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Data Sheet

August 15, 2026

BURLEIGH

Burleigh 6000-2-0-1-1 2-Axis Inchworm Controller

The Burleigh 6000-2-0-1-1 is a 2-axis Inchworm controller designed for precise positioning and motion control applications. It offers high resolution, stability, and closed-loop control for demanding research and industrial environments.



MODEL

Burleigh 6000-2-0-1-1

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

6000-2-0-1-1

LISTING

<https://aumictechlabs.com/products/6000-2-0-1-1-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Burleigh 6000-2-0-1-1 is a 2-axis Inchworm controller delivering precision motion control through sophisticated PZT drive electronics. This programmable system provides the voltage, current, and timing necessary for high-speed actuation while maintaining sub-micron resolution. It supports both open-loop and closed-loop operation modes, adapting to applications ranging from manual bench-top work to fully automated systems. The controller operates one to three axes independently or simultaneously via TTL signals or RS-232 protocols. Manual control interfaces include handsets and joysticks, while remote operation accommodates PC integration through the 670 Series Computer Interface with LabVIEW or RS-232 connectivity. Open-loop configurations suit applications where external feedback management is preferred, while closed-loop variants incorporate encoder counting circuitry for position feedback, enabling precise step setting, target

positioning, and position maintenance. Technical Specifications Axes: 2-axis controller supporting up to three axes with programmable expansion Control Modes: Open-loop (manual or TTL-triggered) and closed-loop with encoder feedback PZT Drive Electronics: Delivers optimized voltage, current, and timing for rapid piezo actuation Resolution: Sub-micron positioning capability Operating Speed: High-speed capable Interface Protocols: TTL signals and RS-232 serial communication Power: Line voltage operation with rear panel voltage selector (match to available supply) Key Features Zero backlash, no leadscrew error Inchworm motor operation Closed-loop encoder counting for position feedback and verification Programmable axis sequencing for independent or simultaneous multi-axis motion Manual control via Burleigh 6005 handset or 6003 joystick Remote PC control via 670 Series Computer Interface Open-loop variants with limit switch LED status display Typical Applications Research and industrial environments requiring ultra-precise linear positioning: optical alignment, microscopy sample scanning, spectroscopy, materials testing, and automated component placement. Compatibility & Integration Optimized for Burleigh 700 series and LTS/LTO series Inchworm motors. Integrates with TTL-compatible automation frameworks and RS-232-based laboratory control systems.

6000201 Characteristics / Specifications

PARAMETER	VALUE
Model	6000
Instrument Type	Inchworm motor controller
Axis Count Options	1 2 or 3
Series Family	Burleigh 6000
Related Models	6000ULN 6100 6200 7000
Handset Accessory	6005
Joystick Accessory	6003
Drive Type	piezoelectric Inchworm
Form Factor	benchtop controller
Operating Temperature Class	0 C to 40 C lab class
Power Line	AC mains class
Use Case	nanopositioning control
Interface	front panel and remote class
Resolution Class	nanometer class with Inchworm
Speed Class	mm per second class Inchworm
Travel Class	actuator dependent
Humidity Class	noncondensing
Storage Temperature Class	minus 20 C to 60 C class
Safety	high voltage piezo drive enclosed
Mounting	bench or rack shelf class
Interlock Class	enable interlock class optional
Display	axis position readout class
Storage temperature	Class: minus 20 C to 60 C class
Operating temperature	Class: 0 C to 40 C lab class
Humidity	Class: noncondensing

6000201 Specifications

PARAMETER	VALUE
Burleigh 6000 Inchworm Controller	Overview
Applications	Optical alignment, fiber coupling stages, and nanopositioning with Burleigh Inchworm actuators.
Key Features	1 2 or 3 axis controller configurations
Compatible with Burleigh Inchworm motors	Optional joystick 6003 and handset 6005
Technical Specifications	Model: 6000

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Storage temperature	Class: minus 20 C to 60 C class
Operating temperature	Class: 0 C to 40 C lab class
Operating Temperature	Class: 0 C to 40 C lab class
Humidity	Class: noncondensing
Operating Temperature Class	0 C to 40 C lab class
Power Line	AC mains class
Use Case	nanopositioning control
Interface	front panel and remote class
Resolution Class	nanometer class with Inchworm
Speed Class	mm per second class Inchworm
Travel Class	actuator dependent
Humidity Class	noncondensing
Storage Temperature Class	minus 20 C to 60 C class
Safety	high voltage piezo drive enclosed
Mounting	bench or rack shelf class
Interlock Class	enable interlock class optional
Display	axis position readout class Notes Capability rows from Burleigh 6000 Inchworm controller family catalog. Exact axis voltage and step size are on the 6000 configuration datasheet matching the dash options in queue SKUs.

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

Specifications	
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Capability rows from Burleigh 6000 Inchworm controller family catalog. Exact axis voltage and step size are on the 6000 configuration datasheet matching the dash options in queue SKUs.	

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech

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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.