

THE FACTORY AUTOMATION COMPANY

FANUC

# Robots

Product overview



# FROM THE SMALLEST TO THE STRONGEST



## 100% FANUC

FANUC offers the widest range of robots in the world to cover the needs of diverse applications and industries. They are a key standard component – totally flexible with application-specific options, straightforward integration, and the colour of choice for demanding automation solutions.

FANUC is the leading global manufacturer of factory automation, with 40 years of experience in the development of robot technology, more than 680,000 robots installed worldwide, and satisfied customers in every corner of the globe.

### Your advantages:

- more than 100 different robot models
- load capacity up to 2,300 kg
- reach up to 4,683 mm
- easy operation
- optimised energy consumption
- life time spare parts availability

## We make demanding full automation scenarios very simple:

all of FANUC's robots, CNCs and machines share a common control platform. This means that robots used for loading and unloading can be integrated quickly and easily into your machine concepts. A machine and a robot can be connected to each other easily through a FANUC interface. Screens are provided in the CNC to monitor and control the robot and vice-versa.

We also provide powerful networking solutions to allow connectivity of automated production lines and machining systems.

# ONE CONTROL PLATFORM INFINITE OPPORTUNITIES

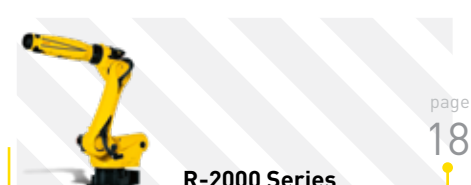
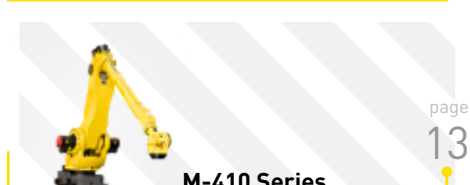


more than  
**680,000**  
robot installations  
worldwide

up to  
**8,000**  
robot production  
capacity per month

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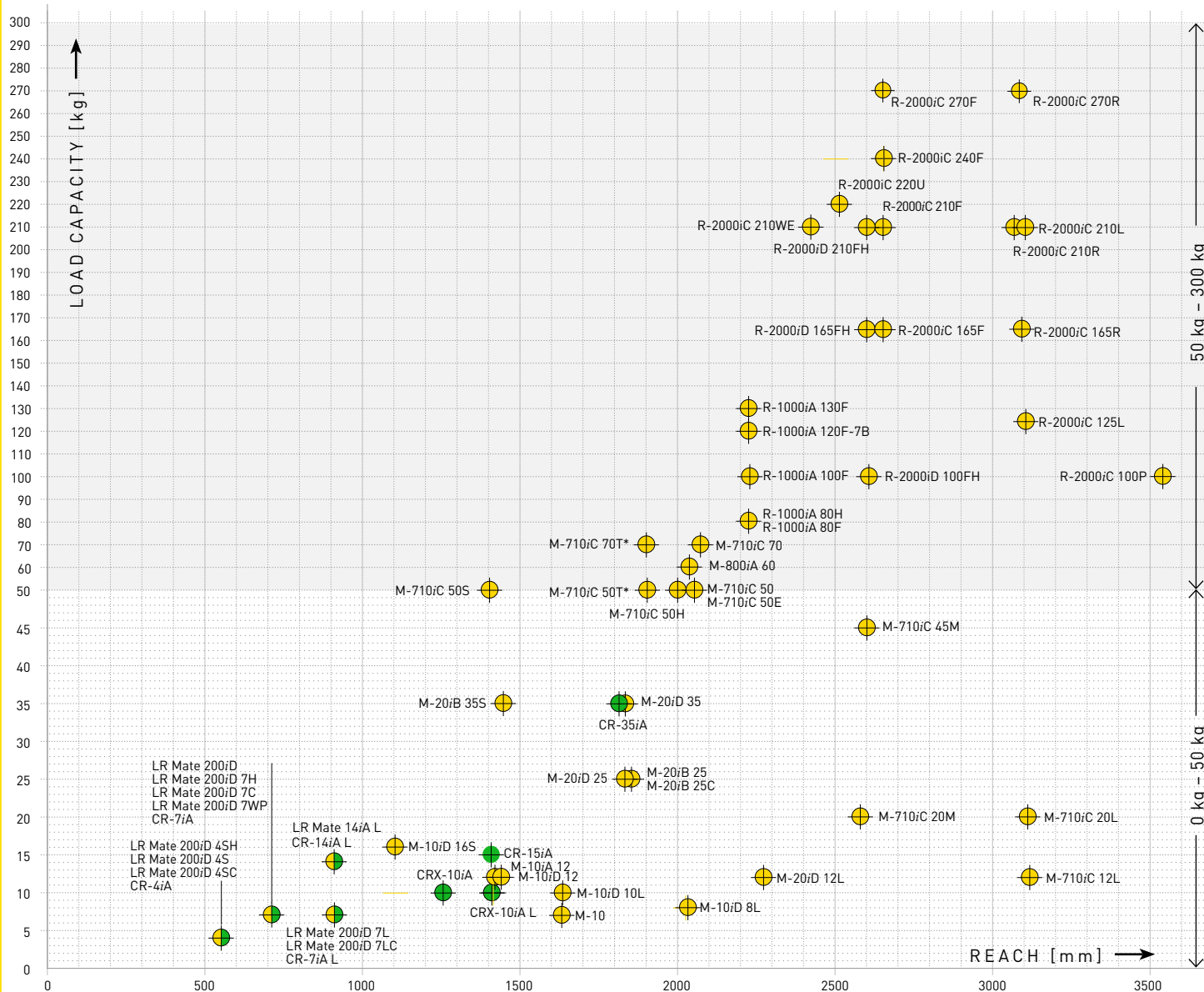
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# FIND YOUR

# ARTICULATED ROBOT

LR Mate | M-10 | M-20 | M-710 | M-800 | R-1000 | R-2000 | CR | CRX



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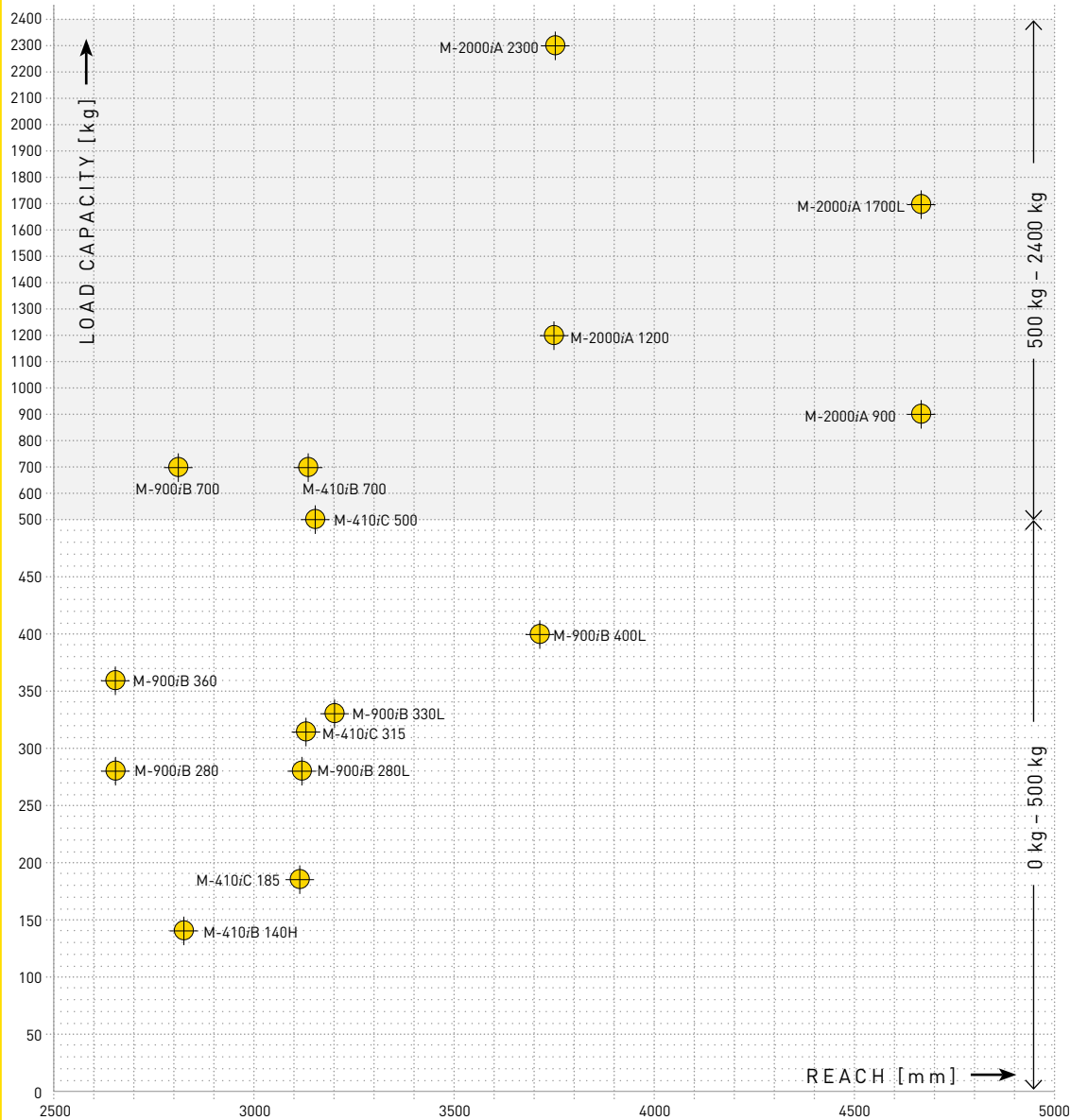


\*1) depending on rail specification

# FIND YOUR

# ARTICULATED ROBOT

M-410 | M-900 | M-2000



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\*1) depending on rail specification

# LR Mate Series



Max. load capacity at wrist: **14 kg**



Max. reach: **911 mm**



LR Mate 200iD

## Available robot versions:

LR Mate 200iD/4SH	Short arm, 5-axis (2* integrated solenoid valves)
LR Mate 200iD/4S	Short arm (2* integrated solenoid valves)
LR Mate 200iD/4SC	Short arm, clean room, food grade grease (2* integrated solenoid valves), white epoxy paint
LR Mate 200iD/7H	5-axis, (2* integrated solenoid valves)
LR Mate 200iD/7C	Clean room, food grade grease (2* integrated solenoid valves), white epoxy paint
LR Mate 200iD/7WP	Wash proof
LR Mate 200iD	Standard model (2* integrated solenoid valves)
LR Mate 200iD/7L	Long arm (2* integrated solenoid valves)
LR Mate 200iD/7LC	Long arm, clean room, food grade grease (2* integrated solenoid valves), white epoxy paint
LR Mate 200iD/14L	Long arm (2* integrated solenoid valves)



Robot			Controller						Max. load capacity at wrist (kg)	Reach (mm)	Controlled axes	Repeatability (mm)	Mechanical weight (kg)	Motion range [°]						Maximum speed [°/s] *12						J4 Moment/ Inertia (Nm/kgm <sup>2</sup> )	J5 Moment/ Inertia (Nm/kgm <sup>2</sup> )	J6 Moment/ Inertia (Nm/kgm <sup>2</sup> )	Average Power consumption (kW)	Protection		
Series	Version	Type	Version	Cabinet type				J1						J2	J3	J4	J5	J6	J1	J2	J3	J4	J5	J6	Body standard/ optional					Wrist & J3 arm standard/ optional		
LR Mate 200	iD	4SH	●	●	-	○	●	-	-	4	550	5	± 0.013**	19	360	230	402	240	720	-	460	460	520	560	1500	-	8.86/0.2	4.0/0.046 [5.5/0.083]	-	0.5	IP67	IP67
LR Mate 200	iD	4S	●	●	-	○	●	-	-	4	550	6	± 0.01**	20	360	230	402	380	240	720	460	460	520	560	900	8.86/0.2	8.86/0.2	4.9/0.067	0.5	IP67	IP67	
LR Mate 200	iD	4SC	●	●	-	○	●	-	-	4	550	6	± 0.013**	20	360	230	402	380	236	720	460	460	520	560	900	8.86/0.2	8.86/0.2	4.9/0.067	0.5	IP67	IP67	
LR Mate 200	iD	7H	●	●	-	○	●	-	-	7	717	5	± 0.018**	24	360	245	420	250	720	-	450	380	520	545	1500	-	16.6/0.47	4.0/0.046 [5.5/0.15]	-	0.5	IP67/IP69K	IP67/IP69K
LR Mate 200	iD	7C	●	●	-	○	●	-	-	7	717	6	± 0.018**	25	360	245	420	380	250	720	450	380	520	550	1000	16.6/0.47	16.6/0.47	9.4/0.15	0.5	IP67	IP67	
LR Mate 200	iD	7WP	●	●	-	-	●	-	-	7	717	6	± 0.018**	25	360	245	420	380	250	720	450	380	520	550	1000	16.6/0.47	16.6/0.47	9.4/0.15	0.5	IP67/IP69K	IP67/IP69K	
LR Mate 200	iD		●	●	-	○	●	-	-	7	717	6	± 0.01**	25	360	245	420	380	250	720	450	380	520	545	1000	16.6/0.47	16.6/0.47	9.4/0.15	0.5	IP67/IP69K	IP67/IP69K	
LR Mate 200	iD	7L	●	●	-	○	●	-	-	7	911	6	± 0.01**	27	360	245	430	380	250	720	370	310	410	550	1000	16.6/0.47	16.6/0.47	9.4/0.15	0.5	IP67/IP69K	IP67/IP69K	
LR Mate 200	iD	7LC	●	●	-	○	●	-	-	7	911	6	± 0.018**	27	360	245	430	380	250	720	370	310	410	550	1000	16.6/0.47	16.6/0.47	9.4/0.15	0.5	IP67	IP67	
LR Mate 200	iD	14L	●	●	-	○	●	-	-	14	911	6	± 0.01**	27	360	245	430	380	250	720	120	61	58	400	240	400	31.0/0.66	31.0/0.66	13.4/0.30	0.5	IP67/IP69K	IP67/IP69K

● standard ○ on request - not available [ ] with hardware and/or software option \* optional 3 solenoid valves \*12 only for LR Mate 200iD/14L: Max. linear speed 500 mm/sec \*\* Based on ISO9283



# Educational Package

## Robotics expertise for schools and universities

All the core skills contained in a dedicated package.

Designed with students in mind, it enables young people to gain first-hand experience of programming and operating cutting-edge industrial robots. Package content is highly relevant for modern factory applications and contains everything instructors require for teaching purposes.



ER-4iA

# M-10 Series



Max. load capacity at wrist: **16 kg**



Max. reach: **2028 mm**

## Available robot versions:

M-10iD/8L Long arm, hollow wrist/base

M-10iD/10L Long arm, hollow wrist/base

M-10iD/12 Hollow wrist/base

M-10iD/16S Short arm, hollow wrist/base



M-10iD/12



Robot			Controller							Max. load capacity at wrist (kg)	Reach (mm)	Controlled axes	Repeatability (mm)	Mechanical weight (kg)	Motion range [°]						Maximum speed [°/s]						J4 Moment/ Inertia (Nm/kgm <sup>2</sup> )	J5 Moment/ Inertia (Nm/kgm <sup>2</sup> )	J6 Moment/ Inertia (Nm/kgm <sup>2</sup> )	Average Power consumption (kW)	Protection	
Series	Version	Type	Version		Cabinet type										J1	J2	J3	J4	J5	J6	J1	J2	J3	J4	J5	J6					Body standard/ optional	Wrist & J3 arm standard/ optional
			R-30iB	R-30iB Plus	Compact cabinet	Open air cabinet	Meta cabinet	A- cabinet	B- cabinet																							
M-10	iD	8L	●	-	-	○	●	○	8	2032	6	± 0.03**	180	340 (370)	235	455	380	360	900	210	210	220	430	450	720	16.1/0.63	16.1/0.63	5.9/0.061	1	IP54	IP67	
M-10	iD	10L	●	-	-	○	●	○	10	1636	6	± 0.03**	150	340 (370)	235	455	380	360	900	260	240	260	430	450	720	22.0/0.65	22.0/0.65	9.8/0.17	1	IP54/IP65	IP67	
M-10	iD	12	●	-	-	○	●	○	12	1441	6	± 0.02**	145	340 (370)	235	455	380	360	900	260	240	260	430	450	720	26.0/0.90	26.0/0.90	11.0/0.30	1	IP54/IP65	IP67	
M-10	iD	16S	●	-	-	○	●	○	16	1103	6	± 0.02**	140	340 (370)	235	340	380	360	900	290	270	270	430	450	730	26.0/0.90	26.0/0.90	11.0/0.30	1	IP54 /IP65	IP67	

● standard ○ on request - not available [ ] with hardware and/or software option \*\* Based on ISO9283 \*\*\*with food grease

# M-20 Series



Max. load capacity  
at wrist: **35 kg**



Max. reach:  
**2272 mm**

## Available robot versions:

M-20iA/20T	Top mount
M-20iD/12L	Long arm, hollow wrist/base
M-20iB/25	Standard model (2 integrated solenoid valves)
M-20iD/25	Hollow wrist/base
M-20iB/25C	Clean room, food grade grease, white epoxy paint
M-20iB/35S	Short arm
M-20iD/35	High inertia, hollow wrist/base



M-20iD/12L



Robot			Controller								Max. load capacity at wrist (kg)	Reach (mm)	Controlled axes	Repeatability (mm)	Mechanical weight (kg)	Motion range (°)						Maximum speed (°/s)						J4 Moment/ Inertia (Nm/kgm <sup>2</sup> )	J5 Moment/ Inertia (Nm/kgm <sup>2</sup> )	J6 Moment/ Inertia (Nm/kgm <sup>2</sup> )	Average Power consumption (kW)	Protection	
Series	Version	Type	Version		Cabinet type				J1	J2						J3	J4	J5	J6	J1	J2	J3	J4	J5	J6	Body standard/ optional	Wrist & J3 arm standard/ optional						
M-20	iD	12L	●	-	-	○	●	○	12	2272	6	± 0.03**	250	340 (370)	260	475	400	360	900	210	210	265	420	450	720	22.0/0.65	22.0/0.65	9.8/0.17	1	IP54/IP65	IP67		
M-20	iB	25	●	●	-	-	○	●	○	25	1853	6	± 0.02**	210	340 (360)	240	303	400	290	540	205	205	260	415	415	880	51/2.2	51/2.2	31/1.2	1	IP67	IP67	
M-20	iD	25	●	-	-	○	●	○	25	1831	6	± 0.02**	250	340 (370)	260	458	400	280 (360)	540 (900)	210	210	265	420	420	720	52.0/2.4	52.0/2.4	32.0/1.2	1	IP54/IP65	IP67		
M-20	iB	25C	●	●	-	-	○	●	○	25	1853	6	± 0.023**	210	340 (360)	240	303	400	290	540	205	205	260	415	415	880	51/2.2	51 / 2.2	31 / 1.2	1	IP67	IP67	
M-20	iB	35S	●	-	-	-	●	○	35	1445	6	± 0.02**	205	340 (360)	240	301.5	400	260	540	205	205	260	415	415	880	51 / 2.2	51 / 2.2	31 / 1.2	1	IP67	IP67		
M-20	iD	35	●	-	-	○	●	○	35	1831	6	± 0.03**	250	340 (370)	260	458	400	280 (360)	540 (900)	180	180	200	350	350	400	110.0/4.0	110.0/4.0	60.0/1.5	1	IP54/IP65	IP67		

● standard ○ on request - not available [ ] with hardware and/or software option \*1) depending on rail specification \*\* Based on ISO9283 \*\*\*with food grease

# M-710 Series



Max. load capacity at wrist: **70 kg**



Max. reach: **3123 mm**



M-710iC/50

## Available robot versions:

M-710iC/12L, /20L	Long arm
M-710iC/20M, /45M	High inertia
M-710iC/50S	Short arm
M-710iC/50H	5-axis
M-710iC/50, /70	Standard model
M-710iC/50E	Offset wrist
M-710iC/50T, /70T	Top mount



Robot			Controller							Max. load capacity at wrist (kg)	Reach (mm)	Controlled axes	Repeatability (mm)	Mechanical weight (kg)	Motion range (°)						Maximum speed (°/s)						J4 Moment/ Inertia (Nm/kgm <sup>2</sup> )	J5 Moment/ Inertia (Nm/kgm <sup>2</sup> )	J6 Moment/ Inertia (Nm/kgm <sup>2</sup> )	Average Power consumption (kW)	Protection	
Series	Version	Type	Version		Cabinet type			J1	J2						J3	J4	J5	J6	J1	J2	J3	J4	J5	J6	Body standard/ optional	Wrist & J3 arm standard/ optional						
M-710	iC	12L	●	●	-	-	○	●	○	12	3123	6	± 0.09**	540	360	225	434	400	380	720	180	180	180	400	430	630	22.0/0.65	22.0/0.65	9.8/0.17	2.5	IP54/IP67	IP67
M-710	iC	20L	●	●	-	-	○	●	○	20	3110	6	± 0.06**	540	360	225	432	400	280	900	175	175	180	350	360	600	39.2/0.88	39.2/0.88	19.6/0.25	2.5	IP54/IP67	IP67
M-710	iC	20M	●	●	-	-	○	●	○	20	2582	6	± 0.06**	530	360	225	435	400	280	900	175	175	180	350	360	600	39.2/0.88	39.2/0.88	19.6/0.25	2.5	IP54/IP67	IP67
M-710	iC	45M	●	●	-	-	○	●	○	45	2606	6	± 0.06**	570	360	225	440	800	250	800	180	180	180	250	250	360	206/28	206/28	127/20	2.5	IP54/IP67	IP67
M-710	iC	50S	●	●	-	-	○	●	○	50	1359	6	± 0.04**	545	360	169	376	720	250	720	175	175	175	250	250	355	206/28	206/28	127/11	2.5	IP54/IP67	IP67
M-710	iC	50T	●	●	-	-	○	●	○	50	1900*1)	6	± 0.07	410	*1)	261	491	720	250	720	*1)	175	175	250	250	355	206/28	206/28	127/11	2.5	IP54/IP67	IP67
M-710	iC	50H	●	●	-	-	○	●	○	50	2003	5	± 0.15	540	360	225	440	234	720	-	175	175	175	175	720	-	150/6.3	68/2.5	-	2.5	IP54/IP67	IP67
M-710	iC	50	●	●	-	-	○	●	○	50	2050	6	± 0.03**	560	360	225	440	720	250	720	175	175	175	250	250	355	206/28	206/28	127/11	2.5	IP54/IP67	IP67
M-710	iC	50E	●	●	-	-	○	●	○	50	2050	6	± 0.07	560	360	225	440	720	380	720	175	175	175	250	240	340	206/28	176/10.8	98/3.3	2.5	IP54	IP67
M-710	iC	70T	●	●	-	-	○	●	○	70	1900*1)	6	± 0.07	410	*1)	261	491	720	250	720	*1)	120	120	120	225	225	294/28	294/28	147/11	2.5	IP54/IP67	IP67
M-710	iC	70	●	●	-	-	○	●	○	70	2050	6	± 0.04**	560	360	225	440	720	250	720	160	120	120	225	225	294/28	294/28	147/11	2.5	IP54/IP67	IP67	

● standard ○ on request - not available ( ) with hardware and/or software option \*1) depending on rail specification \*\* Based on ISO2983

# M-410 Series



Max. load capacity  
at wrist: **700 kg**



Max. reach:  
**3143 mm**



M-410iC/185

## Available robot versions:

M-410iB/140H 5-axis, inline wrist

M-410iB /700 Hollow wrist

M-410iC/110 Inline wrist

M-410iC/185, /315, /500 Hollow wrist



Robot			Controller							Max. load capacity at wrist (kg)	Reach (mm)	Controlled axes	Repeatability (mm)	Mechanical weight (kg)	Motion range [°]						Maximum speed [°/s]						J4 Moment/ Inertia (Nm/kgm <sup>2</sup> )	J5 Moment/ Inertia (Nm/kgm <sup>2</sup> )	J6 Moment/ Inertia (Nm/kgm <sup>2</sup> )	Average Power consumption (kW)	Protection	
Series	Version	Type	Version		Cabinet type			J1	J2						J3	J4	J5	J6	J1	J2	J3	J4	J5	J6	Body standard/ optional	Wrist & J3 arm standard/ optional						
M-410	iB	140H	●	●	-	-	-	●	○	140	2850	5	± 0.2	1200	360	155	112	20	720	-	140	115	135	135	420	-	147	53	-	3	IP54	IP54
M-410	iC	110	●	●	-	-	-	●	○	110	2403	4	± 0.5	1030	370	125	140	720	-	145	130	140	420	-	-	53	-	-	3	IP54	IP54	
M-410	iC	185	●	●	-	-	-	●	○	185	3143	4	± 0.5	1600 (1330)	360	144	136	720	-	140	140	140	305	-	-	88	-	-	3	IP54	IP54	
M-410	iC	315	●	●	-	-	-	●	○	315	3143	4	± 0.5	1600 (1330)	360	144	136	720	-	90	100	110	195	-	-	155	-	-	3	IP54	IP54	
M-410	iC	500	●	●	-	-	-	●	○	500	3143	4	± 0.5	2410 (1910)	370	144	136	720	-	85	85	85	200	-	-	250	-	-	3	IP54	IP54	
M-410	iB	700	●	●	-	-	-	●	○	700	3143	4	± 0.5	2700	360	144	136	540	-	60	60	60	120	-	-	490	-	-	3	IP54	IP54	

● standard ○ on request - not available [ ] with hardware and/or software option

# M-800 Series



Max. load capacity at wrist: **60 kg**



Max. reach: **2040 mm**

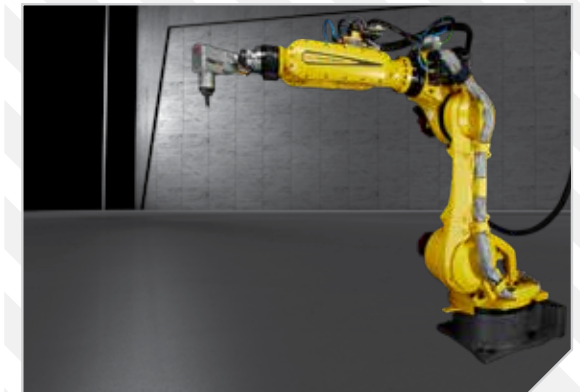
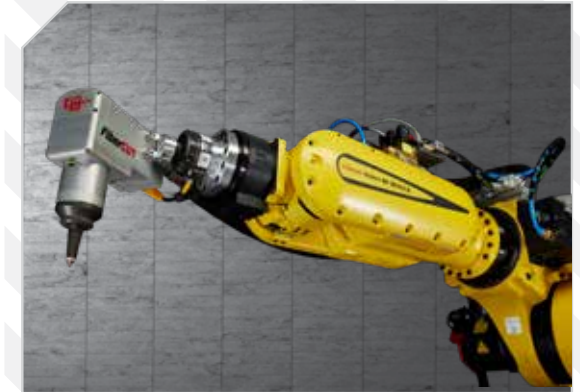
## Available robot versions:

M-800iA/60

High rigidity model



M-800iA/60



Robot			Controller								Max. load capacity at wrist (kg)	Reach (mm)	Controlled axes	Repeatability (mm)	Mechanical weight (kg)	Motion range (°)						Maximum speed (°/s)						J4 Moment/ Inertia (Nm/kgm <sup>2</sup> )	J5 Moment/ Inertia (Nm/kgm <sup>2</sup> )	J6 Moment/ Inertia (Nm/kgm <sup>2</sup> )	Average Power consumption (kW)	Protection	
Series	Version	Type	Version		Cabinet type				J1	J2						J3	J4	J5	J6	J1	J2	J3	J4	J5	J6	Body standard/ optional	Wrist & J3 arm standard/ optional						
M-800	iA	60	-	●	-	-	-	-	●	○	60	2040	6	± 0.03**	820	370	225	340	720	250	720	150	150	150	260	260	400	210/30	210/30	130/20	2,5	-	-

● standard ○ on request - not available [ ] with hardware and/or software option \*\* Based on ISO9283

# M-900 Series



Max. load capacity  
at wrist: **700 kg**



Max. reach:  
**3704 mm**

## Available robot versions:

- M-900iB/280 High rigidity model
- M-900iB/360, /700 Standard model
- M-900iB/280L, /330L, /400L Long arm



M-900iB/700



Robot			Controller							Max. load capacity at wrist (kg)	Reach (mm)	Controlled axes	Repeatability (mm)	Mechanical weight (kg)	Motion range (°)						Maximum speed (°/s)						J4 Moment/ Inertia (Nm/kgm <sup>2</sup> )	J5 Moment/ Inertia (Nm/kgm <sup>2</sup> )	J6 Moment/ Inertia (Nm/kgm <sup>2</sup> )	Average Power consumption (kW)	Protection	
Series	Version	Type	Version		Cabinet type										J1	J2	J3	J4	J5	J6	J1	J2	J3	J4	J5	J6					Body standard/ optional	Wrist & J3 arm standard/ optional
			R-30iB	R-30iB Plus	Compact cabinet	Open air cabinet	Mate cabinet	A- cabinet	B- cabinet																							
M-900	iB	280	●	●	-	-	-	●	○	280	2655	6	± 0.1**	1700	370	151	224	720	250	720	110	105	100	110	110	180	1960/260 [460]	1960/260 [460]	1050/160 [360]	3	IP54 /IP56	IP67
M-900	iB	280L	●	●	-	-	-	●	○	280	3103	6	± 0.1**	1600	370	151	224	720	250	720	110	105	100	125	125	205	1700/215 [340]	1700/215 [340]	950/140 [260]	3	IP54 /IP56	IP67
M-900	iB	330L	●	●	-	-	-	●	○	330	3203	6	± 0.1**	1780	370	151	164	720	250	720	100	85	85	90	85	165	2205/340	2205/340	1200/220	3	IP54 /IP56	IP67
M-900	iB	360	●	●	-	-	-	●	○	360	2655	6	± 0.1**	1540	370	151	224	720	250	720	110	105	100	110	110	180	1960/260 [460]	1960/260 [460]	1050/160 [360]	3	IP54 /IP56	IP67
M-900	iB	400L	●	●	-	-	-	●	○	400	3704	6	± 0.1**	3150	360	154	160	720	244	720	80	80	80	100	100	160	3400/1098	3400/1098	1725/444	5	IP54 /IP56	IP67
M-900	iB	700	●	●	-	-	-	●	○	700	2832	6	± 0.1**	2800	360	154	160	720	244	720	80	80	80	100	100	160	3400/1098	3400/1098	1725/444	5	IP54 /IP56	IP67

● standard ○ on request - not available [ ] with hardware and/or software option \*\* Based on ISO9283

# M-2000 Series



Max. load capacity  
at wrist: **2300 kg**



Max. reach:  
**4683 mm**

## Available robot versions:

M-2000iA/900L, /1700L Long arm

M-2000iA/1200, /2300 Standard model



M-2000iA/1700L



Robot			Controller							Max. load capacity at wrist (kg)	Reach (mm)	Controlled axes	Repeatability (mm)	Mechanical weight (kg)	Motion range [°]						Maximum speed [°/s]						J4 Moment/ Inertia (Nm/kgm <sup>2</sup> )	J5 Moment/ Inertia (Nm/kgm <sup>2</sup> )	J6 Moment/ Inertia (Nm/kgm <sup>2</sup> )	Average Power consumption (kW)	Protection	
Series	Version	Type	Version		Cabinet type			J1	J2						J3	J4	J5	J6	J1	J2	J3	J4	J5	J6	Body standard/ optional	Wrist & J3 arm standard/ optional						
			R-30iB	R-30iB Plus	Compact cabinet	Open air cabinet	Mate cabinet			A-cabinet	B-cabinet																					
M-2000	iA	900L	●	●	-	-	-	●	○	900	4683	6	± 0.27**	9600	330	160	165	720	240	720	45	30	30	50	50	70	14700/2989	14700/2989	4900/2195	8	IP54/IP56	IP67
M-2000	iA	1200	●	●	-	-	-	●	○	1200 (1350)	3734	6	± 0.18**	8600	330	160	165	720	240	720	45	30 (25)	30	50	50	70	14700/2989	14700/2989	4900/2195	8	IP54/IP56	IP67
M-2000	iA	1700L	●	●	-	-	-	●	○	1700	4683	6	± 0.27**	12500	330	160	165	720	240	720	20	14	14	18	18	40	29400/7500	29400/7500	8820/5500	8	IP54/IP56	IP67
M-2000	iA	2300	●	●	-	-	-	●	○	2300	3734	6	± 0.18**	11000	330	160	165	720	240	720	20	14	14	18	18	40	29400/7500	29400/7500	8820/5500	8	IP54/IP56	IP67

● standard ○ on request - not available [ ] with hardware and/or software option \*\* Based on ISO9283



# R-1000 Series



Max. load capacity at wrist: **130 kg**



Max. reach: **2230 mm**



R-1000iA

## Available robot versions:

R-1000iA/80H	5-axis
R-1000iA/80F, /100F	Standard model
R-1000iA/120F-7B	7-axis
R-1000iA/130F	6-axis



Robot			Controller							Max. load capacity at wrist (kg)	Reach (mm)	Controlled axes	Repeatability (mm)	Mechanical weight (kg)	Motion range [°]							Maximum speed [°/s]							J4 Moment/ Inertia (Nm/kgm <sup>2</sup> )	J5 Moment/ Inertia (Nm/kgm <sup>2</sup> )	J6 Moment/ Inertia (Nm/kgm <sup>2</sup> )	Average Power consumption (kW)	Protection	
Series	Version	Type	Version		Cabinet type			J1	J2						J3	J4	J5	J6	J7	J1	J2	J3	J4	J5	J6	J7	Body standard/ optional	Wrist & J3 arm standard/ optional						
			R-30iB	R-30iB Plus	Compact cabinet	Open air cabinet	Mate cabinet																										A-cabinet	B-cabinet
R-1000	iA	80H	●	-	-	○	●	○	80	2230	5	± 0.03**	610	360	245	215	20	720	-	-	185	180	180	180	500	-	-	-/48	-/25	-	2.5	IP54/IP55	IP67	
R-1000	iA	80F	●	-	-	○	●	○	80	2230	6	± 0.03**	620	360	245	360	720	250	720	-	170	140	160	230	230	350	-	380/30	380/30	200/20	2.5	IP54 /IP56	IP67	
R-1000	iA	100F	●	-	-	○	●	○	100	2230	6	± 0.03**	665	360	245	360	720	250	720	-	130	110	120	170	170	250	-	690/57	690/57	260/32	2.5	IP54 /IP56	IP67	
R-1000	iA	120F-7B	●	-	-	○	●	○	120	2230	7	± 0.03**	790	360	200	385	720	250	720	225	130	110	120	170	170	250	130	800/71	800/71	360/38	2.5	IP54 /IP56	IP67	
R-1000	iA	130F	●	-	-	○	●	○	130	2230	6	± 0.03**	675	360	245	360	720	250	720	-	130	110	120	170	170	250	-	800/71	800/71	360/38	3	IP54 /IP56	IP67	

● standard ○ on request - not available [ ] with hardware and/or software option \*\* Based on ISO9283

# R-2000 Series



Max. load capacity  
at wrist: **270 kg**



Max. reach:  
**3540 mm**



R-2000iD/210FH

## Available robot versions:

R-2000iC/100P	Pedestal mount
R-2000iC/125L, /210L	Long arm
R-2000iD/165FH, /100FH, /210FH	Hollow wrist
R-2000iC/220U	Upside down mount
R-2000iC/165F, /210F, /240F, /270F	Standard model
R-2000iC/165R, /210R, /270R	Rack mount
R-2000iC/210WE	Wash environment



Robot			Controller							Max. load capacity at wrist (kg)	Reach (mm)	Controlled axes	Repeatability (mm)	Mechanical weight (kg)	Motion range [°]						Maximum speed [°/s]						J4 Moment/ Inertia (Nm/kgm <sup>2</sup> )	J5 Moment/ Inertia (Nm/kgm <sup>2</sup> )	J6 Moment/ Inertia (Nm/kgm <sup>2</sup> )	Average Power consumption (kW)	Protection	
Series	Version	Type	Version		Cabinet type			J1	J2						J3	J4	J5	J6	J1	J2	J3	J4	J5	J6	Body standard/ optional	Wrist & J3 arm standard/ optional						
R-2000	iC	100P	●	-	-	-	●	○	100	3540	6	± 0.05**	1470	370	200	375	720	250	720	120	100	115	140	140	210	1000/227	1000/227	706/196	2.5	IP54	IP67	
R-2000	iD	100FH	●	-	-	○	●	○	100	2605	6	± 0.05**	1150	370	140	234	420	250	420	105	130	130	200	160	300	850/90	850/90	450/50	2.5	IP54	IP67	
R-2000	iC	125L	●	-	-	○	●	○	125	3100	6	± 0.05**	1115	370	136	301	720	250	720	130	115	125	180	180	260	710/72	710/72	355/40	2.5	IP54 /IP56	IP67	
R-2000	iC	165F	●	-	-	○	●	○	165	2655	6	± 0.05**	1090	370	136	312	720	250	720	130	115	125	180	180	260	940/120	940/120	490/100	2.5	IP54 /IP56	IP67	
R-2000	iD	165FH	●	-	-	○	●	○	165	2605	6	± 0.05**	1130	370	140	234	420	250	420	130	110	115	175	170	280	1000/122	1000/122	620/100	2.5	IP54	IP67	
R-2000	iC	165R	●	-	-	-	●	○	165	3095	6	± 0.05**	1370	370	200	375	720	250	720	115	110	125	180	180	260	940/89	940/89	490/46	2.5	IP54 /IP56	IP67	
R-2000	iC	210F	●	-	-	○	●	○	210	2655	6	± 0.05**	1090	370	136	312	720	250	720	120	105	110	140	140	220	1360/225.4	1360/225.4	735/196	2.5	IP54 /IP56	IP67	
R-2000	iD	210FH	●	-	-	○	●	○	210	2605	6	± 0.05**	1130	370	140	234	420	250	420	120	90	100	140	130	220	1380/228	1380/228	735/196	2.5	IP54	IP67	
R-2000	iC	210L	●	-	-	-	●	○	210	3100	6	± 0.05**	1350	370	136	301	720	250	720	105	90	85	120	120	200	1700/320	1700/320	900/230	2.5	IP54 /IP56	IP67	
R-2000	iC	210WE	●	-	-	-	●	○	210	2450	6	± 0.1**	1180	330	141	318	720	250	720	95	85	95	120	120	190	1333/141.1	1333/141.1	706/78.4	3	IP67	IP67	
R-2000	iC	210R	●	-	-	-	●	○	210	3095	6	± 0.05**	1370	370	200	375	720	250	720	105	100	110	140	140	220	1360/147	1360/147	735/82	2.5	IP54 /IP56	IP67	
R-2000	iC	220U	●	-	-	-	●	○	220	2518	6	± 0.05**	1020	370	136	312	720	250	720	120	85	110	140	140	220	1360/147	1360/147	735/82	3	IP54	IP67	
R-2000	iC	240F	●	-	-	○	●	○	240	2655	6	± 0.05**	1090	370	136	312	720	250	720	115	90	105	130	130	210	1400/250	1400/250	800/200	3			
R-2000	iC	270F	●	-	-	-	●	○	270	2655	6	± 0.05**	1320	370	136	312	720	250	720	105	90	85	120	120	200	1730/320	1730/320	900/230	2.5	IP54 /IP56	IP67	
R-2000	iC	270R	●	-	-	-	●	○	270	3095	6	± 0.05**	1590	370	200	375	720	250	720	105	85	85	120	120	200	1730/320	1730/320	900/230	3	IP54	IP67	

● standard ○ on request - not available [ ] with hardware and/or software option \*1] depending on rail specification \*\* Based on ISO2983

# Collaborative Series



Max. load capacity at wrist: **35 kg**



Max. reach: **1813 mm**



CR-35iA

CRX-10iA/L

## Available robot versions:

CR-35iA	Standard model
CR-15iA	Hollow wrist
CR-14iA/L	Long arm
CR-7iA	Standard model
CR-7iA/L	Long arm
CR-4iA	Standard model
CRX-10iA	Standard model
CRX-10iA/L	Long arm

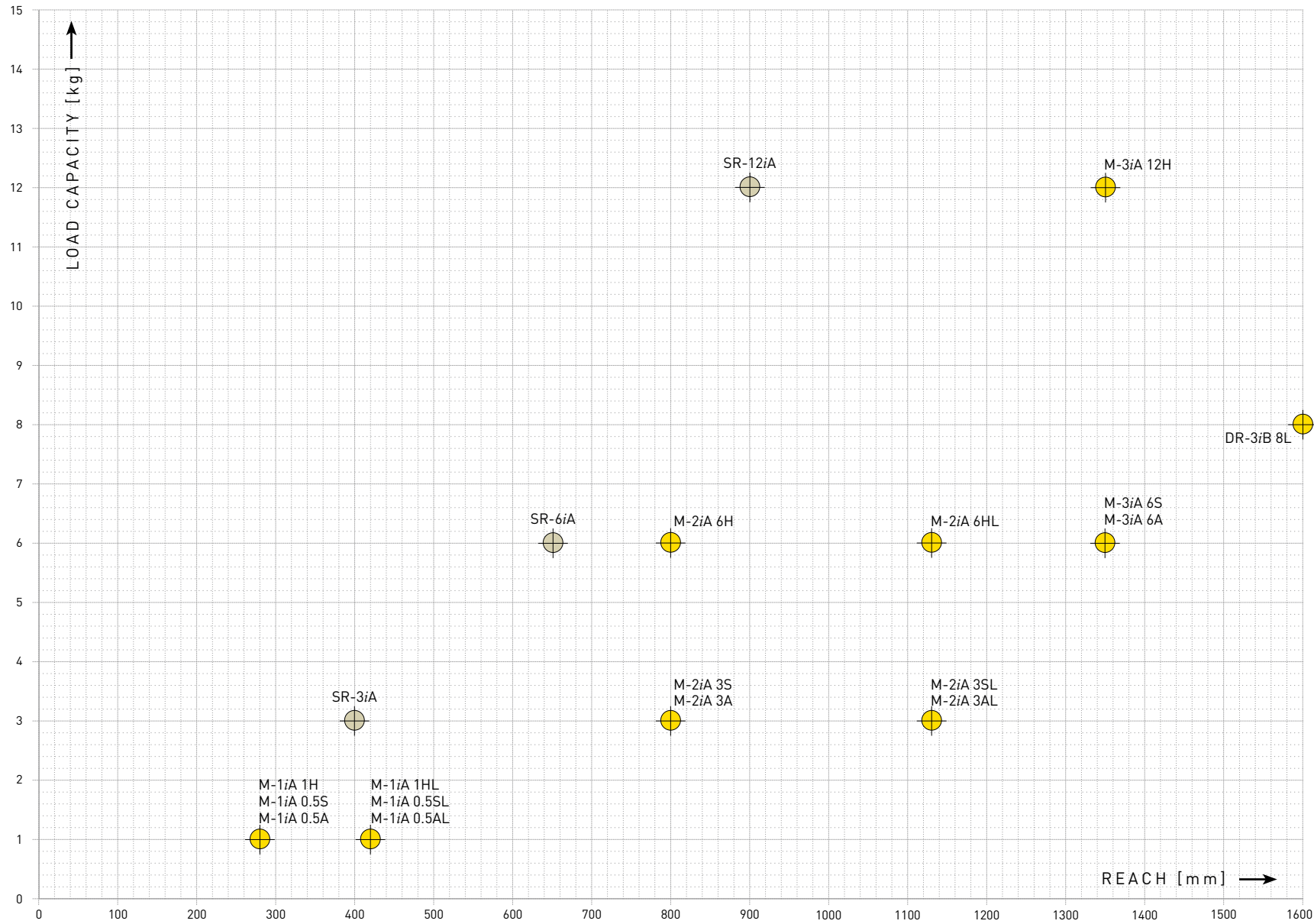


Robot			Controller								Max. load capacity at wrist (kg)	Reach (mm)	Controlled axes	Repeatability (mm)	Mechanical weight (kg)	Motion range (°)						Maximum speed (°/s)						Maximum linear speed (mm/s)	J4 Moment/ Inertia (Nm/kgm <sup>2</sup> )	J5 Moment/ Inertia (Nm/kgm <sup>2</sup> )	J6 Moment/ Inertia (Nm/kgm <sup>2</sup> )	Average Power consumption (kW)	Protection	
Series	Version	Type	Version		Cabinet type											J1	J2	J3	J4	J5	J6	J1	J2	J3	J4	J5	J6						Body standard/ optional	Wrist & J3 arm standard/ optional
CR-35	iA		●	●	-	-	-	-	●	○	35	1813	6	± 0.03**	990	370	165	258	400	220	900							750 <sup>(*7)</sup>	110/4	110/4	60.0/1.5	1	IP54	IP67
CR-15	iA			●	-	-	-	-	●	-	15	1441	6	± 0.02**	255	340	180	305	380	280	900						800/1500 <sup>(*14)</sup>	26.0/0.90	26.0/0.90	11.0/0.30	1	IP54	IP67	
CR-14	iA	L		●					●	-	14	911 <sup>(*15)</sup>	6	± 0.01**	55	340	166	383	380	240	720						500 <sup>(*16)</sup>	31.0/0.66	31.0/0.66	13.4/0.30	0.5	IP67	IP67	
CR-7	iA	L	●	●	-	-	○	●	-	-	7	911	6	± 0.01**	55	340	166	383	380	240	720						1000 <sup>(*7)</sup>	16.6/0.47	16.6/0.47	9.4/0.15	0.5	IP67	IP67	
CR-7	iA		●	●	-	-	○	●	-	-	7	717	6	± 0.01**	53	340	166	373	380	240	720						1000 <sup>(*7)</sup>	16.6/0.47	16.6/0.47	9.4/0.15	0.5	IP67	IP67	
CR-4	iA		●	●	-	-	○	●	-	-	4	550	6	± 0.01**	48	340	150	354	380	200	720						1000 <sup>(*7)</sup>	8.86/02	8.86/02	4.9/0.067	0.5	IP67	IP67	
CRX	iA	10		●	●	-	-	-	-	-	10	1249	6	± 0.05**	40	380	360	570	380	360	380	120	120	180	180	180	180	1000 <sup>(*17)</sup>	34.8 / 1.28	26.0 / 0.90	11.0 / 0.30	0.5	IP67	IP67
CRX	iA	10L		●	●	-	-	-	-	-	10	1418	6	± 0.05**	40	360	360	540	380	360	380	120	120	180	180	180	180	1000 <sup>(*17)</sup>	34.8 / 1.28	26.0 / 0.90	11.0 / 0.30	0.5	IP67	IP67

● standard ○ on request - not available \*7) It is necessary to set a motion speed according to risk assessment of system considering pinching with the surroundings. \*14) max. cartesian speed 800mm/s (1500mm/sec when safety monitored) \*15) 911 mm (load capacity < 12kg) - 820 mm (load capacity ≥ 12kg) \*16) During short distance motions, the speed may not reach the maximum value stated \*17) 2000 mm/s in high speed mode \*\* Based on ISO9283

# FIND YOUR

# DELTA ROBOT AND SCARA ROBOT



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# M-1 Series



Max. load capacity  
at wrist: **1 kg**



Max. reach:  
**420 mm**

## Available robot versions:

M-1iA/1H	3-axis
M-1iA/0.5S	4-axis
M-1iA/0.5A	6-axis
M-1iA/1HL	3-axis, long arm
M-1iA/0.5SL	4-axis, long arm
M-1iA/0.5AL	6-axis, long arm



M-1iA/0.5A



Robot			Controller							Max. load capacity at wrist (kg)	Reach (mm)	Controlled axes	Repeatability (mm)	Mechanical weight (kg)	Motion range (°)						Maximum speed (°/s)						J4 Moment/ Inertia (Nm/kgm <sup>2</sup> )	J5 Moment/ Inertia (Nm/kgm <sup>2</sup> )	J6 Moment/ Inertia (Nm/kgm <sup>2</sup> )	Average Power consumption (kW)	Protection					
Series	Version	Type	Version		Cabinet type			J1	J2						J3	J4	J5	J6	J1	J2	J3	J4	J5	J6	Body standard/ optional	Wrist & J3 arm standard/ optional										
M-1	iA	1H	●	●	-	●	○	-	-	1	280	3	± 0.02	18 (*2)	ø 280 x 100 (*3)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	IP20	IP20
M-1	iA	0.5S	●	●	-	●	○	-	-	0.5 (1)	280	4	± 0.02	20 (*2)	ø 280 x 100 (*3)		720	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	IP20	IP20
M-1	iA	0.5A	●	●	-	●	○	-	-	0.5 (1)	280	6	± 0.02	23 (*2)	ø 280 x 100 (*3)		720	300	720	-	-	-	1440	1440	1440	-	-	-	-	-	-	-	-	0.2	IP20	IP20
M-1	iA	1HL	●	●	-	●	○	-	-	1	420	3	± 0.03	21 (*2)	ø 420 x 150 (*3)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	IP20	IP20
M-1	iA	0.5SL	●	●	-	●	○	-	-	0.5 (1)	420	4	± 0.03	23 (*2)	ø 420 x 150 (*3)		720	-	-	-	-	-	-	3000	-	-	-	-	-	-	-	-	-	0.2	IP20	IP20
M-1	iA	0.5AL	●	●	-	●	○	-	-	0.5 (1)	420	6	± 0.03	26 (*2)	ø 420 x 150 (*3)		720	300	720	-	-	-	1440	1440	1440	-	-	-	-	-	-	-	-	0.2	IP20	IP20

● standard ○ on request - not available ( ) with hardware and/or software option \*2) with stand \*3) ø in mm by height in mm \*4) refer to the wrist load diagramm

# M-2 Series



Max. load capacity  
at wrist: **6 kg**



Max. reach:  
**1130 mm**



M-2iA/3S

## Available robot versions:

M-2iA/3S	4-axis, hollow wrist
M-2iA/3SL	4-axis, long arm, hollow wrist
M-2iA/3A	6-axis, inline wrist
M-2iA/3AL	6-axis, long arm, inline wrist
M-2iA/6H	3-axis, hollow wrist
M-2iA/6HL	3-axis, long arm, hollow wrist



Robot			Controller							Max. load capacity at wrist (kg)	Reach (mm)	Controlled axes	Repeatability (mm)	Mechanical weight (kg)	Motion range [°]						Maximum speed [°/s]						J4 Moment/ Inertia (Nm/kgm <sup>2</sup> )	J5 Moment/ Inertia (Nm/kgm <sup>2</sup> )	J6 Moment/ Inertia (Nm/kgm <sup>2</sup> )	Average Power consumption (kW)	Protection	
Series	Version	Type	Version		Cabinet type										J1	J2	J3	J4	J5	J6	J1	J2	J3	J4	J5	J6					Body standard/ optional	Wrist & J3 arm standard/ optional
M-2	iA	3S	●	●	-	●	○	○	-	3	800	4	± 0.1	120	ø 800 x 300 (*3)		720	-	-	-	-	-	3500	-	-	*4)	2.5	IP67/IP69K	IP69K			
M-2	iA	3A	●	●	-	●	○	○	-	3	800	6	± 0.1	140	ø 800 x 300 (*3)		720	300	720	-	-	-	1700	1700	1700	*4)	2.5	IP67/IP69K	IP69K			
M-2	iA	3SL	●	●	-	●	○	○	-	3	1130	4	± 0.1	120	ø 1130 x 400 (*3)		720	-	-	-	-	-	3500	-	-	*4)	2.5	IP67/IP69K	IP69K			
M-2	iA	3AL	●	●	-	●	○	○	-	3	1130	6	± 0.1	140	ø 1130 x 400 (*3)		720	300	720	-	-	-	1700	1700	1700	*4)	2.5	IP67/IP69K	IP69K			
M-2	iA	6H	●	●	-	●	○	○	-	6	800	3	± 0.1	115	ø 800 x 300 (*3)		-	-	-	-	-	-	-	-	-	*4)	2.5	IP67/IP69K	IP69K			
M-2	iA	6HL	●	●	-	●	○	○	-	6	1130	3	± 0.1	115	ø 1130 x 400 (*3)		-	-	-	-	-	-	-	-	-	*4)	2.5	IP67/IP69K	IP69K			

● standard ○ on request - not available ( ) with hardware and/or software option \*3) ø in mm by height in mm \*4) refer to the wrist load diagram

# M-3 Series



Max. load capacity at wrist: **12 kg**



Max. reach: **1350 mm**



M-3iA/6S

## Available robot versions:

M-3iA/6S 4-axis, hollow wrist

M-3iA/6A 6-axis, inline wrist

M-3iA/12H 3-axis, hollow wrist



Robot			Controller							Max. load capacity at wrist (kg)	Reach (mm)	Controlled axes	Repeatability (mm)	Mechanical weight (kg)	Motion range (°)						Maximum speed (°/s)						J4 Moment/ Inertia (Nm/kgm <sup>2</sup> )	J5 Moment/ Inertia (Nm/kgm <sup>2</sup> )	J6 Moment/ Inertia (Nm/kgm <sup>2</sup> )	Average Power consumption (kW)	Protection	
Series	Version	Type	Version		Cabinet type			J1	J2						J3	J4	J5	J6	J1	J2	J3	J4	J5	J6	Body standard/ optional	Wrist & J3 arm standard/ optional						
			R-30iB	R-30iB Plus	Compact cabinet	Open air cabinet	Mate cabinet																								A-cabinet	B-cabinet
M-3	iA	6S	●	●	-	●	○	○	-	6 (8)	1350	4	± 0.1	160	ø 1350 x 500 (*3)			720	-	-	-	-	-	-	4000	-	-	*4)	2.5	IP67	IP67	
M-3	iA	6A	●	●	-	●	○	○	-	6	1350	6	± 0.1	175	ø 1350 x 500 (*3)			720	300	720	-	-	-	4000	2000	2000	*4)	2.5	IP67	IP67		
M-3	iA	12H	●	●	-	●	○	○	-	12	1350	3	± 0.1	155	ø 1350 x 500 (*3)			-	-	-	-	-	-	-	-	-	*4)	2.5	IP67	IP67		

● standard ○ on request - not available ( ) with hardware and/or software option \*3) ø in mm by height in mm \*4) refer to the wrist load diagram

# DR-3 Series



Max. load capacity  
at wrist: **8 kg**



Max. reach:  
**1600 mm**



## Available robot versions:

DR-3iB/8L

4-axis, long arm, hollow wrist

white epoxy paint

plated type



DR-3iB/8L

Robot			Controller							Max. load capacity at wrist (kg)	Reach (mm)	Controlled axes	Repeatability (mm)	Mechanical weight (kg)	Motion range (°)						Max. linear speed [mm/s]			Maximum speed (%/s)			J4 Moment/ Inertia (Nm/kgm <sup>2</sup> )	J5 Moment/ Inertia (Nm/kgm <sup>2</sup> )	J6 Moment/ Inertia (Nm/kgm <sup>2</sup> )	Average Power consumption (kW)	Protection		
Series	Version	Type	Version		Cabinet type										J1	J2	J3	J4	J5	J6	J1	J2	J3	J4	J5	J6					J4 Moment/ Inertia (Nm/kgm <sup>2</sup> )	J5 Moment/ Inertia (Nm/kgm <sup>2</sup> )	J6 Moment/ Inertia (Nm/kgm <sup>2</sup> )
DR-3	iB	8L	●	-	●	-	○	-	-	8	1600	4	± 0.03**	1y0	ø 1600 x 500 (*3)			720	-	-	10000			2000	-	-	-- / 0.2	*4]			2.5	IP69K	IP69K

● standard ○ on request - not available ( ) with hardware and/or software option \*3) ø in mm by height in mm \*4) refer to the wrist load diagram



# SCARA Robots



Max. load capacity at wrist: **12 kg**



Max. reach: **900 mm**

## Available robot versions:

SR-3iA	4-axis, hollow Z-axis
SR-3iA/H	3-axis, hollow Z-axis
SR-6iA	4-axis, hollow Z-axis
SR-6iA/H	3-axis, hollow Z-axis
SR-12iA	4-axis, hollow Z-axis/ optional white IP65 type



SR-3iA

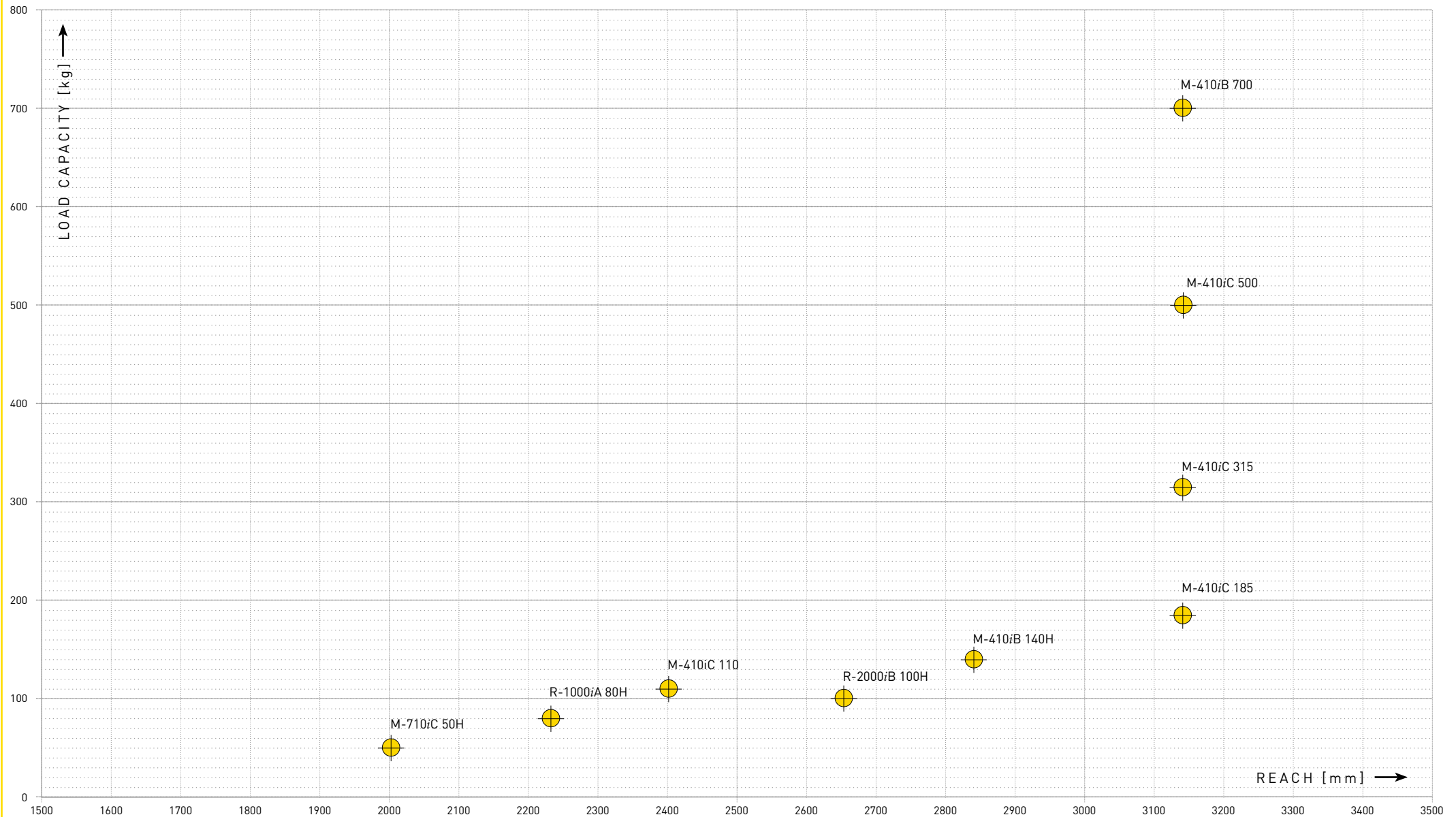


Robot			Controller						Max. load capacity at wrist (kg)	Reach (mm)	Controlled axes	Repeatability (mm)	Mechanical weight (kg)	Motion range (°)						Maximum speed (°/s)						J4 Moment/ Inertia (Nm/kgm <sup>2</sup> )	J5 Moment/ Inertia (Nm/kgm <sup>2</sup> )	J6 Moment/ Inertia (Nm/kgm <sup>2</sup> )	Maximum pushdown force (N)	Average power consumption (kW)	Protection		
Series	Version	Type	Version		Cabinet type									J1	J2	J3	J4	J5	J6	J1	J2	J3	J4	J5	J6						Body standard/ optional	Wrist & J3 arm standard/ optional	
SR-3	iA		R-30iB	R-30iB Plus	Compact cabinet	Open air cabinet	Mate cabinet	A-cabinet	B-cabinet	3	400	4	±0.01 [J1, J2] ±0.01 [J3] ±0.004° [J4]	19	284	290	200 mm *	1400	-	-	720	780	1800 mm/s	3000	-	-	--/0.06	-	-	150	0.25	IP20	IP20
SR-3	iA	H								3	400	3	±0.01 [J1, J2] ±0.01 [J3]	17	284	290	200 mm *	-	-	-	720	780	1800 mm/s	-	-	-	-	-	150	0.25	IP20	IP20	
SR-6	iA									6	650	4	±0.01 [J1, J2] ±0.01 [J3] ±0.004° [J4]	30	296	300	210 mm *	1400	-	-	440	700	2000 mm/s	2500	-	-	--/0.12	-	-	200	0.35	IP20	IP20
SR-6	iA	H								6	650	3	±0.01 [J1, J2] ±0.01 [J3]	28	296	300	210 mm *	-	-	-	440	700	2000 mm/s	-	-	-	-	-	200	0.35	IP20	IP20	
SR-12	iA									12	900	4	±0.015 [J1, J2] ±0.01 [J3] ±0.005° [J4]	53	290	290	450 mm optional 300 mm	1400	-	-	440	510	2800 mm/s	2500	-	-	--/0.30	-	-	250	0.5	IP20 / IP65	IP20 / IP65

● standard ○ on request - not available [ ] with hardware and/or software option \* z axis

# FIND YOUR

# PALLETISING ROBOT



# Palletising Robots



M-710iC/50H



M-410iC/110



R-1000iA/80H



M-410 Series

## Available robot versions:

M-710iC/50H	5-axis, inline wrist
R-1000iA/80H	5-axis, inline wrist
M-410iC/110	inline wrist
M-410iB/140H	5-axis, inline wrist
M-410iB/700	Hollow wrist
M-410iC/185, /315, /500	Hollow wrist

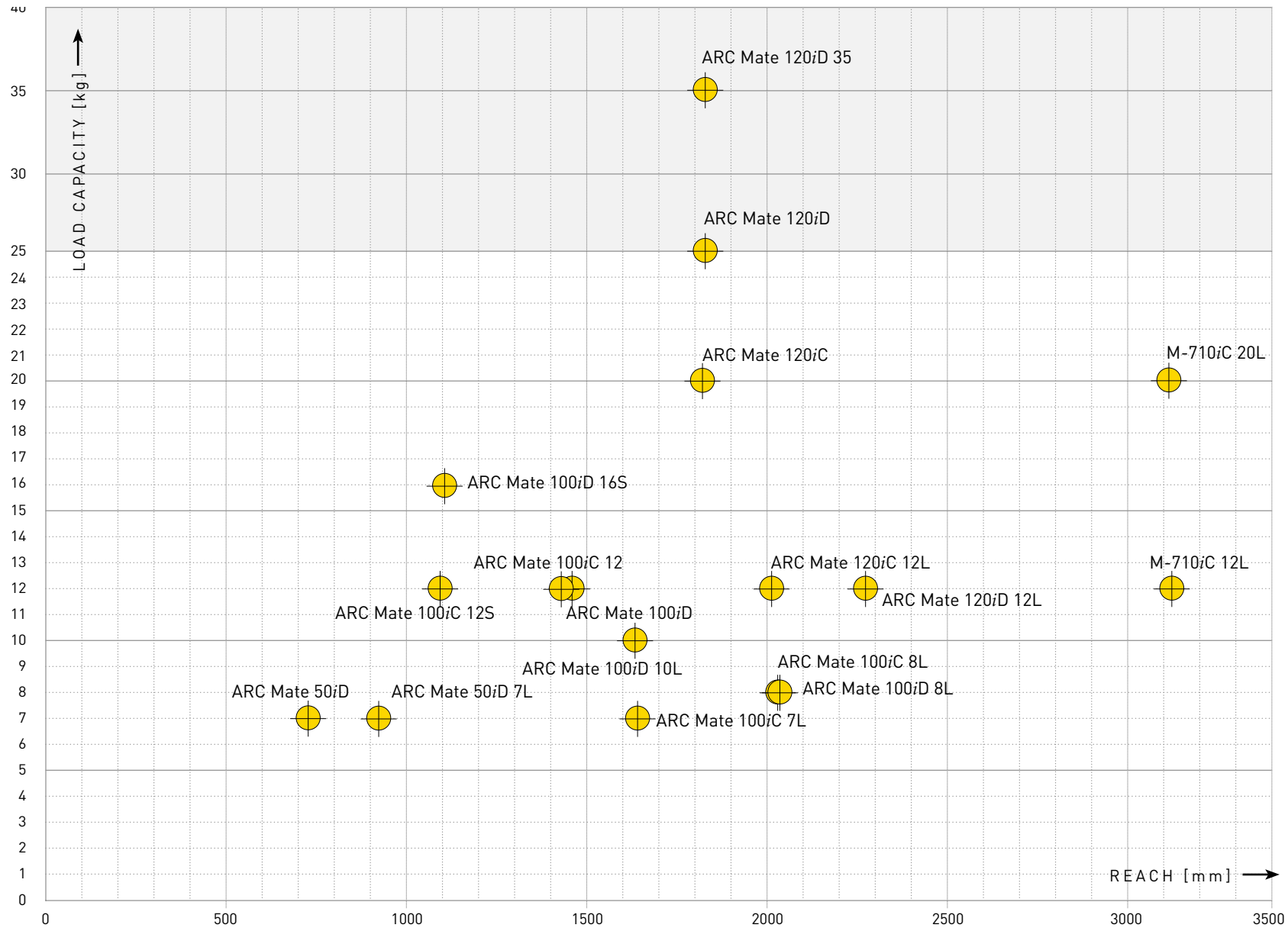


Robot			Controller							Max. load capacity at wrist (kg)	Reach (mm)	Controlled axes	Repeatability (mm)	Mechanical weight (kg)	Motion range [°]						Maximum speed [°/s]						J4 Moment/ Inertia (Nm/kgm <sup>2</sup> )	J5 Moment/ Inertia (Nm/kgm <sup>2</sup> )	J6 Moment/ Inertia (Nm/kgm <sup>2</sup> )	Average Power consumption (kW)	Protection	
Series	Version	Type	Version		Cabinet type										Motion range [°]						Maximum speed [°/s]										Body standard/ optional	Wrist & J3 arm standard/ optional
			R-30iB	R-30iB Plus	Compact cabinet	Open air cabinet	Mate cabinet	A-cabinet	B-cabinet						J1	J2	J3	J4	J5	J6	J1	J2	J3	J4	J5	J6						
M-710	iC	50H	●	●	-	-	○	●	○	50	2003	5	± 0.15	540	360	225	440	234	720	-	175	175	175	175	720	-	150/6.3	68/2.5	-	2.5	IP54/IP67	IP67
R-1000	iA	80H	●	●	-	-	○	●	○	80	2230	5	± 0.03**	610	360	245	215	20	720	-	185	180	180	180	500	-	-/48	-/25	-	2.5	IP54 /IP56	IP67
M-410	iC	110	●	●	-	-	○	●	○	110	2403	4	± 0.2	1030	370	125	140	720	-	145	130	140	420	-	-	-	-	-	1	IP54	IP67	
M-410	iB	140H	●	●	-	-	-	●	○	140	2850	5	± 0.2	1200	360	155	112	20	720	-	140	115	135	135	420	-	147	53	-	3	IP54	IP54
M-410	iC	185	●	●	-	-	-	●	○	185	3143	4	± 0.5	1600(1330)	360	144	136	720	-	140	140	140	305	-	-	88	-	-	3	IP54	IP54	
M-410	iC	315	●	●	-	-	-	●	○	315	3143	4	± 0.5	1600(1330)	360	144	136	720	-	90	100	110	195	-	-	155	-	-	3	IP54	IP54	
M-410	iC	500	●	●	-	-	-	●	○	500	3143	4	± 0.5	2410(1910)	370	144	136	720	-	85	85	85	200	-	-	250	-	-	3	IP54	IP54	
M-410	iB	700	●	●	-	-	-	●	○	700	3143	4	± 0.5	2700	360	144	136	540	-	60	60	60	120	-	-	490	-	-	3	IP54	IP54	

● standard ○ on request - not available ( ) with hardware and/or software option \*\* Based on ISO9283

# FIND YOUR

# ARC WELDING ROBOT



Arc Mate 50 Series . . . . . Page 29



Arc Mate 100 Series . . . . . Page 29



Arc Mate 120 Series . . . . . Page 29



M-710 Series . . . . . Page 29

# Arc Welding Robots



ARC Mate 50 Series



ARC Mate 100 Series



ARC Mate 120 Series

## Available robot versions:

- ARC Mate 50iD      Standard model
- ARC Mate 50iD/7L      Long arm
- ARC Mate 100iD      Standard model, hollow wrist/arm/base
- ARC Mate 100iD/10L      Long arm, hollow wrist/arm/base
- ARC Mate 100iD/8L      Long arm, hollow wrist/arm/base
- ARC Mate 100iD/16S      Short arm, hollow wrist/arm
- ARC Mate 120iD/12L      Long arm, hollow wrist/arm/base
- ARC Mate 120iD/35      Standard model, hollow wrist/arm/base
- ARC Mate 120iD      Hollow wrist/arm/base



Robot			Controller							Max. load capacity at wrist (kg)	Reach (mm)	Controlled axes	Repeatability (mm)	Mechanical weight (kg)	Motion range [°]						Maximum speed [°/s]						J4 Moment/ Inertia [Nm/kgm <sup>2</sup> ]	J5 Moment/ Inertia [Nm/kgm <sup>2</sup> ]	J6 Moment/ Inertia [Nm/kgm <sup>2</sup> ]	Average Power consumption [kW]	Protection	
Series	Version	Type	Version		Cabinet type			J1	J2						J3	J4	J5	J6	J1	J2	J3	J4	J5	J6	Body standard/ optional	Wrist & J3 arm standard/ optional						
			R-30iB	R-30iB Plus	Compact cabinet	Open air cabinet	Mate cabinet																								A-cabinet	B-cabinet
ARC Mate 50	iD		●	●	-	-	●	-	-	7	717	6	± 0.018**	25	360	245	420	380	250	720	450	380	520	550	545	1000	16.6/0.47	16.6/0.47	9.4/0.15	0.5	IP67/IP69K	IP67/IP69K
ARC Mate 50	iD	7L	●	●	-	-	●	-	-	7	911	6	± 0.018**	27	360	245	430	380	250	720	370	310	410	550	545	1000	16.6/0.47	16.6/0.47	9.4/0.15	0.5	IP67/IP69K	IP67/IP69K
ARC Mate 100	iD	8L	●	-	-	○	●	○		8	2032	6	± 0.03**	180	340 (370)	235	455	380	360	900	210	210	220	430	450	720	16.1/0.63	16.1/0.63	5.9/0.061	1	IP54	IP67
ARC Mate 100	iD	10L	●	-	-	○	●	○		10	1636	6	± 0.03**	150	340 (370)	235	455	380	360	900	260	240	260	430	450	720	22.0/0.65	22.0/0.65	9.8/0.17	1	IP54	IP67
ARC Mate 100	iD	16S	●	-	-	○	○	○		16	1103	6	± 0.02**	140	340 (370)	235	340	380	360	900	290	270	270	430	450	730	26.0/0.90	26.0/0.90	11.0/0.30	1	IP54	IP67
ARC Mate 100	iD		●	-	-	○	●	○		12	1441	6	± 0.02**	145	340 (370)	235	455	380	360	900	260	240	260	430	450	720	26.0/0.90	26.0/0.90	11.0/0.30	1	IP54	IP67
ARC Mate 120	iD	12L	●	-	-	○	●	○		12	2272	6	± 0.03**	250	340 (370)	260	475	400	360	900	210	210	265	420	450	720	22.0/0.65	22.0/0.65	9.8/0.17	1	IP54	IP67
ARC Mate 120	iD	35	●	-	-	○	○	○		35	1831	6	± 0.03**	250	340 (370)	260	458	400	280 (360)	540 (900)	180	180	200	350	350	400	110.0/4.0	110.0/4.0	60.0/1.5	1	IP54	IP67
ARC Mate 120	iD		●	-	-	○	●	○		25	1831	6	± 0.02**	250	340 (370)	260	458	400	280 (360)	540 (900)	210	210	265	420	420	720	52.0/2.4	52.0/2.4	32.0/1.2	1	IP54	IP67

● standard    ○ on request    - not available    [ ] with hardware and/or software option    \*\* Based on ISO9283

# Arc Welding Robots

## Available robot versions:

M-710iC/12L Long arm, hollow wrist/arm

M-710iC/20L Long arm

M-710iC/12L



M-710iC/20L

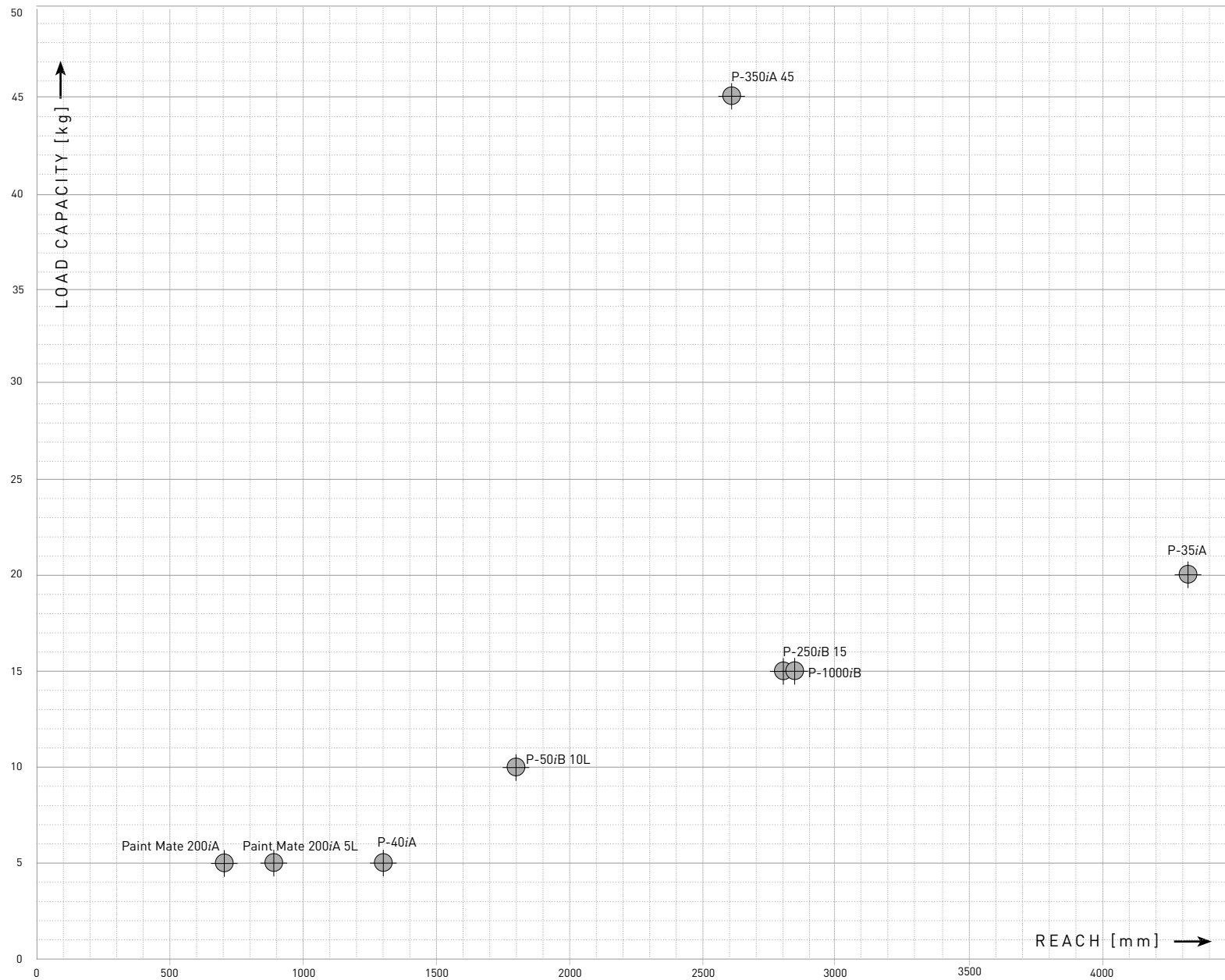


Robot			Controller								Max. load capacity at wrist (kg)	Reach (mm)	Controlled axes	Repeatability (mm)	Mechanical weight (kg)	Motion range (°)						Maximum speed (°/s)						J4 Moment/ Inertia (Nm/kgm <sup>2</sup> )	J5 Moment/ Inertia (Nm/kgm <sup>2</sup> )	J6 Moment/ Inertia (Nm/kgm <sup>2</sup> )	Average Power consumption (kW)	Protection	
Series	Version	Type	Version		Cabinet type				J1	J2						J3	J4	J5	J6	J1	J2	J3	J4	J5	J6	Body standard/ optional	Wrist & J3 arm standard/ optional						
			R-30iB	R-30iB Plus	Compact cabinet	Open air cabinet	Mate cabinet	A-cabinet																								B-cabinet	
M-710	iC	12L	●	●	-	-	○	●	○	12	3123	6	± 0.09**	540	360	225	434	400	380	720	180	180	180	400	430	630	22.0/0.65	22.0/0.65	9.8/0.17	2.5	IP54/IP67	IP67	
M-710	iC	20L	●	●	-	-	○	●	○	20	3110	6	± 0.11**	540	360	225	432	400	280	900	175	175	180	350	360	600	39.2/0.88	39.2/0.88	19.6/0.25	2.5	IP54/IP67	IP67	

● standard ○ on request - not available [ ] with hardware and/or software option \*\* Based on ISO9283

# FIND YOUR

# PAINT ROBOT



Paint Mate 200 Series . . . Page 32



P-40 Series . . . . . Page 32



P-50 Series . . . . . Page 32



P-250 Series . . . . . Page 32



P-350 Series . . . . . Page 32

# Paint Robots



Paint Mate 200 Series



P-40 Series



P-50 Series

## Available robot versions:

Paint Mate 200iA	Standard model
Paint Mate 200iA/5L	Long arm
P-35iA	Standard model
P-40iA	Standard model
P-50iB/10L	Long arm
P-250iB/15	Standard model
P-350iA/45	Standard model
P-1000iB	Standard model



P-250 Series



P-350 Series



P-35/P-1000



Robot			Controller						Max. load capacity at wrist (kg)	Reach (mm)	Controlled axes	Repeatability (mm)	Mechanical weight (kg)	Motion range (°)						Maximum speed (°/s)						J4 Moment/ Inertia (Nm/kgm <sup>2</sup> )	J5 Moment/ Inertia (Nm/kgm <sup>2</sup> )	J6 Moment/ Inertia (Nm/kgm <sup>2</sup> )	Average Power consumption (kW)	Protection					
Series	Version	Type	Version	Cabinet type				J1						J2	J3	J4	J5	J6	E1	J1	J2	J3	J4	J5	J6					E1	Body standard/ optional	Wrist & J3 arm standard/ optional			
				R-30iB	R-30iB Plus	Compact cabinet	Open air cabinet																										Mate cabinet	A-cabinet	B-cabinet
Paint Mate 200	iA		●	-	-	-	-	5	704	6	± 0.2 **	35	340	200	388	380	240	720		350	350	400	450	450	720							0.5	*5)		
Paint Mate 200	iA	5L	●	-	-	-	-	5	892	6	± 0.03 **	37	340	230	373	380	240	720		270	270	270	450	450	720							0.5	*5)		
P-40	iA		-	●	-	-	-	5	1300	6	± 0.03 **	110	360	255	395	380	240	720		220	190	240	450	450	720							0.8	*5)		
P-50	iB	10L	●	-	-	-	-	10	1800	6	± 0.2 **	331	320	240	404	1080	1080	1080		140	140	160	375	430	545							0.8	*5)		
P-250	iB	15	-	●	-	-	-	15	2800	6	± 0.2 **	530	360	280	330	1080	1080	1080		160	160	160	375	430	545							3.5	*5)		
P-350	iB	45	●	-	-	-	-	45	2606	6	± 0.1 **	590	360	225	440	800	250	800		180	180	180	250	250	360							2.5	*5)		
<b>Automotive Package</b>																																			
P-35	iA	Opener	-	-	-	-	-	20	4318	5	± 0.05 **	700	220	370	590	270	360			75	100	100	50	50									3.5	*5)	
P-1000	iB		-	-	-	-	-	15	2848	7	± 0.05 **	700	220	150	240	1440	1440	1440		125	125	120	120	200	200	200								3.5	*5)

● standard ○ on request - not available [ ] with hardware and/or software option \*5) ATEX certified Cat. II Group 2G and 2D \*\* Based on ISO9283



# Controller R-30iB Plus



**B-cabinet**  
740 x 1100 x 550 mm

**A-cabinet**  
600 x 500 x 470 mm

**Mate Cabinet**  
470 x 400 x 322 mm

**Mate Open Air Cabinet**  
370 x 200 x 350 mm

**Mini Plus**  
410 x 277 x 370 mm

**Compact Cabinet**  
440 x 85 x 260 mm

## The R-30iB Plus controller is the FANUC standard for smarter productivity.

A new generation of advanced technology and enhanced integrated FANUC hard- and more than 250 software functions are key for the robot performance in terms of cycle-time, speed, accuracy and safety. Increased user-friendliness, minimum energy consumption and highest productivity maximises the overall functionality, reliability and operability. Different cabinet variants are available in order to provide a flexible and a cost effective solution.

### Your advantages:

- higher performance CPU and main board with increased memory
- compact and stackable design
- easy operation with smart *iPendant Touch*
- flexible connections by broad range of fieldbus & safety bus
- ready for intelligent functions as *iRvision*, force, interference check etc.
- easy system diagnosis via included *iRDiagnosics* function
- optimised energy efficiency and energy regeneration
- shortened signal processing cycle
- new camera interface and simplified cable configuration for vision function
- high speed network and USB performance for increased data transmission and faster backups

# iPendant Touch

The lightweight and ergonomically designed FANUC *iPendant Touch* with its intuitive *iHMI* interface provides user-friendly programming for both programmers and on-site operators.

## Your advantages:

- programming and advanced process capability with one user interface
- improved efficiency by facilitated system setup and maintenance
- customisation of user defined HTML screens
- easy customisation of user defined HTML screens
- make the invisible visible using 4D graphics to visualise tool and frame settings, safety zones and robot path
- more information provided using multi-window display
- setup/modification of *iR*Vision via *iPendant*
- compliant with industrial safety standards
- *iHMI* with similar look and feel across FANUC products



# Tablet TP

With a large touch screen, the Tablet Teach Pendant was designed for intuitive programming. The drag & drop functionality allows you to easily program an application in a matter of minutes.

## Your advantages:

- compliant with industrial safety standards (emergency stop button, three-position enabling switch, shock resistance, dust and water protected)
- two interfaces available:

### New user interface

Intuitive interface for beginners with a focus on simple functions for easy operation

- optional holder and hook available

### iPendant user interface

Same interface of the iPendant Touch including full specifications and thus ensuring a smooth transition from the traditional iPendant to the Tablet TP



New user interface



iPendant user interface



# ORIGINAL FANUC SMART ACCESSORIES AND FUNCTIONS

## INTELLIGENCE

### **iRVision**

Unique integrated FANUC “plug & play” visual detection system (2D, 2½D, 3D, 3D-Laser, 3D-Map) – improved flexibility for picking random stationary products. Also support in simulation SW ROBOGUIDE.

### **Force Sensors**

Integrated FANUC force sensor provides „touch sense” for highly sensitive force control to realize assembly, deburring, polishing and many other applications.

### **iRPickTool (Visual line tracking)**

Part queue management, completely integrated in robot controller to support line tracking on moving conveyors. Combination of integrated FANUC iRVision with iRPickTool, for higher flexibility when picking random products on a moving conveyor.

### **3D Vision Sensor**

Different variations of integrated 3D high speed vision detection system for bin picking, depalletising and/or visual line tracking.

### **iRCalibration suite**

iRCalibration provide different service functions, by using of iRVision functionality, to simplify robot mastering, remastering, UFrame and UTool setting, Frame shifting and coordinated pair setting (precise and easy setup of coordinated robots and/or positioners).

### **Intelligence functions**

Dedicated functions with simplified instructions, interfaces, graphical user screens and exclusive features to standardise and ease the programming, setup and operation of your robot.



## MOTION

### **Integrated auxiliary axes**

Fully integrated standardized and comprehensive auxiliary axis packages – up to 72 axes, for easy usage in external axis solutions (robot rail unit, custom-made manipulator, ...)

### **Multi-arm**

For complex or coordinated multiple robot movements controlled by a single controller

### **Positioners**

A wide range of FANUC integrated positioners – the ideal solution for coordinated motion and manipulating work pieces.

### **Learning Vibration Control**

Cycle time improvement by the optimisation of path motion using a dedicated accelerometer sensor to suppress tool vibrations during robot motions.

### **Motion functions**

Dedicated instructions and screens with exclusive features to optimise the motion of your robot and simplify the programming and setup.

### **Hand Guidance**

The hand guidance accessory enables the robot to be positioned by pushing the handle mounted on the robot wrist. It can be used to pick up and carry a workpiece and teach robot programs easily.



# SAFETY

## Motion safety

Dual Check Safety (DCS) for reliable checking of position and robot speed in predefined three-dimensional zones – higher safety for operators, machines and periphery

## Collision guard

High Sensitive Collision Detection (HSCD) for minimal damages in the event of a collision and optimised cycle time and energy consumption after using payload identification

## Safety functions

dedicated functions with keen instructions, interfaces, screens and exclusive features to simplify and standardise the programming, setup and operation of your robot. Easy to connect via safety bus function (DeviceNet Safety, EtherNet/IP Safety, PROFINET Safety).



# INTERFACES

## Digital I/O

Easy handshake setup using digital input and output interface communication between robot and other periphery

## Field bus

Faster handshake setup using a wide variety of fieldbus standards (Profibus, Modbus, Devicenet, Profinet, Ethernet ...)

## Interface functions

dedicated functions with keen instructions, interfaces, screens and exclusive features to simplify and standardise the programming, setup and operation of your robot.



# COMFORT

## iPendant Touch

A color, internet-ready iPendant Touch with intuitive iHMI interface for even easier and faster programming using pictogram functions plus cost savings by using the touchscreen for custom HMI applications

## ROBOGUIDE

Simulation software for offline programming, easy setup of robot cell's and feasibility studies with huge library of simulation tools.

## Application functions

dedicated functions with keen instructions, interfaces, screens and exclusive features to simplify and standardise the programming, setup and operation of your robot.



**ASK YOUR LOCAL FANUC OFFICE!**

# iRVision – we empower robots to see

iRVision is FANUC's unique, fully robot integrated visual detection system enabling the robots to see in order to manage production settings in a faster, smarter and more reliable way.



## Easy plug and play technology

iRVision is fully robot integrated, not requiring an interface to external devices or any additional hardware (such as PCs, monitors or side cabinets) for the set up and operation.

## Efficient ease of use

The solution is setup within a fast matter of time, as it guides you through each step along the way. A powerful vision toolbox, that is integrated in the standard iRVision package, supports any tailor-made application.

## Easy simulation

All vision types of iRVision are supported in the simulation software ROBOGUIDE.



### 2D vision

Detection of objects positioned in one layer (X,Y,R)



### 2½D vision

Detection of objects positioned in two or more layers (X,Y,Z,R)



### 3D laser vision

Detection of objects in position and posture by laser projection (X,Y,Z,W,P,R)



### 3D Vision Sensor

Detection of objects by 3D map (structured light projection) (X,Y,Z,W,P,R)



### iRPickTool

Detection of objects on-the-fly in conveyor tracking (X,Y,R). Not only camera but also 3DV sensor can be used for detection.



### iRCalibration

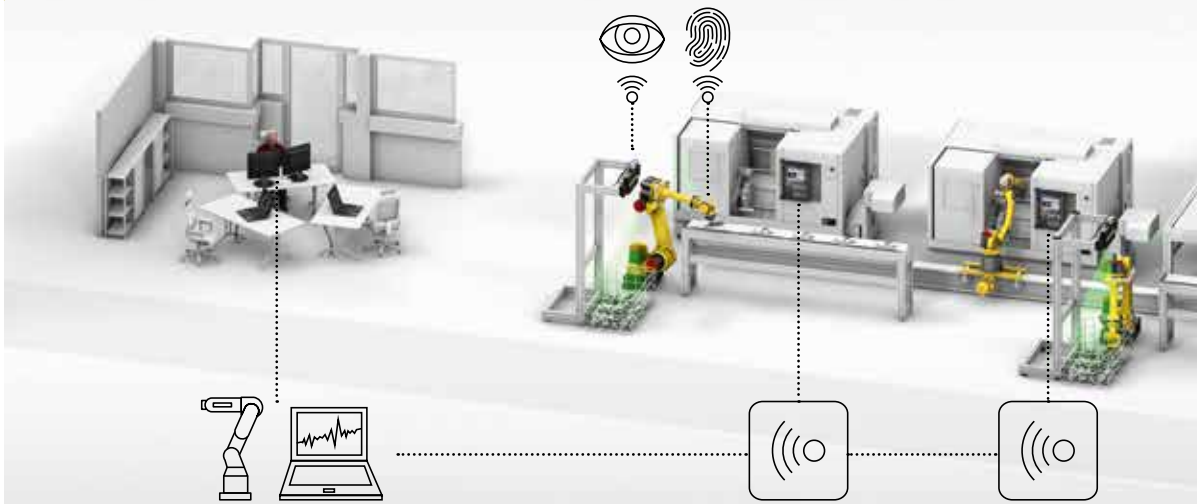
iRCalibration functions simplify the initial setup, speeding up the entire integration



### iRVision Weld Tip Inspection / iTorch-Mate

Supports the optical wear and condition control

# Zero Downtime



## Intelligent diagnostics for robots

Unexpected downtime could cost as much as €5,000 per minute. With the new ZDT diagnostics tool from FANUC, we ensure that downtime doesn't happen. ZDT constantly monitors each robot's mechanical, maintenance and process health in real-time and proactively detects potential robot, controller, or process problems before unexpected downtime can occur. Notifications can be seen even via smartphone.

### ZDT suites

FANUC has developed a series of ZDT suites that can be used to indicate the health of a robot by monitoring and providing information such as:

- servo gun data and cap wear monitoring
- condition data on reducer, motor and brake health
- job data for motor torque per axis monitor
- flight data of servo off (Emergency Stop) event monitor
- servo hours and basic grease change reminders
- odometer (travel distance) per axis

### Delivers real time information about:

- **Mechanical health** reducer diagnosis, motor torque monitoring, servo alarm recording, etc.
- **Process health** operating status, vision detection results, servo gun status monitoring, etc.
- **System health** error information, memory usage, CPU and network load, etc.
- **Maintenance health** grease change time, battery replacement time, lubrication of balancer bushings, etc.

All information can be centrally managed on a Server, and can be sent in real-time to remote devices such as smartphones. As well as a robot-only configuration, it is also possible to select the most suitable configuration for your environment, such as a cell-by-cell or factory-by-factory.

### Enhances your productivity by:

- **Proactively detecting potential equipment issues** before unexpected downtime occurs
- **Advanced analytics and reporting to help optimise equipment utilisation in areas such as:**
  - smart maintenance notifications to extend equipment life and optimise maintenance costs
  - recommendation of actions to extend robot life, reduce cycle times and energy consumption
- **Offering enhanced technical support services** to increase productivity and overall customer satisfaction

# FANUC ROBOGUIDE INTELLIGENT 3D ROBOT SIMULATION

FANUC ROBOGUIDE is an offline simulation package that simulates both the robot's motion and application commands, significantly reducing the time it takes to create new motion setups.

To ensure minimal impact on production, cells can be designed with imported CAD tested and modified entirely offline. Designed to be intuitive and extremely easy to use ROBOGUIDE requires very little or even no training. Built on Virtual Robot Controllers to give you accurate motion and cycle times.

## Evaluate cells and cycle times

To ensure optimal cell design, ROBOGUIDE allows you to model cells and select the most suitable robot for your application and setup. With an internal virtual controller cycle times can be calculated and validated both quickly and accurately.

## Pre-programming saves you time

ROBOGUIDE allows you to pre-program robots prior to installation in a cell as well as view and confirm robot trajectories and Dual Check Safety (DCS) parameters before downloading the programmes to the real robot.

## Set up and test complex systems

ROBOGUIDE's templates make setting up auxiliary axes, positioners and multigroup machines easy. These can then be tested for functionality to confirm cycle times, duty and power.



# ROBOT CELL SIMULATION WITHOUT DOWNTIME

## Fast and cost-efficient troubleshooting

Loading an All of Above or image Backup into ROBOGUIDE makes reproducing and solving errors easy.

## Full process verification functionality

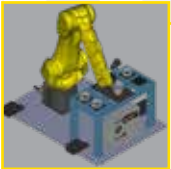
The robot simulator contains a full package of process verification tools including motion, execution and cycle time validation as well as collision detection.

## Improvement without downtime

Enhancing and debugging can take place with production running with zero risk of downtime.

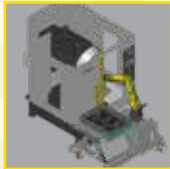
## From design to confirmation - Highly accurate interface & specific tools

With the on board CAD library you have complete access to all FANUC Robots, Machines and simple tooling. The robot simulation and profiler function contains a full package of process verification details including motion, cycle time validation as well as collision detection and avoidance. It is also available with dedicated tools for specific applications.



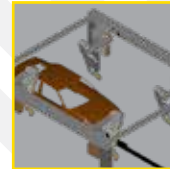
### ChamferingPRO

A step-by-step navigator lets you generate and simulate deburring programmes automatically. To generate the deburring paths, just click the lines to be deburred on the 3D CAD data.



### HandlingPRO

Simulate and test material handling processes and conduct feasibility studies for robotic applications without the physical need and expense of a prototype work cell setup.



### PaintPRO

Graphical offline programming solution that simplifies robotic path teaching and paint process development. It contains special functionality for setting up paint gun displacement, spray size, overlap, paint pattern, paint speed and gun trigger timing.



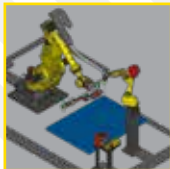
### OLPCPRO

Robot program development software that supports the development and maintenance of KAREL and Teach Pendant Programming.



### PalletPRO

Can be used to completely build, debug and test a palletising application offline. The data created in PalletPRO can then be downloaded to a real robot controller containing the PalletTool software.



### WeldPRO

Simulate a robotic arc welding process in the 3-D world. Driven exclusively by a FANUC Virtual Robot Controller, WeldPRO is empowered with the most accurate program teaching tools and cycle time information available in any simulation package.



### iRPickPRO

FANUC's latest plug-in to the ROBOGUIDE off-line programming tool, allows users to simulate high speed pick and place applications. iRPickPRO can then be downloaded to a real robot controller containing the iRPickPRO software.

## Test ROBOGUIDE now

Rely on FANUC Know-how and more than 16 years of ROBOGUIDE 3D simulation experience that is continuously improved and updated. Contact your local FANUC office to experience working with ROBOGUIDE yourself!

# OUR STRENGTH: SERVICE AND SUPPORT



## Parts

"The original equipment manufacturer"

1. Life-time parts coverage
2. 24/7 parts dispatch worldwide
3. European Repair Centre
4. Check and shop online
5. Emergency Kit
6. Parts Pooling
7. Consignment at customer



## Service

"Tailored to your needs"

- 24-hour hotline support
- Service contracts with
  - a. **Predictive services**  
"Efficient equipment monitoring"
  - b. **Preventive service**  
"Extend the lifetime of your equipment"
  - c. **Corrective Service**  
"Emergency Services"
  - d. **Repair Service**  
"New life for your parts & machine"
  - e. **Refurbishment service**  
"Extend lifetime of your equipment"



**WHEREVER  
YOU NEED US:  
WE ARE THERE**



**FANUC Academy**  
"Let's optimise your productivity"

- 1. Product Trainings by FANUC
- 2. On demand or On-Site Trainings
- 3. Dedicated FANUC trainers
- 4. First-hand knowledge
- 5. Fully equipped training centre

***Service First*** 

- Life time maintenance
- Minimise downtime
- Worldwide support
  
- Reliable
- Predictable
- Easy to repair





# LR MATE 200

# M-10



## ROBOT SERIES

Version		iD										iD			
Type		4SH	4S	4SC	7H	7C	7WP	-	7L	7LC	14L *12	8L	10L	12	16S
CONTROLLER	Controller Version	R-30iB	•	•	•	•	•	•	•	•	-	-	-	-	-
		R-30iB Plus	•	•	•	•	•	•	•	•	•	•	•	•	•
	Compact	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Open Air Cabinet	o	o	o	o	o	-	o	o	o	o	-	-	-	-
	Mate Cabinet	•	•	•	•	•	•	•	•	•	•	o	o	o	o
	A-Cabinet	-	-	-	-	-	-	-	-	-	-	•	•	•	•
	B-Cabinet	-	-	-	-	-	-	-	-	-	-	o	o	o	o
Max Load Capacity at wrist (kg)		4	4	4	7	7	7	7	7	7	14	8	10	12	16
Reach (mm)		550	550	550	717	717	717	717	911	911	911	2032	1636	1441	1103
Controlled axes		5	6	6	5	6	6	6	6	6	6	6	6	6	6
Repeatability (mm)		± 0.013**	± 0.01**	± 0.013**	± 0.018**	± 0.018**	± 0.018**	± 0.01**	± 0.01**	± 0.018**	± 0.01**	± 0.03**	± 0.03**	± 0.02**	± 0.02**
Mechanical weight (kg)		19	20	20	24	25	25	25	27	27	27	180	150	145	140
MOTION RANGE [°]	J1	360	360	360	360	360	360	360	360	360	360	340 [370]	340 [370]	340 [370]	340 [370]
	J2	230	230	230	245	245	245	245	245	245	245	235	235	235	235
	J3	402	402	402	420	420	420	420	430	430	430	455	455	455	340
	J4	240	380	380	250	380	380	380	380	380	380	380	380	380	380
	J5	720	240	236	720	250	250	250	250	250	250	360	360	360	360
	J6	-	720	720	-	720	720	720	720	720	720	900	900	900	900
MAXIMUM SPEED [°/S]	J1	460	460	460	450	450	450	450	370	370	120	210	260	260	290
	J2	460	460	460	380	380	380	380	310	310	61	210	240	240	270
	J3	520	520	520	520	520	520	520	410	410	58	220	260	260	270
	J4	560	560	560	545	550	550	550	550	550	400	430	430	430	430
	J5	1500	560	560	1500	545	545	545	545	545	240	450	450	450	450
	J6	-	900	900	-	1000	1000	1000	1000	1000	400	720	720	720	730
	E1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
J4 Moment/Inertia (Nm/kgm²)		8.86/02	8.86/02	8.86/02	16.6/0.47	16.6/0.47	16.6/0.47	16.6/0.47	16.6/0.47	16.6/0.47	31.0/0.66	16.1/0.63	22.0/0.65	26.0/0.90	26.0/0.90
J5 Moment/Inertia (Nm/kgm²)		4.0/0.046 (5.5/0.083)	8.86/02	8.86/02	4.0/0.046 (5.5/0.15)	16.6/0.47	16.6/0.47	16.6/0.47	16.6/0.47	16.6/0.47	31.0/0.66	16.1/0.63	22.0/0.65	26.0/0.90	26.0/0.90
J6 Moment/Inertia (Nm/kgm²)		-	4.9/0.067	4.9/0.067	-	9.4/0.15	9.4/0.15	9.4/0.15	9.4/0.15	9.4/0.15	13.4/0.30	5.9/0.061	9.8/0.17	11.0/0.30	11.0/0.30
Average power consumption (Kw)		0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1	1	1	1
PROTECTION	Body Standard/optional	IP67	IP67	IP67	IP67/IP69K	IP67	IP67/IP69K	IP67/IP69K	IP67/IP69K	IP67	IP67	IP54	IP54/IP65	IP54/IP65	IP54 /IP65
	Wrist and J3 Arm Standard/optional	IP67	IP67	IP67	IP67/IP69K	IP67	IP67/IP69K	IP67/IP69K	IP67/IP69K	IP67	IP67	IP67	IP67	IP67	IP67



## M-20

## M-410

### ROBOT SERIES



Version		iA	iD	iB	iD	iB	iB	iD	iB	iC				iB	
Type		20T	12L	25	25	25C	35S	35	140H	110	185	315	500	700	
CONTROLLER	Controller Version	R-30iB	•	-	•	-	•	-	-	•	-	•	•	•	•
		R-30iB Plus	•	•	•	•	•	•	•	•	•	•	•	•	•
	Compact	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Open Air Cabinet	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Mate Cabinet	-	o	o	o	o	-	o	-	-	-	-	-	-	-
	A-Cabinet	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	B-Cabinet	o	o	o	o	o	o	o	o	o	o	o	o	o	
Max Load Capacity at wrist (kg)		20	12	25	25	25	35	35	140	110	185	315	500	700	
Reach (mm)		1662 *1)	2272	1853	1831	1853	1445	1831	2850	2403	3143	3143	3143	3143	
Controlled axes		6	6	6	6	6	6	6	5	4	4	4	4	4	
Repeatability (mm)		± 0.04**	± 0.03**	± 0.02**	± 0.02**	± 0.023**	± 0.02**	± 0.03**	± 0.2	± 0.05	± 0.5	± 0.5	± 0.5	± 0.5	
Mechanical weight (kg)		185	250	210	250	210	205	250	1200	1030	1600*8 (1330*9)	1600*8 (1330*9)	2410*8 (1910*9)	2700	
MOTION RANGE [°]	J1	*1)	340 (370)	340 (360)	340 (370)	340 (360)	340 (360)	340 (370)	360	370	360	360	370	360	
	J2	300	260	240	260	240	240	260	155	125	144	144	144	144	
	J3	586	475	303	458	303	301.5	458	112	140	136	136	136	136	
	J4	400	400	400	400	400	400	400	20	720	720	720	720	540	
	J5	360	360	290	280 (360)	290	260	280 (360)	720	-	-	-	-	-	
	J6	900	900	540	540 (900)	540	540	540 (900)	-	-	-	-	-	-	
MAXIMUM SPEED [°/S]	J1	*1)	210	205	210	205	205	180	140	145	140	90	85	60	
	J2	175	210	205	210	205	205	180	115	130	140	100	85	60	
	J3	180	265	260	265	260	260	200	135	140	140	110	85	60	
	J4	360	420	415	420	415	415	350	135	420	305	195	200	120	
	J5	360	450	415	420	415	415	350	420	-	-	-	-	-	
	J6	550	720	880	720	880	880	400	-	-	-	-	-	-	
	E1	-	-	-	-	-	-	-	-	-	-	-	-	-	
J4 Moment/Inertia (Nm/kgm²)		44/1.04	22.0/0.65	51/2.2	52.0/2.4	51/2.2	51/2.2	110.0/4.0	147	53	88	155	250	490	
J5 Moment/Inertia (Nm/kgm²)		44/1.04	22.0/0.65	51/2.2	52.0/2.4	51/2.2	51/2.2	110.0/4.0	53	-	-	-	-	-	
J6 Moment/Inertia (Nm/kgm²)		22/0.28	9.8/0.17	31/1.2	32.0/1.2	31/1.2	31/1.2	60.0/1.5	-	-	-	-	-	-	
Average power consumption (Kw)		1	1	1	1	1	1	1	3	3	3	3	3	3	
PROTECTION	Body Standard/optional	IP54	IP54/IP65	IP67	IP54/IP65	IP67	IP67	IP54/IP65	IP54	IP54	IP54	IP54	IP54	IP54	
	Wrist and J3 Arm Standard/optional	IP67	IP67	IP67	IP67	IP67	IP67	IP67	IP54	IP54	IP54	IP54	IP54	IP54	

• standard    o on request    - not available    ( ) with hardware and/or software option    \*1) depending on rail specification    \*8) Pedestal type (with controller)    \*9) Compact base type (without controller)    \*11) with Food Grease Option    \*\* Based on ISO9283



# M-710

# M-800

## ROBOT SERIES



Version		iC											iA
Type		12L	20L	20M	45M	50S	50T	50H	50	50E	70T	70	60
CONTROLLER	Controller Version	R-30i/B	•	•	•	•	•	•	•	•	•	•	-
		R-30i/B Plus	•	•	•	•	•	•	•	•	•	•	•
	Compact	-	-	-	-	-	-	-	-	-	-	-	-
	Open Air Cabinet	-	-	-	-	-	-	-	-	-	-	-	-
	Mate Cabinet	o	o	o	o	o	o	o	o	o	o	o	-
	A-Cabinet	•	•	•	•	•	•	•	•	•	•	•	•
	B-Cabinet	o	o	o	o	o	o	o	o	o	o	o	o
Max Load Capacity at wrist (kg)		12	20	20	45	50	50	50	50	50	70	70	60
Reach (mm)		3123	3110	2582	2606	1359	1900 *1)	2003	2050	2050	1900 *1)	2050	2040
Controlled axes		6	6	6	6	6	6	5	6	6	6	6	6
Repeatability (mm)		± 0.09**	± 0.06**	± 0.06**	± 0.06**	± 0.04**	± 0.07	± 0.15	± 0.03**	± 0.07	± 0.07	± 0.04**	± 0.03**
Mechanical weight (kg)		540	540	530	570	545	410	540	560	560	410	560	820
MOTION RANGE [°]	J1	360	360	360	360	360	*1)	360	360	360	*1)	360	370
	J2	225	225	225	225	169	261	225	225	225	261	225	225
	J3	434	432	435	440	376	491	440	440	440	491	440	340
	J4	400	400	400	800	720	720	234	720	720	720	720	720
	J5	380	280	280	250	250	250	720	250	380	250	250	250
	J6	720	900	900	800	720	720	-	720	720	720	720	720
MAXIMUM SPEED [°/S]	J1	180	175	175	180	175	*1)	175	175	175	*1)	160	150
	J2	180	175	175	180	175	175	175	175	175	120	120	150
	J3	180	180	180	180	175	175	175	175	175	120	120	150
	J4	400	350	350	250	250	250	175	250	250	225	225	260
	J5	430	360	360	250	250	250	720	250	240	225	225	260
	J6	630	600	600	360	355	355	-	355	340	225	225	400
	E1	-	-	-	-	-	-	-	-	-	-	-	-
J4 Moment/Inertia (Nm/kgm²)		22.0/0.65	39.2/0.88	39.2/0.88	206/28	206/28	206/28	150/6.3	206/28	206/28	294/28	294/28	210/30
J5 Moment/Inertia (Nm/kgm²)		22.0/0.65	39.2/0.88	39.2/0.88	206/28	206/28	206/28	68/2.5	206/28	176/10.8	294/28	294/28	210/30
J6 Moment/Inertia (Nm/kgm²)		9.8/0.17	19.6/0.25	19.6/0.25	127/20	127/11	127/11	-	127/11	98/3.3	147/11	147/11	130/20
Average power consumption (Kw)		2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
PROTECTION	Body Standard/optional	IP54/IP67	IP54/IP67	IP54/IP67	IP54/IP67	IP54/IP67	IP54/IP67	IP54/IP67	IP54/IP67	IP54	IP54/IP67	IP54/IP67	IP54
	Wrist and J3 Arm Standard/optional	IP67	IP67	IP67	IP67	IP67	IP67	IP67	IP67	IP67	IP67	IP67	IP54



# ROBOT SERIES

## M-900



## M-2000



## R-1000



Version		iB					iA					iA					
Type		280	280L	330L	360	400L	700	900L	1200	1700L	2300	80H	80F	100F	120F-7B	130F	
CONTROLLER	Controller Version	R-30iB	•	•	-	•	•	•	•	•	•	-	-	-	-	-	
		R-30iB Plus	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
	Compact	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Open Air Cabinet	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Mate Cabinet	-	-	-	-	-	-	-	-	-	-	○	○	○	○	○	
	A-Cabinet	•	•	•	•	-	-	•	•	•	•	•	•	•	•	•	•
	B-Cabinet	○	○	○	○	•	•	○	○	○	○	○	○	○	○	○	○
Max Load Capacity at wrist (kg)		280	280	330	360	400	700	900	1200(1350)	1700	2300	80	80	100	120	130	
Reach (mm)		2655	3103	3203	2655	3704	2832	4683	3734	4683	3734	2230	2230	2230	2230	2230	
Controlled axes		6	6	6	6	6	6	6	6	6	6	5	6	6	7	6	
Repeatability (mm)		± 0.1**	± 0.1**	± 0.1**	± 0.1**	± 0.1**	± 0.1**	± 0.27**	± 0.18**	± 0.27**	± 0.18**	± 0.03**	± 0.03**	± 0.03**	± 0.03**	± 0.03**	
Mechanical weight (kg)		1700	1600	1780	1540	3150	2800	9600	8600	12500	11000	610	620	665	790	675	
MOTION RANGE [°]	J1	370	370	370	370	360	360	330	330	330	330	360	360	360	360	360	
	J2	151	151	151	151	154	154	160	160	160	160	245	245	245	200	245	
	J3	224	224	164	224	160	160	165	165	165	165	215	360	360	385	360	
	J4	720	720	720	720	720	720	720	720	720	720	20	720	720	720	720	
	J5	250	250	250	250	244	244	240	240	240	240	720	250	250	250	250	
	J6	720	720	720	720	720	720	720	720	720	720	-	720	720	720	720	
MAXIMUM SPEED [°/S]	J1	110	110	100	110	80	80	45	45	20	20	185	170	130	130	130	
	J2	105	105	85	105	80	80	30	30 (25)	14	14	180	140	110	110	110	
	J3	100	100	85	100	80	80	30	30	14	14	180	160	120	120	120	
	J4	110	125	90	110	100	100	50	50	18	18	180	230	170	170	170	
	J5	110	125	85	110	100	100	50	50	18	18	500	230	170	170	170	
	J6	180	205	165	180	160	160	70	70	40	40	-	350	250	250	250	
	E1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	130	-
J4 Moment/Inertia (Nm/kgm²)		1960/260(460)	1700/215(340)	2205/340	1960/260(460)	3400/1098	3400/1098	14700/2989	14700/2989	29400/7500	29400/7500	-/48	380/30	690/57	800/71	800/71	
J5 Moment/Inertia (Nm/kgm²)		1960/260(460)	1700/215(340)	2205/340	1960/260(460)	3400/1098	3400/1098	14700/2989	14700/2989	29400/7500	29400/7500	-/25	380/30	690/57	800/71	800/71	
J6 Moment/Inertia (Nm/kgm²)		1050/160(360)	950/140(260)	1200/220	1050/160(360)	1725/444	1725/444	4900/2195	4900/2195	8820/5500	8820/5500	-	200/20	260/32	360/38	360/38	
Average power consumption (Kw)		3	3	3	3	5	5	8	8	8	8	2.5	2.5	2.5	2.5	3	
PROTECTION	Body Standard/optional	IP54/IP56	IP54/IP56	IP54 /IP56	IP54/IP56	IP54/IP56	IP54/IP56	IP54 /IP56	IP54 /IP56	IP54 /IP56	IP54 /IP56	IP54 /IP56	IP54 /IP56	IP54 /IP56	IP54 /IP56	IP54 /IP56	
	Wrist and J3 Arm Standard/optional	IP67	IP67	IP67	IP67	IP67	IP67	IP67	IP67	IP67	IP67	IP67	IP67	IP67	IP67	IP67	

● standard ○ on request - not available [ ] with hardware and/or software option \*1) depending on rail specification \*\* Based on ISO9283



# R-2000

# COBOT

## ROBOT SERIES



Version		iC	iD	iC	iC	iD	iC	iC	iD	iC							iA					
Type		100P	100FH	125L	165F	165FH	165R	210F	210FH	210L	210WE	210R	220U	240F	270F	270R	35	15	14L	7L	7	4
CONTROLLER	Controller Version	R-30i/B	-	-	-	-	-	-	-	-	-	-	-	-	-	-	●	-	●	●	●	●
		R-30i/B Plus	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Mini Plus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Compact	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Open Air Cabinet	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	○	○	○
	Mate Cabinet	-	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	-	-	●	●	●
	A-Cabinet	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	-	-	-
B-Cabinet	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	-	-	-	-	
Max Load Capacity at wrist (kg)		100	100	125	165	165	165	210	210	210	210	210	220	240	270	270	35	15	14	7	7	4
Reach (mm)		3540	2605	3100	2655	2605	3095	2655	2605	3100	2450	3095	2518	2655	2655	3095	1813	1441	911 <sup>[*15]</sup>	911	717	550
Controlled axes		6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Repeatability (mm)		± 0.05**	± 0.05**	± 0.05**	± 0.05**	± 0.05**	± 0.05**	± 0.05**	± 0.05**	± 0.05**	± 0.1**	± 0.05**	± 0.05**	± 0.05**	± 0.05**	± 0.05**	± 0.03**	± 0.02**	± 0.01**	± 0.01**	± 0.01**	± 0.01**
Mechanical weight (kg)		1470	1150	1115	1090	1130	1370	1090	1130	1350	1180	1370	1020	1090	1320	1590	990	255	55	55	53	48
MOTION RANGE [°]	J1	370	370	370	370	370	370	370	370	370	330	370	370	370	370	370	370	340	340	340	340	340
	J2	200	140	136	136	140	200	136	140	136	141	200	136	136	136	200	165	180	166	166	166	150
	J3	375	234	301	312	234	375	312	234	301	318	375	312	312	312	375	258	305	383	383	373	354
	J4	720	420	720	720	420	720	720	420	720	720	720	720	720	720	720	400	380	380	380	380	380
	J5	250	250	250	250	250	250	250	250	250	250	250	250	250	250	250	220	280	240	240	240	200
	J6	720	420	720	720	420	720	720	420	720	720	720	720	720	720	720	900	900	720	720	720	720
MAXIMUM SPEED [°/S]	J1	120	105	130	130	130	115	120	120	105	95	105	120	115	105	105	750 <sup>[*7]</sup>					
	J2	100	130	115	115	110	110	105	90	90	85	100	85	90	90	85	750 <sup>[*7]</sup>					
	J3	115	130	125	125	115	125	110	100	85	95	110	110	105	85	85	750 <sup>[*7]</sup>					
	J4	140	200	180	180	175	180	140	140	120	120	140	140	130	120	120	750 <sup>[*7]</sup>					
	J5	140	160	180	180	170	180	140	130	120	120	140	140	130	120	120	750 <sup>[*7]</sup>					
	J6	210	300	260	260	280	260	220	220	200	190	220	220	210	200	200	750 <sup>[*7]</sup>					
Maximum linear speed (mm/sec)																		800/1500 <sup>[*14]</sup>	500 <sup>[*16]</sup>	1000 <sup>[*7]</sup>	1000 <sup>[*7]</sup>	1000 <sup>[*7]</sup>
J4 Moment/Inertia (Nm/kgm²)		1000/227	850/90	710/72	940/120	1000/122	940/89	1360/225.4	1380/228	1700/320	1333/141.1	1360/147	1360/147	1400/250	1730/320	1730/320	110/4	26.0/0.90	31.0/0.66	16.6/0.47	16.6/0.47	8.86/02
J5 Moment/Inertia (Nm/kgm²)		1000/227	850/90	710/72	940/120	1000/122	940/89	1360/225.4	1380/228	1700/320	1333/141.1	1360/147	1360/147	1400/250	1730/320	1730/320	110/4	26.0/0.90	31.0/0.66	16.6/0.47	16.6/0.47	8.86/02
J6 Moment/Inertia (Nm/kgm²)		706/196	450/50	355/40	490/100	620/100	490/46	735/196	735/196	900/230	706/78.4	735/82	735/82	800/200	900/230	900/230	60.0/1.5	11.0/0.30	13.4/0.30	9.4/0.15	9.4/0.15	4.9/0.067
Average power consumption (Kw)		2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	3	2.5	3	3	2.5	3	1	1	0.5	0.5	0.5	0.5
PROTECTION	Body Standard/optional	IP54	IP54	IP54 /IP56	IP54 /IP56	IP54	IP54 /IP56	IP54/IP56	IP54	IP54/IP56	IP67	IP54/ IP56	IP54		IP54/ IP56	IP54	IP54	IP54	IP67	IP67	IP67	IP67
	Wrist and J3 Arm Standard/optional	IP67	IP67	IP67	IP67	IP67	IP67	IP67	IP67	IP67	IP67	IP67	IP67	IP67	IP67	IP67	IP67	IP67	IP67	IP67	IP67	IP67





ROBOT SERIES

COBOT

M-1

M-2

M-3

DR-3



Version		iA		iA						iA						iA			iB	
Type		10	10L	1H	0.5S	0.5A	1HL	0.5SL	0.5AL	3S	3A	3SL	3AL	6H	6HL	6S	6A	12H	8L	
CONTROLLER	Controller Version	R-30i/B	-	-	•	•	•	•	•	•	•	•	•	•	•	•	•	•	-	
		R-30i/B Plus	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
	Mini Plus	•	•	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Compact	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Open Air Cabinet	-	-	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
	Mate Cabinet	-	-	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
	A-Cabinet	-	-	-	-	-	-	-	-	○	○	○	○	○	○	○	○	○	○	
	B-Cabinet	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Max Load Capacity at wrist (kg)		10	10	1	0.5 (1)	0.5 (1)	1	0.5 (1)	0.5 (1)	3	3	3	3	6	6	6(8)	6	12	8	
Reach (mm)		1249	1418	280	280	280	420	420	420	800	800	1130	1130	800	1130	1350	1350	1350	1600	
Controlled axes		6	6	3	4	6	3	4	6	4	6	4	6	3	3	4	6	3	4	
Repeatability (mm)		± 0.05**	± 0.05**	± 0.02	± 0.02	± 0.02	± 0.03	± 0.03	± 0.03	± 0.1	± 0.1	± 0.1	± 0.1	± 0.1	± 0.1	± 0.1	± 0.1	± 0.1	± 0.1	± 0.03**
Mechanical weight (kg)		40	40	18 (*2)	20 (*2)	23 (*2)	21 (*2)	23 (*2)	26 (*2)	120	140	120	140	115	115	160	175	155	170	
MOTION RANGE [°]	J1	380	360	∅ 280x100 (*3)	∅ 280x100 (*3)	∅ 280x100 (*3)	∅ 420x150 (*3)	∅ 420x150 (*3)	∅ 420x150 (*3)	∅ 800x300 (*3)	∅ 800x300 (*3)	∅ 1130x400 (*3)	∅ 1130x400 (*3)	∅ 800x300 (*3)	∅ 1130x400 (*3)	∅ 1350x500 (*3)	∅ 1350x500 (*3)	∅ 1350x500 (*3)	∅ 1600x500 (*3)	
	J2	360	360		-	720	720	-	720	720	720	720	720	720	-	-	720	720	-	720
	J3	570	540		-	-	300	-	-	300	-	300	-	300	-	-	-	300	-	-
	J4	380	380	-	-	720	-	-	720	-	720	-	720	-	-	-	720	720	-	720
	J5	360	360	-	-	1440	-	-	1440	-	1700	-	1700	-	-	-	2000	2000	-	-
	J6	380	380	-	-	1440	-	-	1440	-	1700	-	1700	-	-	-	2000	2000	-	-
MAXIMUM SPEED [°/S]	J1	120	120	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10000 mm/sec	
	J2	120	120	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	J3	180	180	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	J4	180	180	-	3000	1440	-	3000	1440	3500	1700	3500	1700	-	-	4000	4000	-		2000
	J5	180	180	-	-	1440	-	-	1440	-	1700	-	1700	-	-	-	2000	-		-
	J6	180	180	-	-	1440	-	-	1440	-	1700	-	1700	-	-	-	2000	-		-
Maximum linear speed (mm/sec)		1000 (*17)	1000 (*17)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
J4 Moment/Inertia (Nm/kgm²)		34.8 / 1.28	34.8 / 1.28	*4)						*4)						*4)			-- / 0.2	
J5 Moment/Inertia (Nm/kgm²)		26.0 / 0.90	26.0 / 0.90	*4)						*4)						*4)			*4)	
J6 Moment/Inertia (Nm/kgm²)		11.0 / 0.30	11.0 / 0.30	*4)						*4)						*4)			*4)	
Average power consumption (Kw)		0.5	0.5	0.2	0.2	0.2	0.2	0.2	0.2	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	
PROTECTION	Body Standard/optional	IP67	IP67	IP20	IP20	IP20	IP20	IP20	IP20	IP67 / IP69K	IP67 / IP69K	IP67 / IP69K	IP67 / IP69K	IP67 / IP69K	IP67 / IP69K	IP67	IP67	IP67	IP69K	
	Wrist and J3 Arm Standard/optional	IP67	IP67	IP20	IP20	IP20	IP20	IP20	IP20	IP69K	IP69K	IP69K	IP69K	IP69K	IP69K	IP67	IP67	IP67	IP69K	

● standard ○ on request - not available [ ] with hardware and/or software option (\*2) with stand (\*3) ∅ in mm by height in mm (\*4) refer to the wrist load diagram \*\* Based on ISO9283



# ROBOT SERIES

## SR

## PALLETISING

M-710

R-1000

M-410



Version			iA					iC	iA	iC	iB	iC				iB
Type			3	3H	6	6H	12	50H	80H	110	140H	185	315	500	700	
CONTROLLER	Controller Version	R-30iB	-	-	-	-	-	●	●	-	●	●	●	●	●	
		R-30iB Plus	●	●	●	●	-	●	●	●	●	●	●	●	●	
	Compact	●	●	●	●	-	-	-	-	-	-	-	-	-		
	Open Air Cabinet	-	-	-	-	-	-	-	-	-	-	-	-	-		
	Mate Cabinet	-	-	-	-	-	○	○	-	-	-	-	-	-		
	A-Cabinet	-	-	-	-	-	●	●	●	●	●	●	●	●		
	B-Cabinet	-	-	-	-	-	○	○	○	○	○	○	○	○		
Max Load Capacity at wrist (kg)			3	3	6	6	12	50	80	110	140	185	315	500	700	
Reach (mm)			400	400	650	650	900	2003	2230	2403	2850	3143	3143	3143	3143	
Controlled axes			4	3	4	3	4	5	5	4	5	4	4	4	4	
Repeatability (mm)			± 0.01 [J1, J2] ± 0.01 [J3] ± 0.004° [J4]	± 0.01 [J1, J2] ± 0.01 [J3]	± 0.01 [J1, J2] ± 0.01 [J3] ± 0.004° [J4]	± 0.01 [J1, J2] ± 0.01 [J3]	± 0.015 [J1, J2] ± 0.01 [J3] ± 0.005° [J4]	± 0.15	± 0.03**	± 0.2	± 0.2	± 0.5	± 0.5	± 0.5	± 0.5	
Mechanical weight (kg)			19	17	30	28	53	540	610	1030	1200	1600 <sup>*8</sup> (1330 <sup>*9</sup> )	1600 <sup>*8</sup> (1330 <sup>*9</sup> )	2410 <sup>*8</sup> (1910 <sup>*9</sup> )	2700	
MOTION RANGE (°)	J1		284	284	296	296	290	360	360	370	360	360	360	370	360	
	J2		290	290	300	300	290	225	245	125	155	144	144	144	144	
	J3		200 mm <sup>*13</sup>	200 mm <sup>*13</sup>	210 mm <sup>*13</sup>	210 mm <sup>*13</sup>	450 mm optional 300 mm	440	215	140	112	136	136	136	136	
	J4		1440	-	1440	-	1440	234	20	720	20	720	720	720	540	
	J5		-	-	-	-	-	720	720	-	720	-	-	-	-	
	J6		-	-	-	-	-	-	-	-	-	-	-	-	-	
	E1		-	-	-	-	-	-	-	-	-	-	-	-	-	
MAXIMUM SPEED (°/S)	J1		720	720	440	440	440	175	185	145	140	140	90	85	60	
	J2		780	780	700	700	510	175	180	130	115	140	100	85	60	
	J3		1800 mm/sec	1800 mm/sec	2000 mm/sec	2000 mm/sec	2800 mm/sec	175	180	140	135	140	110	85	60	
	J4		3000	-	2500	-	2500	175	180	420	135	305	195	200	120	
	J5		-	-	-	-	-	720	500	-	420	-	-	-	-	
	J6		-	-	-	-	-	-	-	-	-	-	-	-	-	
	E1		-	-	-	-	-	-	-	-	-	-	-	-	-	
J4 Moment/Inertia (Nm/kgm <sup>2</sup> )			--/0.06	-	--/0.12	-	--/0.30	150/6.3	-/48	53	147	88	155	250	490	
J5 Moment/Inertia (Nm/kgm <sup>2</sup> )			-	-	-	-	-	68/2.5	-/25	-	53	-	-	-	-	
J6 Moment/Inertia (Nm/kgm <sup>2</sup> )			-	-	-	-	-	-	-	-	-	-	-	-	-	
Average power consumption (Kw)			0.25	0.25	0.35	0.35	0.5	2.5	2.5	1	3	3	3	3	3	
PROTECTION	Body Standard/optional		IP20	IP20	IP20	IP20	IP20 / IP65	IP54/IP67	IP54/IP67	IP54	IP54	IP54	IP54	IP54	IP54	
	Wrist and J3 Arm Standard/optional		IP20	IP20	IP20	IP20	IP20 / IP65	IP67	IP67	IP67	IP54	IP54	IP54	IP54	IP54	



# ROBOT SERIES

## ARC WELDING

ARC MATE 50

ARC MATE 100

ARC MATE 120

## PAINT

PAINT MATE 50

P-40

P-50

P-250

P-350

Automotive Package  
P-35/P-1000

Version			iD										iA	iA	iA	iB	iB	iB	iA	iB
Type			-	7L	8L	10L	16S	-	12L	35	-	-	5L	-	10L	15	45	-	-	
CONTROLLER	Controller Version	R-30iB	•	•	-	-	-	-	-	-	-	•	•	-	•	•	•	•	•	
		R-30iB Plus	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	Compact	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Open Air Cabinet	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Mate Cabinet	•	•	○	○	○	○	○	○	○	○	•	•	•	•	-	-	-	-	
	A-Cabinet	-	-	•	•	○	•	•	○	•	•	-	-	-	•	•	•	•	•	
	B-Cabinet	-	-	○	○	○	○	○	○	○	○	-	-	-	-	-	-	-	-	
Max Load Capacity at wrist (kg)			7	7	8	10	16	12	12	35	3 [25]	5	5	5	10	15	45	20	15	
Reach (mm)			717	911	2032	1636	1103	1441	2272	1831	1831	704	892	1300	1800	2800	2606	4318	2848	
Controlled axes			6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	5	7	
Repeatability (mm)			± 0.018**	± 0.018**	± 0.03**	± 0.03**	± 0.02**	± 0.02**	± 0.03**	± 0.03**	± 0.03**	± 0.02**	± 0.02	± 0.03	± 0.2	± 0.2	± 0.2	± 0.1	± 0.05**	± 0.05**
Mechanical weight (kg)			25	27	180	150	140	145	250	250	250	35	37	110	331	530	590	700	700	
MOTION RANGE (°)	J1	360	360	340 [370]	340 [370]	340 [370]	340 [370]	340 [370]	340 [370]	340 [370]	340	340	360	320	320	360	220	220		
	J2	245	245	235	235	235	235	260	260	260	200	230	255	240	280	225	370	150		
	J3	420	430	455	455	340	455	475	458	458	388	373	395	404	330	440	590	240		
	J4	380	380	380	380	380	380	400	400	400	380	380	380	1080	1080	800	270	160		
	J5	250	250	360	360	360	360	360	280 [360]	280[360]	240	240	240	1080	1080	250	360	1440		
	J6	720	720	900	900	900	900	900	540 [900]	540[900]	720	720	720	1080	1080	800	-	1440		
MAXIMUM SPEED (°/S)	E1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1440		
	J1	450	370	210	260	290	260	210	180	210	350	270	220	140	160	180	75	125		
	J2	380	310	210	240	270	240	210	180	210	350	270	190	140	160	180	100	125		
	J3	520	410	220	260	270	260	265	200	265	400	270	240	160	160	180	100	120		
	J4	550	550	430	430	430	430	420	350	420	450	450	450	375	375	250	50	120		
	J5	545	545	450	450	450	450	450	350	420	450	450	450	430	430	250	50	200		
	J6	1000	1000	720	720	730	720	720	400	720	720	720	720	545	545	250	-	200		
E1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	200		
J4 Moment/Inertia (Nm/kgm²)			16.6/0.47	16.6/0.47	16.1/0.63	22.0/0.65	26.0/0.90	26.0/0.90	22.0/0.65	110.0/4.0	52.0/2.4	11.9/0.3	11.9/0.3	11.9/0.3	43.35/1.954	65.4/2.999	206 / 28			
J5 Moment/Inertia (Nm/kgm²)			16.6/0.47	16.6/0.47	16.1/0.63	22.0/0.65	26.0/0.90	26.0/0.90	22.0/0.65	110.0/4.0	52.0/2.4	11.9/0.3	11.9/0.3	11.9/0.3	36.86/1.413	55.3/2.158	206 / 28			
J6 Moment/Inertia (Nm/kgm²)			9.4/0.15	9.4/0.15	5.9/0.061	9.8/0.17	11.0/0.30	11.0/0.30	9.8/0.17	60.0/1.5	32.0/1.2	6.7/0.1	6.7/0.1	6.7/0.1	4.90/0.025	7.4/0.073	127 / 20			
Average power consumption [Kw]			0.5	0.5	1	1	1	1	1	1	1	0.5	0.5	0.8	0.8	3.5	2.5	3.5		
PROTECTION	Body Standard/optional	IP67/IP69K	IP67/IP69K	IP54	IP54	IP54	IP54	IP54	IP54	IP54	IP54	*5)	*5)	*5)	*5)	*5)	*5)	*5)	*5)	
	Wrist and J3 Arm Standard/optional	IP67/IP69K	IP67/IP69K	IP67	IP67	IP67	IP67	IP67	IP67	IP67	IP67	*5)	*5)	*5)	*5)	*5)	*5)	*5)	*5)	

• standard ○ on request - not available [ ] with hardware and/or software option \*1) depending on rail specification \*5) ATEX certified Cat. II Group 2G and 2D \*\* Based on ISO9283

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