

θ axis Rotation Stages with Aperture

MRT3

RoHS

Application Systems

Machine Vision

Manual Positions

Motion Control Products

Optical & Mirror Holder

F A Parts

Measurement & Control

FA Electrical Parts

Tool & Measure

Cleanroom & AntiStatic

Index

X Axis

XY Axis

Z Axis

XZ Axis

XYZ Axis

Rotation

Goniometers /Tilt

Multiaxis

Linear Guide

15mm

25mm

40mm

50mm

60mm

70mm

80mm

100mm

120mm

Others

θ axis (rotation) coarse/fine adjustment crossed roller bearing stages with aperture, offering coarse rotation adjustment of 360° and fine adjustment (either with micrometer head or fine-pitch screw). Directly rotate the stage upper plate for coarse adjustment, then clamp the clutch screw and use micrometer head or fine-pitch screw (±3 – 5°) for fine adjustment.

- Brass stage and steel crossed roller offer high precision and high stiffness.
- The model with a through hole at the center of the stage can be used when a transmission hole is required.



Guide

- ▶ The part number suffix FP indicates products with fine-pitch screws instead of standard micrometers.
- ▶ Fine Pitch screws have a screw pitch of 0.25mm and require a hex wrench or the optional hex wrench with knob (NSC) for adjustment.

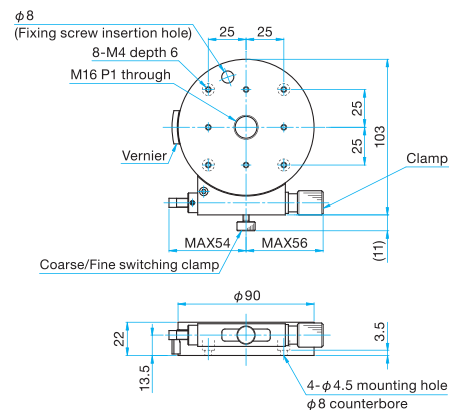
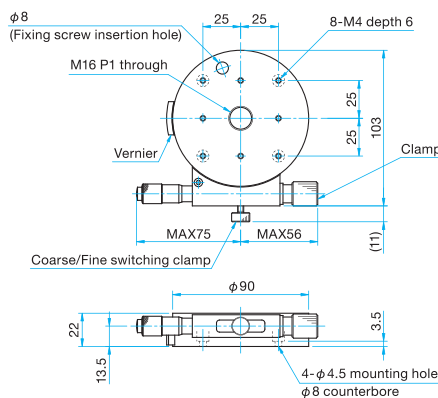
Reference H010



Outline Drawing

MRT31-90M Hexagonal socket head cap screw M4x8...4 screws

MRT31-90FP Hexagonal socket head cap screw M4x8...4 screws 3mm



SPEC UP

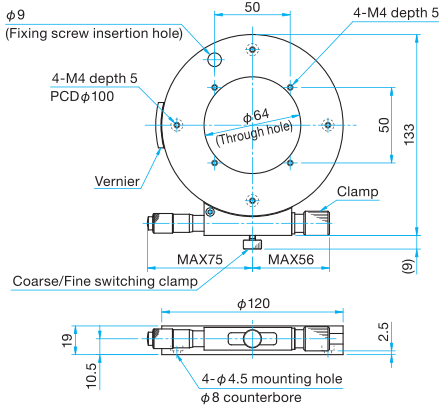
Specifications

Part Number	MRT31-90M	MRT31-90FP
Table Size [mm]	φ90.0	φ90.0
Rotation Range [°]	Coarse: 360, Fine: ±5	Coarse: 360, Fine: ±5
Scale Readable Resolution	5'	5'
Micrometer Readable Resolution	about 41.25"	—
Positioning Slide	Crossed roller	Crossed roller
Primary Material	Brass	Brass
Finish	Super black chrome	Super black chrome
Load Capacity [N]	147 (15.0kgf)	147 (15.0kgf)
Max. Moment Capacity [N·m]	5.0	5.0
Moment Stiffness ["/N·cm]	0.2	0.2
Parallelism [μm]	50	50
Eccentricity [μm]	20	20
Wobble [μm]	20	20
Weight [kg]	1.3	1.3

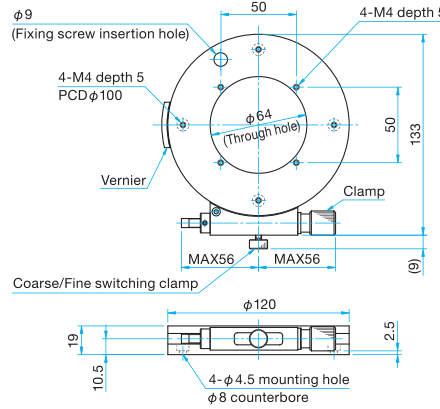


Outline Drawing

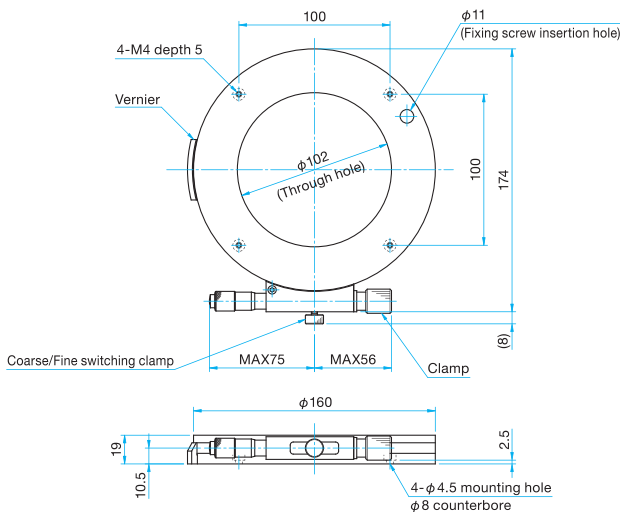
MRT31-120MH Hexagonal socket head cap screw M4x8...4 screws



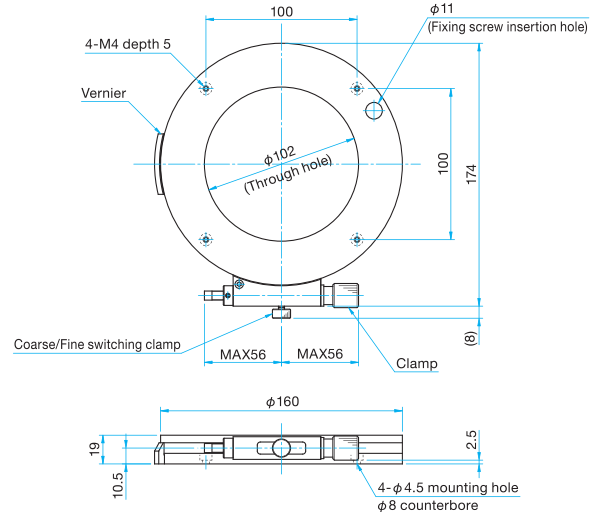
MRT31-120FPH Hexagonal socket head cap screw M4x8...4 screws 3mm



MRT31-160MH Hexagonal socket head cap screw M4x8...4 screws



MRT31-160FPH Hexagonal socket head cap screw M4x8...4 screws 3mm



SPEC UP

Specifications	MRT31-120MH	MRT31-120FPH	MRT31-160MH	MRT31-160FPH
Part Number	MRT31-120MH	MRT31-120FPH	MRT31-160MH	MRT31-160FPH
Table Size [mm]	φ120.0	φ120.0	φ160.0	φ160.0
Rotation Range [°]	Coarse: 360, Fine: ±4	Coarse: 360, Fine: ±4	Coarse: 360, Fine: ±3	Coarse: 360, Fine: ±3
Scale Readable Resolution	5'	5'	5'	5'
Micrometer Readable Resolution	about 31.8"	—	about 23.7"	—
Positioning Slide	Crossed roller	Crossed roller	Crossed roller	Crossed roller
Primary Material	Brass	Brass	Brass	Brass
Finish	Super black chrome	Super black chrome	Super black chrome	Super black chrome
Load Capacity [N]	196 (20.0kgf)	196 (20.0kgf)	196 (20.0kgf)	196 (20.0kgf)
Max. Moment Capacity [N·m]	7.8	7.8	9.8	9.8
Moment Stiffness ["/N·cm]	0.15	0.15	0.15	0.15
Parallelism [μm]	60	60	60	60
Eccentricity [μm]	30	30	30	30
Wobble [μm]	30	30	30	30
Weight [kg]	1.1	1.1	1.5	1.5

Application Systems

Machine Vision

Manual Positions

Motion Control Products

Optical & Mirror Holder

F A Parts

Measurement & Control

FA Electrical Parts

Tool & Measure

Cleanroom & AntiStatic

Index

X Axis

XY Axis

Z Axis

XZ Axis

XYZ Axis

Rotation

Goniometers /Tilt

Multiaxis

Linear Guide

□15mm

□25mm

□40mm

□50mm

□60mm

□70mm

□80mm

□100mm

□120mm

Others