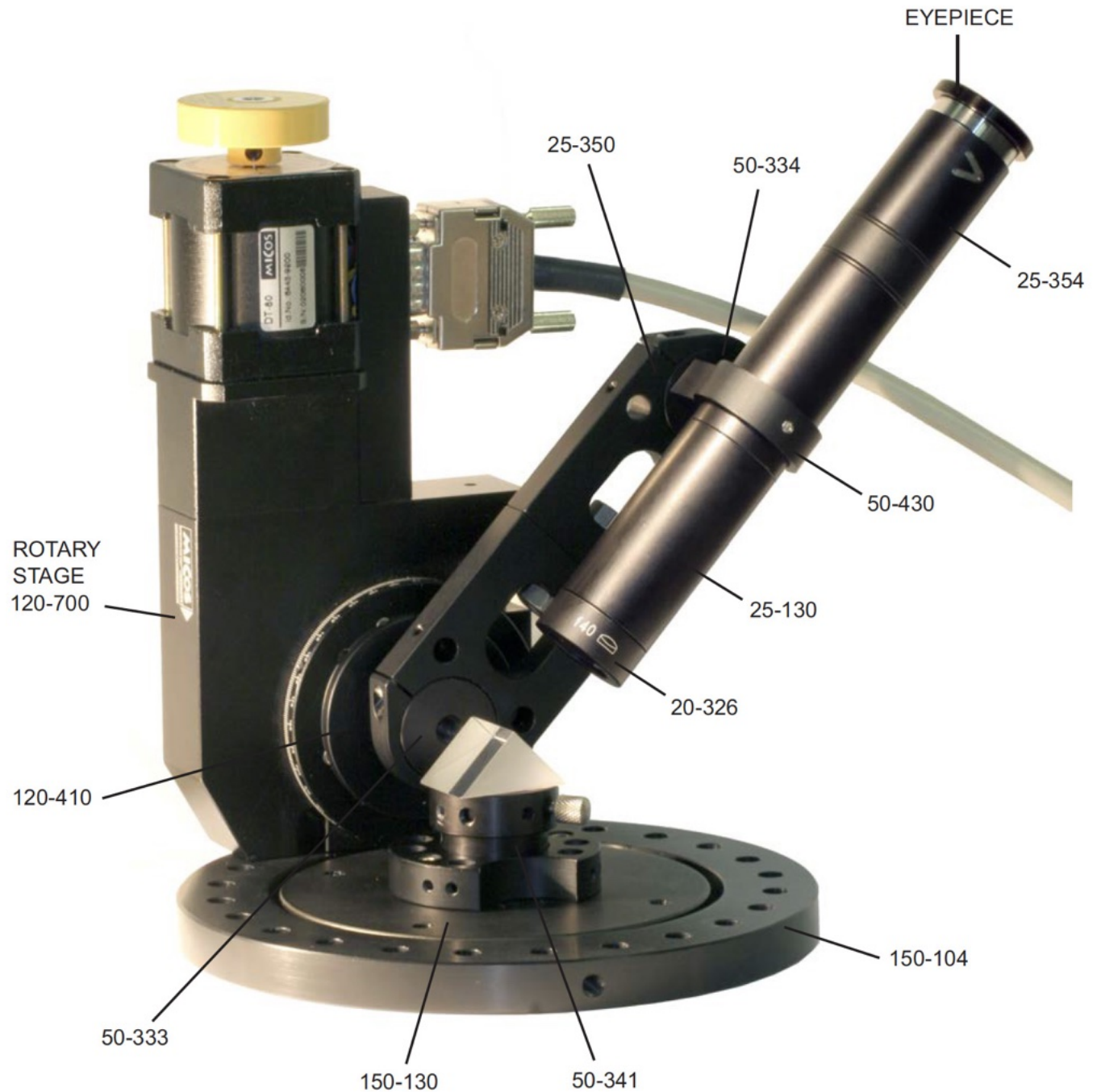
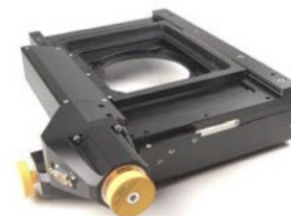
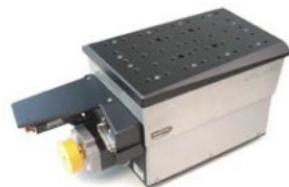


Motion Control

Motorized Stages
Controllers
Joysticks
Micrometers
Dial Indicators
Ball Screws
Linear Scales



LINEAR STAGES



VT-80 Linear Stage

Travel Range = 25 ~ 300 mm

Travel	Open Loop
25 mm	120-300
50 mm	120-302
75 mm	102-304
100 mm	120-306
150 mm	120-308
200 mm	120-310
250 mm	120-312
300 mm	120-314

Motor Cable

Travel Range = 25~300 mm
Max Speed = 20 mm/sec
Resolution = 0.5 μm
Load Capacity 8 kg

Bi-directional Repeatability
= +/- 15 μmm

Special Aluminum
Ball Bearings
Limit Switches Integrated

ACCURACY PER 50 mm
= +/- 100 μm
Lead Screw Pitch = 1 mm
Weight = 0.55~1.25 Kg
Dim = 72.5x100~375x25

LS-110 Linear Stage

Travel Range = 55 ~ 175 mm

Travel	Open L	Closed L
26 mm	120-330	120-331
52 mm	120-332	120-333
77 mm	120-334	120-335
102 mm	120-336	120-337
155 mm	120-338	120-339

Motor Cable

Closed loop Cable

Top Platform=110X110 mm
Height = 45 mm
Dim = 110 x 225~360

Travel Range = 55~155 mm
Max Speed = 90 mm/sec,
Resolution = 0.1 μm
Load Capacity 10 kg

Bi-directional Repeatability
= +/- 0.2 μmm

Special Aluminum.
Ball screw
Limit Switches Integrated

ACCURACY PER 25 mm
= +/- 1-1.5 μm
Ball Screw Pitch = 2 mm
Weight = 2.6~3.1 Kg

LIFT STAGES

UPL-160 Lift Stage

Travel Range = 25 mm

Range	Open L	Closed L
26 mm	120-500	120-501

Motor Cable

Closed loop Cable

Triangular lift stage with
stainless steel cover plates
for high load/parallelism

Top Platform=152X219 mm
Height = 145 mm
Mounting base = 152X219

Travel Range = 25 mm
Max Speed = 30 mm/sec,
Resolution = 0.005~0.1 μm
Load Capacity 30 kg

Bi-directional Repeatability
= +/- 0.1 μmm

Special Aluminum
Ball Screw
Limit Switches Integrated

ACCURACY PER 25 mm
= +/- 0.25~0.4 μm
Ball Screw Pitch = 2 mm
Weight = 8.7 Kg

GONIOMETERS

WT-90 Goniometer

Travel Range = 90 Deg

Range	Open L	Closed L
90 Deg	120-600	120-601

Motor Cable

Closed loop Cable

Mid size Goniometer mount-
able on top of WT-120

Translating Platform = 70X95
Clearance FL = 105 mm
Mounting Base = 95X125

Max Speed = 15°/sec
Resolution = 0.001°
Load Capacity 8 kg

Uni-directional Repeatability
= +/- 0.0005°

Special Aluminum.
Single Row Roller Bearings
Wobble = +/- 125 μrad
Reference Limit Switches

ACCURACY = +/-0.025
Worm Gear Reduction 360:1
Weight = 2.8 Kg

SCAN TABLES

MS-4 INV Scan Table XY

Travel = 102 X 102 mm

Range	Open Loop
102x102	120-630

Motor Cable

Large aperture Scan Table
with 147.8 X 128 mm space
for inserting glass plates

Translating Platform = 167X200
Clearance Aperture = 100 Ø
Mounting Base = 217X312

Travel Range = 102X102 mm
Max Speed = 35 mm/sec
Resolution = 0.1 μm
Load Capacity 2 kg

Bi-directional Repeatability
= +/- 0.1 μm

Special Tempered Aluminum.
Crossed Roller Bearings
Limit Switches Integrated

ACCURACY PER 50 mm
= +/- 2 μm
Ball Screw Pitch = 2 mm
Weight = 3.8 Kg

ROTARY STAGES

Controllers



DT-80 Rotary Stage
Hole Diameter = 40 mm

DT-80R Rotary Stage
Hole Diameter = 40 mm

DT-65N Rotary Stage
Hole Diameter = 25 mm

PRS-110 Rotary Stage
Hole Diameter = 35 mm

SMC Basic Stand Alone 2
Axis Control, 15v, 1.2A

Range	Open Loop
360 Deg	120-700

Motor Cable

Range	Open Loop
360 Deg	120-704

Motor Cable

Range	Open Loop
360 Deg	120-710

Motor Cable
Closed loop Cable

Range	Open L	Closed L
360 Deg	120-720	120-721

Motor Cable
Closed loop Cable

2-Axis SMC Basic	120-900
RS-232 open loop controller, accepts Joystick1/2	

Low cost rotary stage with large clearance aperture

Identical with DT-80, but Belt driven for high speed applications

Miniature high accuracy rotary stage

Heavy load stage with stainless steel rotary plate

SMC basic is a high quality stand alone controller with 15-pin joystick input.

Top Platform = 65 mm Ø
Height = 30
Dim = 86 X 179 mm

Top Platform = 65 mm Ø
Height = 53
Dim = 86 X 138 mm

Top Platform = 58 mm Ø
Height = 25 mm at center
Dim = 92.5 X 221 mm

Top Platform = 94 mm Ø
Height = 55
Dim = 110 X 211 mm

One 25-pin connector for both axis. No feedback possible. Built-in power supply.

Max Speed = 30 Deg/sec,
Resolution = 0.001 µm
Load Capacity 10 kg

Max Speed = 550°/sec,
Resolution = 0.0025 µm
Load Capacity 2 kg

Max Speed = 35 Deg/sec,
Resolution = 0.001 µm
Load Capacity 3 kg

Max Speed = 60 Deg/sec,
Resolution = 0.02216 µm
Load Capacity 10 kg

2 Axis Microstep Controller
Amplifier Voltage = 15V
Phase Currents = 1.2 A

Uni-directional Repeatability = +/- 0.008 °

Uni-directional Repeatability = +/- 0.008 °

Uni-directional Repeatability = +/- 0.002

Uni-directional Repeatability = +/- 0.0004 °

Resolution = 300K µ Steps
2 Limit-Switches per Axis
Linear Interpolation

Special Aluminum
Double Row Ball Bearings
Wobble = +/- 100 µrad
Reference Limit Switch

Special Aluminum
Double Row Ball Bearings
Wobble = +/- 100 µrad
Reference Limit Switch

Special Aluminum
Row Roller Bearings
Wobble = +/- 30 µrad
Reference Limit Switches

Special Aluminum
Double Row Roller Bearings
Wobble = +/- 15 µrad
Reference Limit Switches

Flash Memory Program save
RS-232 Interface
Power = 85~265 VAC, 50W

ACCURACY = +/- 0.04 °
Zero-Backlash Worm Gear
Reduction ratio = 180:1
Weight = 0.8 Kg
Clearance Aperture = 40

ACCURACY = +/- 0.04 °
Zero-Backlash Prestressed
Belt Driven drive
Weight = 0.8 Kg
Clearance Aperture = 40

ACCURACY = +/- 0.02 °
Zero-Backlash Worm Gear
Reduction ratio = 180:1
Weight = 0.85~1.3
Clearance Aperture = 25

ACCURACY = +/- 0.006 °
Zero-Backlash Worm Gear
Reduction ratio = 90:1
Weight = 2.6 Kg
Clearance Aperture = 35

2-Axis Joystick 1 or 2
25-Pin Motor Connector
Includes Split Cabling for Axis 1 and Axis 2
Digital I/O



SMC Corvus Stand Alone
2/3 Axis Control, 48v, 2.5-3A

Control	Open L	W/TCIP
2-Axis	120-910	120-911
3-Axis	120-912	120-913
Closed L each Axis		120-914
I/O option		120-915

All the options in Corvus are switched on with codes, when purchased.

Separate connector and feedback for each axis, two connector joystick I/O

2 or 3 Axis Controller
Amplifier Voltage = 48V
Phase Currents = 2.5~3 A

Resolution = 300K μ Steps
2 Limit-Switches per Axis
Linear Interpolation

Flash Memory Program save
RS-232 or GPIB Interface
Power = 85~265 VAC, 50W

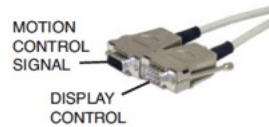
3-Axis Joystick 1 or 2
15-Pin Motor Connector for Each Axis
Digital I/O Optional

JOYSTICKS



Joystick 1 3-Axis Joystick
with slow override buttons

2-Axis Joystick 1	120-970
3-Axis Joystick 1	120-972



Joystick 2 3-Axis Joystick
with interactive Display

2-Axis Joystick 2	120-974
3-Axis Joystick 2	120-976
3-Axis w/o Display	120-978

Joystick 2 has back illuminated display with touch pad control. Detail of cabling is shown on the left.

CABLING



**FOR ALL STAGES
EXCEPT UPL-160 AND MT-40**

DB-15 M ~ DB-15 VGA

120-802 Corvus Cable

DB-25 ~ DB-15 VGA

120-812 SMC Basic Cable

DB-9 M ~ DB-15 VGA

120-822 SMC Card Cable



FOR MT-40

DB-15 M ~ 7-PIN F

120-808 Corvus Cable

DB-25 M ~ 7-PIN F

120-818 SMC Basic

DB-9 M ~ 7-PIN F

120-828 SMC Card Cable



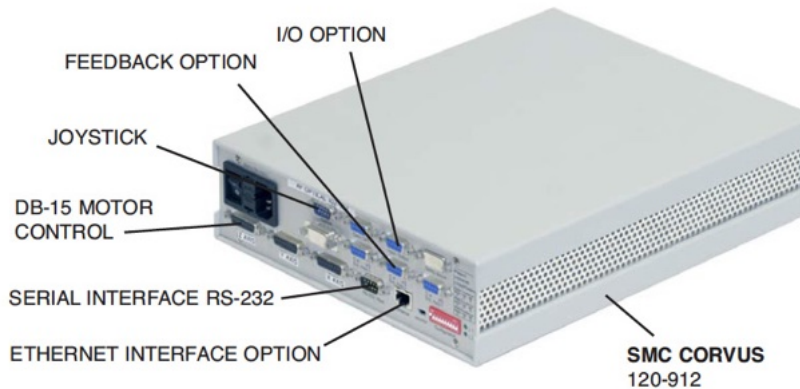
For UPL-160

DB-15 M ~ DB-25 F

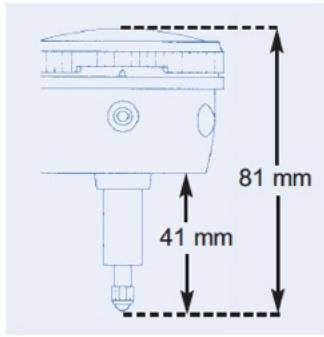
120-806 Corvus Cable

DB-25 M ~ DB-25 F

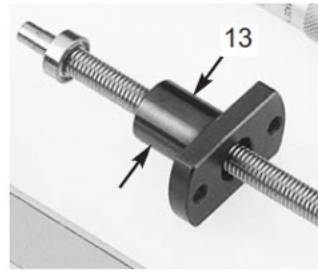
120-816 SMC Basic Cable



MEASUREMENT SERIES 120



120-222



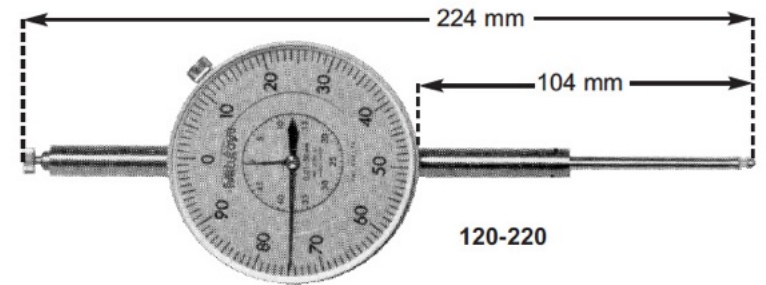
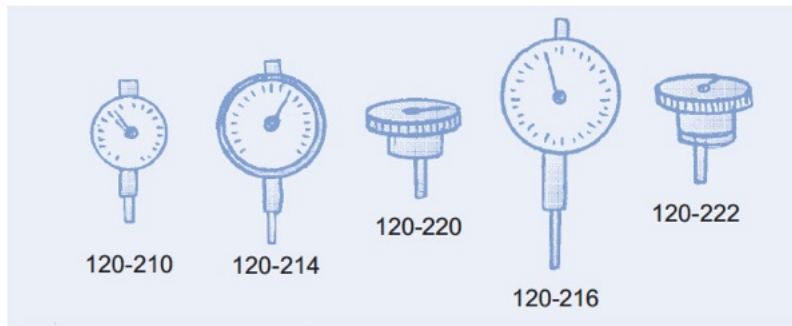
120-176



120-162



120-210



120-220



120-110



120-112



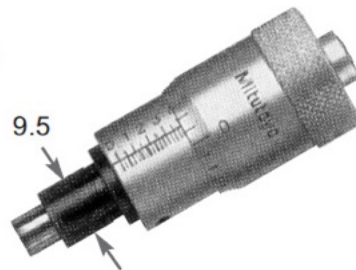
120-114



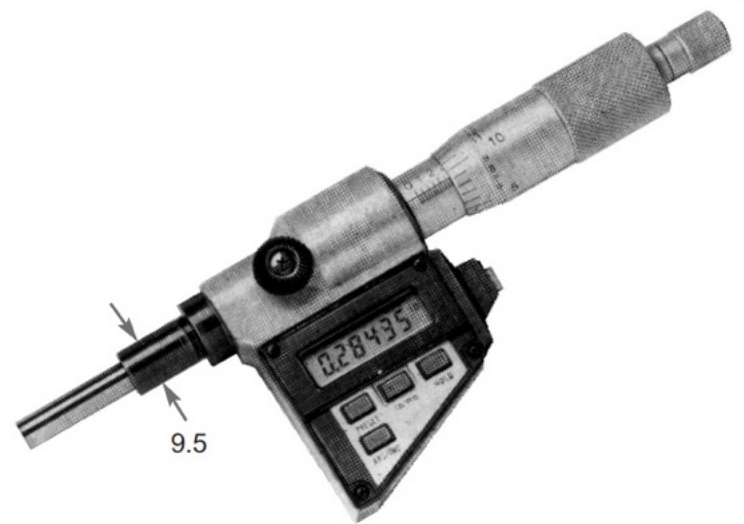
120-136



120-144

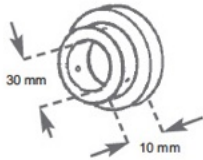


120-122

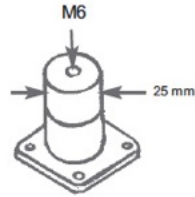


120-158

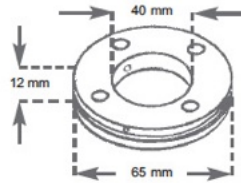
SPECIAL ACCESSORIES FOR MOTORIZED STAGES



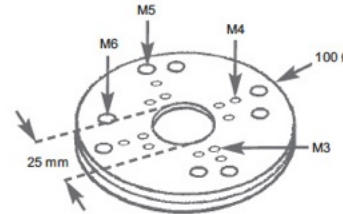
120-410 Microoptic centering ring 30



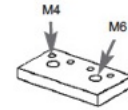
120-412 Prism platform 25



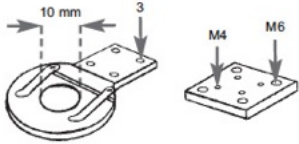
120-414 Minioptic centering ring 64



120-416 Macroptic centering ring 100



120-418 Motorized stage to Macroptic adapter



120-420 MT-40 X-Y Mounting hardware for 150-100

We offer specialized adapters for Optoform's compatibility with motorized stages. A few examples of motorized Optoform setups are shown here: Spectrometer setup (below-center), with detail of assembly shown (right), and a polarization filter rotator (left) with DT-80 or DT-80R. For MT-40 X-Y translation setup refer to page 101.

