



# LARA

Lightweight Agile  
Robotic Assistant

## Data sheet

Combining lightweight design and industrial performance with an intuitive user interface.

LARA, the Lightweight Agile Robotic Assistant, is a six-degree-of-freedom collaborative robot that combines the agility of lightweight design with industrial performance. With unmatched speed, precision and protection, LARA bridges the gap between the world of collaborative and industrial robots. This way, LARA allows you to automate any production process in a cost-efficient way. Its intuitive user interface enables anyone to create programs for LARA, easily automating simple and repetitive tasks in any production environment.

General specs	LARA 3	LARA 5	LARA 8	LARA 10	LARA 15
<b>Payload</b>	3 kg	5 kg	8 kg	10 kg	15 kg
<b>Reach</b>	590 mm	800 mm	1300 mm	1000 mm	1300 mm
<b>Degrees of Freedom</b>	6 rotary joints	6 rotary joints	6 rotary joints	6 rotary joints	6 rotary joints
<b>Weight</b>	17 kg	26 kg	48 kg	42 kg	55 kg
<b>Robot mounting</b>	Any orientation	Any orientation	Any orientation	Any orientation	Any orientation
<b>IP classification</b>	IP66	IP66	IP66	IP66	IP54
<b>Ambient working temperature</b>	0 °C–50 °C	0 °C–50 °C	0 °C–50 °C	0 °C–50 °C	0 °C–50 °C
<b>Data &amp; power cables</b>	Complete inner harness	Complete inner harness	Complete inner harness	Complete inner harness	Complete inner harness
<b>Footprint base</b>	Ø 156 mm	Ø 156 mm	Ø 200 mm	Ø 200 mm	Ø 200 mm
<b>Tool connector type</b>	M12 12-pole	M12 12-pole	M12 12-pole	M12 12-pole	M12 12-pole
<b>Status illumination</b>	RGB LED on TCP	RGB LED on TCP	RGB LED on TCP	RGB LED on TCP	RGB LED on TCP
<b>Tgt. perf. level</b>	PLd Cat.3 / SIL3	PLd Cat.3 / SIL3	PLd Cat.3 / SIL3	PLd Cat.3 / SIL3	PLd Cat.3 / SIL3
<b>Tgt. repeatability</b>	± 0.02 mm	± 0.02 mm	± 0.02 mm	± 0.02 mm	± 0.02 mm

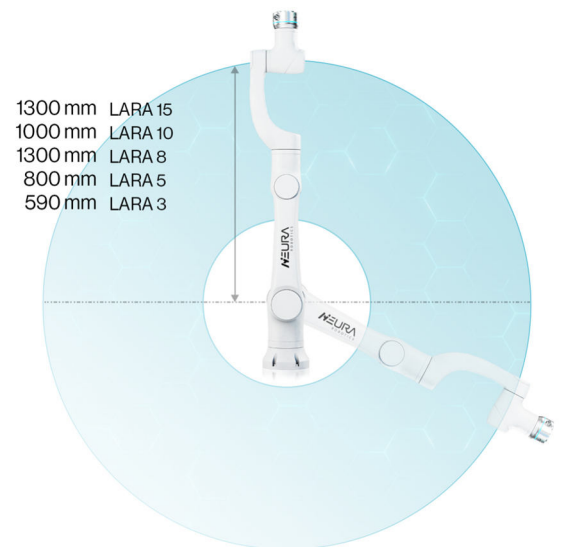
## Movement

Axis	Working angles	Maximum speed	
		LARA 3/5	LARA 8/10/15
A1	± 360°	200°/s	140°/s
A2	± 135°	200°/s	140°/s
A3	± 155°	200°/s	200°/s
A4	± 360°	200°/s	200°/s
A5	± 180°	220°/s	220°/s
A6	± 360°	220°/s	220°/s

## TCP Connector Flange

Hole pattern	DIN ISO 9409-1-50-4-M6
GPIO	3x digital in, 3x digital out, 2x analog in
I/O port	M12 12-pin-A-M / IEC 61076-2-101
I/O power supply	24V 600mA
Electrical interfaces	GPIO, Modbus RTU, 24V PSU
Control functions	2 programmable buttons on TCP

## Robot reach



## Software & Controller

Motion controller	Real-Time NR-Motion Master
Software interfaces	Robot API
Safety architecture	Safe Master
Safety features	Safe position, speed, torque, limits

## Programming features

Smart GUI	NR easy programming interface
Fast programming	Programmable buttons on TCP, ZeroG, path recording
Human-robot-interaction	GUI, force-feedback, LED indicator on TCP



**Control box**

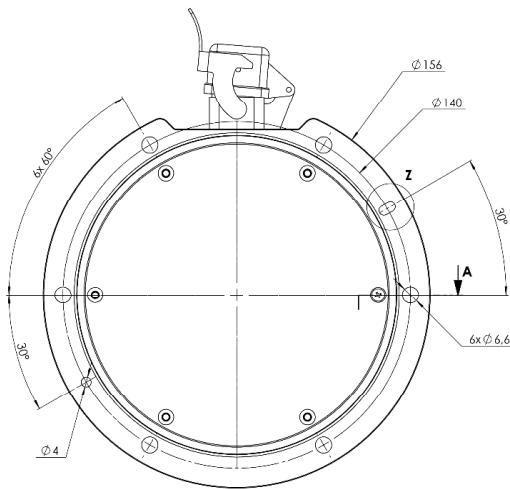
<b>Dimensions</b>	450 mm x 380 mm x 210 mm 17.7 in x 15 in x 8.3 in
<b>Weight</b>	25 kg / 55.1 lbs
<b>Power supply</b>	100-240 VAC, 50/60 Hz, 1,5 kW
<b>Interfaces</b>	TCP/IP, GPIO, Modbus TCP, USB 3.0



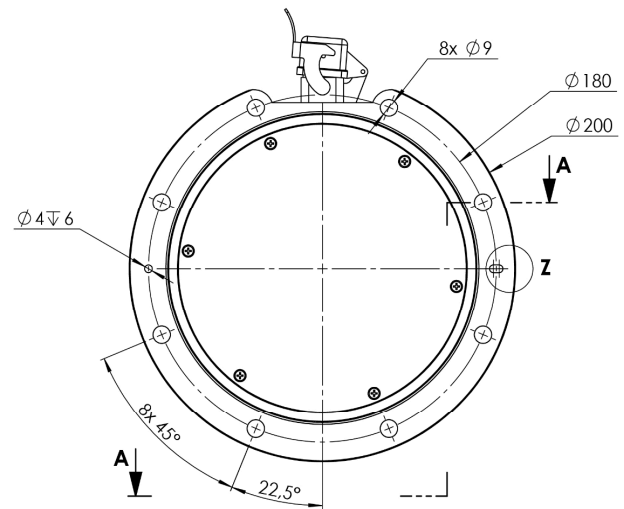
**Tech pendant**

<b>Dimensions</b>	285 mm x 228 mm x 95 mm 11.2 in x 9 in x 3.7 in
<b>Resolution</b>	2560x1600
<b>Cable length</b>	5 m / 197 in

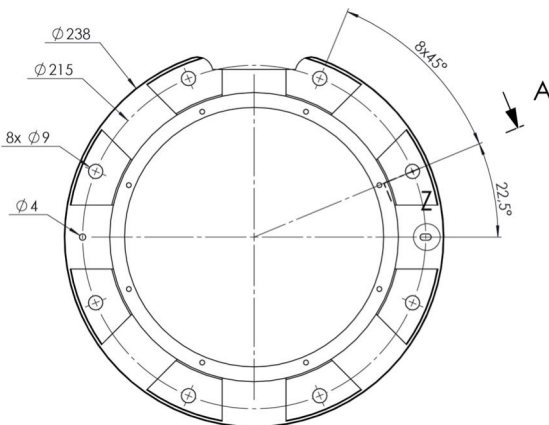
**Hole pattern of robot base LARA 3/5**



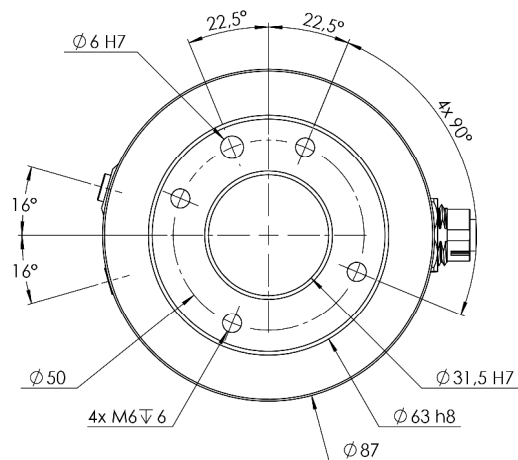
**Hole pattern of robot base LARA 8/10**



**Hole pattern of robot base LARA 15**



**Hole pattern of TCP flange**



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