MONOCARRIER SPECIFICATION SHEET FOR NEW APPLICATIONS



Customer Name: Date:

PO Number: **Customer POC:**

Customer Email: Customer Phone:

Application: ex: machine tool, transport, etc.

Speed and Travel:

Stroke: mm

Stroke Time (t): sec

Max Speed: m/min

Acceleration: m/s²

Ramp Time (t1): sec

Duty Cycle:

Life Expectation: (years)

Cycles per Hour:

Operating Hours: (per day)

Operating Days:

(per year)

Environment:

Temperature Range:

deg C deg F

General Industry Wash Down

Clean Room

Vacuum

Outside Use Splash

Corrosive

High Humidity

Contaminated

Food/Medical

Other Comments:

Load Conditions:

Mounting Postion: (horizontal/vertical)

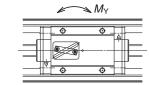
Moment (Yaw):

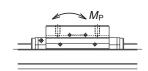
Moment (Pitch):

Moment (Roll):

Vertical Force:

Horizontal Force:

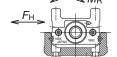






N-m

N-m



Application Details (Please enter any other special considerations not covered):

Phone: 1-800-255-4773 Fax: (317) 728-5050

MONOCARRIER SIZING SPECIFICATION SHEET



Customer Name: Date:

Customer POC: PO Number:

Customer Email: Customer Phone:

Application: ex: machine tool, transport, etc.

Series: MCM MCH Size:

Stroke: mm Accuracy Grade: H or P

Lead: mm Sliders: 1 or 2

Grease: AS2 (Standard) LG2

Surface Treatment:

Part Number:

Quantity:

Accessories:

NPN Proximity Sensors Motor Bracket

Normally Closed (NC) NEMA 17 Normally Opened (NO) NEMA 23

1 NC and 2 NO 1/4" shaft 3/8" shaft

NEMA 34

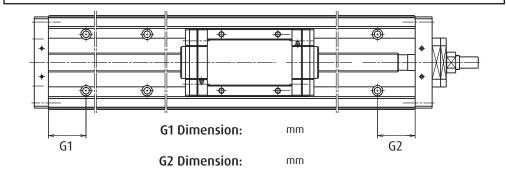
NPN Photo Sensor 3/8" shaft 1/2" shaft

Sensor Rail Other (please provide drawing)

Monocarrier Cover Unit

Additional Details (motor brand, number of sensors, etc.)

Comments:



Phone: 1-800-255-4773 Fax: (317) 728-5050

MONOCARRIER EXPLANATION OF TERMS



| Item | Appearance | Outline | Main Application | | | | |
|------|--|--|---|--|--|--|--|
| мсм | | Lightweight is the special feature of this type of Monocarrier. It suits well for a vertical axis of material handling robots. | Equipment that needs to reduce the weight Substitution for pneumatic actuator Robots Transporting equipment Measuring machine Equipment for factory automation etc. | | | | |
| мсн | To the same of the | This type consists of a stiff rail so that it can be a structural beam. | Equipment that needs to reduce the weight Substitution for pneumatic actuator Robots Transporting equipment Measuring machine Equipment for factory automation etc. | | | | |

Accuracy Grade

The accuracy grade of Monocarrier $^{\text{TM}}$ standard inventories is high grade (H), except for lead 1 and 2 mm of MCM02 and MCM03. When you require strokes longer than 1,200 mm, please consult NSK about the accuracy grade.

| Grade | | High Grade | | Precision | | | | | | |
|-------------|---------------|--------------------------------|------------|---------------|----------------------|--------------------------------|-----------|--|--|--|
| Stroke (mm) | Repeatability | Running Parallelism (vertical) | Backlash | Repeatability | Positioning accuracy | Running Parallelism (vertical) | Backlash | | | |
| ~200 | <u>±</u> 10 | 14 | | ±3 | 20 | 8 | | | | |
| ~400 | | 16 | | | 25 | 10 | | | | |
| ~600 | | 20 | 20 or less | | 30 | 12 | 3 or less | | | |
| ~700 | | 23 | 20 01 1655 | | 30 | 15 | 3 01 less | | | |
| ~1,000 | | 23 | | | 35 | 15 | | | | |
| ~1,200 | | 30 | | | 40 | 20 | | | | |

MONOCARRIER EXPLANATION OF TERMS



MCM Series Standard Combinations of Stroke and Ball Screw

Single Slider

| (• mark: Standar | d Produ | ıct) | | | | | | | | | | | | | | | | | | | (Unit | t: mm) |
|------------------|---------|------|---|---|----|-----|----|----|---|-----|-----|----|---|-----|----|-------|----|----|----|-------|-------|--------|
| Model No. | MCN | ۸02 | | | MC | M03 | | | | MCI | M05 | | N | CMC |)6 | MCM08 | | | | MCM10 | | |
| Lead Stroke | 1 | 2 | 1 | 2 | 5 | 10 | 12 | 15 | 5 | 10 | 20 | 30 | 5 | 10 | 20 | 5 | 10 | 20 | 30 | 10 | 20 | 30 |
| 50 | • | • | • | • | • | • | • | • | • | • | • | | • | • | • | • | • | | | | | |
| 100 | • | • | • | • | • | • | • | • | • | • | • | | • | • | • | • | • | • | | • | • | |
| 150 | • | • | • | • | • | • | • | • | • | • | • | | • | • | • | • | • | • | | • | • | |
| 200 | | | | | • | • | • | • | • | • | • | | • | • | • | • | • | • | | • | • | |
| 250 | | | | | • | • | • | • | • | • | • | | • | • | • | • | • | • | | • | • | |
| 300 | | | | | | | | | • | • | • | • | • | • | • | • | • | • | | • | • | |
| 400 | | | | | | | | | • | • | • | • | • | • | • | • | • | • | • | • | • | |
| 500 | | | | | | | | | • | • | • | • | • | • | • | • | • | • | • | • | • | • |
| 600 | | | | | | | | | • | • | • | • | • | • | • | • | • | • | • | • | • | • |
| 700 | | | | | | | | | | | | | • | • | • | • | • | • | • | • | • | • |
| 800 | | | | | | | | | | | | | • | • | • | • | • | • | | • | • | • |
| 900 | | | | | | | | | | | | | | | | | | | | • | • | |
| 1 000 | | | | | | | | | | | | | | | | | | | | • | • | |

MCH Series Standard Combinations of Stroke and Ball Screw

Single Slider

| (• mark: Standard Pro | oduct) | | | | | | | (Unit: mm) |
|-----------------------|--------|-------|----|---|-------|-------|----|------------|
| Model No. | | MCH06 | | | MCH09 | MCH10 | | |
| Stroke Lead | 5 | 10 | 20 | 5 | 10 | 20 | 10 | 20 |
| 50 | • | • | • | | | | | |
| 100 | • | • | • | • | • | • | • | • |
| 200 | • | • | • | • | • | • | • | • |
| 300 | • | • | • | • | • | • | • | • |
| 400 | • | • | • | • | • | • | • | • |
| 500 | • | • | • | • | • | • | • | • |
| 600 | | | | • | • | • | • | • |
| 700 | | | | • | • | • | • | • |
| 800 | | | | • | • | • | • | • |
| 900 | | | | | | | • | • |
| 1,000 | | | | | | | • | • |
| 1,100 | | | | | | | • | • |
| 1,200 | | | | | | | • | • |

Double Slider

| (• mark: Standard Pr | | | | | | | | | (Unit: mm) | |
|----------------------|--------|------|---|-------|----|-----|-----|-------|------------|--|
| Model No | . M | CM05 | | MCM06 | | MCI | 80N | MCM10 | | |
| Stroke | ead 10 | 20 | 5 | 10 | 20 | 10 | 20 | 10 | 20 | |
| 60 | • | | | | | | | | | |
| 70 | | | | | | | | • | | |
| 80 | | | | | | • | | | | |
| 110 | • | | • | • | | | | | | |
| 160 | • | | | | | | | | | |
| 170 | | | | | | _ | | • | • | |
| 180 | _ | _ | _ | _ | | • | • | | | |
| 210 | • | • | • | • | • | | | | | |
| 270 | | | | | | • | | • | • | |
| 280 310 | | | | | | • | • | | | |
| 370 | • | • | • | • | • | | | • | • | |
| 380 | | | | | | • | | • | • | |
| 410 | • | • | • | • | • | _ | _ | | | |
| 470 | | | | | | | | | • | |
| 480 | | | | | | • | • | | | |
| 510 | • | • | | | • | | | | | |
| 570 | | | | | | | | • | • | |
| 580 | | | | | | • | • | • | | |
| 610 | | | | • | • | | | | | |
| 670 | | | | - | | | | • | • | |
| 680 | | | | | | • | • | - | | |
| 710 | | | | • | • | | | | | |
| 870 | | | | | | | | • | • | |

Please consult NSK about double slider of MCM02 and MCM03.

Double Slider

| (• mark: Standard P | roduct) | | | | | | | (Unit: mm) |
|---------------------|---------|-------|----|---|-------|-------|----|------------|
| Model No. | | MCH06 | | | MCH09 | MCH10 | | |
| Lead Stroke | 5 | 10 | 20 | 5 | 10 | 20 | 10 | 20 |
| 100 | • | • | | | | | | |
| 150 | | | | • | • | | | |
| 200 | • | • | | | | | | |
| 250 | | | | • | • | | • | • |
| 300 | • | • | | | | | | |
| 350 | | | | • | • | | • | • |
| 400 | | • | • | | | | | |
| 450 | | | | | • | • | • | • |
| 550 | | | | | | | • | • |
| 650 | | | | | • | • | • | • |
| 750 | | | | | | | | • |
| 850 | | | | | | | | • |
| 950 | | | | | | | | • |
| 1,050 | | | | | | | | • |