



Mantis MR-1

The first truly responsive robot for flexible factories and warehouses, where human and robot can work together without sacrificing productivity

Arm Technical Data

Model	MR-1
Axis	6
Reach	900mm
Payload(kg)	5
Cycle time(sec)	0.35
Repeatability(mm)	±0.03
Weight	44.5kg
Protection Rating	IP40

Speed Performance

Maximum Composite Speed	10,600mm/s
Collaborative speed (in air) ¹	800 mm/s for chest
Collaborative speed (Close to object) ¹	300 mm/s for hand

¹ According to maximum allowable bumping/clamping force for human body regions in ISO/TS 15066:2016. Function is according to 3D object model.

Movement

	Motion Range	Maximum Joint Speed
J1	±170°	370°/s
J2	+175°~-30°	260°/s
J3	+165°~-45°	410°/s
J4	±190°	550°/s
J5	±110°	550°/s
J6	±360°	820°/s

Features

Configurable Speed and Separation Monitoring (in compliance with ISO 10218-1 and 13849-1)

Web-based Real Time Digital Twin

Auto Program Generation

Collision-free Path Planning

3D Virtual Configuration with CAD File Generation

Human-Robot Collaboration Simulation

Return-on-Investment (ROI) Analysis

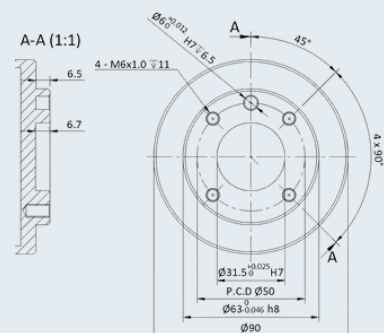
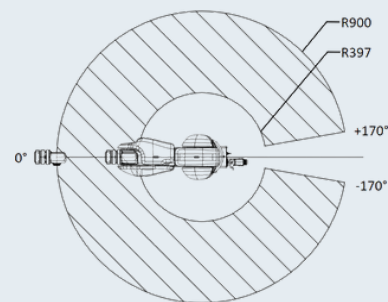
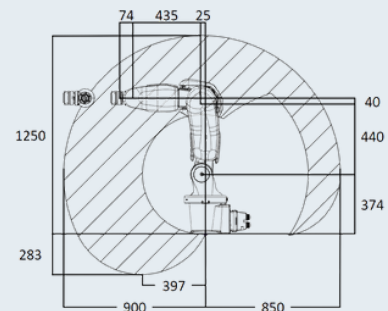
Application Templates (Kitting, Arrayed Tray Handling, 3D Bin Picking, etc.)

Team (Multi-user) Collaboration

Control box

Size ² (W/L/H)	473mm x 590mm x 291mm
Weight	38 kg
IO	16 DIN, 16DOUT, 24V 2A
Safety IO	ESTOP, Collaborative Mode Output, Full Speed Input, Configurable Safety IO 8 In 8 Out
Interface	6×USB, 1×HDMI, 1×COM, 2×LAN Solenoid x 3
Protection rating	IP20
Power supply	Single phase 200~230VAC, 50~60Hz

² Dimension of the main body box, excluding connectors and including foot pads



Contact

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