

Rotary Actuator

Characteristics

- The Rotary Actuator features an ultra-thin size and high power on account of the use of an elliptic cylinder. Coming in the rotary disk type as well as the pinion shaft type, this actuator displays the great advantage of ultra-thinness.

Specifications

Model	HR200-90(D)	HR400-90(D)	HR400-180(D)	HR600-90(D)	HR600-180(D)
Actuating method	Double acting type (rack & pinion method)				
Fluid medium	Compressed air (oilless)				
Operating pressure range	43 ~ 116psi (0.3 ~ 0.8MPa)				
Operating temp. range	41 ~ 140°F (5 ~ 60°C)				
Effective torque	2N·m	6N·m		9.5N·m	
Rotational angle	90°	90°	180°	90°	180°
Angle adjustment range	0 ~ +5°				
Cushion	Air cushion				
Port size	M5×0.8mm				
Cylinder sectional area	6.9cm ²	12.9cm ²		19.6cm ²	
Cylinder stroke	1.4cm	2.2cm	4.2cm	2.3cm	4.3cm
Shaft dia. (pinion shaft type)	10mm	15mm		17mm	
Maximum radial load	26.46N	45.08N		64.68N	
Maximum thrust load	26.46N	26.46N		56.84N	
Maximum kinetic energy	0.01N·m	0.015N·m		0.02N·m	
Option	Magnetic sensor	○*	○	○	○
	Mounting holder	○*	○	○	○
	Speed controller	○	○	○	○

* The magnetic sensor and the mounting holder cannot be attached to HR200-90(D) simultaneously.

Sensor Specification

Wiring method	3 wire type
Power requirement	4.5 ~ 28VDC
Load voltage	4.5 ~ 28VDC
Load current	100mA max.
Current consumption	10mA max. (24VDC)
Internal descending voltage (*1)	0.5V max. (with load current at 50mA)
Leakage current	50μA max. (24VDC)
Response	1m·s max.
Insulation resistance	100MΩ min. (between case and lead wire terminal at 500VDC)
Withstand voltage	for 1minute (between case and lead wire terminal at 500VDC (50/60Hz))
Impact resistance (*2)	294.2m/s ² (30G) (No repeat)
Vibration resistance (*2)	88.3m/s ² (9G) (Condensing amplitude: 1.5mm · 10 ~ 55Hz)
Protective structure	IP67 (IEC standard), JIS C0920 (Water tight type)
Operational indication	Red LED lighting up when pressure is ON
Lead wire	PVC 0.2SQ × 3cores × 3,000mm
Operating temp. range	32 ~ 140°F (0 ~ 60°C)
Storage temp. range	14 ~ 158°F (-10 ~ 70°C)
Weight	50 g




*1. Internal descending voltage differs by the valve of load current.

*2. PISCO test standard

RoHS The products listed in this page are ECO-friendly products.

* Please refer to page 4 for the details of ECO-friendly products.

Option Parts

A	Model	B	Model	C	Model
Magnetic Sensor	A (*1, *3)	Mounting Holder	B (HR200) (*2, *3) B (HR400) (*2, *3) B (HR600) (*2, *3)	Speed Controller	C (*3)
					
				Tube size: ø4 Thread size: M5 Meter-out control	



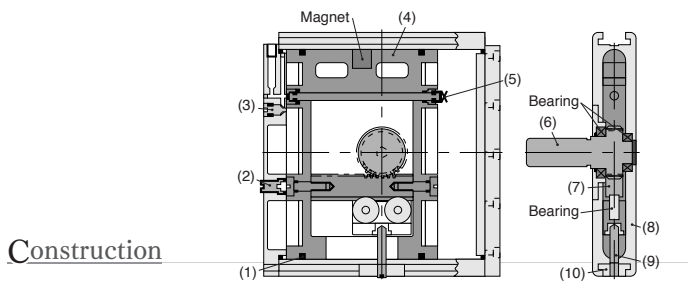
Cautions

*1. Magnetic sensor A consists of sensor (2 pcs.), mount bracket (2 pcs.) and screw.

*2. Mounting holder B is 4 pcs./set.

*3. Please be careful that these model codes A, B and C are used only ordered with Rotary actuator.

Package specification
1 set / bag



Construction

No	Parts	Material
(1)	Piston packing	NBR
(2)	Angle adjustment screw	carbon steel SK
(3)	Cushion adjustment screw	nickel-plated brass
(4)	Piston	POM
(5)	Cushion pad	NBR
(6)	Pinion shaft	carbon steel S45C
(7)	Rack	carbon steel S45C
(8)	Cylinder	aluminium
(9)	Backlash adjustment screw	carbon steel S45C
(10)	Adjustment nut	aluminium

Model Designation (Example)

HR **400** - **90** **D** **ABC**
(1) (2) (3) (4)

(1) Cylinder area

Code	200	400	600
Cylinder area	6.9cm ²	12.9cm ²	19.6cm ²

(2) Rotation angle

Code	90	180
Rotation angle	90°	180°

(3) Rotary part

Code	No code	D
Rotary part	Pinion shaft type	Rotary disk type

(4) Option (Combination)



Code (オプション/内装)	A* (Magnetic sensor)	B* (Mounting holder)	C (Speed controller)	No code (without option)
HR200	○	○	○	
HR400	○	○	○	
HR600	○	○	○	

* A, B and C above can be combined. (The magnetic sensor and mounting holder can not be combined for the HR200, however.)



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* Please refer to page 4 for the details of ECO-friendly products.

HR	Model	HR	Model
Pinion Shaft Type	HR200-90 HR400-90 HR400-180 HR600-90 HR600-180	Rotary Disk Type	HR200-90D HR400-90D HR400-180D HR600-90D HR600-180D
			



Package specification

1 pc. in a bag