NEURA

Datasheet

MAiRA

AI Powered Robotics

MAiRA

Multi-Sensing Intelligent Robotic Assistant

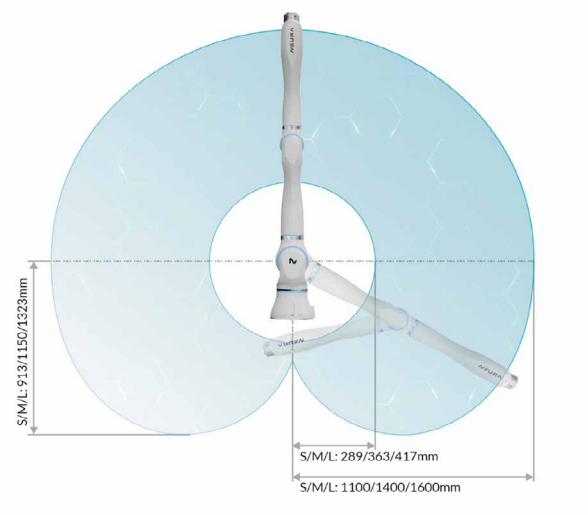
AI Powered Robotics

MAiRA is the world's first commercially available cognitive robot. With its integrated AI and novel touchless safe human detection sensor technology, MAiRA can perceive its surroundings and is able to easily adapt to all kinds of industrial environments. MAiRA opens a new era of robots and offers endless possibilities for interaction, for beginners and experts alike. Enabling true collaboration of human and machine.

Specs	MAiRA S	MAiRA M	MAiRA L
Payload (kg)	15–18 [1]	12–14 [1]	9–11 [1]
Reach (mm)	1100	1400	1600
Degrees of Freedom	7 rotary joints	7 rotary joints	7 rotary joints
Weight (kg)	51	53	56
Robot Mounting	Any orientation		
IP Classification	IP65		
Ambient Working Temperature	0°C–40°C		
Data, Power, and Media	Full inner harness		
Footprint Base (mm)	Ø 252		
Tool Flange	ISO 9409-1-50-7-M6		
Status Illumination	RGB LED on each axis		
Performance Level	PLd Cat. 3 / SIL3 [2]		
Accuracy (mm)	≥ 0.01 [3]		

[1] Lower number indicates payload for full workspace, higher number indicates payload for application specific smaller workspace and reduced speed.
[2] PLe Cat.3 / SIL3 released in 2024.
[3] In reference to ISO9283. Robot specific values might differ depending on application environment.

Movement MAiRA S/M/L		
Axis	**Working Angle**	**Maximum Speed**
A1	± 180°	120 ° / s
A2	± 120°	120 ° / s
A3	± 180°	150 ° / s
A4	± 150°	150 ° / s
A5	± 180°	200 ° / s
A6	± 145°	200 ° / s
A7	± 180° [4]	360 ° / s [5]



[4] Effectively available working range depending on link7 configuration. Restriction due to pneumatic air and vision sensor might apply.
[5] To be released 2025.

Tool Flange	
Hole Pattern	MAiRA S/M/L: DIN ISO 9409-1-50-7-M6
Compressed Air (optional)	3x push-pull-plug S/M/L: 3 mm OD
I/O Power Supply	24 V 1.5 A
Interfaces	Analog Input, GPIO, Modbus RTU via M8 8-pin-A-M, IEC 61076-2-104

Control Box	
Dimensions (mm)	592 x 567 x 253
Weight (kg)	35
Power Supply	90–250 VAC, 50 / 60 Hz max. 16 A
Interfaces	GPIO, Modbus TCP

Software & Controller	
Motion Controller	Real-Time NR-Motion Master
Machine Learning Kernel	Smart applications, performance enhancement
Open Architecture	3rd party apps, access to low level controllers and sensor data (optional)
Software Interfaces	Robot and sensor data via Python NeuraPy API (SDK)
Safety Architecture	Safety master & FSoE communication

Teach Pendant	
Dimensions (mm)	285 x 228 x 95
Cable Length (m)	5
User Interface	Intuitive, drag-and-drop

Designed and engineered in Germany

Programming Features	
Smart GUI	NR easy programmin interface
Fast Programming	Shortcut buttons, voice control, gesture control (optional), dynamic path and force recording
Human-Robot Interaction	Vision, audio, force-feedback, face recognition (optional), motion tracking (optional)
Environment Visualization	3D CAD data, vision sensor data

Sensors	
Vision	3D Vision Sensor
Force / Torque Sensing	6-DoF F/T-sensor in flange (optional)
Guidance	Zero gravity mode

Get in contact!

Scan the QR code or visit
https://qrco.de/bgOfnc

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