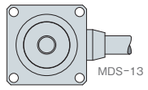
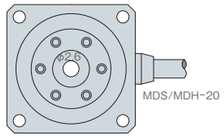
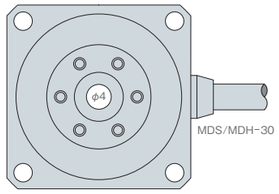
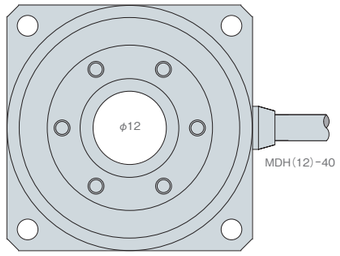
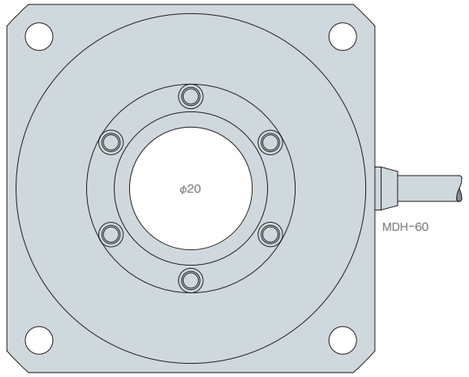
Full-scale

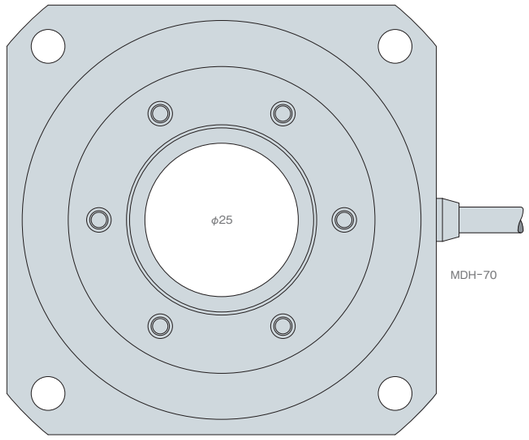












MDS-13 series

The world's smallest direct drive motor.
Perfect for light work gripper such as electronic part.



- Body diameter: φ13 mm
  Body length: 26/32/38 mm
- Max torque: 7/15/25 mN·m
- Max speed: 3000 rpm
- Max resolution: 11 bit

MDS/MDH-20 series

The smallest through-shaft servomotor in the world.
Perfect for end effector (hand, gripper, Zθ unit) with through-shaft.
It could be used for small hand in combination with low slowdown rate gear.



- Body diameter: φ21 mm
  Body length: 32/38/44 mm
- Max torque: 40/90/130 mN·m
- Max speed: 3000 rpm
- Max resolution: 288,000 P/R(Multiplied by 4), 18 bit
- Hollow diameter: φ2.6 mm (MDH type)

MDS/MDH-30 series

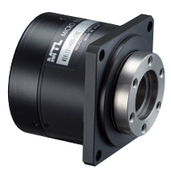
Perfect for highly-precise dispenser and small gimbal driving.



- Body diameter: φ30 mm
  Body length: 32/38/44 mm
- Max torque: 140/280/420 mN·m
- Max speed: 1000 rpm
- Max resolution: 432,000 P/R(Multiplied by 4), 19 bit
- Hollow diameter: φ4 mm (MDH type)

MDH(12)-40 series

Series of MDH-40 with larger internal diameter.
Internal diameter of φ12mm allows passing cable and laser etc.



- Body diameter: φ40 mm
  Body length: 32/38/44 mm
- Max torque: 0.33/0.70/1.0 N·m
- Max speed: 450 rpm
- Max resolution: 1,296,000 P/R(Multiplied by 4)
- Hollow diameter: φ12 mm (MDH type)

MDH-60 series

Small-sized large bore hollow shaft.
Perfect for end effector and robot joint etc.



- Body diameter: φ60 mm
  Body length: 32/38/44 mm
- Max torque: 1.1/2.1/2.7 N·m
- Max speed: 300 rpm
- Max resolution: 2,000,000 P/R
  (Multiplied by 4), 20 bit
- Hollow diameter: φ20 mm

MDH-70 series

Small-sized large diameter hollow shaft.
Perfect for index table, replacement of rotary actuator, robot (corresponds to elbow and shoulder)



- Body diameter: φ70 mm
  Body length: 32/38/44 mm
- Max torque: 1.0/2.2/3.1 N·m
- Max speed: 200 rpm
- Max resolution: 2,592,000 P/R
  (Multiplied by 4), 21 bit
- Hollow diameter: φ25 mm

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DYNAMIC IN MECHATRONICS

μDD Motor Product guide



μDD Motor series

Dynetics
DYNAMIC IN MECHATRONICS



ϕ13mm

MDS-13 series

Smallest DD Motor in the World

suitable for lightwork grippers and robot hands.



ϕ21mm

MDS/MDH-20 series

Smallest Hollow-shaft Motor in the World

Perfectly work for Robot Hands/Grippers with Zθ unit.



ϕ30mm

MDS/MDH-30 series

Perfectly work for high precision dispencer and gimbal drives.
Hole tap inside is customable.



ϕ40mm

MDH(12)-40 series

"LESS SPACE" because the hollow shaft can be used to pass cables and laser beam.



ϕ60mm

MDH-60 series

(Multifunction) product that can be applied in various ways such as End Effector,index drive shaft, robot joints, etc.



ϕ70mm

MDH-70 series

suitable for indexing table, hollow geared motor replacement and robot arms.

Inventory status

High-precision Options

Standard features

- Precisely built with high resolving power and accuracy in the started at 1arc sec.
  Available in inceremental and absolute.
- Built in angular bearing and deep groove bearing make it extremely durable and can handle high direct load.



Upgrade Options

- Based on encoder type, rotation accuracy and maximum rotation speed can be improved.
- High precision enablling shaft runout of ±5μm can be achieved.
- Cross roller bearing improve shaft rigidity,pursuing high precision and NRRO.
- Built in Flange mounting is changeable to freestanding type.



Customization page

High Torque Options

Standard features

- World's smallest rotary encoder designed by our expert. SMALL but HIGH DENSITY and ACCURACY. 3TIMES faster than conventional AC servo Motors.

High Torque Options

- low-speed gears design and compact with back driveability, low inertia and reduction ratios by 1/3 and 1/9.
- Torque diameter is expandable up to ϕ70 or more.



Low-speed Gears page

Hollow-shaft Options

Standard features

- Hollow shaft outer diameter is available up to 30%.

Hollow shaft optimization options

- Hollow shaft taps is customable by request.
  rotary joints directly connected and cables or air tubes can pass through without touching the ends of hollow shaft.
- Hollow inner diameter is customable.
- Shaft can be designed as request.
  Shaft is customable as request.



Customization page

Customization Examples

- Encoder resolution is changeable
- Hollow shaft expansion
- Flangeless structure for motor cases
- Customable hole tap
- Cable extension and connector
- Support for low dust-generation
- Output shaft structure change
  (Change to pinion gear, positioning pin addition, knurling, alumite aluminum, etc.)
- Built-in motors
- IP improvement
- Customable Vacuum

To meet your needs of specification, we accept customization even just one unit. Feel free to contact us.

Collaboration amplifiers

Catalog Download page

Panasonic

EtherCAT.

RTEX Realtime Express



MINAS A6 Family

MITSUBISHI ELECTRIC

SSCNET III/H SERVO SYSTEM CONTROLLER NETWORK



MELSERVO-J4

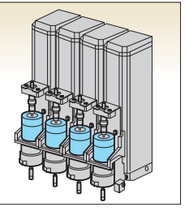
Drive μDD motors with a conventional system

We offer various conversion cables

Super-compact with hollow shaft

We have shafts with super-compact outer diameters of ϕ21-70 that are also hollow all the way through. (ϕ2.6-25mm)
Compressed air tubes, laser beams, and more can pass through hollow shafts, enabling smaller and faster-acting end effectors.

- Die bonders, chip mounters, chip conveyors, bonding devices, laminators, test handlers, etc.



Advantages

- Hollow shafts
  (Cables, compressed air tubes, laser beams, ball screws, or spline shafts can pass through)
- Compact and efficient
- High-precision positioning,high speed precision and torque accuracy
- Compliance control, high back-drivability
- Low-speed, high-torque drive, speed ripple reduction
- Less noise great performance

We also have another collaboration amplifier available.
Feel free to contact us for support.

MTL Drivers

Specialized compact drivers for researchers and engineers

Compatible with all μDD motor types
Pulse stream, analog voltage, SPI communication

We offer various optional cables

Product Details page





Cables

We can provide you extension cables and conversion



Product and inventory status

Devices and mechanical units

We propose devices and mechanical units that use μDD motors



Product Details page

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