

Hollow Rotary Actuators

DGII Series α STEP AZ Equipped

The **DGII** Series is a line of products that combines a high rigidity hollow rotary table with a Hybrid Control System α STEP AZ Series. It retains the ease of use of a α STEP, while also allowing for highly accurate positioning of large inertia loads.

- Integrated Actuator and Motor Product Makes Design Easier
- Large-Diameter Hollow Output Table
Diameter of Hollow Section is 100 mm
- α STEP Provides Excellent Performance
 - Agile Responsiveness
 - Stability at Low Speeds
 - Tuning-Free



See Full Product Details Online
www.orientalmotor.com

● Manual

● Specifications

● Dimensions

● CAD

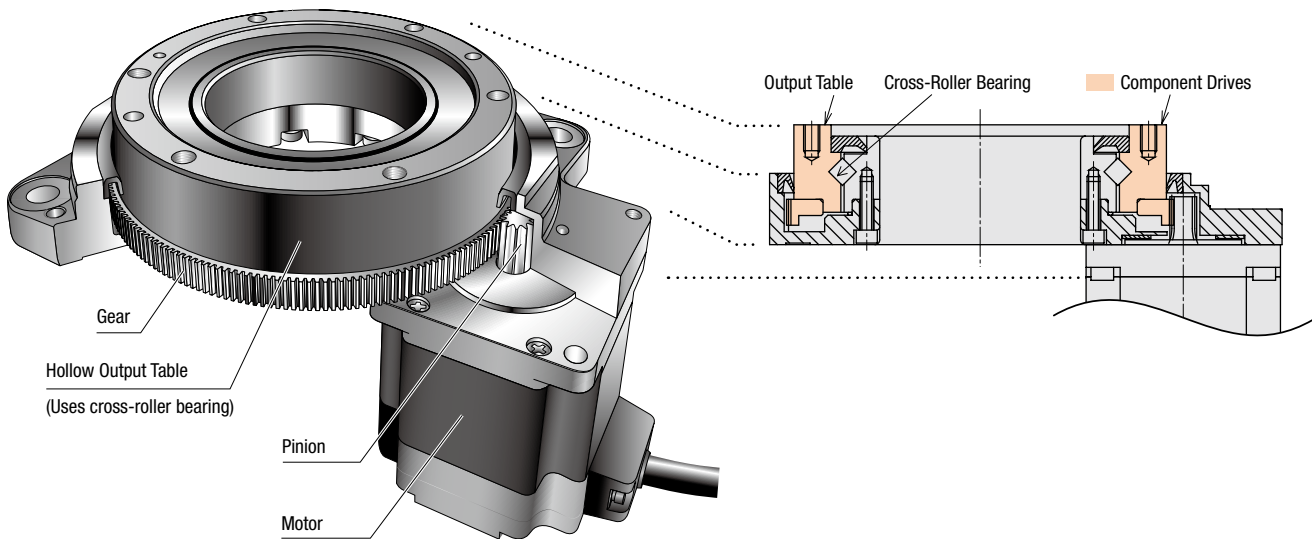
● Characteristics

● Connection and Operation

Features

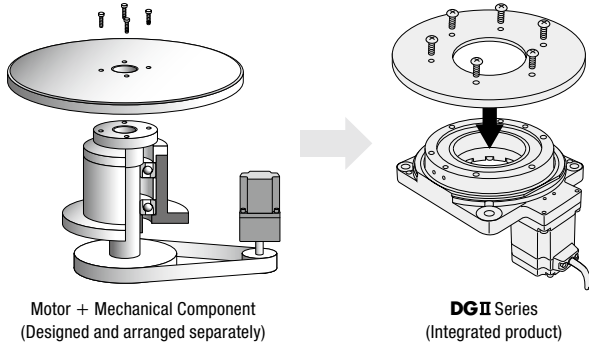
Integrated Products

The **DGII** Series is a line of integrated product that combines a hollow rotary table with a α STEP. The actuator has an internal speed reduction mechanism (gear ratio 18), which makes high power driving possible.



Simplified Design

Tables and arms can be installed directly onto the output table. This saves the hassle and cost of designing an installation mechanism, arranging necessary mechanism parts, adjusting the belt tension, etc., when mechanical components such as a belt and pulley are used for installation.



Motor + Mechanical Component
(Designed and arranged separately)

DGII Series
(Integrated product)

High Positioning Accuracy with Non-Backlash

- Non-Backlash
- Repetitive Positioning Accuracy ± 15 arc seconds ($\pm 0.004^\circ$)

Note

The repetitive positioning accuracy is measured at a constant temperature (normal temperature) under a constant load.




High Load and High Rigidity

The standard type uses a cross-roller bearing on the output table bearing, which allows for both high load and high rigidity.

- Maximum Permissible Axial Load 4000 N (900 lb.)
- Maximum Permissible Moment 100 N·m (880 lb-in)

Selection of Hollow Rotary Actuators

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Product Frame Size	Power Supply Voltage	Electro-magnetic Brake	Diameter of Hollow Section [mm (in.)]	Permissible Torque [N·m (lb-in)]	Permissible Moment [N·m (lb-in)]				Permissible Axial Load [N (lb.)]	Lost Motion [arcmin]	Backlash [arcmin]	Angular Transmission Accuracy [arcmin]	Repetitive Positioning Accuracy [arcsec]
					20	40	60	80					
DGM85R 85mm (3.35 in.) 	Single-Phase 100-120 VAC Single-Phase/Three-Phase 200-240 VAC 24/48 VDC	Not equipped	$\phi 33$ ($\phi 1.3$)	4.5 (39)	10 (88)	500 (112)	2000 (450)	2 (0.033°)	2	Non-Backlash	4 (0.067°)	± 15 ($\pm 0.004^\circ$)	
		Equipped											
DGM130R 130mm (5.12 in.) 	Single-Phase 100-120 VAC Single-Phase/Three-Phase 200-240 VAC 24/48 VDC	Not equipped	$\phi 62$ ($\phi 2.44$)	12 (106)	50 (440)	2000 (450)	4000 (900)	2 (0.033°)	2	Non-Backlash	3 (0.05°)	± 15 ($\pm 0.004^\circ$)	
		Equipped											
DGM200R 200mm (7.87 in.) 	Single-Phase 100-120 VAC Single-Phase/Three-Phase 200-240 VAC	Not equipped	$\phi 100$ ($\phi 3.94$)	50 (440)	100 (880)	4000 (900)	4000 (900)	2 (0.033°)	2	Non-Backlash	2 (0.033°)	± 15 ($\pm 0.004^\circ$)	
		Equipped											

Overview

α STEP Absolute AZ

Linear Slides α STEP EZS

Cylinders α STEP EAC

Cylinders α STEP DR52

Rotary Actuators α STEP DGII

α STEP AR

