



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

Movement

Axis	Working Angles	Maximum Speed	
		CL103N/105N	CL108N/110N
	All Models		
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

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

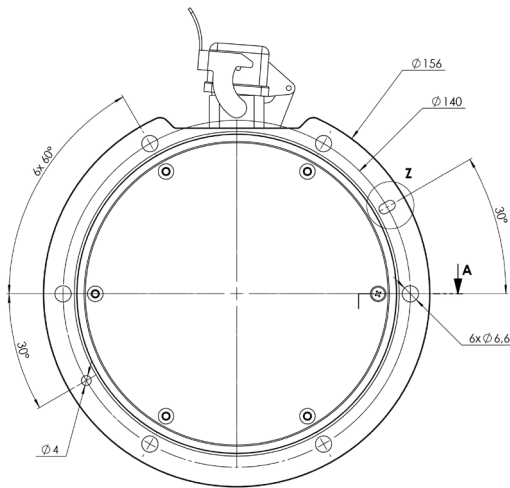
Controller

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

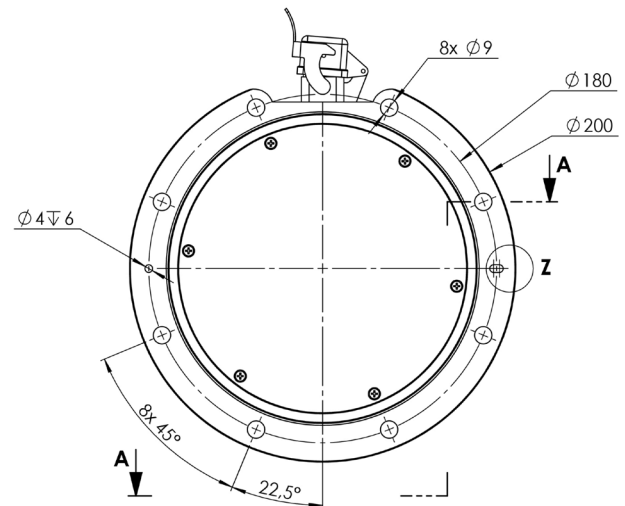
Teach Pendant

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

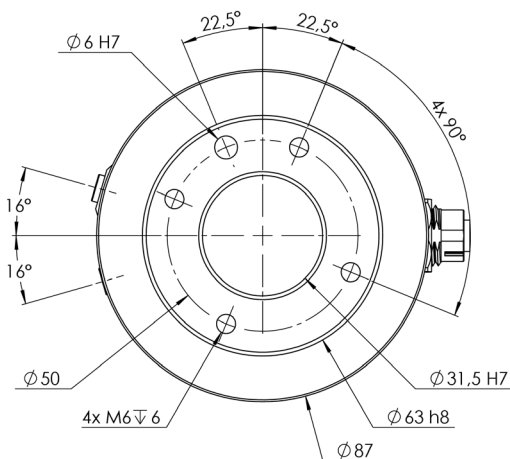
Hole Pattern of Robot Base CL103N/105N



Hole Pattern of Robot Base CL108N/110N



Hole Pattern of TCP Flange



Note:

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