



ELECTRO-MECHANICAL PRODUCTS

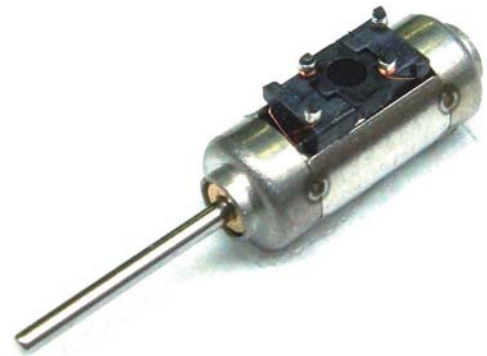
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STEPPING MOTOR

φ3 Stepping Motor

We will optimize motor specification for any customer's use including optical pickup lens actuator for Blu-ray and micro pump.

Applications
<ul style="list-style-type: none"> • Optical pickup lens driver unit for Blu-ray drive • Micro pump
Product Features
<ul style="list-style-type: none"> • Microminiature • Excellent-durability • High-accuracy • High-quality • High-torque • Low-power consumption • Handling unit

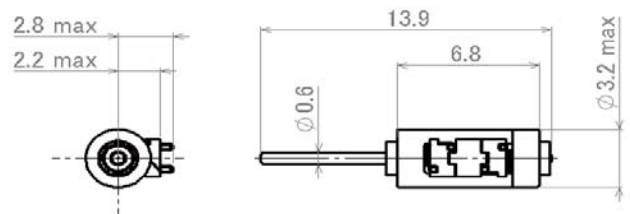


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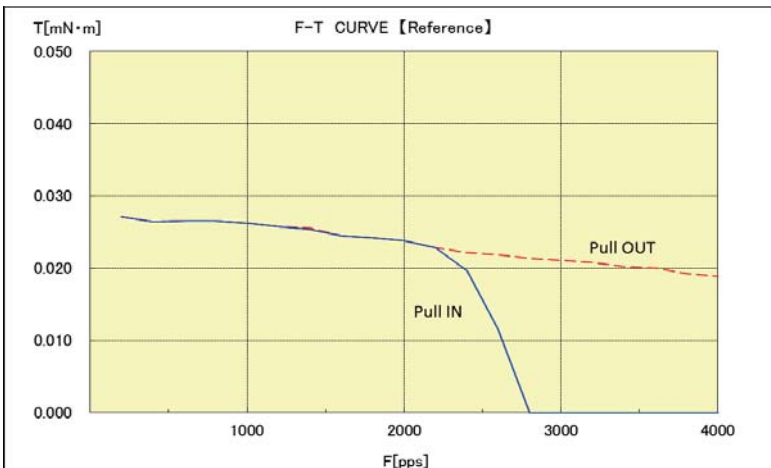
◆Main Specification

Item	φ3 motor Specifications
Phase	2Phase
Operating Mode	2Phase
Step Angle	22.5°
Rated Voltage	3V
Winding Resistance	22Ω
Max.Starting Pulse Rate	2.000 PPS min

◆Outline Dimension



◆Frequency-Torque



◆For Inquiries

Group III
New Products Sales Promotion Department
Sales Headquarters

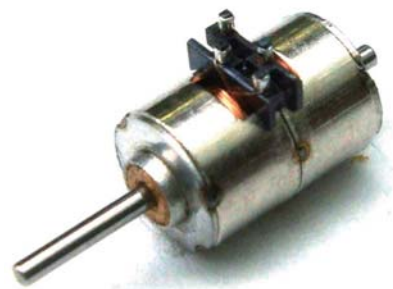
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STEPPING MOTOR

φ4 Stepping Motor

We will optimize motor specification for any customer's use including optical pickup lens actuator for Blu-ray and actuator for camera lens.

Applications
<ul style="list-style-type: none"> • Optical pickup lens driver unit for Blu-ray drive • Auto focus , Zoom for camera • Gear unit • Opening and closing of compact valve
Product Features
<ul style="list-style-type: none"> • Microminiature • Excellent-durability • High-accuracy • High-quality • High-torque • Low-power consumption • Handling unit

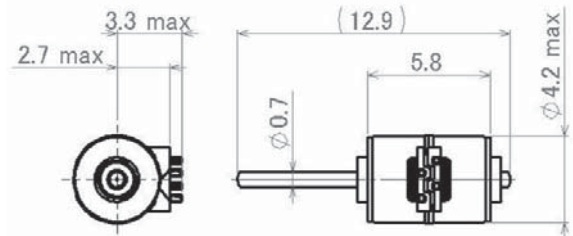


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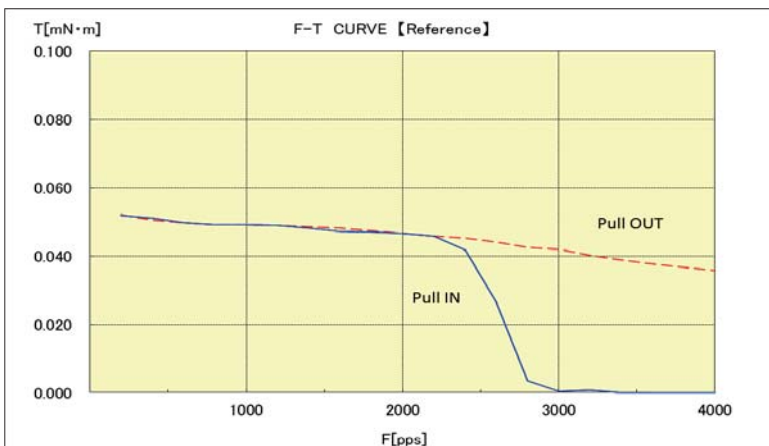
◆Main Specification

Item	φ4 motor Specifications
Phase	2Phase
Operating Mode	2Phase
Step Angle	22.5°
Rated Voltage	5V
Winding Resistance	40Ω
Max.Starting Pulse Rate	2.000 PPS min

◆Outline Dimension



◆Frequency-Torque



◆For Inquiries

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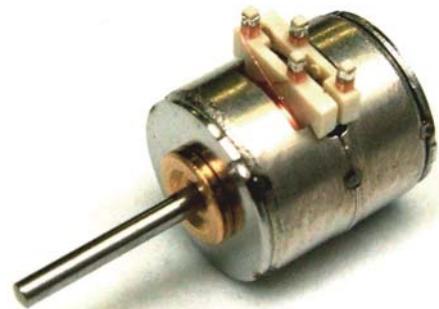
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STEPPING MOTOR

φ6 Stepping Motor

We will optimize motor specification for any customer's use including optical pickup lens actuator for Blu-ray and actuator for camera lens.

Applications
<ul style="list-style-type: none"> • Optical pickup lens driver unit for Blu-ray drive • Auto focus , Zoom for camera • Gear unit • Opening and closing of compact valve
Product Features
<ul style="list-style-type: none"> • Microminiature • Excellent-durability • High-accuracy • High-quality • High-torque • Low-power consumption • Handling unit

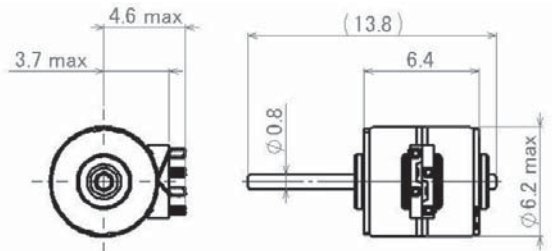


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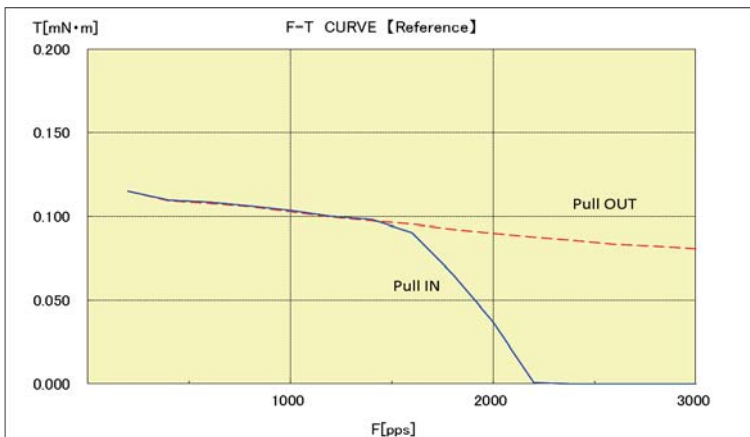
◆Main Specification

Item	φ6 motor specifications
Phase	2Phases
Operating Mode	2Phases
Step Angle	18°
Rated Voltage	5 V
Winding Resistance	40 Ω
Max.Starting Pulse Rate	1.750 PPS min

◆Outline Dimension



◆Frequency-Torque



◆For Inquiries

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CMOS CAMERA MODULES

CMOS Camera Module

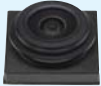
Nippon Chemi-con's CMOS Camera modules are the best as any image input devices applications in order to following specifications.

- Lower power consumption.
- Excellent color reproduction by using the on-chip primary color filter.
- Small module profile by embedded camera signal processor.

◆ Application example

Built-in camera modules for, PC, PDA, door phone, event data recorder, and other camera system such as surveillance camera, wearable camera, code scanner, also vein/fingerprint authentication.

◆ Outline of product specification

Part number	Size (mm)	Sensor		Lens			Output formats
		Image size	Optical format	F Number	Element	HFOV	
 NCM03-V	8.4×11.8×5 *	VGA	1/4"	F2.8	3Plastic	54.5°	YCbCr YUV RGB565/ 555/444
 NCM03-S	13×21×11.6 *	VGA	1/4"	F2.8	2Plastic	105°	
 NCM03-W2	16×20×12.3 * Under development	VGA	1/4"	F2.8	4Plastic	135°	
 NCM03-U	16×16×18	VGA	1/4"	F2.8	4Plastic	135°	NTSC
 NCM13-J	10.2×13.5×6.9 *	SXGA	1/4"	F3.0	1Glass 3Plastic	43.3°	YCbCr RGB565/ 555/444
 NCM13-K	16×20×11.1 *	SXGA	1/4"	F2.8	4Plastic	135°	YCbCr RGB565/ 555/444
 NCM13-K2	16×20×14 * Under development	SXGA	1/4"	F2.4	5Glass 1Plastic	180°	YCbCr RGB565/ 555/444
 NCM20-D	10.2×16×5.5 *	UXGA	1/4"	F3.0	3Plastic	50°	YCbCr RGB565/ 555/444
 NCM-USB-C	20×37×5	USB Output Interface Board ●USB2.0 ●USB_Video_Class1.0 ●WindowsXP (SP2~) Windows Vista ●USB-bus Power (5.0±0.5V)		—	—	Corresponding Camera Module ●NCM03-V/S/W2 ●NCM13-J/K/K2●NCM20-D	
 NCM-USB-03A	15×40×12			F2.8	2Plastic	105°	—
 NCM-USB-03D	15×40×6			F2.8	3Plastic	54.5°	—
 NCM-USB-20A	15×40×6 Under development			F2.8	3Plastic	55°	—

*FPC part is not included.



CUSTOM-MADE BATTERY CHARGERS

Custom-Made Battery Chargers

Nippon Chemi-Con is able to design battery chargers that meet various customers' requests.



Application
<ul style="list-style-type: none">• Industrial battery chargers
Product Features
<ul style="list-style-type: none">• Compact size design• Light weight• Low cost• Quick charge• Meet each country's specific standards• Multi channel battery chargers are available• Respond to any request from circuit and mechanism design, firmware development, to mass production
Correspondence battery
<ul style="list-style-type: none">• Lithium ion batterieas• Nickel-cadmium batteries• Nickel-metal-hybride batteries

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