

Kawasaki Robot Lineup



Our Product Philosophy is “Simple and friendly”

With more than 50 years experience in industrial robotics, we have consolidated our "state-of-the-art" technologies into productivity enhancing flexible automation solutions that are simple and friendly. Our product lineup offers comprehensive functionality with operational ease of use.

Kawasaki began the manufacture and sales of industrial robots in 1969. Since that time, we have consistently produced high quality, cost effective industrial robots featuring state-of-the-art technology for both the domestic and overseas markets.

Our broad product portfolio services a wide range of applications across diverse industries; from the assembly of miniature components weighing only a few grams, to the material handling of castings weighing 1.500 kg. For optimum control of the manipulator, our high-performance lineup is supported by our continuous development of control technology to improve function and operation.

Our human and environmentally friendly robot systems provide a high level of skill and intelligence. We hope that you will benefit from our technology and experience in your future automation projects to increase production, lower costs and improve quality.



■ Small-to-medium payload robots R series
■ Medium payload robots CX series
■ Medium payload robots Z series
■ Extra large payload robots M series
■ Spot welding robots B series
■ Arc welding robots RA/BA series



■ Painting robots Explosion-proof K series
■ Palletizing robots RD/CP/MD/ZD
■ Dual-arm SCARA Robot duAro
■ Pick & Place robots Y series
■ Clean robots NT/NTS series
■ Medical & pharmaceutical robots MS/MC series

Small-to-medium payload robots up to 80 kg

R series

Setting the benchmark in its class – higher speed and longer reach in a compact design.



RS020N

		RS003N	RS005N/005L	RS007N/007L	RS006L/010N	RS015X	RS010L/020N	RS030N/050N/080N
Application		●●●●●●●		●●●●●●●●●●		●●●●●●●	●●●●●●●●●●	●●●●●●●
Degree of freedom (axes)		6						
Max. payload (kg)		3	5	7	6/10	15	10/20	30/50/80
Max. reach (mm)		620	705/903	730/930	1.650/1.450	3.150	1.925/1.725	2.100
Repeatability *1 (mm)		±0,02	±0,02/±0,03	±0,02/±0,03	±0,03	±0,06	±0,05/±0,04	±0,06
Motion range (°)	Arm rotation (JT1)	±160	±180	±180	±180	±180	±180	±180
	Arm out-in (JT2)	+150 - -60	+135 - -80	±135	+145 - -105	+140 - -105	+155 - -105	+140 - -105
	Arm up-down (JT3)	+120 - -150	+118 - -172	±155/±157	+150 - -163	+135 - -155	+150 - -163	+135 - -155
	Wrist swivel (JT4)	±360	±360	±200	±270	±360	±270	±360
	Wrist bend (JT5)	±135	±145	±125	±145	±145	±145	±145
	Wrist twist (JT6)	±360	±360	±360	±360	±360	±360	±360
Max. speed (°/s)	Arm rotation (JT1)	360	360/300	470/370	250	180	190	180
	Arm out-in (JT2)	250	360/300	380/310	250	180	205	180
	Arm up-down (JT3)	225	410/300	520/410	215	200	210	185/185/160
	Wrist swivel (JT4)	540	460	550	365	410	400	260/260/185
	Wrist bend (JT5)	225	460	550	380	360	360	260/260/165
	Wrist twist (JT6)	540	740	1.000	700	610	610	360/360/280
Mass (kg)		20	34/37	35/36	150	545	230	555
Installation		Floor, Ceiling, Optional: Wall						
Controller		F60			E01/F60	E02	E01	E02

*1: conforms to ISO9283
Application: ● Assembly ● Dispensing ● Machine tending ● Material handling ● Material removal ● Palletizing ● Arc welding

Medium payload robots up to 210 kg

CX series

Kawasaki's latest technology delivers increased robot motion speed and installation flexibility.



CX210L

		CX110L	CX165L	CX210L
Application			●●●●	
Degree of freedom (axes)		6		
Max. payload (kg)		110	165	210
Max. reach (mm)		2.699	2.699	2.699
Repeatability *1 (mm)		±0,06	±0,06	±0,06
Motion range (°)	Arm rotation (JT1)	±160	±160	±160
	Arm out-in (JT2)	+80 - -60	+80 - -60	+80 - -60
	Arm up-down (JT3)	+95 - -75	+95 - -75	+95 - -75
	Wrist swivel (JT4)	±210	±210	±210
	Wrist bend (JT5)	±120	±120	±120
	Wrist twist (JT6)	±360	±360	±360
Max. speed (°/s)	Arm rotation (JT1)	140	130	125
	Arm out-in (JT2)	135	125	115
	Arm up-down (JT3)	135	125	115
	Wrist swivel (JT4)	200	180	155
	Wrist bend (JT5)	200	180	160
	Wrist twist (JT6)	300	280	220
Mass (kg)		870	870	870
Installation		Floor		
Controller		E02		

*1: conforms to ISO9283
Application: ● Assembly ● Material handling ● Palletizing ● Spot welding












Medium payload robots up to 300 kg

Z series

Robust low-maintenance design with wide work envelope provides application flexibility.



ZX165U

		ZX130S/130L/165U/200S/300S	ZH100U	ZT130S/165U/200S	ZT130Y/165X/165Y
Application		   	  	   	
Degree of freedom (axes)		6			
Max. payload (kg)		130/130/165/200/300	100	130/165/200	130/165/165
Max. reach (mm)		2.651/2.951/2.651/2.651/2.501	1.634	3.230	3.130/2.830/3.130
Repeatability *1 (mm)		±0,3	±0,3	±0,3	±0,3
Motion range (°)	Arm rotation (JT1)	±180	±160	±180	±180
	Arm out-in (JT2)	+75 - -60	+120 - -60	+60 - -75	+50 - -120
	Arm up-down (JT3)	+250 - -120	+75 - -90	+165 - -95	+150 - -65
	Wrist swivel (JT4)	±360	±360	±360	±360
	Wrist bend (JT5)	±130/±130/±130/±130/±130	±130	±130/±130/±120	±130
	Wrist twist (JT6)	±360	±360	±360	±360
Max. speed (°/s)	Arm rotation (JT1)	130/110/110/105/100	140	130/105/100	120/120/105
	Arm out-in (JT2)	130/110/110/110/85	100	130/105/100	110/110/105
	Arm up-down (JT3)	130/110/115/105/85	100	130/105/90	115/115/100
	Wrist swivel (JT4)	180/140/140/120/90	150	180/135/120	160/140/140
	Wrist bend (JT5)	180/135/155/120/90	150	180/135/115	180/155/155
	Wrist twist (JT6)	280/230/260/200/150	250	280/210/180	280/260/260
Mass (kg)		1.350/1.400/1.350/1.400/1.400	750	1.550/1.550/1.600	1.665/1.650/1.665
Installation		Floor		Shelf	
Controller		E02			

*1: conforms to ISO9283
Application: ● Assembly ● Material handling ● Palletizing ● Spot welding

Extra large payload robots up to 1.500 kg

M series

Achieves high wrist torque and payload capacity without any counterweights for a wide motion range and compact footprint.



MG15HL

		MX350L	MX420L	MX500N	MX700N	MT400N	MG10HL	MG15HL
Application		●●						
Degree of freedom (axes)		6						
Max. payload (kg)		350	420	500	700	400	1.000	1.500
Max. reach (mm)		3.018	2.778	2.540	2.540	3.503	4.005	4.005
Repeatability *1 (mm)		±0,5	±0,5	±0,5	±0,5	±0,5	±0,1	±0,1
Motion range (°)	Arm rotation (JT1)	±180	±180	±180	±180	±180	±150	±150
	Arm out-in (JT2)	+90 - -45	+90 - -45	+90 - -45	+90 - -45	+15 - -135	+90 - -40	+90 - -40
	Arm up-down (JT3)	+20 - -115	+20 - -125	+20 - -130	+20 - -130	+106 - -30	+30 - -110	+30*2 - -110
	Wrist swivel (JT4)	±360	±360	±360	±360	±360	±360	±360
	Wrist bend (JT5)	±110	±110	±110	±110	±120	±120	±120
	Wrist twist (JT6)	±360	±360	±360	±360	±360	±360	±360
Max. speed (°/s)	Arm rotation (JT1)	80	80	80	65	80	65	65
	Arm out-in (JT2)	70	70	70	50	70	33.5	33.5
	Arm up-down (JT3)	70	70	70	45	70	37.5	37.5
	Wrist swivel (JT4)	80	80	80	50	70	65	36
	Wrist bend (JT5)	80	80	80	50	70	65	36
	Wrist twist (JT6)	120	120	120	95	130	80	80
Mass (kg)		2.800	2.800	2.750	2.860	2.600	6.500	6.550
Installation		Floor				Shelf	Floor	
Controller		E04				E02	E58	

*1: conforms to ISO9283 *2: depends on payload
Application: ● Machine tending ● Material handling

Spot welding robots

B series

High speed spot welding with greater spot control. Space saving design supports “high density” applications.



BX200L

		BX100S	BX100N	BX100L/165L/200L	BX130X/BX200X	BX165N	BX250L/300L	BT165L/BT200L
Application		●						
Degree of freedom (axes)		6						
Max. payload (kg)		100	100	100/165/200	130/200	165	250/300	165/200
Max. reach (mm)		1.634	2.200	2.597	2.991/3.412	2.325	2.812	3.151
Repeatability *1 (mm)		±0,06	±0,06	±0,06	±0,06/±0,07	±0,06	±0,07	±0,08
Motion range (°)	Arm rotation (JT1)	±160	±160	±160	±160/±180	±160	±180	±160
	Arm out-in (JT2)	+120 - -65	+120 - -65	+76 - -60	+76 - -60	+76 - -60	+76 - -60	+80 - -130
	Arm up-down (JT3)	+90 - -81	+90 - -77	+90 - -75	+90 - -75/+90 - -110	+90 - -75	+90 - -120	+90 - -75
	Wrist swivel (JT4)	±210	±210	±210	±210	±210	±210	±210
	Wrist bend (JT5)	±125	±125	±125	±125	±125	±125	±125
	Wrist twist (JT6)	±210	±210	±210	±210	±210	±210	±210
Max. speed (°/s)	Arm rotation (JT1)	135	135	105/120/105	105/125	105	125	120/105
	Arm out-in (JT2)	125	110	130/110/90	90/102	130	120/102	110/85
	Arm up-down (JT3)	155	140	130/130/100	130/85	130	100/85	130/100
	Wrist swivel (JT4)	200	200	200/170/120	200/105	120	140/105	170/120
	Wrist bend (JT5)	160	200	160/170/120	160/120	160	140/110	170/120
	Wrist twist (JT6)	300	300	300/280/200	300/200	300	200/180	280/200
Mass (kg)		720	740	890	920/1.450	875	1.460	1.100
Installation		Floor						Shelf
Controller		E02						

*1: conforms to ISO9283
Application: ● Spot welding

Arc welding robots

BA/RA series

Kawasaki robots use the latest arc welding technology to rival the quality of a skilled human welder.



BA006N

		BA006N	BA006L	RA005L	RA006L	RA010N	RA010L	RA020N
Application		●						
Degree of freedom (axes)		6						
Max. payload (kg)		6	6	5	6	10	10	20
Max. reach (mm)		1.445	2.036	903	1.650	1.450	1.925	1.725
Repeatability *1 (mm)		±0,06	±0,08	±0,03	±0,03	±0,03	±0,05	±0,04
Motion range (°)	Arm rotation (JT1)	±165	±165	±180	±180	±180	±180	±180
	Arm out-in (JT2)	+150 - -90	+150 - -90	+135 - -80	+145 - -105	+145 - -105	+155 - -105	+155 - -105
	Arm up-down (JT3)	+90 - -175	+90 - -175	+118 - -172	+150 - -163	+150 - -163	+150 - -163	+150 - -163
	Wrist swivel (JT4)	±180	±180	±360	±270	±270	±270	±270
	Wrist bend (JT5)	±135	±135	±145	±145	±145	±145	±145
	Wrist twist (JT6)	±360	±360	±360	±360	±360	±360	±360
Max. speed (°/s)	Arm rotation (JT1)	240	210	300	250	250	190	190
	Arm out-in (JT2)	240	210	300	250	250	205	205
	Arm up-down (JT3)	220	220	300	215	215	210	210
	Wrist swivel (JT4)	430	430	460	365	365	400	400
	Wrist bend (JT5)	430	430	460	380	380	360	360
	Wrist twist (JT6)	650	650	740	700	700	610	610
Mass (kg)		150	160	37	150	150	230	230
Installation		Floor, Ceiling						
Controller		E01/F60		F60	E01/F60		E01	

*1: conforms to ISO9283
Application: ● Arc welding

Painting robots

K series

The optimum wrist configuration and model can be selected according to the workpiece.
Servo controlled part positioning equipment available (explosion proof).



KJ264

		KF121	KF192/193/194	KF262/263/264	KJ194/244/264	KJ314
Application		●				
Degree of freedom (axes)		6				6/7
Max. payload (kg)		5	Wrist : 12 Upper Arm : 20	Wrist : 12 Upper Arm : 20	Wrist : 15 Upper Arm : 25	Wrist : 15 Upper Arm : 25
Max. reach (mm)		1.240	1.973/1.973/1.978	2.665/2.665/2.668	1.940/2.490/2.640	3.100
Repeatability *1 (mm)		±0,2	±0,5	±0,5	±0,5	±0,5
Motion range (°)	Arm rotation (JT1)	±160	±150	±150*2	±120*2	±120
	Arm out-in (JT2)	±90	+110 - -60	+110 - -60	+130 - -80	+130 - -80
	Arm up-down (JT3)	±150	+90 - -80	+90 - -80	+90 - -65	+90 - -65
	Wrist (JT4)	±270	±360/±720/±720	±360/±720/±720	±720	±720
	Wrist (JT5)	±145	±360/±720/±720	±360/±720/±720	±720	±720
	Wrist (JT6)	±360	±360/±410/±410	±360/±410/±410	±410	±410
	Arm (JT7)	-	-	-	-	±90
Wrist type		RBR	BBR/3Rø40/3Rø70	BBR/3Rø40/3Rø70	3Rø70	3Rø70
Mass (kg)		140	690/720/750	720/740/770	530/540	720
Explosion protection		Combination of pressurized type and intrinsically safety type (II 2G Ex pxb ib II BT4)				
Installation		Floor, Wall			Floor, Shelf, Wall	Wall
Controller		E47	E45			

*1: conforms to ISO9283 *2: wall left side: +120-30, wall right side: +30-120
Application: ● Painting

Palletizing robots

Kawasaki's high-speed palletizing robots meet the demands for flexibility on reduced energy consumption.



CP700L

		RD080N	ZD130S	ZD250S	CP180L	CP300L	CP500L	CP700L
Application		●						
Degree of freedom (axes)		5	4					
Max. payload (kg)		80	130	250	180	300	500	700
Max. reach (mm)		2.100	3.255	3.255	3.255	3.255	3.255	3.255
Repeatability *2 (mm)		±0,06	±0,5	±0,5	±0,5	±0,5	±0,5	±0,5
Motion range (°)	Arm rotation (JT1)	±180	±180	±180	±160	±160	±160	±160
	Arm out-in (JT2)	+140 - -105	+90 - -50	+90 - -50	+95 - -46	+95 - -46	+95 - -46	+95 - -46
	Arm up-down (JT3)	+40 - -205	+15 - -120	+15 - -120	+15 - -110	+15 - -110	+15 - -110	+15 - -110
	Wrist swivel (JT4)	±360	±360	±360	±360	±360	±360	±360
	Wrist compensation (JT5)	±10 *3	N/A	N/A	N/A	N/A	N/A	N/A
Max. speed (°/s)	Arm rotation (JT1)	180	135	95	140 *4/130	115 *5/100	85	75
	Arm out-in (JT2)	180	110	90	125 *4/120	100 *5/90	80	65
	Arm up-down (JT3)	175	130	95	130 *4/125	100 *5/90	80	65
	Wrist swivel (JT4)	360	400	190	400 *4/330	250 *5/220	180	170
Working area (mm)	Width	1.100	1.800	1.800	1.800	1.800	1.800	1.800
	Depth	1.100	1.600	1.600	1.600	1.600	1.600	1.600
	Height	2.062	2.200	2.200	2.200	2.200	2.200	2.200
Palletizing capacity *1(cycle/hour)		900	1.500	1.400	2.050 *4/1.800	1.700 *5/1.500	1.000	900
Mass (kg)		540	1.350	1.350	1.600	1.600	1.650	1.650
Controller		E03	E43		E03			

*1: Motion pattern (400mm up, 2,000mm horizontal, 400mm down in a to-and-fro motion) *2: conforms to ISO9283 *3: operating angle of the JT5 is ±10 degrees perpendicular to the ground. *4: in case of 130 kg payload and less *5: in case of 250 kg payload and less
Application: ● Palletizing

Dual-arm SCARA Robot

duAro

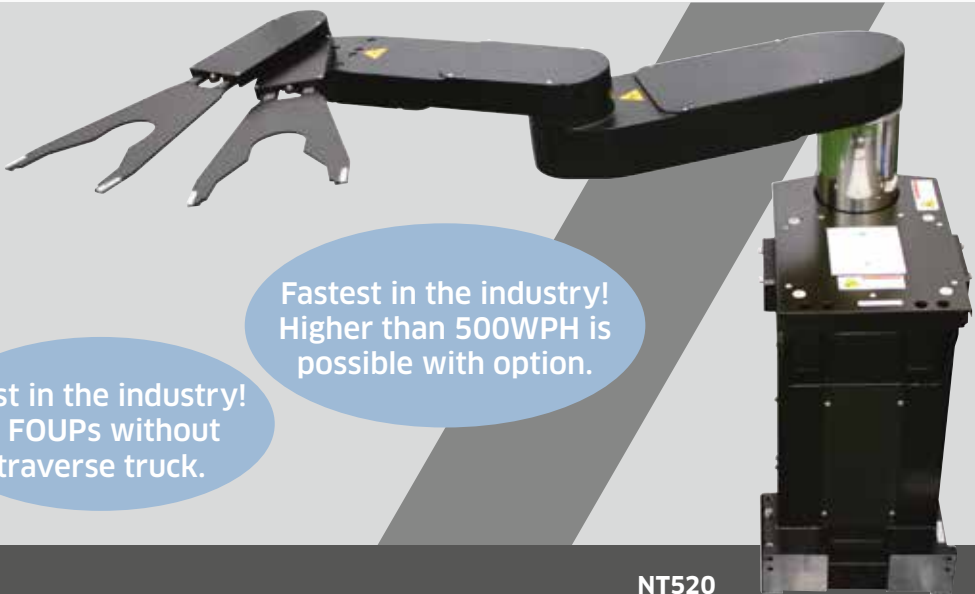
The duAro can fit into a single-person space. The coaxial dual-arm configuration makes coordinated movements possible.



DuAro 1

duAro 1/duAro 2			
Application		● ● ● ●	
Degree of freedom (axes)		4 × (each arm)	
Vertical stroke		150 mm	550 mm
Max. payload (kg)		2 (each arm)	3 (each arm)
Repeatability (mm)		±0,05	
Motion range (°)	Arm 1 (lower arm)		Arm 2 (upper arm)
	Arm rotation (JT1)		-170 - +170
	Arm rotation (JT2)		-140 - +500
	Arm up-down (mm)(JT3)		0 - +550*1
Wrist swivel (JT4)	-360 - +360*1		-360 - +360*1
Mass (kg)		210 (integrated type), 100 (arm unit of separated type)	
Installation		Floor	
Controller		F61	

*1: Specification varies in case of other options or conversion
Application: ● Assembly ● Material handling ● Machine tending ● Dispensing



NT520

First in the industry!
4 FOUPs without
traverse truck.

Fastest in the industry!
Higher than 500WPH is
possible with option.

Pick & Place robots

Y series

Ultra high-speed picking robot with renowned Kawasaki product quality and reliability.



YF003N

		YF002N	YF003N
Application		● ●	
Type		Parallel link type	
Max. payload (kg)		2	3
Degree of freedom (axes)	Standard	4	
	Option	-	5
Motion range (mm)		ø600 × H200*3	ø1.300 × H500*4
Cycle time *1 (Payload)		0,3 s (0,5 kg) 0,36 s (2 kg)	0,27 s (1 kg) 0,45 s (3 kg)
Positional repeatability *2 (mm)		± 0,04	± 0,1
Angular repeatability (°)		± 0,1	
Mass (kg)		60	145
Installation		Ceiling	
Environmental condition	Ambient Temperature (°C)	10 - 40	0 - 45
	Relative Humidity (%)	35 - 85 (No dew, nor frost allowed)	
Degree of protection	Standard	IP 65	
	Option	-	IP 67
Controller		E91	

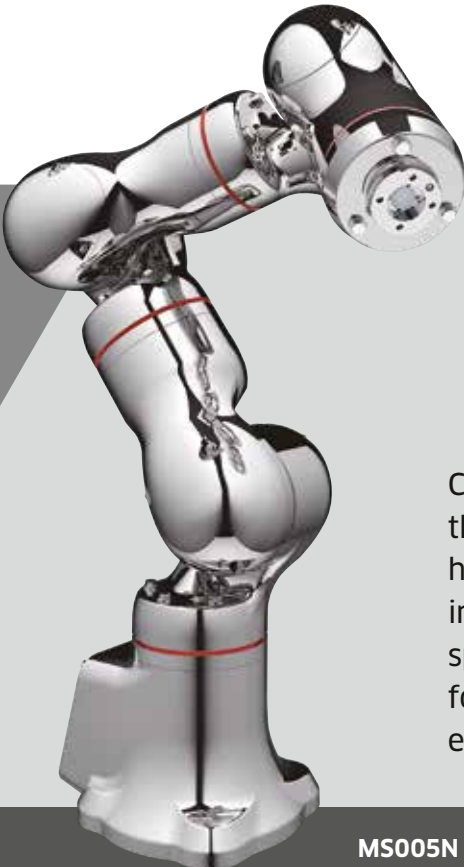
*1: Motion pattern (25mm up, 305mm horizontal, 25mm down in a to-and-fro motion)
*2: conforms to ISO9283
*3: Motion range is changing at H=150
*4 Motion range is changing at H=300
Application: ● Assembly ● Material handling

Medical & Pharmaceutical robots

MC004N
MS005N
MC004V

		MC004N/004V	MS005N
Degree of freedom (axes)		6	7
Max. payload (kg)		4	5
Max. reach (mm)		505,8	660
Repeatability *1 (mm)		±0,05	±0,1
Motion range (°)	Arm rotation (JT1)	±180	±180
	Arm out-in (JT2)	+135 - -95	+135 - -90
	Arm up-down (JT3)	+60 - -155	±120
	Wrist swivel (JT4)	±270	±180
	Wrist bend (JT5)	±120	±115
	Wrist twist (JT6)	±270	±180
	Arm rotation (JT7)	-	±180
Max. speed (°/s)	Arm rotation (JT1)	200	130
	Arm out-in (JT2)	180	130
	Arm up-down (JT3)	225	215
	Wrist swivel (JT4)	700	300
	Wrist bend (JT5)	500	300
	Wrist twist (JT6)	350	480
	Arm rotation (JT7)	-	215
Mass (kg)		25	50
Installation		Floor, ceiling	Floor
Controller		F60	

*1: conforms to ISO9283



MS005N

Clean robots
that meet the
healthcare
industry's
specifications
for processing
equipment.

Kawasaki Robotics Options: Individual Additions for Your Robots

Safety Modules, Software Solutions, External Axes and more: Kawasaki Robotics offers an extensive range of application-specific options for our robots and controllers – allowing you to precisely adapt each Kawasaki robot to your individual needs and to maximize its performance.

Selection of Hardware Options

Cubic-S

The Kawasaki Robotics Cubic-S safety module enables you to individually define and precisely limit the available working space. With Cubic-S, extremely space-saving application cells are easily possible. The robot is not able to exceed the given work area limits at any time. This ensures the safety of employees and the system itself at all times – without additional, expensive safety technology.

Cubic-S offers a total of eight individual functions, including Motion Area Monitoring Function, Axis Monitoring Function, Speed Monitoring Function and Emergency Stop Function. It is compatible with light barriers of many kinds and provides a multitude of inputs and interfaces.



Bus-Modules

A variety of bus-modules for Kawasaki Robotics controllers allow for maximum adaptability and fast communication between controllers and sensors/actuators of all types. The available bus-modules are:

DeviceNet (Slave/Master), PROFIBUS (Slave/Master), Interbus (Slave), EtherNet/IP (Slave/Master), Modbus-TCP – Server (Slave), CANopen (Slave), PROFINET IO (Slave/Master), ControlNet (Slave), EtherCAT (Slave) and CC-Link (Slave).



Conveyor Tracking

This optional module allows the tracking of up to four external conveyor belts in linear or circular shape and the immediate calculation into the robot movement – the position of each conveyor belt is not relevant. Up to 16 robots can be operated on a single conveyor.



Arm-ID Board

The Arm-ID Board comes with an IO interface board and provides additional in- and outputs. These IOs are located on the Robot Arm and can be used to control grippers or any other peripheral devices.





Additional Input/Output Boards

Available:

- Analog Input Board (E-Controller)
- Analog Output Board, PNP, with 32 additional Digital IOs
- Analog Output Board, NPN, with 32 additional Digital IOs
- Analog In- and Output Board (F-Controller)
- Additional Digital IO Board with 32 Digital IOs, NPN (E-Controller)
- Additional Digital IO Board with 32 Digital IOs, PNP (E-Controller)
- Additional Digital IO Board with 32 Digital IOs, PNP & NPN (F-Controller)

External Axis

The system can be extended through the use of external axes, such as positioners. By using an external axis, the robot system will be more efficient and flexible.

Arm Power/Signal Harness

While the standard version of the arm power and signal cables for Kawasaki robots in the EU is 10 meters, they can be exchanged at your request for 5-40 m cables – available in 5 m steps. Specialized/custom lengths are available as well.

Sensor Harness

Harnesses for setting up a signal connection of grippers to the Arm-ID Board.

Brake Release Box

The brake release box makes it possible to release the individual brakes of a robot. Brake release buttons are a standard option for all E4x controllers.

External Operator Panel

The external control panel is equipped with an Emergency Off Switch, a Teach/Repeat Switch and an optional Fast Check Switch.

Filter Option for Controller/Transformer

Additional filters can be installed to protect the inside of the controller and transformer from dust and other coarse particles in especially challenging work environments.

IP54 Option for F60 Controller

This option upgrades the F-Controller to protection class IP54. The front and back as well as the bottom of the controller unit are provided with additional elements and the controller is effectively sealed off from its environment.

Remote IO Unit, PNP & NPN

The external box provides additional inputs and outputs. The digital version offers 32 Digital IOs while the analogue version offers 4 inputs and 4 outputs. A maximum of six boxes, 4 digital and 2 analogue, can be connected to one controller. The boxes offer a variety of mounting options such as brackets on all sides or top-hat rail mounting. The unit is configurable as NPN and PNP – including 2AW or 2AH boards.

IO-Connector Harness

The IO-Connector harness allows to access the IOs of the F-Controller via a D-SUB-connector.

IO-Connector Interface Module

The IO-connector interface is a terminal block which can be connected to the IO-connector harness.

Teach Pendant Light Harness Options

It is possible to exchange the Teach Pendant Light Harness from its original 10m to a different length. Available in 5m, 15m, 20m, 25m and 30m

Cable Reel for Teach Pendant Light

To keep the workspace safe and clean, a cable reel for the Teach Pendant is available in two variants: 10 m or 15 m

Pedestal

Our space-saving, sturdy and light-weight pedestals are available for the models BX200L, BX300L, RS020N and MG15HL. Their hollow design elevates the robot, increases its effective workspace and allows for the easy storage of cables within the pedestal.

Selection of Software Options

Collision Detection

This option allows the monitoring of motor current values according to selectable thresholds. Different values can be defined for manual and automatic operation of each robot. This option can reduce the damage caused by collisions significantly.

Spin Control Function

Available for robots and external axes (such as positioners), the spin control function allows for the endless rotation of axis 6 in \pm range. It can be reset at the end of the process via command – no separate retraction of axis 6 is required.

Changing Servo System Gain

This option allows the soft switching of the control parameters of individual axes. The robot will move back to its original position as soon as the external disturbance is no longer present.

Soft Absorber

The Soft Absorber option makes the soft switching of the control parameters of individual axes possible, within individually definable limits, such as direction and path. If the external disturbance is no longer present, the robot stops at the current position.

K-IDE

K-IDE is an intuitive programming interface for Kawasaki robots, enabling the precise development of programs for numerous applications and systems. The easy to use editor, the clearly arranged project management, the automatic synchronization between software and robots and many other functions make K-IDE the perfect tool for programming.

K-Roset

K-Roset enables simple 3D simulations and offline programming of Kawasaki robots – ensuring maximum planning reliability for your automation. The tool directly accesses the kinematic models and controller software of the Kawasaki robots.

K-Logic

K-Logic is a software-based PLC (programmable logic controller) with several logical functions.

K-Ladder

Additional programming software for K-Logic. Requires an installation of K-Logic.

K-Sparc

K-Sparc is a palletizing software for Kawasaki robots – makes it possible to create individual packing patterns on pallets. Requires both K-Roset and a separate license.

K-Vision

K-Vision offers a flexible vision system for numerous applications. It enables the easy connection of cameras to Kawasaki robots for implementing position detection and inspection processes within the robot application. This way, you are able to considerably increase both effectiveness and flexibility in automation.

Open AS

Open AS provides an easy-to-use development environment for the convenient creation of user interfaces, applications and the flexible integration of sensors/signals.

Learn more about our options!

Talk to us!



Kawasaki Robotics Options: Adapt each robot to your individual needs

Color LCD teach pendant for the E and F series controllers

The teach pendant has a significantly lighter body with an optimized weight balance that reduces the burden of teaching work. The operator can now switch on the motors and activate the cycle start all from the teach pendant. In addition, new features such as the easy-to-navigate screen and switch layout allow for a more convenient control system. Two information windows can be displayed simultaneously on the monitor screen, providing access to different type of information (e.g. positional information and signal information).



The explosion-proof teach pendant features a color LCD with a large-sized touch screen that allows for teaching, editing, and monitoring of information such as current position and IO signals in the painting area. It is possible to customize the interface panel according to user preference. The back-light provides a clear view of the screen in dark locations.



Controller

Combines high performance, unprecedented reliability, a host of integrated features and simple operation all in a compact design. The enhanced CPU capacity allows for more accurate trajectory control and faster application program execution.



F-Controller



E9X-Controller



E0X-Controller

		F-Controller	E9X-Controller	E0X-Controller
Features		Smallest Controller in its class. Compact design for small arm robots. High performance, 19 inch rack compatible, electrical regeneration function and safety system Cubic-S. (Option)	Compact design for medium robot arms, Vertical or horizontal installation	Universal Controller. Available for multiple primary power supply voltages with a separate transformer unit. Electricity regeneration function for palletizing robots. (energy saving)
Drive system		Full digital servo system	Full digital servo system	Full digital servo system
Teaching method		Easy operation teaching or AS language programming	Easy operation teaching or AS language programming	Easy operation teaching or AS language programming
Teach pendant		Color LCD teach pendant	Color LCD teach pendant	Color LCD teach pendant
Memory capacity (MB)		16	8	8
I/O signals	External operation	Emergency stop, Hold etc.	Emergency stop, Hold etc.	Emergency stop, Hold etc.
	Input (Channels)	16 (max. 144)	32 (max. 96)	32 (max. 96)
	Output (Channels)	16 (max. 144)	32 (max. 96)	32 (max. 96)
Structure		Open structure with direct cooling system	Enclosed structure with indirect cooling system	Enclosed structure with indirect cooling system
Mass (kg) without options		8,3	40	40/45
Available Options				
Hardware Options				
Harness		Arm Power/Signal Harness Set, 5m steps from 5 to 40 m	Arm Power/Signal Harness Set, 5m steps from 5 to 40 m	Arm Power/Signal Harness Set, 5m steps from 5 to 40 m
Cubic-S		Hardware module to customize workspace and safety settings	Hardware module to customize workspace and safety settings	Hardware module to customize workspace and safety settings
Bus-Modules		DeviceNet (Slave/Master), PROFIBUS (Slave/Master), Interbus (Slave), EtherNet/IP (Slave/Master), Modbus-TCP – Server (Slave), CANopen (Slave), PROFINET IO (Slave/Master), ControlNet (Slave), EtherCAT (Slave) and CC-Link (Slave).	DeviceNet (Slave/Master), PROFIBUS (Slave/Master), Interbus (Slave), EtherNet/IP (Slave/Master), Modbus-TCP – Server (Slave), CANopen (Slave), PROFINET IO (Slave/Master), ControlNet (Slave), EtherCAT (Slave) and CC-Link (Slave).	DeviceNet (Slave/Master), PROFIBUS (Slave/Master), Interbus (Slave), EtherNet/IP (Slave/Master), Modbus-TCP – Server (Slave), CANopen (Slave), PROFINET IO (Slave/Master), ControlNet (Slave), EtherCAT (Slave) and CC-Link (Slave).
Conveyor Tracking		Tracking of up to four external conveyor belts and operation of up to 16 robots	Tracking of up to four external conveyor belts and operation of up to 16 robots	Tracking of up to four external conveyor belts and operation of up to 16 robots
Pedestal		Space-saving, sturdy and light-weight pedestals for BX200L, BX300L, RS020N and MG15HL	Space-saving, sturdy and light-weight pedestals for BX200L, BX300L, RS020N and MG15HL	Space-saving, sturdy and light-weight pedestals for BX200L, BX300L, RS020N and MG15HL
Arm-ID Board		Providing additional in- and outputs through an IO interface board	Providing additional in- and outputs through an IO interface board	Providing additional in- and outputs through an IO interface board
External Axis		Including all necessary equipment to operate up to 16 individual axes per controller	Including all necessary equipment to operate up to 16 individual axes per controller	Including all necessary equipment to operate up to 16 individual axes per controller
Brake Release Box		Makes it possible to release individual brakes.	Makes it possible to release individual brakes.	Makes it possible to release individual brakes.
External Operator Panel		Equipped with additional switches.	Equipped with additional switches.	Equipped with additional switches.
IP54 Option for F60		Option for upgrading the F-Controller to protection class IP54	N/A	N/A
Remote IO Unit PNP & NPN		Provides additional in- and outputs	Provides additional in- and outputs	Provides additional in- and outputs
IO-Connector Harness		Connection line between IOs and the F-Controller	N/A	N/A
IO-Connector Interface Module		Transfer module for attaching adapter cable to the IO connection of the F-Controller	N/A	N/A
Sensor Harness		Harnesses for setting up a signal connection of grippers to the Arm-ID Board	Harnesses for setting up a signal connection of grippers to the Arm-ID Board	Harnesses for setting up a signal connection of grippers to the Arm-ID Board
Teach Pendant Light Harness Options		Available options: 5/15/20/25/30 m	Available options: 5/15/20/25/30 m	Available options: 5/15/20/25/30 m
Cable Reel for Teach Pendant Light		Available options: 10/15 m	Available options: 10/15 m	Available options: 10/15 m
Additional In/Output Boards		Analogue IO Board, Digital IO Board (PNP/NPN)	Digital IO Board (PNP/NPN), Analogue Input Board, Analogue Output Board (Analogue Boards include 32 Digital IOs (NPN/PNP))	Digital IO Board (PNP/NPN), Analogue Input Board, Analogue Output Board (Analogue Boards include 32 Digital IOs (NPN/PNP))
Filter Option for Controller/Transformer		Additional filters to protect the inside of Controller	Additional filters to protect the inside of Controller	N/A
K-Vision		Flexible vision system for numerous applications	Flexible vision system for numerous applications	Flexible vision system for numerous applications
Software Options				
Collision Detection		Monitoring of motor current values according to selectable thresholds	Monitoring of motor current values according to selectable thresholds	Monitoring of motor current values according to selectable thresholds
Spin Control Function		Available for robots and external axes – allowing for the endless rotation of axis 6 in ± range	Available for robots and external axes – allowing for the endless rotation of axis 6 in ± range	Available for robots and external axes – allowing for the endless rotation of axis 6 in ± range
Changing Servo System Gain		Allows soft switching of the control parameters of individual axes	Allows soft switching of the control parameters of individual axes	Allows soft switching of the control parameters of individual axes
Soft Absorber		Supports the soft switching of the control parameters of individual axes	Supports the soft switching of the control parameters of individual axes	Supports the soft switching of the control parameters of individual axes
K-IDE		Intuitive programming interface for Kawasaki robots	Intuitive programming interface for Kawasaki robots	Intuitive programming interface for Kawasaki robots
K-ROSET		Enables simple 3D simulations and offline programming of Kawasaki robots	Enables simple 3D simulations and offline programming of Kawasaki robots	Enables simple 3D simulations and offline programming of Kawasaki robots
K-Sparc		Palletizing software for Kawasaki robots	Palletizing software for Kawasaki robots	Palletizing software for Kawasaki robots
K-Ladder		Additional programming software for K-Logic	Additional programming software for K-Logic	Additional programming software for K-Logic
Open AS		Easy-to-use development environment	Easy-to-use development environment	Easy-to-use development environment



E4X-Controller



E45/E47-Controller



E58-Controller

		E4X-Controller	E45/47-Controller	E58-Controller
Features		Controller for each region’s primary power supply voltage. High expandability and maintainability.	Controller and teach pendant explosion proofed (ATEX Spec.)	The E58 controller supports the extra large payload robots (MG series). This universal controller can cope with different voltages of the primary supply in the world.
Drive system		Full digital servo system	Full digital servo system	Full digital servo system
Teaching method		Easy operation teaching or AS language programming	Easy operation teaching or AS language programming	Easy operation teaching or AS language programming
Teach pendant		Color LCD teach pendant	Explosion-proof teach pendant, Color LCD teach pendant	Color LCD teach pendant
Memory capacity (MB)		8	8	8
I/O signals	External operation	Emergency stop, Hold etc.	Emergency stop, Hold etc.	Emergency stop, Hold etc.
	Input (Channels)	32 (max. 128)	32 (max. 128)	32 (max. 128)
	Output (Channels)	32 (max. 128)	32 (max. 128)	32 (max. 128)
Structure		Enclosed structure with indirect cooling system	Enclosed structure with indirect cooling system	Enclosed structure with indirect cooling system
Mass (kg) without options		145-195	170	215
Available Options				
Hardware Options				
Harness		Arm Power/Signal Harness Set, 5 m steps from 5 to 40 m	Arm Power/Signal Harness Set, 5 m steps from 5 to 40 m	Arm Power/Signal Harness Set, 5 m steps from 5 to 40 m
Cubic-S		Hardware module to customize workspace and safety settings	Hardware module to customize workspace and safety settings	Hardware module to customize workspace and safety settings
Bus-Modules		DeviceNet (Slave/Master), PROFIBUS (Slave/Master), Interbus (Slave), EtherNet/IP (Slave/Master), Modbus-TCP – Server (Slave), CANopen (Slave), PROFINET IO (Slave/Master), ControlNet (Slave), EtherCAT (Slave) and CC-Link (Slave).	DeviceNet (Slave/Master), PROFIBUS (Slave/Master), Interbus (Slave), EtherNet/IP (Slave/Master), Modbus-TCP – Server (Slave), CANopen (Slave), PROFINET IO (Slave/Master), ControlNet (Slave), EtherCAT (Slave) and CC-Link (Slave).	DeviceNet (Slave/Master), PROFIBUS (Slave/Master), Interbus (Slave), EtherNet/IP (Slave/Master), Modbus-TCP – Server (Slave), CANopen (Slave), PROFINET IO (Slave/Master), ControlNet (Slave), EtherCAT (Slave) and CC-Link (Slave).
Conveyor Tracking		Tracking of up to four external conveyor belts and operation of up to 16 robots	Tracking of up to four external conveyor belts and operation of up to 16 robots	Tracking of up to four external conveyor belts and operation of up to 16 robots
Pedestal		Space-saving, sturdy and light-weight pedestals for BX200L, BX300L, RS020N and MG15HL	Space-saving, sturdy and light-weight pedestals for BX200L, BX300L, RS020N and MG15HL	Space-saving, sturdy and light-weight pedestals for BX200L, BX300L, RS020N and MG15HL
Arm-ID Board		Providing additional in- and outputs through an IO interface board	Providing additional in- and outputs through an IO interface board	Providing additional in- and outputs through an IO interface board
External Axis		Including all necessary equipment to operate up to 16 individual axes per controller	Including all necessary equipment to operate up to 16 individual axes per controller	Including all necessary equipment to operate up to 16 individual axes per controller
Brake Release Box		N/A	N/A	Making it possible to release the individual brakes of a robot
External Operator Panel		N/A	N/A	Equipped with an Emergency Off Switch, a Teach/Repeat Switch and an optional Fast Check Switch
IP54 Option for F60		N/A	N/A	N/A
Remote IO Unit PNP & NPN		N/A	N/A	N/A
IO-Connector Harness		N/A	N/A	N/A
IO-Connector Interface Module		N/A	N/A	N/A
Sensor Harness		Harnesses for setting up a signal connection of grippers to the Arm-ID Board	Harnesses for setting up a signal connection of grippers to the Arm-ID Board	Harnesses for setting up a signal connection of grippers to the Arm-ID Board
Teach Pendant Light Harness Options		Available options: 5/15/20/25/30 m	Available options: 5/15/20/25/30 m	Available options: 5/15/20/25/30 m
Cable Reel for Teach Pendant Light		Available options: 10/15 m	Available options: 10/15 m	Available options: 10/15 m
Additional In/Output Boards		Digital IO Board (PNP/NPN), Analogue Input Board, Analogue Output Board (Analogue Boards include 32 Digital IOs (NPN/PNP))	Digital IO Board (PNP/NPN), Analogue Input Board, Analogue Output Board (Analogue Boards include 32 Digital IOs (NPN/PNP))	Digital IO Board (PNP/NPN), Analogue Input Board, Analogue Output Board (Analogue Boards include 32 Digital IOs (NPN/PNP))
Filter Option for Controller/Transformer		Additional filters to protect the inside of Controller	Additional filters to protect the inside of Controller	Additional filters to protect the inside of Controller
K-Vision		Flexible vision system for numerous applications	Flexible vision system for numerous applications	Flexible vision system for numerous applications
Software Options				
Collision Detection		Monitoring of current values and encoder positions according to selectable thresholds	Monitoring of current values and encoder positions according to selectable thresholds	Monitoring of current values and encoder positions according to selectable thresholds
Spin Control Function		Available for robots and external axes – allowing for the endless rotation of axis 6 in ± range	Available for robots and external axes – allowing for the endless rotation of axis 6 in ± range	Available for robots and external axes – allowing for the endless rotation of axis 6 in ± range
Changing Servo System Gain		Allows soft switching of the control parameters of individual axes	Allows soft switching of the control parameters of individual axes	Allows soft switching of the control parameters of individual axes
Soft Absorber		Supports the soft switching of the control parameters of individual axes	Supports the soft switching of the control parameters of individual axes	Supports the soft switching of the control parameters of individual axes
K-IDE		Intuitive programming interface for Kawasaki robots	Intuitive programming interface for Kawasaki robots	Intuitive programming interface for Kawasaki robots
K-ROSET		Enables simple 3D simulations and offline programming of Kawasaki robots	Enables simple 3D simulations and offline programming of Kawasaki robots	Enables simple 3D simulations and offline programming of Kawasaki robots
K-Sparc		Palletizing software for Kawasaki robots	Palletizing software for Kawasaki robots	Palletizing software for Kawasaki robots
K-Ladder		Additional programming software for K-Logic	Additional programming software for K-Logic	Additional programming software for K-Logic
Open AS		Easy-to-use development environment	Easy-to-use development environment	Easy-to-use development environment

As individual and reliable as our robots: Our Service

The Kawasaki Robotics Service Program

- To guarantee maximum availability of your robots and systems, our experts are available 24/7 - via our technical hotline and, of course, on site.
- Customers benefit from our international network, cross-industry expertise and excellent service.
- We help to avoid downtimes through fast fault analyses and predictive maintenance.



In addition to visual and functional checks, cleaning as well as grease and battery changes, we also check:

- Grease check for metal particles
- The braking power of the servo motors
- A detailed log is generated after each maintenance
- In case of malfunctions, our service technicians provide a fast analysis to keep downtimes as predictable and low as possible as well as quick and competent support in the selection of the right spare parts.



CS24 Support

Kawasaki Robotics provides numerous options for comprehensive technical support – with or without a maintenance contract.

- Our 24/7 Phone Support
- Tailor-made service for each customer – around the clock: They can always reach our trained service technicians via an individual hotline number.
- Spare parts service
- On-site support

Planning ahead:

The Kawasaki TREND Manager

The unique Kawasaki TREND Manager automatically and continuously analyses all status data of any given robot. This enables our diagnostic tool in the controller to predict inspections, signs of wear and problems at an early stage.

The advantages of the TREND Manager at a glance:

- Maximum availability of robots and systems
- Agile maintenance support
- Clear visualisation
- Local real-time recording of numerous parameters
- Improvement of service life through load testing and program optimisation
- Automatic motor current monitoring





EMEA Headquarters, Sales and Service

Kawasaki Robotics GmbH

<http://robotics.kawasaki.com>

Im Taubental 32, 41468 Neuss, Germany

Phone: +49-2131-3426-0 Fax: +49-2131-3426-22

Local Office

Kawasaki Robotics (UK) Ltd.

<http://robotics.kawasaki.com>

Unit 4 Easter Court, Europa Boulevard, Westbrook Warrington
Cheshire, WA5 7ZB, United Kingdom

Phone: +44-1925-71-3000 Fax: +44-1925-71-3001

Kawasaki Heavy Industries Russia LLC (KHI- Moscow)

<http://robotics.kawasaki.com>

Office 1206, entrance 3, 12 Krasnopresnenskaya emb.,
Moscow, Russian Federation 123610

Phone: +7-495-258-2115 Fax: +7-495-258-2116

Kawasaki Heavy Industries Middle East FZE (KHI-ME)

<http://robotics.kawasaki.com>

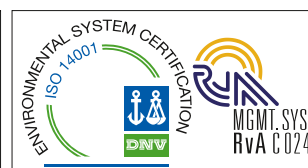
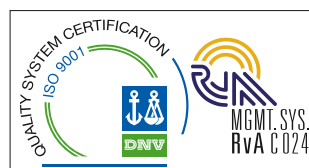
Dubai Aiport Free Zone, Bldg. W6, Block-A,
Office No. 709, PO BOX 54878, Dubai UAE

Phone: +971-(0)4-214-6730 Fax: +971-(0)4-214-6729



CAUTIONS TO BE TAKEN TO ENSURE SAFETY

- For those persons involved with the operation / service of your system, including Kawasaki Robot, they must strictly observe all safety regulations at all times. They should carefully read the Manuals and other related safety documents.
- Products described in this catalogue are general industrial robots. Therefore, if a customer wishes to use the Robot for special purposes, which might endanger operators or if the Robot has any problems, please contact us. We will be pleased to help you.
- Be careful as Photographs illustrated in this catalogue are frequently taken after removing safety fences and other safety devices stipulated in the safety regulations from the Robot operation system.



ISO certified in Akashi Works.