

PreciseFlex 400 Sample Handler

The Industry Standard for Lab Automation

Whether in Drug Discovery, Genomics, Agriculture, Veterinary, or Bio Banking, Brooks has automation products to meet the application. PreciseFlex collaborative robots are the robot of choice for sample handling.

The PreciseFlex 400 sample handler was developed specifically for bench-top applications where throughput, work volume, ease of use, and safety are critical. It has been adopted by nearly every major life science/ laboratory automation company and is designed into a wide range of OEM systems.



Handles a Wide Range of Applications

The PreciseFlex 400 sample handler is designed to handle SBS plates, tubes, vials. SBS plates can be picked in landscape and portrait orientation.

Easy Control of the LIMS

An extensive library of functions is available to direct the robot via our standard TCS API.

Lowest Power Consumption

Reduced energy usage and extended runtime in mobile applications.

Highest Workspace Density

The PreciseFlex 400 sample handler has a unique configuration with horizontal articulation for the major axes, and a tall Z-axis (up to 1,160 mm). The Vertical Column work envelope enables the sample handler to reach into racks, hotels, and stacked instruments.

With the vertical column work envelope and embedded controls, PreciseFlex sample handlers offer the highest workspace density, saving valuable floorspace.



Key Benefits

- Fast and easy deployment unlocks the best ROI
- Augments workforce and overcomes labor shortages
- Automates complex workflows and assays, freeing lab technicians for more meaningful work
- Increases lab throughput while improving quality
- Highest workspace density save valuable floor space
- Most reliable sample handler with an MTBF of 125,000 hours and design life of 40,000 hours

Always perform a risk assessment before putting any robot into production.

1. Highest Instrument Density

Reach into instruments, hotels, and nests with tall Z-axis and slim arm design

2. IntelliGuide s23 Gripper (fully-integrated)

For handling SBS Plates, Tubes, and Vials

3. Range of Motion

Standard Horizontal Reach with IntelliGuide s23 gripper, 579 mm
Extended Horizontal Reach with IntelliGuide s23 gripper, 734 mm
Vertical reach 400, 750, 1160 mm available

4. Highest Throughput

Low collision forces enable without sacrificing safety

5. Save Valuable Floorspace

With compact footprint and embedded controller

6. Extend Robot's Reach

With fully-integrated Collaborative Linear Rail (optional)

7. Highest Reliability

With an MTBF of 125,000 hours



PreciseFlex 400 Sample Handler

Technical Specifications

Performance

Payload	0.5 kg with IntelliGuide s23
Max Speed at TCP	500 mm/sec in cartesian space
Max Joint Speed	
J1	500 mm/sec
J2	360°/sec
J3	720°/sec
J4	720°/sec
Max Acceleration	1000 mm/sec ²
Repeatability	±0.090 mm

Range of Motion

Joint 1 (Z-axis)	400, 750, 1160 mm
Joint 2	±93°
Joint 3 (Elbow)	±168°
Joint 4	±960° with IntelliGuide
Horizontal Reach	Standard Horizontal Reach with IntelliGuide s23 gripper 579 mm Extended Horizontal Reach with IntelliGuide s23 gripper 734 mm Vertical reach 400, 750, 1160 mm available

Communications

General	100 Mb Ethernet, TCP/IP Modbus/TCP RS232, at end-of-arm
Operator Interface	Web-based operator interface

Facilities

Power	90 to 264 VAC Auto selecting, 50-60 Hz 100-250 watts typical operation
Controller Mounting	Embedded into robot base

Weight	Standard Reach/Extended Reach 20 kg / 25 kg (400 mm Z-axis) 25 kg / 30 kg (750 mm Z-axis) 30 kg / 35 kg (1160 mm Z-axis)
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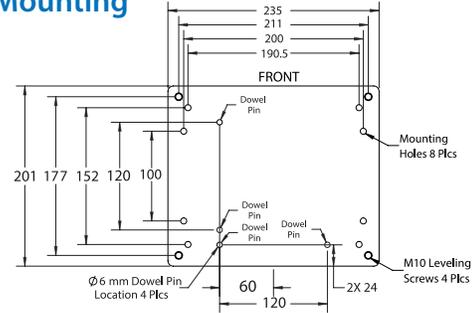
Peripherals and Accessories

General	IntelliGuide s23 IntelliGuide s60 IntelliGuide s23D (Dual Gripper) Remote I/O (RIO)
Linear Rail	1.0, 1.5, and 2.0M travel
Vision	IntelliGuide v23 IntelliGuide v60

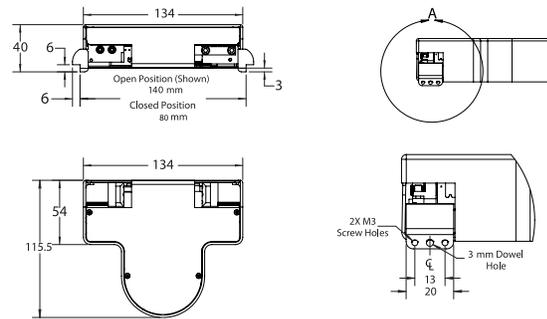
Certifications

- ISO 10218, ISO/TS 15066, EN 61326-1, CE

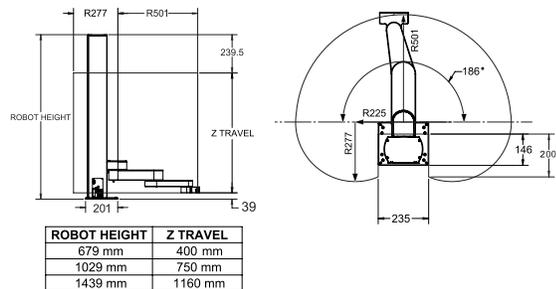
Robot Mounting



IntelliGuide s23 Gripper



Standard Reach Work Envelope



Extended Reach Work Envelope

