

Only valid for version 2 models (from October 2023) – please refer to our separate data sheet for version 1 models.



# CL Series

## Data Sheet

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

The Kawasaki Robotics CL Series consists of four six-degree-of-freedom collaborative robots that combine the agility of lightweight design with industrial performance. With unmatched speed, precision and protection, the CL Series bridges the gap between the world of collaborative and industrial robots. This way, it allows you to automate any production process in a cost-efficient way. Its intuitive user interface enables anyone to create programs for any CL Series robot, easily automating simple and repetitive tasks in any production environment.

General Specs	CL103N	CL105N	CL108N	CL110N
<b>Payload</b>	3 kg	5 kg	8 kg	10 kg
<b>Reach</b>	590 mm	800 mm	1300 mm	1000 mm
<b>Degrees of Freedom</b>	6 rotary joints	6 rotary joints	6 rotary joints	6 rotary joints
<b>Weight</b>	17 kg	26 kg	48 kg	42 kg
<b>Robot mounting</b>	Any orientation	Any orientation	Any orientation	Any orientation
<b>IP classification</b>	IP66	IP66	IP66	IP66
<b>Ambient working temperature</b>	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
<b>Footprint base</b>	Ø 156 mm	Ø 156 mm	Ø 200 mm	Ø 200 mm
<b>Tool connector type</b>	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
<b>Tgt. perf. level</b>	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

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## Movement

Axis	Working Angles	Maximum Speed	
		All Models	CL103N/105N
A1	± 180°	170°/s	130°/s
A2	± 135°	170°/s	130°/s
A3	± 150°	180°/s	150°/s
A4	± 180°	180°/s	150°/s
A5	± 180°	200°/s	180°/s
A6	± 360° (opt.)	200°/s	180°/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

CL103N:	590 mm
CL105N:	800 mm
CL108N:	1300 mm
CL110N:	1000 mm



## 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

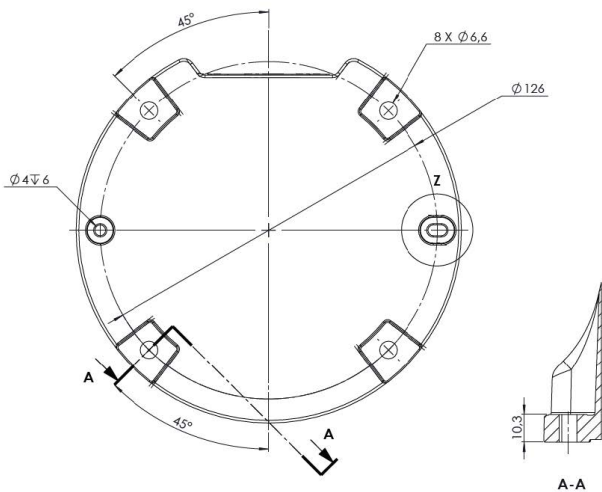
## Controller

Dimensions	536 mm x 470 mm x 243 mm 21.1 in x 18.5 in x 9.6 in
Weight	25 kg / 55.1 lbs
Power supply	100-240 VAC, 50/60 Hz, 1.5 kW
Interfaces	TCP/IP, GPIO, Modbus TCP, USB 3.0

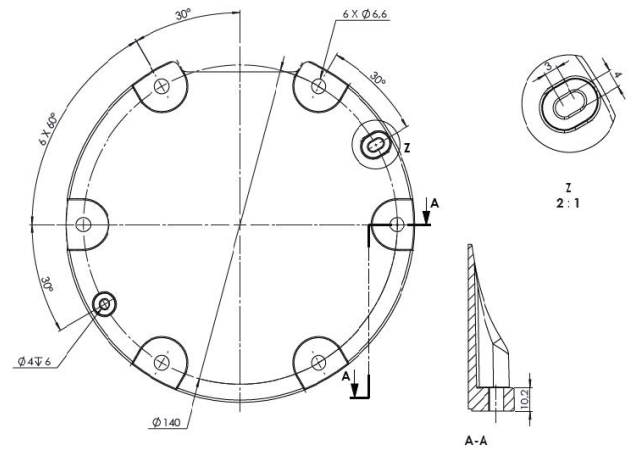
## Teach Pendant

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

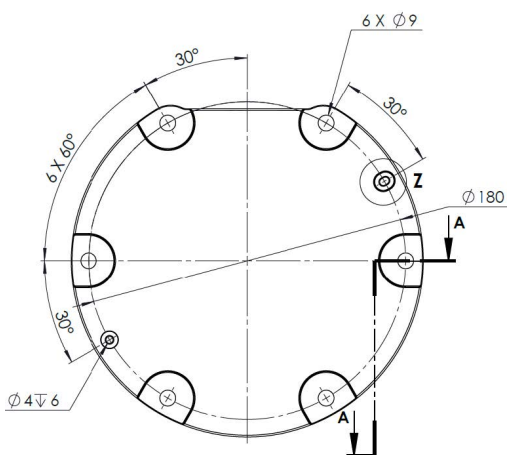
## Hole Pattern of CL103N



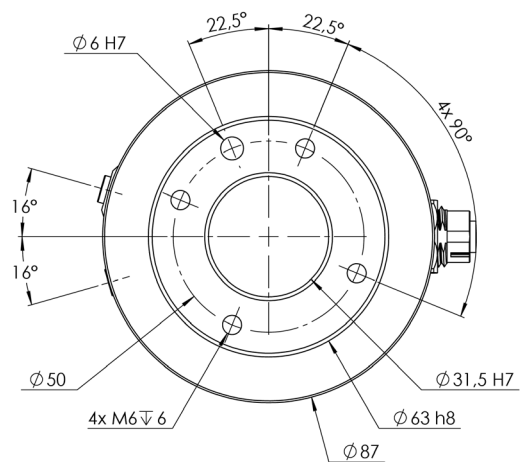
## Hole Pattern of CL105N



## Hole Pattern of CL108N/110N



## Hole Pattern of TCP Flange



**Note:**

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