

Racer-5

**SENSITIVE
ENVIRONMENTS**



Racer-5 SENSITIVE ENVIRONMENTS combines efficiency and technological excellence with additional features for specific applications in the most stringent sectors.

COMAU's Racer-5 SENSITIVE ENVIRONMENTS is designed for industrial sectors, such as Pharma and Cosmetics, Machine tending and Food&Beverage, where particular conditions and specific applications are needed.

These applications require high Ingress Protection level, ISO clean room classification, simplified cleanability, good resistance to chemicals, reduced risk of environment contamination.





Discovering Racer-5

SENSITIVE ENVIRONMENTS

Features

- 5 kg payload
- 0.63 m and 0.80 m reach (2 configurations)
- 0.03 mm repeatability
- IP67 in all installation positions
- ISO Cleanroom certification - grade 6 (grade 5 at medium speed)
- Possibility of cleaning and decontamination
- Food Grade H1 Grease
- All input connectors and fittings outside of production zone
- Stainless steel screws & covers
- Configurable cabling

Benefits

- High repeatability and accuracy
- High production rate
- Cleaning and decontamination resistant
- Full compatibility with machine/equipment control system (Arm version)
- Easy to program/integrate/use
- Easy to install
- Electrical and air connections near the wrist avoiding external harness



Variants

The Racer-5 Sensitive Environments is at your disposal in different configurations with a payload of 5 kg and individual reaches of 630 mm and 800 mm.

Each model is tabletop, inclined, wall and ceiling mountable.

An additional smooth-wrist version is available without connectors.

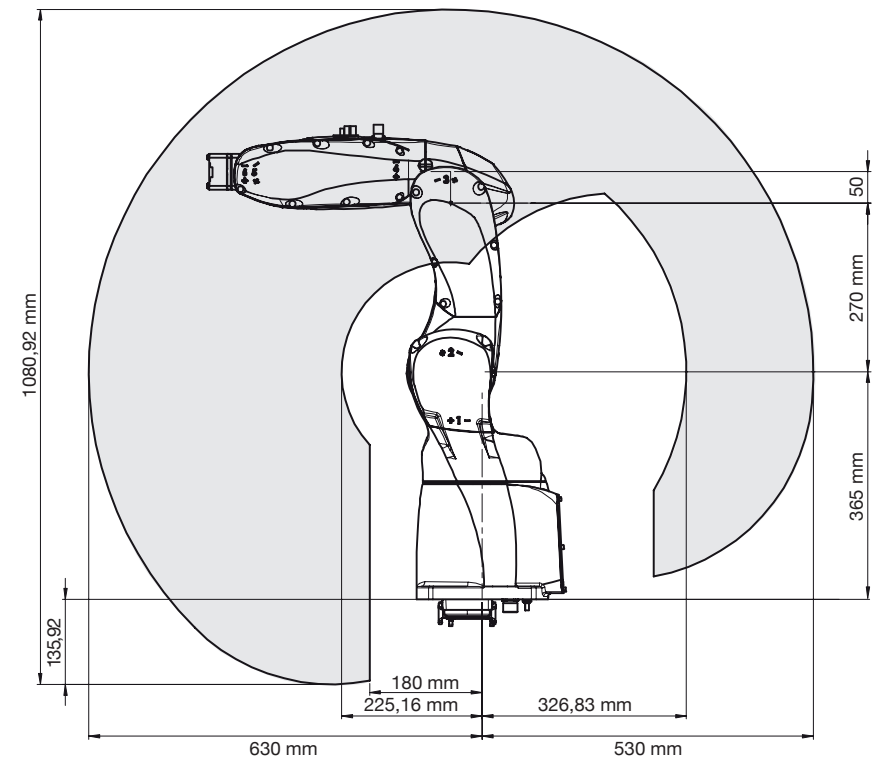
An Arm version could be also provided for further control integration.

Application sectors

All those environments that require high Ingress Protection level, ISO clean room classification, simplified cleanability, good resistance to chemicals, reduced risk of environment contamination.

Technical features

VERSION	Racer-5-0.63-SE Racer-5-0.63-SE smooth version	Racer-5-0.80-SE Racer-5-0.80-SE smooth version
Structure / No. of axes	6 axes	
Maximum wrist load	5 kg (11.0 lb)	
Nominal wrist load	1 kg (2.2 lb)	
Axis 4 torque	8.83 Nm	
Axis 5 torque	8.83 Nm	
Axis 6 torque	4.91 Nm	
Admissible inertia on axis 4	0,42 kg x m ²	
Admissible inertia on axis 5	0,42 kg x m ²	
Admissible inertia on axis 6	0,18 kg x m ²	
Stroke / Speed)	Axis 1	+/- 170° (400°/s) *1
	Axis 2	-95° / +135° (360°/s) -85° / +135° (360°/s)
	Axis 3	-155° / +90° (400°/s)
	Axis 4	+/- 200° (500°/s)
	Axis 5	+/- 125° (500°/s)
	Axis 6	+/- 2700° (800°/s)
Max horizontal reach	630 mm (2.07 ft) 809 mm (2.65 ft)	
Repeatability	+/- 0.03 mm (1.18 mil)	
Robot weight	33 kg (73 lb) 35 kg (77 lb)	
Features of the tool coupling Robot wrist	ISO 9409 - 1 - A 25	
Motors	AC Brushless	
Position measurement system	Encoder	
Protection degree	IP67	
Mounting position	Floor / Inverted / Angle / Wall *2	
Operating environment temperature	from 0°C to +45°C (from +32°F to +113°F)	
Storage temperature	from -10°C to +55°C (from +14°F to +131°F)	
Maximum temperature gradient	1,5 °C/min	
Colour White	RAL 9016	
ISO 14644-1 CleanRoom Certification assessment	ISO 6 *3	
Use of Food Approved gaskets	Yes	
Use of NSF H1	Yes	



Workspace Racer-5-0.63-SE version

*1 In the case of angle mounted Robot, the stroke of axis 1 must be limited according to the inclination of the angle itself and the payload. For further details see par. 2.9.4 Axis 1 stroke limitations in case of angle-mounted Robot on page 56.

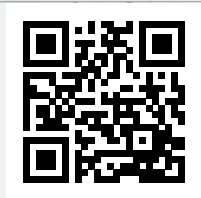
*2 not allowed with maximum load

*3 Guaranteed up to 80% angular speed of the Robot axes (Axis 1: max. 320°/s; Axis 2: max. 288°/s; Axis 3: max. 320°/s; Axis 4: max. 400°/s; Axis 5: max. 400°/s; Axis 6: max. 640°/s).



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