

Kawasaki Robot

English

Simple  friendly

Line up

FOR EUROPE



Kawasaki Robotics GmbH
Kawasaki Robotics (UK) Ltd.

Controllers

D series

D40/42/43/44

D70/D71



Simple friendly
Kawasaki Robot



Features

The controllers have an advanced range of expansion possibilities, excellent maintenance characteristics. These benefits have been achieved by simplifying connection with peripheral equipment, utilisation of replacement part 'modules' and reduced wiring and through the design of an ergonomic platform for the control and operation of the robot.

The new compact controllers combine the latest hardware and software technology to achieve the ultimate ease of use, expandability and low-maintenance design. It is compact and easy to set up, yet packed with incredible features, making it suitable for a wide range of applications.

Type of Driving

Full- Digital Servo System

Full- Digital Servo System

Teaching Method

Easy Operation Teaching or AS Language Programming

Easy Operation Teaching or AS Language Programming

Memory Capacity (Max. Memory Size)

1MB (4MB)

1MB (4MB)

I/O Signal

External Operation Signal

External Motor Power Off, External Hold

External Motor Power Off, External Hold

Input Signal (Max.)

32 Channels (128 lines)

32 Channels (96 lines)

Output Signal (Max.)

32 Channels (128 lines)

32 Channels (96 lines)

Construction

Self-standing fully- enclosed type with indirect cooling system

Self-standing fully- enclosed type with indirect cooling system

Mass

D40: 155 kg

D42: 190 kg

D43: 200 kg

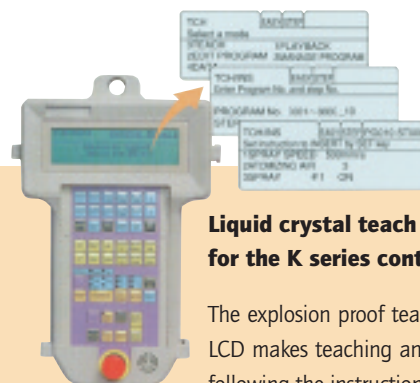
30 kg

Teach Pendant



Liquid crystal teach pendant for the D series controllers

The utilisation of this keypad along with improved hardware capabilities results in significant improvements in key response. The key arrangement, optimised for quick and simple data entry, in conjunction with a large, easy to read colour LCD touch screen provides the user with an ergonomic platform for the control and operation of the robot. Using the Simplified Operation (Block) teaching system from Kawasaki's original menu, teaching can be carried out quickly and efficiently.



Liquid crystal teach pendant for the K series controllers

The explosion proof teach pendant with a wide LCD makes teaching and programming easy by following the instructions displayed. The K series eliminates time consuming programming. For example, in flat surface painting, simply input three points, enter the spray pitch and the number of spray gun passes. Making changes is easy. You can adjust the painting data (timing of spray gun ON/OFF, gun speed, etc.) while the K series robot is in operation.



FS020N



FS030L



FS045N



FS060L

tor.
cities.

	Standard						Arc welding			
	FS020C	FS020N	FS030N	FS030L	FS045C	FS045N	FS060L	FA006N	FA006E	FA010L
	20	20	30	30	30	45	60	6	6	10
	6	6	6	6	6	6	6	6	6	6
	±0.10	±0.10	±0.15	±0.15	±0.15	±0.15	±0.15	±0.10	±0.10	±0.10
	±160°	±160°	±160°	±160°	±160°	±160°	±160°	±160°	±160°	±160°
°	+140~-105°	+140~-105°	+140~-105°	+140~-105°	+140~-105°	+140~-105°	+140~-105°	+140~-105°	+140~-105°	+140~-105°
°	+120~-155°	+120~-155°	+120~-155°	+120~-155°	+120~-155°	+120~-155°	+120~-155°	+120~-155°	+120~-155°	+120~-155°
	±270°	±270°	±270°	±270°	±270°	±270°	±270°	±270°	±270°	±270°
	±145°	±145°	±130°	±130°	±130°	±130°	±130°	±145°	±145°	±145°
	±360°	±360°	±360°	±360°	±360°	±360°	±360°	±360°	±360°	±360°
	1300	1650	1670	2100	1670	1800	2100	1000	1550	1850
	275	280	575	585	575	580	585	165	170	280
	•	•	•	•	•	•	•	•	•	•
	•	•	•	•	•	•	•	•	•	•
	•	•	•	•	•	•	•	•	•	•
	D40	D40	D42	D42	D42	D42	D42	D40	D40	D40
	•	•	•	•	•	•	•	-	-	-
	•	•	•	•	•	•	•	-	-	-
	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	•	•	•
	•	•	•	•	•	•	•	-	-	-
	•	•	•	•	•	•	•	-	-	-

High-end manipulators



FD50N



ZD130S




MD400N



MX500N

Features




1. Large work envelop with high payload capacity
2. High speed and high throughput capacity.
3. Compact arms allow easy installation in even confined spaces.

* Vertical direction

Palletizing

Model		FD50N	ZD130S	ZD250S	MD400N	
Payload	Kg	50	130	250	400	
Degree of freedom		5	4	4	5	
Repeatability	mm	±0.15	±0.50	±0.50	±0.50	
Motion range	JT1	degree (°)	±157°	±180°	±180°	±180°
	JT2	degree (°)	+140~95°	+90~-50°	+90~-50°	+90~-45°
	JT3	degree (°)	+30~-205°	+15~-120°	+15~-120°	+14~-125°
	JT4	degree (°)	±360°	±360°	±360°	±360°
	JT5	degree (°)	±10° *	-	-	±10° *
	JT6	degree (°)	-	-	-	-
Maximum reach	mm	2100	3255	3255	3142	
Mass	Kg	585	1350	1350	2650	
Mount option	Floor	•	•	•	•	
	Celling	(option)	-	-	-	
	Wall	-	-	-	-	
	Shelf	-	-	-	-	
Controller		D42	D42	D43	D44	
Application	Handling	-	-	-	-	
	Assembling	-	-	-	-	
	Spot welding	-	-	-	-	
	Arc welding	-	-	-	-	
	Palletizing	•	•	•	•	
	Sealing/dispensing	-	-	-	-	

Features





1. Compact Profile, small footprint and no counterbalance.
2. High wrist torque enables the full rated payload capacity.

Palletizing

Model		MX350L	MX420L	MX500N	
Payload	Kg	350	420	500	
Degree of freedom		6	6	6	
Repeatability	mm	±0.50	±0.50	±0.50	
Motion range	JT1	degree (°)	±180°	±180°	±180°
	JT2	degree (°)	+90~-45°	+90~-45°	+90~-45°
	JT3	degree (°)	+20~-115°	+20~-125°	+20~-130°
	JT4	degree (°)	±360°	±360°	±360°
	JT5	degree (°)	±110°	±110°	±110°
	JT6	degree (°)	±360°	±360°	±360°
Maximum reach	mm	3018	2778	2540	
Mass	Kg	2800	2800	2750	
Mount option	Floor	•	•	•	
	Celling	-	-	-	
	Wall	-	-	-	
	Shelf	-	-	-	
Controller		D44	D44	D44	
Application	Handling	•	•	•	
	Assembling	•	•	•	
	Spot welding	•	•	•	
	Arc welding	-	-	-	
	Palletizing	•	•	•	
	Sealing/dispensing	-	-	-	

K series_Painting


KF121	KE610H	Features
		<ol style="list-style-type: none"> 1. Kawasaki offers eight robot manipulators in different sizes and wrist configurations. The wide selection provides the optimum solution to the customer's individual requirements. 2. Built-in Hoses – Models KF193E/263E/264E and KE610H /610L have a hollow wrist for built-in hoses. The internal hoses minimize the chance of mist and spary sticking to piping and from dust being attracted to the workpiece. 3. Kawasaki offers enhanced peripheral units such as package cells for easy installation. These are Servo Twister, Servo Tombow, Servo Shuttle, Servo Spinner, and Servo Turn Table.

Model	Payload (Kg)	No. of axes	max. reach (mm)	Repeatability (mm)	Wrist type
KF121E FC47	5	6	1240	±0.20	RBR
KF192E FC45	12	6	1973	±0.50	BBR
KF193E FC45	12	6	1973	±0.50	3R (40mm)
KF262E FC45	12	6	2665	±0.50	BBR
KF263E FC45	12	6	2665	±0.50	3R (40mm)
KF264E FC45	12	6	2668	±0.50	3R (70mm)
KE610H FC45	15	6	2714	±1.00	3R (70mm)
KE610L FC45	15	6	3014	±1.00	3R (70mm)



Kawasaki offers a full line of painting robots. All of them are explosion-proof types with CE-Marking.

FC series_Clean Room

FC006N	Features
	<ol style="list-style-type: none"> 1. Kawasaki's FC-series clean robots are compact and enable all kinds of positions thanks to six axes. 2. Their long reach and high speed provide high productivity. 3. The customer can select the optimum arm from a wide range of models. 4. For wafer handling (not listed here), Kawasaki also has horizontal articulated arms with 3-5 degrees of freedom.

Model	Payload (Kg)	No. of axes	max. reach (mm)	Repeatability (mm)	Remarks
FC003N FD70	3	6	620	±0.05	class 10
FC006N FD71	6	6	1000	±0.05	class 10
FC010L FD40	10	6	1850	±0.10	class 10
FC020N FD40	20	6	1650	±0.10	class 100
FC030L FD42	30	6	2100	±0.15	class 100
FC045N FD42	45	6	1800	±0.15	class 100
FC060L FD42	60	6	2100	±0.15	class 100



Kawasaki is also a leading manufacturer for clean robots. Only articulated, 6-axis clean robots are listed here. Kawasaki also has wafer-handling robots (class 1 & 2). Please contact us.



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.



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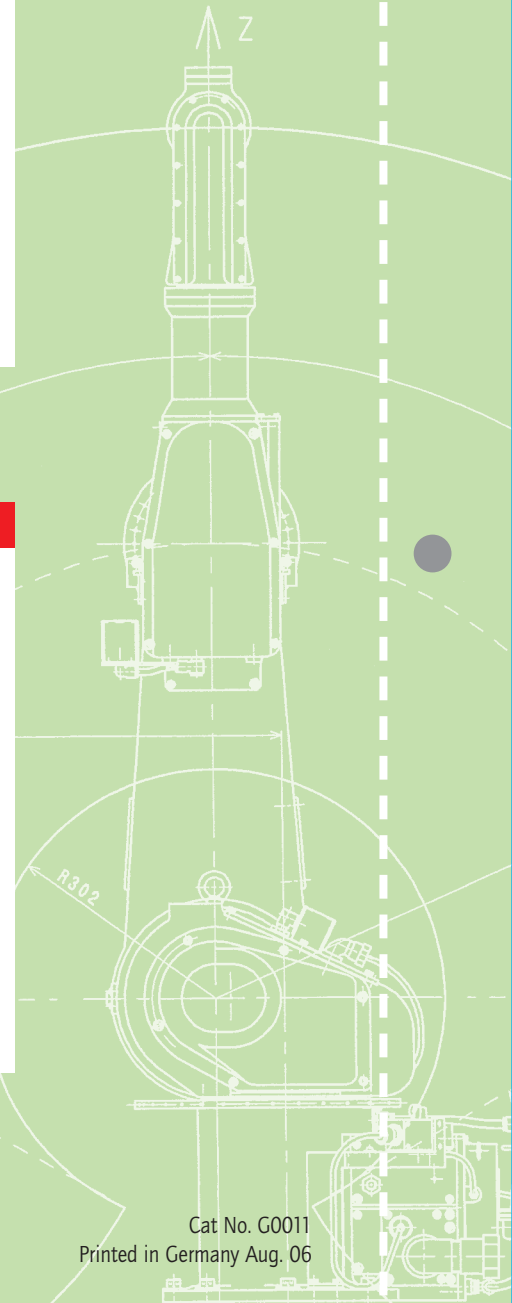
1-1 Kawasaki-cho, Akashi 673-8666 Japan
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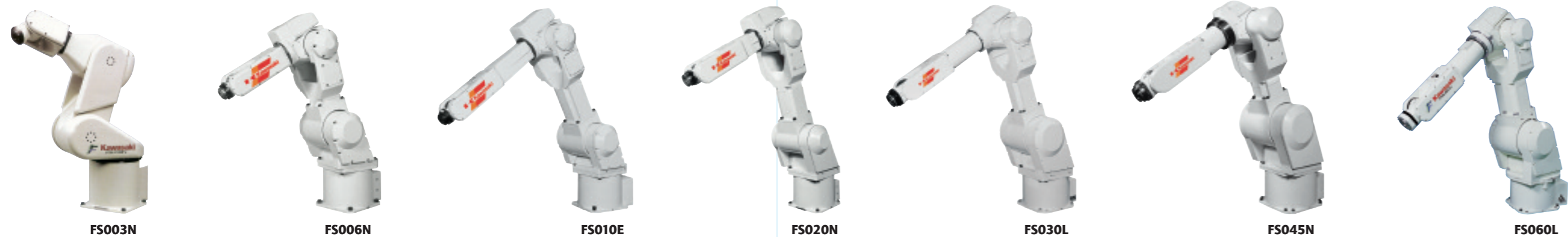
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F series

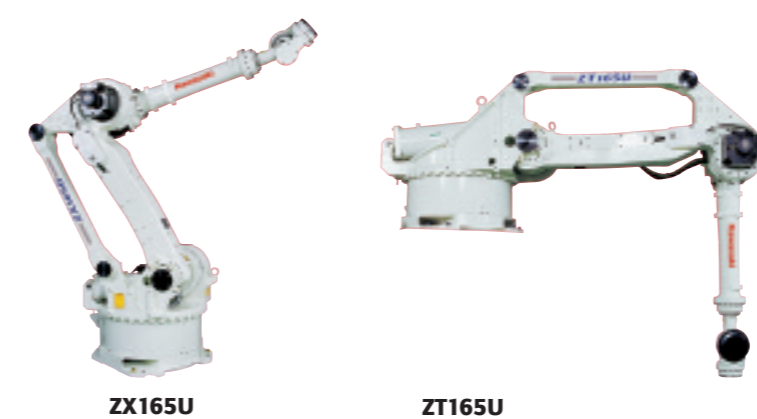
Small to medium-size general-purpose manipulators



Features		<ol style="list-style-type: none"> Reduced Cycle Time thanks to high-power motors and efficient reduction gears in a light-weight manipulator. Compact Work Cell Layout due to the small footprint and slender profile. Arm variations: The customer can select the optimum arm from a wide range of reaches and payload capacities. 																
Model		FS003N	FS006N	FS006L	FS010C	FS010E	FS010L	FS010X	FS020C	FS020N	FS030N	FS030L	FS045C	FS045N	FS060L	FA006N	FA006E	FA010L
Payload	Kg	3	6	6	10	10	10	10	20	20	30	30	30	45	60	6	6	10
Degree of freedom		6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Repeatability	mm	±0.05	±0.05	±0.10	±0.05	±0.10	±0.10	±0.23	±0.10	±0.10	±0.15	±0.15	±0.15	±0.15	±0.15	±0.10	±0.10	±0.10
Motion range	JT1	degree (°)	±160°	±160°	±160°	±160°	±160°	±160°	±160°	±160°	±160°	±160°	±160°	±160°	±160°	±160°	±160°	±160°
	JT2	degree (°)	+150~-60°	+140~-105°	+140~-105°	+140~-105°	+140~-105°	+140~-105°	+140~-105°	+140~-105°	+140~-105°	+140~-105°	+140~-105°	+140~-105°	+140~-105°	+140~-105°	+140~-105°	+140~-105°
	JT3	degree (°)	+120~-150°	+120~-155°	+120~-155°	+120~-155°	+120~-155°	+120~-155°	+120~-155°	+120~-155°	+120~-155°	+120~-155°	+120~-155°	+120~-155°	+120~-155°	+120~-155°	+120~-155°	+120~-155°
	JT4	degree (°)	±360°	±270°	±270°	±270°	±270°	±270°	±270°	±270°	±270°	±270°	±270°	±270°	±270°	±270°	±270°	±270°
	JT5	degree (°)	±135°	±145°	±145°	±145°	±145°	±145°	±145°	±145°	±130°	±130°	±130°	±145°	±145°	±145°	±145°	±145°
	JT6	degree (°)	±360°	±360°	±360°	±360°	±360°	±360°	±360°	±360°	±360°	±360°	±360°	±360°	±360°	±360°	±360°	±360°
Maximum reach	mm	620	1000	1550	1000	1450	1850	2950	1300	1650	1670	2100	1670	1800	2100	1000	1550	1850
Mass	Kg	20	165	170	165	170	280	580	275	280	575	585	575	580	585	165	170	280
Mount option	Floor	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	Ceiling	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	Wall	(option)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	Shelf	D70	D71/D40	D71/D40	D71/D40	D71/D40	D40	D42	D40	D40	D42	D42	D42	D42	D42	D40	D40	D40
Controller		•	•	•	•	•	•	•	•	•	•	•	•	•	•	-	-	-
Application	Handling	•	•	•	•	•	•	•	•	•	•	•	•	•	•	-	-	-
	Assembling	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Spot welding	-	-	-	-	-	-	-	-	-	-	-	-	-	-	•	•	•
	Arc welding	•	•	•	•	•	•	•	•	•	•	•	•	•	•	-	-	-
	Palletizing	•	•	•	•	•	•	•	•	•	•	•	•	•	•	-	-	-

Z series

Large-size general purpose-manipulators



Features		<ol style="list-style-type: none"> Reduced Cycle Time thanks to high-power motors and efficient reduction gears in a light-weight manipulator. Wide work envelope due to the long reach and small dead space. Resistant mechanism allows operations in a harsh environment. IP65 for arm and IP67 for wrist. Upgradability: The standard ZX165U can be converted to ZX130U (higher speed) or ZX130L (long reach). It can also be converted to ZX200U (higher payload). Other conversions are also possible. 									
Model		ZX130L	ZX130U	ZX165U	ZX165L	ZX200U	ZX300S	ZT130U	ZT165U	ZT200U	
Payload	Kg	130	130	165	165	200	300	130	165	200	
Degree of freedom		6	6	6	6	6	6	6	6	6	
Repeatability	mm	±0.30	±0.30	±0.30	±0.30	±0.30	±0.30	±0.30	±0.30	±0.30	
Motion range	JT1	degree (°)	±180°	±180°	±180°	±180°	±180°	±180°	±180°	±180°	
	JT2	degree (°)	+75~-60°	+75~-60°	+75~-60°	+75~-60°	+75~-60°	+75~-60°	+60~75°	+60~75°	
	JT3	degree (°)	+250~-120°	+250~-120°	+250~-120°	+250~-120°	+250~-120°	+250~-120°	+165~-95°	+165~-95°	
	JT4	degree (°)	±360°	±360°	±360°	±360°	±360°	±360°	±360°	±360°	
	JT5	degree (°)	±130°	±130°	±130°	±130°	±130°	±130°	±120°	±130°	
	JT6	degree (°)	±360°	±360°	±360°	±360°	±360°	±360°	±360°	±360°	
Maximum reach	mm	2951	2651	2651	2810	2651	2501	3230	3230	3230	
Mass	Kg	1400	1350	1350	1355	1350	1400	1550	1550	1600	
Mount option	Floor	•	•	•	•	•	•	-	-	-	
	Ceiling	-	-	-	-	-	-	-	-	-	
	Wall	-	-	-	-	-	-	-	-	-	
	Shelf	-	-	-	-	-	-	•	•	•	
Controller		D42	D42	D42	D42	D42	D42	D42	D42	D42	
Application	Handling	•	•	•	•	•	•	•	•	•	
	Assembling	•	•	•	•	•	•	•	•	•	
	Spot welding	•	•	•	•	•	•	•	•	•	
	Arc welding	-	-	-	-	-	-	-	-	-	
	Palletizing	•	•	•	•	•	•	•	•	•	
	Sealing/dispensing	•	•	•	•	•	•	•	•	•	

F | Z | M series_Palletizing



Features		<ol style="list-style-type: none"> Large work envelop with high payload capacity High speed and high throughput capacity. Compact arms allow easy installation in even confined spaces. 			
Model		FD50N	ZD130S	ZD250S	MD400N
Payload	Kg	50	130	250	400
Degree of freedom		5	4	4	5
Repeatability	mm	±0.15	±0.50	±0.50	±0.50
Motion range	JT1	degree (°)	±157°	±180°	±180°
	JT2	degree (°)	+140~95°	+90~-50°	+90~-50°
	JT3	degree (°)	+30~-205°	+15~-120°	+15~-120°
	JT4	degree (°)	±360°	±360°	±360°
	JT5	degree (°)	±10° *	-	-
	JT6	degree (°)	-	-	-
Maximum reach	mm	2100	3255	3255	3142
Mass	Kg	585	1350	1350	2650
Mount option	Floor	•	•	•	•
	Ceiling	(option)	-	-	-
	Wall	-	-	-	-
	Shelf	-	-	-	-
Controller		D42	D42	D43	D44
Application	Handling	-	-	-	-
	Assembling	-	-	-	-
	Spot welding	-	-	-	-
	Arc welding	-	-	-	-
	Palletizing	•	•	•	•
	Sealing/dispensing	-	-	-	-

M series

High-end manipulators



Features		<ol style="list-style-type: none"> Compact Profile, small footprint and no counterbalance. High wrist torque enables the full rated payload capacity. 		
Model		MX350L	MX420L	MX500N
Payload	Kg	350	420	500
Degree of freedom		6	6	6
Repeatability	mm	±0.50	±0.50	±0.50
Motion range	JT1	degree (°)	±180°	±180°
	JT2	degree (°)	+90~-45°	+90~-45°
	JT3	degree (°)	+20~-115°	+20~-125°
	JT4	degree (°)	±360°	±360°
	JT5	degree (°)	±110°	±110°
	JT6	degree (°)	±360°	±360°
Maximum reach	mm	3018	2778	2540
Mass	Kg	2800	2800	2750
Mount option	Floor	•	•	•
	Ceiling	-	-	-
	Wall	-	-	-
	Shelf	-	-	-
Controller		D44	D44	D44
Application	Handling	•	•	•
	Assembling	•	•	•
	Spot welding	•	•	•
	Arc welding	-	-	-
	Palletizing	•	•	•
	Sealing/dispensing	-	-	-