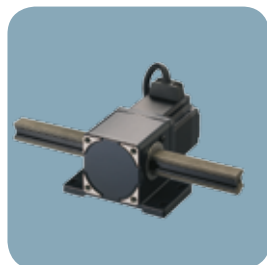
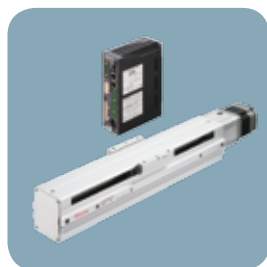


PRODUCT RANGE



ORIENTAL MOTOR –

The specialist for small electric motors and motion systems

ONLINE-SHOP

Buy motors and accessories in our Online-Shop!

www.oriental-motor.co.uk United Kingdom and Ireland can order from this Online Shop

www.orientalmotor.eu Many other countries can order from this Online Shop



- 24/7 Online shopping
- Free shipping costs*
- Order from 1 piece
- Short delivery times

* Free shipping costs for United Kingdom and Ireland

FULL-SERVICE

Full-Service without additional costs



We are there for you!

- Customer Service Center – Technical support from A-Z
- Motor selection – We support you selecting the drive
- Lending samples – Test our quality
- Before Service – All-around support up to the order
- No minimum order quantity – Also 1 piece is welcome
- Seminars & workshops – Learning and trying
- Face-to-face – Our sales staff on-site
- Logistics – You can rely on our delivery times
- After Sales Service – Support also after your order



ADVANTAGES OF FLEX PRODUCTS



STEPPER MOTORS



SERVO MOTORS



BRUSHLESS DC MOTORS



AC MOTORS



LINEAR & ROTARY ACTUATORS

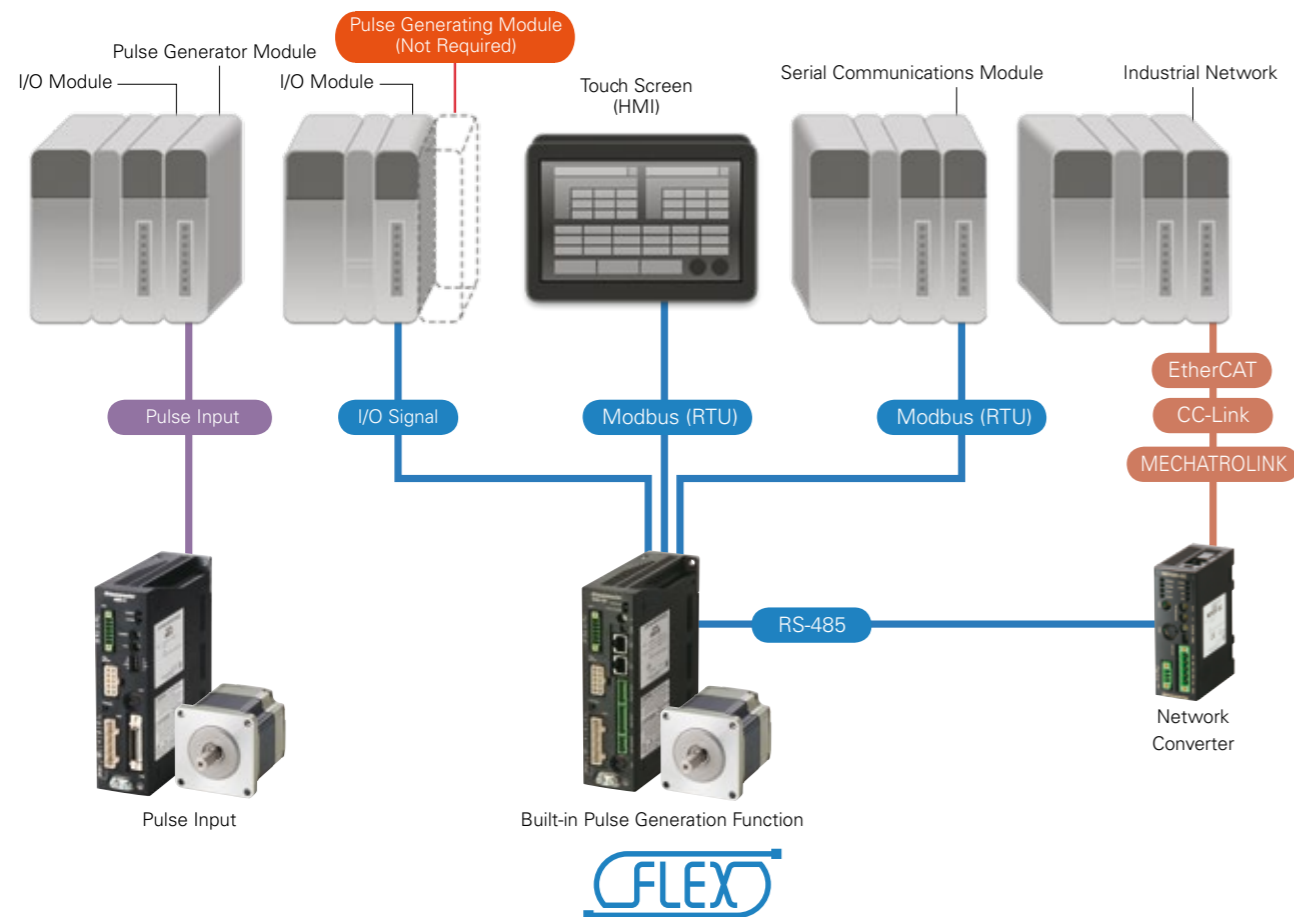


FANS

FLEX A NEW CONCEPT: CONNECTING TO FLEX

Equipped with an Interface that Connects to Various Master Control Systems

FLEX is the generic name for products supporting I/O control, Modbus (RTU) control and Industrial Network via a network converter. FLEX products enable easy connection, easy control and reduce the complexity of system configuration.



The Advantages of FLEX Products

FLEX, which has a degree of freedom for selecting master control systems, not only realizes various design ideas, but also reduces labor and costs.

- Simple Wiring
- Easy Setup
- Time-Saving
- Low Cost

Recommended Interface-Based System Configurations Achieved with FLEX

For Connecting to Industrial Network

Network Converter

- EtherCAT-compatible
- CC-Link-compatible
- MECHATROLINK-II-compatible
- MECHATROLINK-III-compatible



The communication protocol of the master controller, industrial network, is converted to Oriental Motor's own RS-485 communication protocol. Connection to FLEX-compatible products is completed with one RS-485 communication cable.

- Compatible Networks: EtherCAT (**NETC01-ECT**), CC-Link (**NETC01-CC**), MECHATROLINK-II (**NETC01-M2**), MECHATROLINK-III (**NETC01-M3**)
- Size: 100 x 35 x 70 mm

FLEX

Introducing FLEX-compatible products, Oriental Motor offers many FLEX-compatible products, and today our FLEX product lineup includes positioning, speed control and rotary motion products.

Motor and Driver Packages

0.36° Stepper Motor and Driver Package α STEP

High Efficiency AZ Series **FLEX** Built-in Controller (Stored Data)

- DC Power-Supply Input – 24 VDC / 48 VDC
- AC Power-Supply Input
Single-Phase 100 - 120 VAC Input
Single-Phase 200 - 240 VAC Input
- Microstep angle: 3.6° - 0.036°



0.36° Stepper Motor and Driver Package α STEP

High Efficiency AR Series **FLEX** Built-in Controller (Stored Data)

- DC Power-Supply Input – 24 VDC / 48 VDC
- AC Power-Supply Input
Single-Phase 100 - 120 VAC Input
Single-Phase 200 - 240 VAC Input
- Microstep angle: 0.72° - 0.036°



0.72° Stepper Motor and Driver Package

RKII Series **FLEX** Built-in Controller (Stored Data)

- AC Power-Supply Input
Single-Phase 100 - 120 VAC Input
Single-Phase 200 - 240 VAC Input
- Microstep angle: 0.72° - 0.00288°



0.36°/0.72° Stepper Motor and Driver Package

CRK Series **FLEX** Built-in Controller (Stored Data)

- DC Power-Supply Input
24 VDC Input
- Microstep angle: 0.72° - 0.00288°



0.72° Stepper Motor with Built-in Driver and Controller

PKA Series **FLEX** Built-in Controller (Stored Data)

- DC Power-Supply Input
24 VDC Input
- Microstep angle: 0.72° - 0.00288°



Brushless Motor and Driver Package

BLE Series **FLEX** Built-in Controller (Stored Data)

- AC Power-Supply Input
Single-Phase 100 - 120 VAC Input
Single-Phase 200 - 240 VAC Input



Actuator and Driver Packages

Hollow Rotary Actuators

DGII Series **FLEX** Built-in Controller (Stored Data)

- DC Power-Supply Input
24 VDC Input (**DG60** type)
- AC Power-Supply Input
Single-Phase
100 - 240 VAC Input



High Precision Linear Actuators

DRLII-Series **FLEX** With integrated Controller (Stored Data)

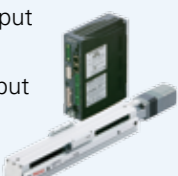
- DC Power-Supply Input
24 VDC Input



Motorized Slider

EAS Series **FLEX** Built-in Controller (Stored Data)

- DC Power-Supply Input
24 VDC Input
- AC Power-Supply Input
Single-Phase
100 - 240 VAC Input



STEPPER MOTORS 1.8° - 0.00288°

Stepping motors are used to achieve precise positioning via digital control. The motor operates by accurately synchronizing with the pulse signal output from the controller to the driver.

AC - Stepper Motor and Driver Packages

Range of AC - Stepper Motor and Driver Packages

- Step Angle **0.72° - 0.036°**
- Frame Size **42, 60, 85, 90 mm**
- Holding Torque **0.14 - 52 Nm**
- Gearheads **Taper hobbled, planetary and harmonic gears**



Example: AR Series

Motor and Driver Package

High-Efficiency Closed Loop

- ✓ No external sensor needed
- ✓ Easy home position pre-set
- ✓ No battery needed



AZ Series



DC - Stepper Motor and Driver Packages

Range of DC - Stepper Motor and Driver Packages

- Step Angle **1.8° - 0.00288°**
- Frame Size **20, 28, 30, 35, 42, 50, 56.4, 60, 85, 90 mm**
- Holding Torque **0.0231 - 37 Nm**
- Gearheads **Taper hobbled, planetary and harmonic gears**



Example: AR Series

Stepper Motors (Motor only)

Range of Stepper Motors

- Step Angle **1.8° - 0.018°**
- Frame Size **20, 28, 35, 42, 50, 56.4, 60, 85, 90 mm**
- Holding Torque **0.014 - 12 Nm**
- Gearheads **Spur, taper hobbled and planetary gears**



Example: PK Series

Controllers

Range of Controllers

- Sequences **Max 100 programs (SCX11)**
- Number of Control Axis **1**
- Power Supply **24 VDC**



Example: SCX11 Series

USB,
RS-232C,
I/O,
CANopen

Network Converters

Range of Network Converters

- Communication Protocol **EtherCAT, CC-link, Mechatrolink II+III**
- Number of Connectable Units **Max 16 units**
- Power Supply **24 VDC**



EtherCAT
RS-485
CC-Link
Mechatrolink II+III

SERVO MOTORS 50 - 750 W

Servo motors can be used to achieve high-speed, high accurate positioning operation via digital control. They are constructed of three elements: the motor for generating torque, the encoder for detecting position, and the driver for controlling the motor with respect to commands.

AC - Servo Motor and Driver Packages

Range of AC - Servo Motor and Driver Packages

- Rated Output Power **50 - 750 W**
- Frame Size **42, 60, 85, 90, 104 mm**
- Max. Speed **5500 r/min**
- Gearheads **Planetary gears**



Servo Motor and Driver Package

AC Servomotor

- ✓ Auto-tuning function
- ✓ Easy handling
- ✓ IP65



NX Series

BRUSHLESS DC MOTORS 15 - 400 W

High-efficiency brushless DC Motors achieve high output in a compact body while embodying high-speed operation, wide speedcontrol range and constant torque characteristics from low speed to high speed. AC input and DC input types are available.

AC - Input Types

Range of AC - Input Types

- Output Power **20 - 200 W**
- Frame Size **42, 60, 85, 90, 104 mm**
- Speed Range **80 - 4000 r/min**
- Protection Class **Up to IP65**



Example: BMU Series

Brushless Motor and Driver Package

for AC Input

- ✓ Energy saving
- ✓ High speed stability
- ✓ Brake type available



FLEX BLE Series

DC - Input Types

Range of DC - Input Types

- Output Power **15 - 400 W**
- Frame Size **42, 60, 85, 90, 104 mm**
- Speed Range **80 - 4000 r/min**
- Protection Class **Up to IP65**



Example: BLV Series

AC MOTORS 3 - 200 W

Standard AC motors operate by simply connecting a capacitor and supplying power from a commercial power supply. Standard AC motors include the basic induction motor and reversible motor.

Constant Speed Motors

- Induction Motors • Reversible Motors • Electromagnetic Brake Motors

Range of Constant Speed Motors

- Output Power **6 - 200 W**
- Frame Size **60, 70, 80, 90, 110 mm**
- Speed Range **1150 - 2650 r/min**
- Protection Class **Up to IP66**



Example: KII Series

AC Motor with Constant Speed

- ✓ High efficiency, IE4 compliant
- ✓ Fanless
- ✓ Type with brake

KIS Series

Speed Control Motors

Range of Speed Control Motors

- Output Power **6 - 90 W**
- Frame Size **60, 70, 80, 90 mm**
- Speed Range **90 - 1400 r/min**
- Protection Class **Up to IP40**



Example: US Series

Torque Motors

Range of Torque Motors

- Output Power **3 - 20 W**
- Frame Size **60, 70, 80, 90 mm**
- Speed at Max. Output Power **90 - 1400 r/min**
- Protection Class **Up to IP20**



Example: TM Series

Watertight, Dust-Resistant Motors

Range of Watertight, Dust-Resistant Motors

- Output Power **25 - 90 W**
- Frame Size **60, 70, 90, 104 mm**
- Speed at Max. Output Power **1200 r/min**
- Protection Class **IP67**



Example: FPW Series

Gearheads

- Parallel Shaft Gearheads • Right-Angle Gearheads (Hollow Shaft • Solid Shaft)

Range of Gearheads

- Gear Ratios **3 - 180**
- Frame Size **60, 70, 80, 90 mm**
- Permissible Torque **3 - 60 Nm**



Example: GN/GE Series

LINEAR & ROTARY ACTUATORS

A linear-motion product incorporating a motor and a linear-motion mechanism. Drawing on our expertise as a motor manufacturer, Oriental Motor offers a wide range of linear-motion products in various shapes and sizes, featuring different motor types, drive methods and power inputs.

Motorized Linear Slides

Range of Motorized Linear Slides

- Power Supply **200 - 230 VAC, 24 VDC**
- Stroke **50 - 1000 mm**
- Max. Thrust Force **43 - 400 N**
- Max. Horizontal/Vertical Transportable Mass **60/30 kg**



Example: EAS Series

Motorized Cylinders

Range of Motorized Cylinders

- Power Supply **200 - 230 VAC, 24 VDC**
- Stroke **50 - 300 mm**
- Max. Thrust Force **70 - 400 N**
- Max. Horizontal/Vertical Transportable Mass **60/30 kg**



Example: EAC Series

Hollow Rotary Actuators

Range of Hollow Rotary Actuators

- Power Supply **200 - 230 VAC, 24 VDC**
- Frame Size **60, 85, 130, 200 mm**
- Max. Speed **110 - 200 r/min**
- Max. Thrust Load **100 - 4000 N**
- Resolution **1800 - 180000 P/R**



Example: DGII Series

Compact Linear Actuators

Range of Compact Linear Actuators

- Power Supply **24 VDC**
- Frame Size **20, 28, 42, 60 mm**
- Stroke **25-100 mm**
- Max. Thrust Force **15-300 N**
- Resolution **1-20 μm/step**

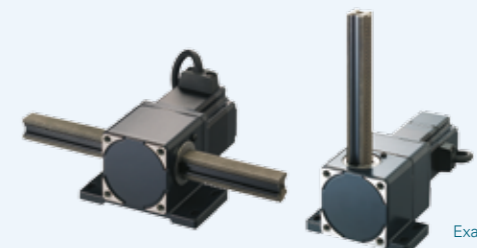


Example: DRLII Series

Rack and Pinion Systems

Range of Rack and Pinion Systems

- Power Supply **200 - 230 VAC**
- Frame Size **60, 80 mm**
- Stroke **100 - 1000 mm**
- Max. Thrust Force **7 - 100 N**
- Max. Horizontal/Vertical Transportable Mass **7 - 100 kg**



Example: LAS Series

Hollow Rotary Actuators

High Power and High Rigidity

- ✓ Closed Loop
- ✓ High efficiency
- ✓ Large hollow shaft

FLEX
DGII Series

FANS up to 21m³/min

Oriental Motor offers a wide range of cooling fans, axial flow fans ideal for ventilation cooling, centrifugal blowers and cross flow fans for local cooling, as well as fans with low-speed or stall alarms, or variable flow types.

■ Axial Flow Fans

- AC Power Supply Input • DC Power Supply Input

Range of Axial Flow Fans

- Frame Size **42 - 250 mm**
- Max. Air Flow **0.13 - 21 m³/min**
- Static Pressure **34 - 320 Pa**
- Power Supply **1-Phase 200/220/230 VAC, 12, 24, 48 VDC**



Example: MRS Series

Axial Flow Fan

Axial flow fans for AC rated voltage

- ✓ Large air flow
- ✓ High static pressure
- ✓ High efficiency

MRS Series



■ Centrifugal Blowers

- AC Power Supply Input • DC Power Supply Input

Range of Centrifugal Blowers

- Frame Size **50, 60, 80, 100, 120, 160 mm**
- Max. Air Flow **0.23 - 8 m³/min**
- Static Pressure **40 - 490 Pa**
- Power Supply **1-Phase 200/220/230 VAC, 24, 48 VDC**



Example: MB Series

■ Cross Flow Fans

- AC Power Supply Input • DC Power Supply Input

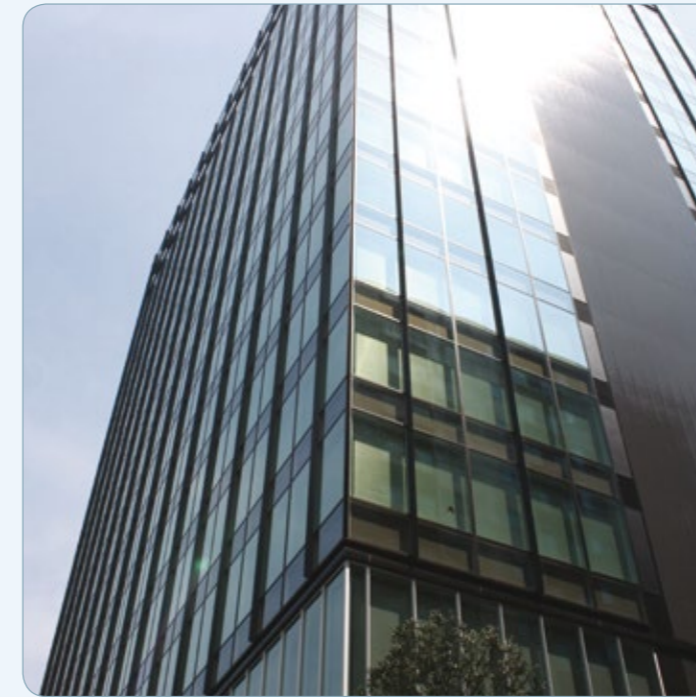
Range of Cross Flow Fans

- Frame Size **150, 300 mm**
- Max. Air Flow **3 - 6.2 m³/min**
- Static Pressure **78 - 98 Pa**
- Power Supply **1-Phase 200/220/230 VAC, 24, 48 VDC**



Example: MF Series

ORIENTAL MOTOR - Corporate Overview



Company Information

Headquarters	Tokyo, Japan
Founded	1885
Incorporated	1950
Employees	2,800
Global network	11 factories 1 R&D centre 100 offices worldwide
European headquarters/ Central warehouse	Dusseldorf (Germany)
Company activities	Manufacture and sale of small electric motors, motion control systems and fan motors



ISO 9001
Quality Management System

ISO 14001
Environmental Management System



Tsuruoka Factory



Takamatsu-Kokubunji Factory



Takamatsu-Kozai Factory



Tsukuba Factory



Soma Factory



Tsuchiura Factory



Kashiwa Factory



Kofu Factory



Toyoshiki Factory

Headquarters in Europe



Dusseldorf - Germany



Milan - Italy



Paris - France



London - U.K.

Orientalmotor

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