

ACCURAX LINEAR DRIVES

New series with optimised efficiency

» Flexible system solutions **accurax Wigh dynamic & precise positioning**We write a struct of the system solution of the system solution of the system solution of the system solution of the system solution.

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From components up to the system solution

The demands placed on modern, innovative production systems in terms of reliability, precision, speed and freedom from maintenance are constantly increasing. Omron offers linear motor solutions, from components to entire systems, from a single source. Over many years, sectors such as the semiconductor, photovoltaic, pharmaceutical and packaging industries have come to value Omron as an expert supplier and partner in this field. We are pleased to advise and support you with our experience and expertise, starting from the initial idea, through design to optimum integration in your machine and system concept.

High-efficiency, iron-core linear motors and magnet tracks provide the solid basis for a wide range of over 100 standard linear motor axes. In addition to components and complete axes, Omron also offers a wide range of X/Y tables and gantry systems. The systems are adapted and optimized for the required application as necessary.

Omron's internal "Mechatronic" and "Application" competence teams work hand-inhand to produce solutions in customization projects. The customer and his application are always the focus of our concerns and we work in dialogue with him to produce sustainable solutions that are perfectly tailored to his needs.

The global Omron Service & Support network is available to provide installation services, training and after-sales support.



Precision measurement with laser interferometer for quality assurance to create the data for stage mapping.



Modern development tools are available for analyses and simulations when developing and implementing projects.



For customization applications, we are pleased to produce and implement solutions in accordance with your specifications.



Iron core linear motor components in laser processing for precise, uniform movement of the substrate and laser.



Iron core linear motor components in printed circuit board processing for high dynamic and precise positioning of tools and PCBs.



Modular 'double-head' system solutions based on standard axes for product handling in the packaging industry.

Linear motors & magnet tracks



Iron-core linear motors

Product name	Motor length L [mm]	System width W [mm]	System height H [mm]	Peak force Fp [N]	Nominal force Fc [N]	Weight, primary part Mp [kg]	Weight, secondary part Ms [kg/m]	Voltage Ubus [Vac]
R88L-EC-FW-0303	79	56	371	120	48	0.47	21	230/400
R88L-EC-FW-0306	127	20	37.1	240	96	0.78	2.1	
R88L-EC-FW-0606	127		37.1	450	160	1.31		
R88L-EC-FW-0609	175	80		675	240	1.84	3.8	
R88L-EC-FW-0612	223			900	320	2.37		
R88L-EC-FW-1112	223	120	41.1	1800	608	4.45	10.5	
R88L-EC-FW-1115	271	130		2250	760	5.45	10.5	

Features and benefits:

- Compact, flat design
- Optimum ratio between force and volume
- Weight-optimized magnetic track
- Optional digital hall-sensor



Ironless linear motors

Product name	Motor length L [mm]	System width W [mm]	System height H [mm]	Peak force Fp [N]	Nominal force Fc [N]	Weight, primary part Mp [kg]	Weight, secondary part Ms [kg/m]	Voltage Ubus [Vac]
R88L-EC-GW-0303	78			100	26.5	0.084		
R88L-EC-GW-0306	138	21	68	200	53	0.162	4.8	
R88L-EC-GW-0309	198			300	80	0.24		
R88L-EC-GW-0503	106			240	58	0.25		
R88L-EC-GW-0506	190	28.4	105	480	117	0.47	11.2	230
R88L-EC-GW-0509	274			720	175	0.69		
R88L-EC-GW-0703	134			700	117	0.55		
R88L-EC-GW-0706	248	48	124.8	1400	232	0.95	24	
R88L-EC-GW-0709	362			2100	348	1.35	1	

Features and benefits:

- Compact, efficient design
- Excellent force-to-weight ratio
- No latching force
- Optional digital hall-sensor



Linear motor axes

Iron-core linear motor axes

Product name	Nominal force Fc [N]	Peak force Fp [N]	Moving mass Mmov. [kg]	Table length TL [mm]	Table width TW [mm]	W [mm]	H [mm]	Load capacity [kg]
R88L-EA-AF-0303	48	120	3.1	160			1	1
22 variants, strokes from	110 to 2126 mr	n, grid 96 mm						-
R88L-EA-AF-0306	96	240	3.9	208	191	168	95	5
21 variants, strokes from	158 to 2078 mi	n, grid 96 mm						
R88L-EA-AF-0606	160	450	5.4	208			99	
22 variants, strokes from	110 to 2126 mr	n, grid 96 mm			- 219	194		
R88L-EA-AF-0609	240	675	6.7	256				15
21 variants, strokes from	158 to 2078 mi	n, grid 96 mm						15
R88L-EA-AF-0612	320	900	7.9	304				1
21 variants, strokes from	158 to 2078 mi	n, grid 96 mm						200
R88L-EA-AF-1112	608	1800	13.7	304				1
22 variants, strokes from	110 to 2126 mr	n, grid 96 mm	240			25		
R88L-EA-AF-1115	760	2250	15.9	352	310	280	118	35
22 variants, strokes from	110 to 2126 mr	n, grid 96 mm						

Features and benefits:

- Low moving mass
- Optimized stroke/product length ratio
- Compact design
- 5 m/s maximum speed with
 1 μm repeatibility



The compact, flat design of the motor components is also to be found in the standard axes. The low moving masses ensure a high degree of dynamism, even with low advance forces. The advanced aluminium base profile sets new standards in precision and lightweight design. This means that the areas of application of the new axis family are almost limitless. The axes can be supplied in lengths of up to 6 meters on request.

The compact nature of the system also ensures that it can be used in almost any application, from high-speed processing and test systems to measurement technology applications in the micrometre range.

Linear motor systems



XY systems

Product name	Nominal force Fc [N] X/Y	Peak force Fp [N] X/Y	Operating range X/Y [mm]	Installation space L x W x H [mm]	Moving mass Mmov. [kg] X	Moving mass Mmov. [kg] Y	Max. load ML [kg]	Total volume [kg]
R88L-ES-XY-0205-000		240/120	254/206	504/408/186	16	3.1	2.5	24
	96/48		350/302	600/504/186	18			27
			542/494	792/696/186	22			32
	240/96	675/240	350/350	648/600/190	21	3.9	5	34
R88L-ES-XY-0410-000			446/446	744/696/190	23			37
1			542/542	840/792/190	25			40
R88L-ES-XY-0710-000	760/160	2250/450	446/494	840/744/211	41	E 4	10	65
			638/686	1032/936/211	45	- 5.4		75

Features and benefits:

- Modular concept
- Reduces construction time
- Easy machine integration
- Low installation height



Gantry systems

Product name	Nominal force Fc [N] X/Y	Peak force Fp [N] X/Y	Operating range X/Y/Z [mm]	Installation space L x W x H [mm]	Moving mass Mmov. [kg] X	Moving mass Mmov. [kg] Y	Max. load ML [kg]	Total volume [kg]
R88L-ES-GT-0305-000	320/48	900/120	366/350/163	662/964/395	24	3.4	2.5	118
			558/542/163	854/1156/395	27			163
			750/734/163	1046/1348/395	29			214
	480/160	1350/450	518/590/165	854/1252/417	36	5.2	5	180
R88L-ES-GT-0405-000			806/782/165	1142/1444/417	40			254
R88L-ES-GT-0505-000	640/240	1800/675	662/638/165	1046/1348/417	41	()	10	227
			854/830/165	1238/1540/417	44	6.2		288

Features and benefits:

- High rigidity for high dynamic
- Scalable systems
- Can be adapted to customer requirements
- Easy to maintain



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• Motion controllers • Servo systems • Inverters

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- Temperature controllers Power supplies Timers Counters Programmable relays
- Digital panel indicators Electromechanical relays Monitoring products Solid-state relays
- Limit switches Pushbutton switches Low voltage switch gear

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- Photoelectric sensors Inductive sensors Capacitive & pressure sensors
- Cable connectors Displacement & width-measuring sensors Vision systems
- Safety networks Safety sensors Safety units/relay units Safety door/guard lock switches

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