

Stepping motor driven stages, ideal for positioning of measuring instruments or inspection tools for which high stiffness and high precision are required.



- U-shaped rail offers light weight, and minimized deflection to achieve high stiffness.

Guide

- ▶ Contact our Sales Division if you desire to change motors, etc.
[Reference](#) G017, G123 (Motorized Stage System Question Sheet)
[WEB Reference](#) [Catalog Code](#) W9500
- ▶ Grease change is optionally available.
[Reference](#) G122 [WEB Reference](#) [Catalog Code](#) W9006
- ▶ We will assemble your X axis stage with a newly purchased X axis stage at a separate cost.

Specifications

| Part Number | | OSMS26-50(XY) | OSMS26-100(XY) | OSMS26-200(XY) | OSMS26-300(XY) | |
|------------------------------------|--|--|--|--|--|---|
| Part Number (-M6) | | OSMS26-50(XY)-M6 | OSMS26-100(XY)-M6 | OSMS26-200(XY)-M6 | OSMS26-300(XY)-M6 | |
| Part Number (-INCH) | | OSMS26-50(XY)-INCH | OSMS26-100(XY)-INCH | OSMS26-200(XY)-INCH | OSMS26-300(XY)-INCH | |
| Mechanical Specifications | Travel [mm] | 50 | 100 | 200 | 300 | |
| | Stage Size [mm] (M6, INCH) | 100x100 (120x120) | 100x100 (120x120) | 100x100 (120x120) | 100x100 (120x120) | |
| | Feed Screw | Ball screw diameter ϕ 8mm, 2mm lead | Ball screw diameter ϕ 8mm, 2mm lead | Ball screw diameter ϕ 8mm, 2mm lead | Ball screw diameter ϕ 8mm, 2mm lead | |
| | Positioning Slide | Outer rail structure | Outer rail structure | Outer rail structure | Outer rail structure | |
| | Stage Material | Aluminum | Aluminum | Aluminum | Aluminum | |
| | Finish | Black anodized | Black anodized | Black anodized | Black anodized | |
| | Weight [kg] | 4.4 | 5.4 | 7.6 | 8.0 | |
| Accuracy Specifications | Resolution | (Full) [μ m/pulse] | 4 | 4 | 4 | 4 |
| | | (Half) [μ m/pulse] | 2 | 2 | 2 | 2 |
| | MAX Speed [mm/sec] | 40 | 40 | 40 | 40 | |
| | Load Capacity [N] | 98 (10.0kgf) | 98 (10.0kgf) | 98 (10.0kgf) | 98 (10.0kgf) | |
| | Backlash [μ m] | 3 | 3 | 3 | 3 | |
| Orthogonality of Motion [μ m] | 5 | 5 | 10 | 5 | | |
| Sensor Part Number | Micro photo sensor: GP1S092HCPIF (Sharp Corporation) | | | | | |
| Limit Sensor | Equipped (NORMAL CLOSE) | Equipped (NORMAL CLOSE) | Equipped (NORMAL CLOSE) | Equipped (NORMAL CLOSE) | | |
| Origin Sensor | Equipped (NORMAL OPEN) | Equipped (NORMAL OPEN) | Equipped (NORMAL OPEN) | Equipped (NORMAL OPEN) | | |
| Proximity Origin Sensor | Equipped (NORMAL OPEN) | Equipped (NORMAL OPEN) | Equipped (NORMAL OPEN) | Equipped (NORMAL OPEN) | | |

Motor / Sensor Specifications

| | | |
|--------|---------------------|--|
| Motor | Type | 5-phase stepping motor 0.75A/phase (Oriental Motor Co., Ltd.) |
| | Motor Part Number | PK525HPB-C4 (□28mm) |
| | Step Angle | 0.72° |
| Sensor | Power Voltage | DC5 - 24V \pm 10% |
| | Current Consumption | 160mA or lower (80mA or lower a per axis 20mA or lower per a sensor) |
| | Control Output | NPN open collector output DC30V or lower, 50mA or lower |
| | Output Logic | When shaded: Output transistor OFF (no conduction) : Limit Sensor |
| | | When shaded: Output transistor ON (conduction): Origin sensor, Proximity Origin Sensor |

(Reference) Precision Specifications of Single Axis Stage

| Part Number | | OSMS26-50(X) | OSMS26-100(X) | OSMS26-200(X) | OSMS26-300(X) | |
|--------------------------------|-------------------------------------|---------------------------|---------------|---------------|---------------|------|
| Accuracy Specifications | Positioning Accuracy [μ m] | 5 | 10 | 15 | 15 | |
| | Positional Repeatability [μ m] | 3 | 3 | 6 | 6 | |
| | Moment Stiffness | Pitch [$^{\circ}$ /N·cm] | 0.23 | 0.23 | 0.23 | 0.23 |
| | | Yaw [$^{\circ}$ /N·cm] | 0.12 | 0.12 | 0.12 | 0.12 |
| | | Roll [$^{\circ}$ /N·cm] | 0.2 | 0.2 | 0.2 | 0.2 |
| | Lost Motion [μ m] | 3 | 3 | 5 | 5 | |
| | Parallelism [μ m] | 50 | 50 | 50 | 50 | |
| Running Parallelism [μ m] | 10 | 10 | 10 | 10 | | |

Compatible Driver / Controller

| | | |
|----------------|-----------------------|--|
| Control System | Compatible Driver | SG-5M, SG-5MA, MC-S0514ZU, SG-514MSC, MC-7514PCL |
| | Compatible Controller | GSC-02, SHOT-702, HSC-103, SHOT-302GS, SHOT-304GS, HIT-M-HIT-S, PGC-04-U |

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40 x 40 mm

60 x 60 mm

80 x 80 mm

85 x 85 mm

100 x 100 mm

120 x 120 mm

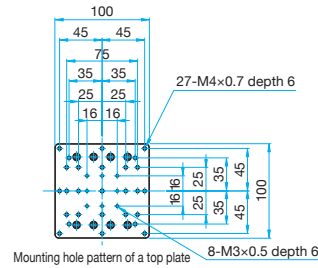
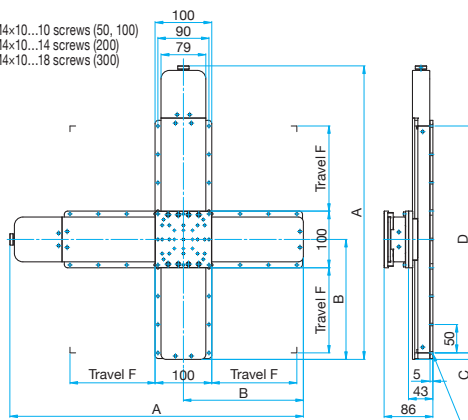
Others



Outline Drawing

OSMS26-*(XY)

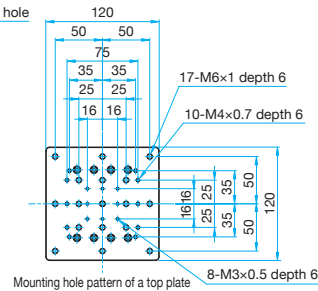
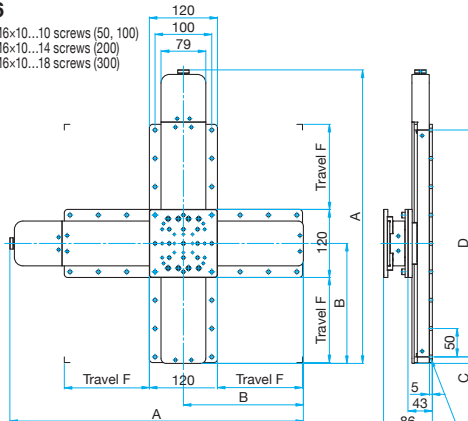
- Hexagon socket head cap screw M4x10...10 screws (50, 100)
- Hexagon socket head cap screw M4x10...14 screws (200)
- Hexagon socket head cap screw M4x10...18 screws (300)



| Part Number | A | B | C | D | E | F |
|----------------|-------|-------|------|--------------------|---------|-----|
| OSMS26-50(XY) | 267.5 | 86.5 | 11.5 | 150 (25, 50x2, 25) | 10-φ4.5 | 25 |
| OSMS26-100(XY) | 317.5 | 111.5 | 11.5 | 200 (50x4) | 10-φ4.5 | 50 |
| OSMS26-200(XY) | 417.5 | 161.5 | 11.5 | 300 (50x6) | 14-φ4.5 | 100 |
| OSMS26-300(XY) | 517.5 | 211.5 | 11.5 | 400 (50x8) | 18-φ4.5 | 150 |

OSMS26-*(XY)-M6

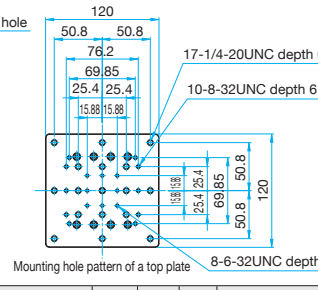
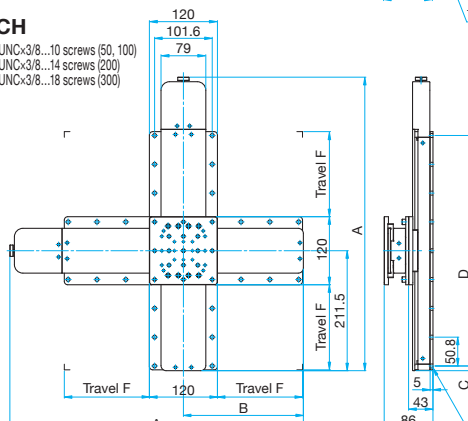
- Hexagon socket head cap screw M6x10...10 screws (50, 100)
- Hexagon socket head cap screw M6x10...14 screws (200)
- Hexagon socket head cap screw M6x10...18 screws (300)



| Part Number | A | B | C | D | E | F |
|-------------------|-------|-------|------|--------------------|---------|-----|
| OSMS26-50(XY)-M6 | 267.5 | 86.5 | 11.5 | 150 (25, 50x2, 25) | 10-φ6.5 | 25 |
| OSMS26-100(XY)-M6 | 317.5 | 111.5 | 11.5 | 200 (50x4) | 10-φ6.5 | 50 |
| OSMS26-200(XY)-M6 | 417.5 | 161.5 | 11.5 | 300 (50x6) | 14-φ6.5 | 100 |
| OSMS26-300(XY)-M6 | 517.5 | 211.5 | 11.5 | 400 (50x8) | 18-φ6.5 | 150 |

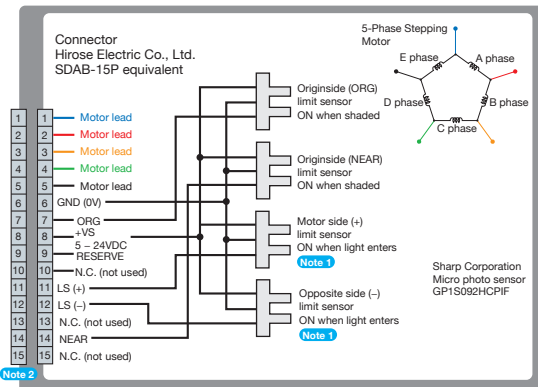
OSMS26-*(XY)-INCH

- Hexagon socket head cap screw 1/4-20UNCx3/8...10 screws (50, 100)
- Hexagon socket head cap screw 1/4-20UNCx3/8...14 screws (200)
- Hexagon socket head cap screw 1/4-20UNCx3/8...18 screws (300)



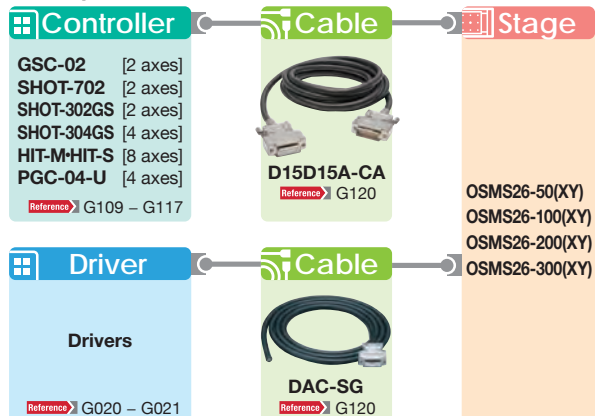
| Part Number | A | B | C | D | E | F |
|---------------------|-------|-------|------|----------------------------|-------|-----|
| OSMS26-50(XY)-INCH | 267.5 | 86.5 | 10.3 | 152.4 (25.4, 50.8x2, 25.4) | 10-φ7 | 25 |
| OSMS26-100(XY)-INCH | 317.5 | 111.5 | 9.9 | 203.2 (50.8x4) | 10-φ7 | 50 |
| OSMS26-200(XY)-INCH | 417.5 | 161.5 | 9.1 | 304.8 (50.8x6) | 14-φ7 | 100 |
| OSMS26-300(XY)-INCH | 517.5 | 211.5 | 8.3 | 406.4 (50.8x8) | 18-φ7 | 150 |

Connection Diagram



- Note 1 The motor side limit sensor is the + direction limit sensor.
- Note 2 Compatible cable connector: DDK Ltd. 17JE-13150

Compatible Controllers / Drivers and Cables



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