

[High Precision] Motorized XY-Axis - Cross Roller

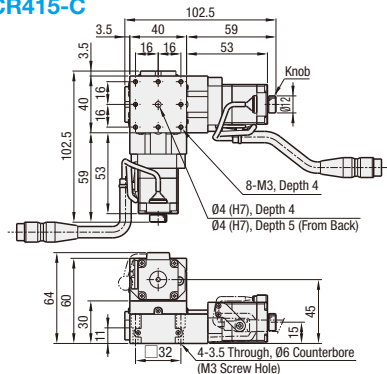


■ **Features:** XY-Axis Stage excellent in lightweight, compactness and accuracy.

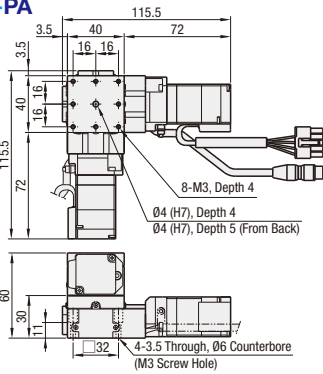
■ **XY-Axis**



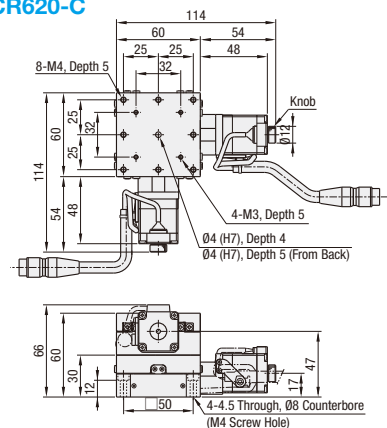
XYCR415-C



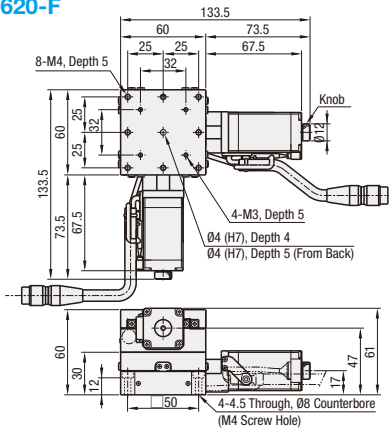
XYCR415-PA



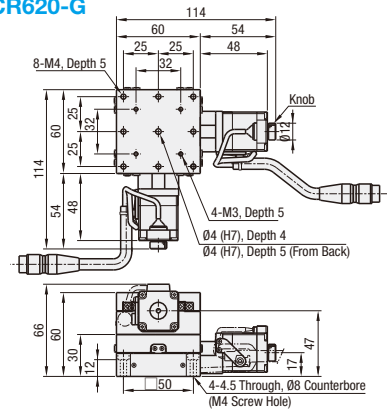
XYCR620-C



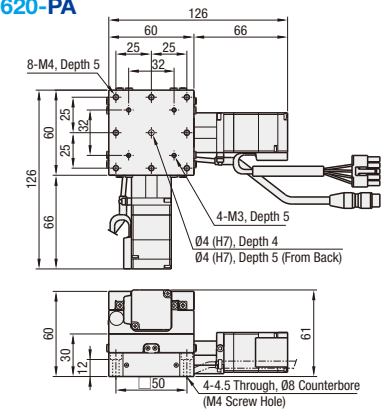
XYCR620-F



XYCR620-G



XYCR620-PA



☞ See the CAD data for detailed dimensions.

☞ For CAD data, see the MISUMI website.

Part Number		Motor	Cable	Mechanical Standards			Accuracy Standards ^{*2}					
Type	No.			Stage Surface (mm)	Travel Distance (mm)	Weight ^{*1} (kg)	Unidirectional Positioning Accuracy	Moment Rigidity (°/N•cm)			Pitching	Yawing
								Pitching	Yawing	Rolling		
XYCR	415	C (Standard) PA (α-Step)	N (Cable not included (separately sold)) P* (Cable for α-Step Motor) For cables separately sold, see MSCB_ option on P. 11-1735-95	40×40	15	0.6	10μm or less	0.33	0.44	0.37	25"	20"
	620	C (Standard) F (High Torque) G (High Resolution) PA (α-Step)		60×60	20	0.9	5μm or less / Full Stroke	0.15	0.12	0.07	20"	15"

* When the Motor Option PA is selected, the driver is included with as the Set. The cable is available for Option P and is unavailable for Option N (Cable not included).

*1. The value is for C Type of Motor.

*2. The above accuracy standards of Unidirectional Positioning Accuracy and Moment Rigidity are for a single axis.



Ordering Example

Part Number - Motor - Cable
XYCR415 - C - N



Days to Ship

Configure Online

■ **Common Specifications**

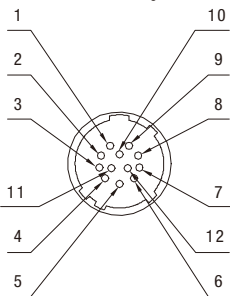
No.	415	620
Feed Screw	Ball Screw Ø6, Lead 1	Ball Screw Ø8, Lead 1
Guide	Cross Roller Guide	Cross Roller Guide
Positioning repeatability	±0.5μm	±0.3μm
Load Capacity*3	44.1N	44.1N
Lost Motion	1μm or less	1μm or less
Parallelism	30μm or less	30μm or less
Straightness	3μm or less	3μm or less
Motion Parallelism	10μm or less	10μm or less

☞ The above specifications are for a single axis.

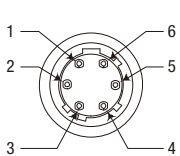
*3. The above load capacity value is for XY-Axis.

■ **Connector Pin Configuration**

• Motor Code: C (Standard), F (High Torque), G (High Resolution)
General Connector Pin Configuration



• Motor Code: PA (α-Step)
Motor Cable Part Number: CC030VA2R2
Sensor Pin Configuration

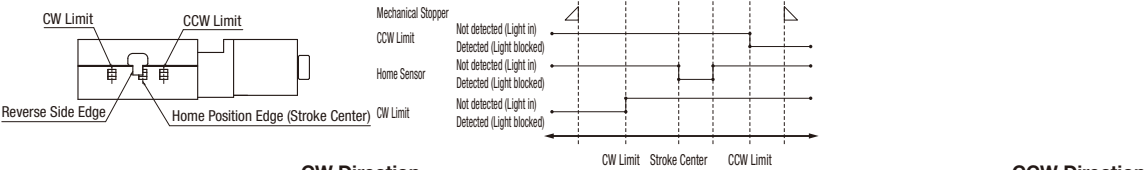


■ **Electrical Specifications**

Motor		C	F	G	PA
Motor	Type	Standard	High Torque	High Resolution	Stepping-out Prevention
	Part Number	C005C-90215P	5-Phase Stepping Motor 0.75A/Phase	PK523HPMB-C1	α-Step Motor
	Step Angle	0.72°	0.72°	0.36°	ARM24SAK
	Driver Part Number				ARD-K
Resolution (Pulse)	Full/Half	2μm/1μm	2μm/1μm	1μm/0.5μm	1μm (When 1000P/R is set)
	Micro Step	0.1μm (upon 1/20 partitioned)	0.1μm (upon 1/20 partitioned)	0.05μm (upon 1/20 partitioned)	-
Connector	Part Number	HR10A-10J-12P (Hirose Electric Co., LTD.)	HR10A-10J-12P (Hirose Electric Co., LTD.)	HR10A-10J-12P (Hirose Electric Co., LTD.)	HR10A-7J-6P (Hirose Electric Co., LTD.)
	Compatible Receptacle Connector	HR10A-10P-12S (Hirose Electric Co., LTD.)	HR10A-10P-12S (Hirose Electric Co., LTD.)	HR10A-10P-12S (Hirose Electric Co., LTD.)	HR10A-7P-6S (Hirose Electric Co., LTD.)
Sensor	Limit Sensor			Provided	
	Home Position Sensor (ORG1)			Provided	
	Slit Home Origin Sensor (ORG2)			Not Provided	
	Part Number			Photomicrosensor: EE-SX4320 (OMRON Corp.)	
	Power Supply Voltage			DC5~24V ±10%	
	Current Consumption			60mA or less	
	Control Output			NPN Open Collector Output DC5~24V, 8mA or less Residual Voltage 0.3V or less (when load current is 2mA) Detecting (Dark): Output Transistor OFF (Non-Conducting)	
Output Logic					

☞ Sensors with Part Number EE-SX4134 will be discontinued and replaced by next-generation products with Part Number EE-SX4320 from November 2018.

■ **Timing Chart**



Travel Distance (mm)	Reference Position	Mechanical Limit	CW Limit	Home Position Edge Stroke Center	Other Signal Edge	CCW Limit	Mechanical Limit
15	Homing Position	8.5	7.7	0	2	7.7	8.5
20	Homing Position	11	10.5	0	5	10.5	11

☞ Homing Routine Above: When MSCTL102/112 Series controller is used and when the Homing Routine Type 4 is executed.

☞ The coordinates shown are design values. There may be approx. ±0.5mm misalignment on the physical dimensions.

☞ For details about Homing, see P. 11-1735-97