[High Precision] Motorized Rotary Stages - Worm Gear

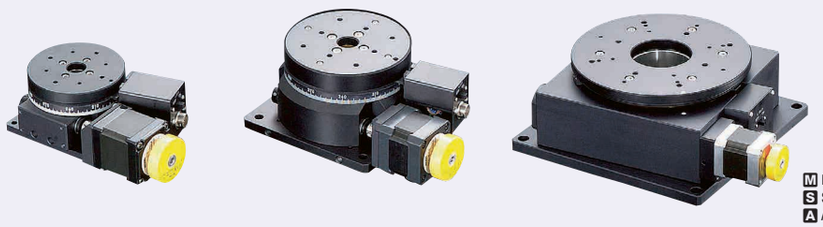
Stage Surface Size Ø75~Ø180

Spec.Change Printed in Purple

Features: Suitable for large angle-positioning with high accuracy or being rotated 360° repeatedly.

For CAD data, see the MISUMI website.

Rotary



M Material: Aluminum Alloy
S Surface Treatment: Black Anodize
A AccessoryRMWG75: SCB4-10 (4 pcs.)
RMWG100C: SCB6-16 (4 pcs.)
RMWG180C: SCB6-12 (4 pcs.)

For Controllers, Handset Terminals, see P.1-1735-93~P.1-1735-94

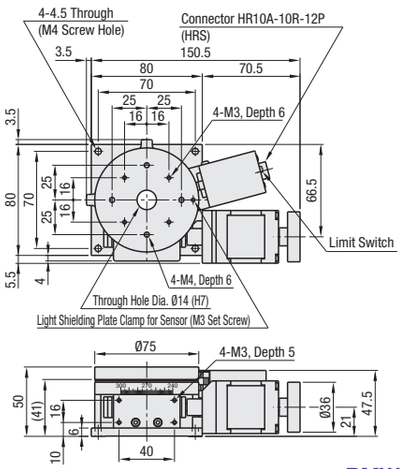
Part Number		Cable	Mechanical Standards			Accuracy Standards	
Type	No.		Stage Surface	Travel Distance (°)	Weight (kg)	Positioning Accuracy	Moment Rigidity ("/N•cm)
RMWG	75	N (Cable not included (separately sold)) For cables separately sold, see MSCB_ option on P.1-1735-95	Ø75	360°	1.1	0.03° or Less	0.15
	100C		Ø100		2.5		0.07
	180C		Ø180		9.7	0.05° or Less	0.02

Ordering Example: Part Number RMWG100C - Cable N

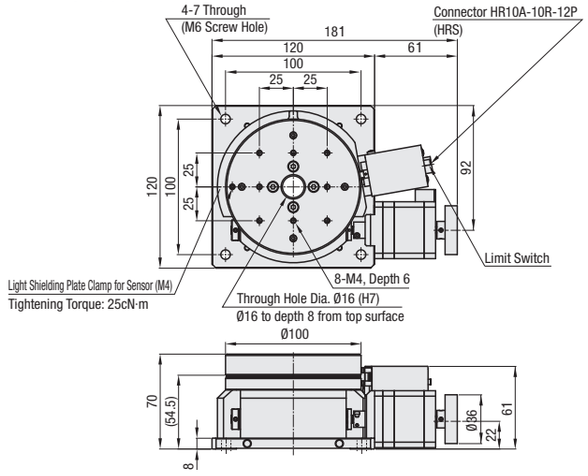
Days to Ship

Configure Online

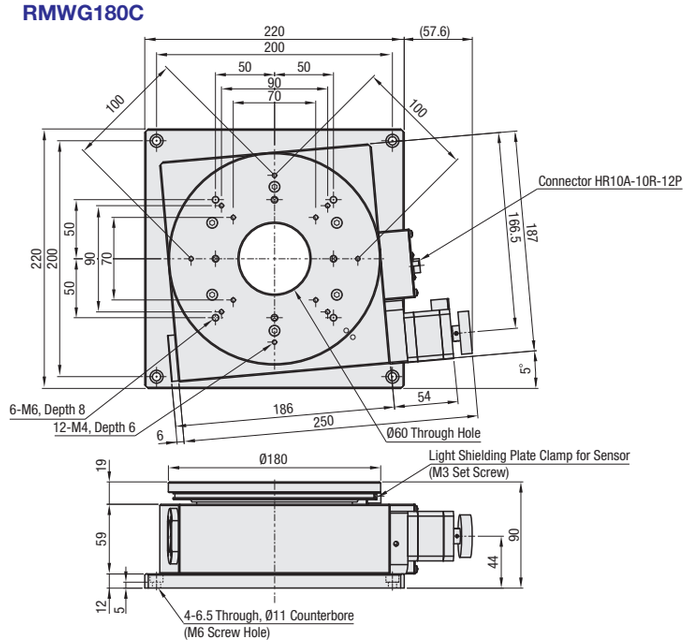
RMWG75



RMWG100C



RMWG180C



See the CAD data for detailed dimensions.

Electrical Specifications

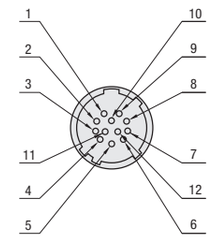
No.		75	100C	180C
Motor	Type	5-Phase Stepping Motor 0.75A/Phase (Oriental Motor Co., Ltd.)		
	Part Number	C7214-9015-1	PK544PB-C18	
	Step Angle	0.36°	0.72°	
Connector	Part Number	HR10A-10J-12P (73) (Hirose Electric Co., LTD.)		
	Compatible Receptacle Connector	HR10A-10P-12S (73) (Hirose Electric Co., LTD.)		
Sensor	Limit Sensor	Provided (PM-F25)		Provided (PM-F25, R25)
	Home Position Sensor (ORG1)	Provided (PM-F25)		Provided (PM-L25)
	Slit Home Origin Sensor (ORG2)	Not Provided		
	Part Number	Photomicrosensor: PM-_25 (Panasonic Industrial Devices SUNX Co., Ltd.)		
	Power Supply Voltage	DC5~24V ±10%		
	Current Consumption	45mA or less		
	Control Output	NPN Open Collector Output DC30V, 50mA or less Residual Voltage 2V or less (when load current is 50mA) Residual Voltage 1V or less (when load current is 16mA)		
	Output Logic	CWLS, CCWLS Detecting (Dark): Output Transistor OFF (Non-Conducting) ORG Detecting (Dark): Output Transistor OFF (Non-Conducting)		Detecting (Dark): Output Transistor OFF (Non-Conducting)

Sensors with Part Number PM-□24 are to be discontinued and replaced by next-generation products with Part Number PM-□25 from April 2017.

Common Specifications

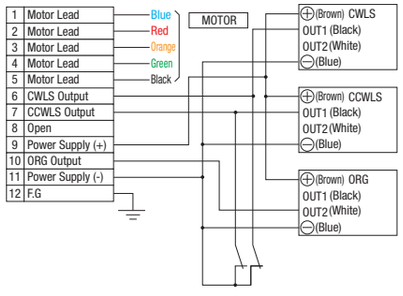
No.	75	100C	180C
Feeding Method	Worm Gear Type (Reduction Ratio 1/144)	Worm Gear Type (Reduction Ratio 1/180)	
Guide	Cross Roller Bearing	Combined Angular Contact Ball Bearings	
Resolution | Full	0.0025°	0.004°	
Max. Speed	25°/sec[5khz]	20°/sec[5khz]	
Positioning repeatability	Within ±0.005°		
Load Capacity	98N	147N	294N
Lost Motion	0.005° or Less	0.004° or Less	0.01° or Less
Backlash	0.005° or Less	0.004° or Less	0.01° or Less
Parallelism	120µm or less		100µm or less
Eccentricity	5µm or less / Full Stroke		
Surface Runout	20µm or less		60µm or less

Connector Pin Configuration

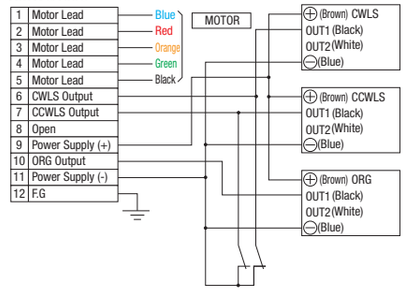


Wiring Diagram

RMWG75/100C



RMWG180C



Timing Chart

When MSCTL102/112 Series controller is used and when the Homing Routine Type 4 is executed, the home position is detected with Division 0 [°] (with light in). (This is applicable only for RMWG180C.)
CW limit / CCW limit can be repositioned to any arbitrary point.
For details about Homing, see P.1-1735-97