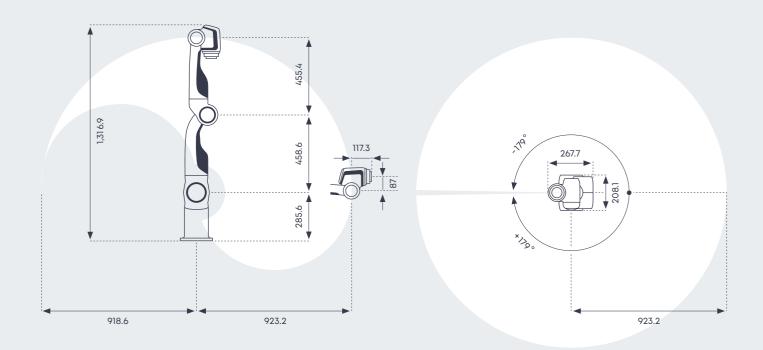
Power supply 110 V ~240 VAC, 50/60 Hz

Size 483 mm × 377 mm × 192 mm

Weight 16 k

1/0 port 16 digital in / 16 digital out, 2 analogue in / 2 analogue out

I/O power supply 24 V / 2.5 A



**Agile Robots SE** is a world-class provider of next-generation automation solutions. By combining artificial intelligence and robotics, the company makes industries smarter, more flexible, and more efficient.

Founded in Munich in 2018 by renowned robotics researchers from the German Aerospace Center (DLR), Agile Robots has experienced rapid global growth. Today, more than 2,300 highly skilled robotics and Al enthusiasts are employed in Germany, China and India. The company has one of the largest research and development teams in the Al and robotics industry.

Agile Robots has built a unique portfolio, together with the subsidiaries Franka Robotics, BÄR Automation, audEERING and the joint venture with the BMW Group, idealworks, the company covers all areas of Al-driven robotics.

Find out more about our customized solutions. Book a consultation or demo. Contact our experts today.

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